Oregon
Theodore R. Kulongoski, Governor

Department of Land Conservation and Development
635 Capitol Street, Suite 150
Salem, OR 97301-2540
(503) 373-0050
Fax (503) 378-5518
www.lcd.state.or.us

NOTICE OF ADOPTED AMENDMENT

April 4, 2008

TO: Subscribers to Notice of Adopted Plan or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist

SUBJECT: Clatsop County Plan Amendment
DLCD File Number 001-07

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. Due to the size of amended material submitted, a complete copy has not been attached. A copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: April 17, 2008

This amendment was submitted to DLCD for review 45 days prior to adoption. Pursuant to ORS 197.830 (2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

***NOTE:** **THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.**

Cc: Gloria Gardiner, DLCD Urban Planning Specialist
Dave Perry, DLCD Regional Representative
Ed Wegner, Clatsop County

<paa> ya

FORM 2

DLCD
Notice of Adoption

THIS FORM **MUST BE MAILED** TO DLCD
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION
PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18

☐ In person ☐ electronic ☐ mailed
DEPT OF
MAR 28 2008
LAND CONSERVATION AND DEVELOPMENT

Jurisdiction: **Clatsop County**
Local file number: **Ord. No. 08-05**
Date of Adoption: **3/20/2008**
Date Mailed: **3/27/2008**
Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? **Yes** Date: 5/15/2007

☒ Comprehensive Plan Text Amendment
☒ Comprehensive Plan Map Amendment
☒ Land Use Regulation Amendment
☒ Zoning Map Amendment
☐ New Land Use Regulation
☒ Other: **Other related permits**

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

Rezone 5.35 acres from AN (Aquatic Natural) to MI (Marine Industrial) and change the associated comp. plan designation from Natural to Development; Rezone 2.51 acres from AD (Aquatic Development) to MI; and, rezone 46.4 acres from AC-2 (Aquatic Conservation-2) to AD and change the associated comp. plan designation from Conservation - Other Resources to Development. Add "cable, sewerline, waterline, and other pipeline" as a conditional use in the OPR (Open Space, Parks, and Recreation) zone.

Does the Adoption differ from proposal? Yes, Please explain below:

The County added "Cable, sewerline, waterline, and other pipeline" to the OPR zone as a conditional use, not a permitted use. The County deemed deletion of comp. plan text relating to small to medium scale development at the site to be unnecessary. The County deemed a goal exception relating to dredging the turning basin to be unnecessary.

Plan Map Changed from: **Natural, Cons.-Other Res.** to: **Development, Development**
Zone Map Changed from: **AN, AD, AC-2** to: **MI, MI, AD**
Location: **Bradwood, Clatsop County** Acres Involved: **412**
Specify Density: Previous: **NA** New: **NA**
Applicable statewide planning goals:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☐	☐

Was an Exception Adopted? ☐ YES ☒ NO
Did DLCD receive a Notice of Proposed Amendment...
DLCD # 001-07 (16111)

45-days prior to first evidentiary hearing?	☒ Yes	☐ No
If no, do the statewide planning goals apply?	☐ Yes	☐ No
If no, did Emergency Circumstances require immediate adoption?	☐ Yes	☐ No

DLCD file No. _____

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

Oregon Water Resources; DLCD; Division of State Lands; ODFW; Oregon Energy Facility Siting Council; US Fish & Wildlife; DEQ; US Army Corp of Engineers; NOAA; FERC; Clatsop County; NMFS

Local Contact: **Ed Wegner, Director** Phone: **(503) 325-8611** Extension: **1704**

Address: **800 Exchange, Suite 100** Fax Number: **503-338-3666**

City: **Astoria** Zip: **97103-** E-mail Address: **ewegner@co.clatsop.or.us**

ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and **TWO Complete Copies** (documents and maps) of the Adopted Amendment to:

ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540

2. Electronic Submittals: At least **one** hard copy must be sent by mail or in person, but you may also submit an electronic copy, by either email or FTP. You may connect to this address to FTP proposals and adoptions: **webserver.lcd.state.or.us**. To obtain our Username and password for FTP, call Mara Ulloa at 503-373-0050 extension 238, or by emailing **mara.ulloa@state.or.us**.

3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.

4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.

5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.

6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.

BEFORE THE BOARD OF COMMISSIONERS

FOR CLATSOP COUNTY, OREGON

AN ORDINANCE RELATING TO THE BRADWOOD LANDING LNG PROPOSAL AND AMENDING THE CLATSOP COUNTY COMBINED COMPREHENSIVE PLAN AND ZONING MAP, THE TEXT OF THE CLATSOP COUNTY COMPREHENSIVE PLAN AND THE TEXT OF THE CLATSOP COUNTY LAND AND WATER DEVELOPMENT AND USE ORDINANCE (ORDINANCE 80-14)	ORDINANCE NO. 08-05

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the combined Clatsop County Comprehensive Plan Map and Zoning Map to change the current zoning of .79 acres identified as Area 1, .39 acres identified as Area 2, and 4.17 acres identified as Area 3 of a property in Clatsop County (the "Property") described generally in Attachment 3 of Exhibit A and shown specifically on Attachment 4 of Exhibit A, attached hereto, from a zoning designation of AN (Aquatic Natural) to a zoning designation of MI (Marine Industrial) and the current plan designation from Natural to Development; and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the combined Clatsop County Comprehensive Plan Map and Zoning Map to change the current zoning of a portion of a property in Clatsop County described generally in Attachment 3 of Exhibit A and shown specifically as the 2.51 acre mill-pond identified as Area 4 on Attachment 4 of Exhibit A (the "Property"), attached hereto, from a zoning designation of AD (Aquatic Development) to a zoning designation of MI (Marine Industrial); and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the combined Clatsop County Comprehensive Plan Map and Zoning Map to change the current zoning of 46.4 acres of the Columbia River designated Area 5 on Attachment 4 of Exhibit A, attached hereto, from a zoning designation of AC2 (Aquatic Conservation 2) to a zoning designation of AD (Aquatic Development) and the current plan designation from Conservation – Other Resources to Development in order to accommodate the turning basin as well as to accommodate the liquified natural gas terminal use; and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application for a Clatsop County Comprehensive Plan amendment adopting an exception to authorize dredging in Area 5 (46.4 acres) shown in Attachment 4 of Exhibit A and uses allowed in the Marine Industrial zone on areas designated Area 1 (.79 acres), Area 2 (.39 acres) and Area 3 (4.17 acres) in Attachment 4 of Exhibit A; and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the Clatsop County Comprehensive Plan to delete language from the Plan relating to small to medium scale development; and

WHEREAS, on February 9, 2007, Bradwood Landing filed an application for an amendment to the Clatsop County Land Development and Water Use Ordinance to add "cable, sewerline, waterline or other pipeline" as permitted uses in the Open Space, Parks, and Recreation (OPR) zone; and

WHEREAS, the applications were considered by the Planning Commission at public hearings on July 10, 2007 and July 17, 2007 and following public deliberations on August 29, 2007 and September 28, 2007 the Planning Commission recommended addition of "cable, sewerline, waterline or other pipeline" as a conditional use in the OPR zone pursuant to the

requirements of ORS 215.050 and 215.060, the Planning Commission recommended approval of the rezonings of Areas 1, 2 and 3 from AN to MI and the rezoning of Area 4 from AD to MI and the approval of exceptions to authorize the uses along with the identified Plan designations and the Planning Commission recommended approval of a conditional use permit for the proposed turning basin and therefore concluded that the proposed rezoning and plan amendment from AC2 to AD and Conservation-Other Resources to Development would not be necessary and the Planning Commission concluded that the deletion of scale language from the Plan was not necessary; and

WHEREAS, consideration for this ordinance complies with ORS 197.610–ORS 197.625 and related Oregon Administrative Rules on post-acknowledgement plan amendments, the County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060, and the Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on October 22, 2007 and November 19, 2007 and deliberated on December 13, 2007; and

WHEREAS, all notices to interested property owners and interested parties have been provided pursuant to law; now therefore,

THE BOARD OF COMMISSIONERS OF CLATSOP COUNTY ORDAINS AS FOLLOWS:

SECTION 1. The portion of the property described above and shown in Attachment 4 of Exhibit A (attached) as Area 1 (.79 acres), Area 2 (.39 acres) and Area 3 (4.17 acres) is hereby rezoned from AN (Aquatic Natural) to MI (Marine Industrial) and the Comprehensive Plan designation is changed from Natural to Development.

SECTION 2. The portion of the property described above and shown in Attachment 4 of Exhibit A (attached) as Area 4 (2.51 acres) is hereby rezoned from AD (Aquatic Development) to MI (Marine Industrial). The Comprehensive Plan designation remains Development.

SECTION 3. The portion of the property described above and shown in Attachment 4 of Exhibit A (attached) as Area 5 (46.4 acres) is hereby rezoned from AC2 (Aquatic Conservation) to AD (Aquatic Development). The Comprehensive Plan designation is changed from Conservation – Other Resource to Development and the request for a conditional use permit to allow the proposed dredging in the AC2 zone is denied.

SECTION 4. The amendment to the Comprehensive Plan provided in Attachment 6 to Exhibit A attached hereto is adopted and the Board concludes that goal exceptions requested are not required. Language related to scale of development as small to medium is not deleted from the Comprehensive Plan.

SECTION 5. Provisions of the LWDUO are amended to list "cable, sewerline, waterline, or other pipeline" as a conditional use in the OPR zone, as described in Section 6.

SECTION 6. LWDUO § 3.586(10) is amended to state "10. cable, sewerline, waterline or other pipeline" and the current LWDUO § 3.586(10) is made LWDUO § 3.586(11).

SECTION 7. In support of this ordinance, the Board adopts the March 5, 2008 Findings of Fact and Conclusions of Law as indicated in Exhibit A (attached).

Approved this 20th day of March, 2008.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By _____, Chair

By _____
Recording Secretary

BEFORE THE BOARD OF COUNTY COMMISSIONERS

FOR CLATSOP COUNTY, OREGON

In the matter of the Land Use Permit Applications of Bradwood Landing LLC	RESOLUTION AND ORDER NO. 2008-_____

A. On December 12, 2006, Bradwood Landing LLC ("Applicant") filed permit applications to develop a liquified natural gas terminal and associated facilities, at the property described in Attachment 3 to Exhibit A.

B. Applicant later submitted applications to permit a natural gas pipeline and terminal construction worker park and ride facility.

C. These applications were consolidated for the purpose of County review. The Planning Commission held public hearings on the requested actions on July 10 and July 17, 2007 and recommended approval of the applications subject to conditions of approval following public deliberations on August 29, 2007 and adoption of findings on September 28, 2007.

D. The Board of Commissioners held public hearings on the requested actions on October 22, 2007 and November 19, 2007, and deliberated on December 13, 2007 and made tentative decisions to approve the same, with such tentative approval to be finalized upon the presentation of findings.

NOW THEREFORE, the Board of Commissions hereby approves the land use applications submitted by Bradwood Landing as set forth below,

IT IS HEREBY ORDERED:

1. The applicant is granted the approvals described in Exhibit A, subject to conditions of approval described therein for the following activities:

a. Hunt Creek Bridge Replacement

b. Concrete Batch Plants

c. Dredging

d. Dredged Material Disposal

e. Electrical Power Line

f. Construction Worker Park and Ride Lot

g. In Water Structures

h. Lay Down (Storage and Staging) Areas

i. Two LNG Storage Tanks and the Gassification Plant

j. Railroad Relocation

k. Road Improvements to Clifton and Bradwood Roads

l. Pipeline Segment in MI Zone.

m. Pipeline Segment in F80 Zone.

n. Pipeline Segment in HI Zone.

o. Pipeline Segment in LW Zone.

p. Pipeline Segment in AD Zone.

q. Pipeline Segment in EFU Zone.

r. Land Use Compatibility Statements

2. The effective date of this Resolution and Order is the effective date of Ordinance No. 08-05.

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3. The Findings and Conclusions of Law in Exhibit A are adopted by reference in support of this Resolution and Order.

DATED this 20th day of March, 2008.

ON BEHALF OF THE
THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

Patricia J. Roberts
_____, Board Chair

EXHIBIT A

FINDINGS OF APPROVAL OF CORE ELEMENTS OF THE CONSOLIDATED APPLICATION FROM BRADWOOD LANDING, LLC, FOR PERMITS AND DEVELOPMENT APPROVALS TO DEVELOP AN LNG MARINE TERMINAL, PIPELINE, AND RELATED FACILITIES AT BRADWOOD, CLATSOP COUNTY, OREGON

ADOPTED BY

CLATSOP COUNTY BOARD OF COMMISSIONERS

March 2008

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Attachment 3 – Legal Description of Terminal Site

Attachment 4 – Zoning Map of Terminal Site

Attachment 5 – Pipeline Survey Map

Attachment 6 – Text of Comprehensive Plan Amendment (including Exhibit 1)

Attachment 7 – Table of Ordinances

Attachment 8 – Photo of Historical Use at Bradwood

Attachment 9 – Resolution and Order

Attachment 10 – Bradwood Landing Conditions of Approval Implementation Agreement

PART I

Summary

On December 12, 2006, Bradwood Landing, LLC ("Bradwood Landing"), submitted to the Clatsop County Community Development Department (the "Department") a consolidated application for permits and land-use approvals to develop a liquefied natural gas ("LNG") marine terminal, natural gas pipeline, and related facilities (the "Project") in the Bradwood area of unincorporated Clatsop County (the "County"). The Department reviewed the initial application, found it to be incomplete, and requested additional information and materials. Bradwood Landing submitted the necessary items, and the Department determined the application to be complete on February 14, 2007. The Department then reviewed the application[1] for compliance with the County's Comprehensive Plan (the "Comprehensive Plan"), Land and Water Development and Use Ordinance ("LWDUO"), and Standards Document as well as applicable statewide planning goals. On July 10 and 17, 2007, the Planning Commission held public hearings and heard testimony concerning the Project. The written record was held open until July 31, 2007 to allow submission of additional testimony. Rebuttal evidence was accepted until August 7, 2007, and final written legal argument was submitted on August 14, 2007. On August 28, 2007, the Planning Commission deliberated and reached an overall recommendation that the core elements of the Project should be approved subject to conditions. On September 29, 2007, the Planning Commission adopted its written findings recommending that approval.

On October 22, 2007 and November 19, 2007, the Clatsop County Board of Commissioners held public hearings on the application and accepted additional information into the record. At the close of the public hearing on November 19, 2007, the Board left the record open for additional written testimony until November 26, 2007 and rebuttal by applicant until December 3, 2007. On December 13, 2007 Oregon LNG objected in writing, per a letter dated December 12, 2007, that it should be able to rebut the rebuttal submittals from Bradwood Landing. The County reviewed Bradwood Landing's submittal and concluded that it did not include new evidence and overruled the objection. On December 13, 2007, the Board deliberated and voted to tentatively approve the consolidated application as set forth in these Findings and the supporting documentation in the record, contingent on preparation of suitable findings and approval of the Board.

These Findings are complex. Bradwood Landing's application involves a variety of land uses and permits, and technical information, as well as responses to applicable policies, approval criteria, and development standards. We have organized these Findings according to the individual land-use components of the Project: the LNG plant, pipeline, in-water structures, railroad, and so on. Table 1, on the following pages, summarizes these components. Column 1 lists the number of the section in these Findings that deals with each component. Column 2 lists

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[1] The documents that make up Bradwood Landing's consolidated application are listed in Attachment 1. Additional materials in support of the application have been placed into the record by Bradwood Landing and accepted by the County as part of its record.

the proposed land uses and activities, in alphabetical order. Column 3 describes the permits and approvals requested and acted upon by the County and the main criteria that apply, and Column 4 summarizes our decision. The final column shows page numbers of these Findings where the Board's analysis and findings can be found.

Table 1: Summary of Permits or Approvals Requested and Acted Upon by Board
(conditions of approval set forth in Table 2)

In citations, "L" stands for the County's *Land and Water Development and Use Ordinance*. "S" stands for County *Standards Document*.

Section	Use or Activity Proposed	Permits or Approvals Acted on by Board	Board Action	Page
1.0	Overview			
2.0	Bridge: Replace Span Over Hunt Creek	Consider bridge replacement to be "maintenance and repair of existing transportation facilities," per L3.035(A), and allow outright in the AN, F-80 and MI zones.	Approve outright in the AN, F-80 and MI zones with conditions.	20
3.0	Concrete Batch Plants	Determine that concrete batch plants are conditionally allowed as a water-related use.	Approve as a conditional use with conditions.	27
4.0	Dredging	1. For area already zoned AD, allow dredging outright per L3.744(10). 2. Amend Comprehensive Plan and map and rezone 46.1 acres from AC-2 to AD, and then allow dredging outright per L3.744(10).	Approve outright in the AD zone with conditions. Approve rezone and Comprehensive Plan amendment for AD zoning with conditions.	34
5.0	Dredged Materials Disposal	1. Issue review use permit for "DMD during construction" per L4.168 (DMD Overlay Zone).	Approve dredged material disposal outright with conditions.	56
6.0	Electrical Power Line	Consider power line a "local distribution line" per L3.553(4); allow as outright use in F-80 Zone.	Approve outright with conditions.	70
7.0	Construction Worker Park and Ride Lot	Issue conditional use permit for a park and ride facility in GC Zone per L3.348(9), "bus station."	Approve as a conditional use with conditions.	77
8.0	In-Water Structures	Allow outright as permitted uses the AD Zone per L3.744(3), (9), and (10).	Approve outright.	84
9.0	Lay-Down (Storage and Staging) Area	1. For terminal, allow outright in MI Zone per L3.624(10), "water-dependent industrial and port uses. 2. For pipeline, allow laydown activity in applicable zones in conjunction with pipeline. (See Item 11 below.)	Approve outright.	94
10.0	LNG Storage Tanks and Gasification Plant	1. Rezone millpond (2.51 acres) from AD to MI, per L 2.300. 2. Amend Comprehensive Plan and map; rezone 5.35 acres from AN to MI. 3. Consider LNG marine terminal to be a water-dependent industrial use in an MI Zone per L3.624(10) and allow outright.	With conditions, approve rezone of millpond; approve rezone and Comprehensive Plan Amendment for the AN to MI area. With conditions, conclude Project is consistent with the Comprehension Plan; approve LNG terminal outright.	99
11.0	Mitigation	Condition approval of Project on compliance with a state and federally approved mitigation plan that meets or exceeds County standards.	Condition County's approval of the application on applicant's completion and execution of a suitable mitigation plan for impacts to fish, fish habitat, aquatic organisms, tidal wetlands, non-tidal wetlands, riparian habitat, designated critical habitat, and wildlife habitat.	128

Section	Use or Activity Proposed	Permits or Approvals Acted on by Board	Board Action	Page
12.0	Railroad Relocation	1. For alignment section now in AN Zone, amend Comprehensive Plan map and rezone 5.35 acres MI. 2. Allow outright in MI Zone, per L3.624(10) ("water dependent marine railway"). 3. For section in F-80 Zone, allow as "alteration to nonconforming use" per L5.604.	With conditions, approve rezone and Comprehensive Plan amendment, allow railway realignment outright in the MI Zone and in the F-80 Zone as an alteration of a legal nonconforming use.	138
13.0	Road Improvements (to Clifton and Bradwood Roads)	For Clifton Road, determine road work in F-80 Zone to be "widening of roads, etc." per L3.553(9), and allow outright. For Bradwood Road, authorize road improvements in MI and F-80 zones as permitted use under L3.035(1), "maintenance and repair of existing transportation facilities."	Approve Clifton Road work outright in F-80 Zone, subject to conditions; approve Bradwood Road improvements in the MI and F-80 Zones outright with conditions.	145
14.0	Soil Disposal Area	Not Applicable.	Application withdrawn by Bradwood Landing.	154
15.0	Transportation Facilities	Determine whether mitigation measures for Hwy. 30 and for Clifton Road meet ODOT and County standards and thus comply with OAR 660-012-0060 (Oregon's "transportation planning rule") and L5.350.	Find compliance.	155
16.0	Decommissioning	The applicant does not request any permit or action by the County regarding decommissioning or retirement of the LNG facility. Staff recommended that the County require the applicant to enter into a facility-decommissioning agreement with financial assurances to maintain funds for any costs of facility retirement or site restoration.	Condition approval on submission of a County-approved decommissioning plan and financial assurances.	171
17.0	Public Safety Issues Related to Land Use	The applicant does not request any permit or action by the County regarding public safety. Staff recommended that the County require as conditions of approval several measures pertaining to road access and to emergency services.	Condition approval on compliance with certain conditions related to public safety.	176
18.0	Natural Gas Pipeline	Allow 6.2 miles of underground natural gas pipeline passing through 7 different zones in the County, as described in Sections 19.0 - 25.0 below.	See below.	188
19.0	Pipeline Segment in MI Zone	Allow outright in MI Zone, per L3.624(10)(B) ("fuel dispensing").	Approve outright with conditions.	198
20.0	Pipeline Segment in F-80 Zone	Issue conditional use permit per L3.554(5) ("new distribution lines" in F-80 Zone).	Approve as a conditional use with conditions.	203
21.0	Pipeline Segment in HI Zone	Allow as conditional use permit per L3.405(2) ("distribution").	Approve as a conditional use with conditions.	210
22.0	Pipeline Segment in LW Zone	Allow outright in LW Zone per L3.613(4) ("submerged pipeline").	Approve outright with conditions.	224
23.0	Pipeline Segment in AD Zone	Issue permit for review use in AD Zone per L3.746(1) ("pipelines").	Approve as a review use with conditions.	227
24.0	Pipeline Segment in OPR Zone	Amend LWDUO text to add words "*15. cable, sewer line, waterline or other pipeline*" to L3.584 (list of outright uses in OPR Zone), and then allow pipeline outright.	Amend text to allow pipeline in OPR Zone as a conditional use. Require conditional use permit be obtained prior to construction of pipeline in this zone.	231
25.0	Pipeline Segment in EFU Zone	Allow outright in EFU Zone per L3.564(4) ("utility facilities").	Approve outright.	242
26.0	Development Standards	Determine what standards apply. Attach conditions of approval to decision as needed.	Find applicable development standards are met with conditions.	244
27.0	Consistency with Statewide Planning Goals	Determine consistency with applicable planning goals per L5.412, "Zone Change Criteria." Authorize issuance of Land Use Compatibility Statements to appropriate agencies.	Find consistency with the applicable planning goals, subject to specified conditions. Authorize issuance of Land Use Compatibility Statement.	258
28.0	Land Use Compatibility Statement			291

Table 2: Conditions of Approval
(Department refers to the Clatsop County Community Development Department)

Element of Review	Conditions	pg
Condition Applicable to Each Project Component Approved	The Department will issue development permits for the requested development only after the applicant submits to the Department copies of all state and federal permits required for this development.	19
Bridge Replacement	Bridge replacement is to be done in a manner that will not require dredging, fill, in-water structures, riprap, new log storage areas, application of pesticides and herbicides, water intake or withdrawal and effluent discharge, in-water disposal of dredged material, beach nourishment or other activities which could affect the estuary's physical processes or biological resources.	26
Concrete Batch Plant	Both batch plants must be removed from the Bradwood property no later than 180 days after construction of the LNG marine terminal is finished.	33
Dredging	The applicant must prepare a simple shoreline monitoring plan and submit it to the County to be considered through a Type IIa procedure. This plan will include a mechanism to annually report conditions of the Clifton Channel shoreline with respect to new hydraulic conditions created by the dredging project. The monitoring plan also should include measures to reduce erosion of downstream banks should such erosion increase as a result of this Project. The shoreline monitoring plan must be submitted to the County for its review and approval before dredging begins. The applicant must ensure that the southeastern entrance to Clifton Channel remains open to commercial and sport-fishing vessels at all times during construction and operation of the LNG terminal, except during the periods when an LNG carrier is actively maneuvering to enter or leave the Bradwood moorage.	55
Dredge Material Disposal	The applicant must provide a detailed DMD site plan to the County for review and approval through a Type IIa review procedure before depositing dredged materials on the site. The plan must specify the amount of material to be deposited at Bradwood. The plan must fully describe the location of individual cells, weirs, dikes, outfalls, berms, and surface water run-off or drainage facilities. The DMD plan must address and be consistent with all guidelines from the *Columbia River Estuary Dredged Material Management Plan* for "Upland Disposal," Section 2, paragraphs i through vii. (*See* http://www.columbiaestuary.org/dmmp/disposal_upland.html). The plan must contain adequate provisions to ensure that undesirable erosion, sedimentation, increased flood hazard, and other changes in circulation will be avoided at the disposal site and in adjacent areas. Runoff from the disposal site shall not be allowed to flow through potentially sensitive wetlands to the south and west of the site. The western boundary of the site shall be leveed to prevent dredged materials from entering the intertidal area west of the site. Upon completion of dredged material disposal, if development of the LNG marine terminal does not begin within two years, the DMD site must be revegetated in a manner consistent with the requirements of S 4.232(21).	69
Electric Power Lines	After installation or maintenance of existing utility structures is completed, disturbed stream banks and aquatic and riparian vegetation must be stabilized and restored.	76

Element of Review	Conditions	pg
Construction Worker Park & Ride	Before any permit is issued, the applicant must submit to the Department a site plan for review and approval through a Type IIa review procedure demonstrating compliance with all applicable development standards, including those related to design of parking lots; site clearing and grading; erosion and sediment control, and vehicle access control and circulation. The site plan also must include information describing how compliance with the conditions below will be achieved. The applicant shall widen the travel lane on Rulyville Road so that two vehicles can pass. The applicant shall clear vegetation on both sides of Rulyville Road from its intersection with Taylorville Road to the park and ride lot to improve sight distances for vehicle drivers. The applicant shall, following review and approval by the County Engineer, install a suitable stop sign at the intersection, either on Taylorville Road or on Rulyville Road (perhaps with a "right turn permitted without stopping" rider) in accordance with professional engineering standards. The applicant shall post an advisory speed limit sign reflecting a suggested speed of 30 mph or below on Taylorville Road in accordance with professional engineering standards.	82-83
Flood Hazard Overlay	All construction plans for the terminal must be reviewed for compliance with applicable requirements and standards of the Flood Hazard Overlay District (L4.000), including but not limited to those dealing with floor elevation, critical facilities, and floodplain storage capacity.	127
LNG Storage Tanks and Gassification Plant	Applicant will not oppose a County initiated rezoning of the 4.7 acres of land currently zoned MI outside the terminal construction area shown on the land use zoning map (see Attachment 4) to Aquatic Natural. The number of LNG storage tanks approved is limited to two (2). If applicant wishes to develop a third tank at some future date, applicant must obtain all development permits required for development of the third tank at that time.	127
Mitigation	Applicant will submit a suitable mitigation plan to the County for review and approval through a Type IIa process. The County will determine the mitigation plan to be suitable if (1) the plan provides for mitigation of a type and extent identical or similar to that described in the applicant's *Terminal Narrative* and Enhanced Impact Assessment, and (2) Applicant has obtained all necessary permits from state and federal agencies with responsibilities for wetlands, wildlife, water quality, air quality and other natural resources in the Columbia River Estuary. Applicant will obtain all necessary County permits to carry out measures and activities described in the mitigation plan approved by the County. Applicant's mitigation plan and mitigation measures will comply with applicable performance standards from Standards Document S4.218 and Policy P20.12.	137
Marine Railway	Realignment allowed outright in M1 zone with rezone of Areas A1 and A3 to MI approved in this action.	144

Element of Review	Conditions	pg
Clifton and Bradwood Roads	All improvements are to be made within the area of the existing public right-of-way for Clifton Road and the existing 50-foot easement for Bradwood Road. All Clifton and Bradwood road improvements are to be done in accordance with the standards set forth in Standards Document S6.000. "Transportation Improvements and Road Standard Specifications for Design and Construction," except as provided by County variance. All road improvements will be described in a complete set of improvement plans submitted to the County Public Works Director and subject to the Director's review and approval.	152-153
Decommissioning	The applicant must develop a plan specifying how the LNG marine terminal site will be restored to a useful, non-hazardous condition following cessation of the LNG facility's construction or operation. The plan must be developed, submitted to the County, reviewed by the County, and approved by the County before construction of the LNG facility begins. The plan must be consistent with EFSC standards and requirements set forth in OAR 345-022-0050. The plan should be modeled after recent plant-retirement agreements used in EFSC's certification of energy facilities. *See, e.g.*, Section D.3, "Retirement and Financial Assurance," of the *Third Amended Site Certificate for the Port Westward Generating Project*, EFSC, January 28, 2005. The plan must be accompanied by suitable financial assurances such as a letter of credit or surety bond in an amount adequate to cover all costs of restoring the site to useful, non-hazardous condition.	175
Public Safety	Before Clatsop County will issue development permits for the Project, subject to the exception that those commitments which by their terms are clearly intended to be conducted at a later time, such as during construction or operations, in which case those activities must occur at the appropriate time, Bradwood Landing shall: (a) Comply with all applicable provisions and recommendations in PBS&J's *ERP Revisions and Response Resource Cost Share Report for the Proposed Bradwood Landing LLC/NorthernStar Natural Gas LNG Project, November 2007,* including all appendices thereto. (b) Honor and execute all commitments regarding emergency service resources and cost-sharing measures expressed by the applicant in the PBS&J November 2007 report and its appendices. Where commitments described therein differ or conflict, the larger or more stringent commitment will apply. (c) Reach agreement with each public emergency service provider described in PBS&J's November 2007 report where an agreement between the applicant and the emergency service provider had not been reached at the time of this March 20, 2008 board decision. The agreement shall specify a distribution of resources or cost-sharing measures or both by the applicant that will ensure adequate and equitable provision of emergency services throughout the district served by that public emergency service provider. If the applicant and emergency service provider reach such an agreement, it must be submitted to the Clatsop County Board of Commissioners for acknowledgment. If the applicant is unable to reach agreement with a public safety agency under this condition, the applicant may	187

Element of Review	Conditions	pg
	request that the Board of Commissioners review and revise the condition at a public hearing. The Board may do so under such terms and conditions as are consistent with the PBS&J report.	
	The applicant must obtain the necessary permits for construction and operation of the helicopter landing area and the helipad before starting construction of the LNG marine terminal.	
Pipeline (Generally applicable conditions)	After installing the pipeline, the applicant shall backfill all trenches, grade the backfilled area to restore its original contours, and dispose of all construction debris. All excavated material not used for backfill must be removed from the site and taken to an appropriate upland disposal area outside the floodplain. All excavation and backfill must be done in a manner that will not increase displacement of floodwaters, impede drainage ways or water courses, or otherwise increase the extent of or risks from flooding.	194
	The applicant must prepare a riparian vegetation restoration plan for review and approval by the Department. The plan must show all areas where riparian vegetation will be temporarily removed during construction of the pipeline and specify how revegetation of those areas will be accomplished. Revegetation must be done in accordance with S4.237 and completed within one year following construction of the pipeline.	196
Pipeline (F-80)	Construction activity outside the permanent 50-foot pipeline right-of-way within the F-80 Zone shall be allowed conditioned on restoration of the temporary construction area.	209
Pipeline (HI)	In accordance with County Fish and Wildlife Policy 9, the County will (a) notify state and federal fish and wildlife agencies of the proposed pipeline's potential for substantial impact on identified Columbian White-tailed deer habitat and (b) will, to the maximum extent feasible, implement recommendations made by those agencies. The applicant may not begin construction of this segment of the pipeline until the County has completed such notification, considered recommendations from the fish and wildlife agencies, and implemented those recommendations to the maximum extent feasible through a Type IIa review procedure reviewing the Mitigation Plan.	222-223
Pipeline (OPR)	The applicant shall be required to obtain a conditional use permit prior to constructing the pipeline in the OPR zone.	241
Terminal	The applicant must prepare an erosion control plan that satisfies all applicable requirements of Standards Document S2.500-2.504. The erosion control plan must be submitted to the Department for its review and approval through a Type IIa review procedure. The Department will not issue development permits for the proposed use until the erosion control plan has been reviewed and approved.	256-257
	Applicant must execute the Bradwood Landing Conditions of Approval Implementation Agreement set forth in Attachment 10.	257

Table 3: Key Abbreviations and Technical Terms

ADT	Average daily traffic (average number of vehicles that pass a given point on a road in one day)
AD Zone	Aquatic Development Zone (LWDUO 3.740)
AN Zone	Aquatic Natural Zone (LWDUO 3.800)
COE	Army Corps of Engineers
CREDMMP	Columbia River Estuary Dredged Materials Management Plan
CWTD	Columbia White Tailed Deer
CZMA	The federal Coastal Zone Management Act
CREST	Columbia River Estuary Study Taskforce
DEQ	Oregon Department of Environmental Quality
DLCD	The state Department of Land Conservation and Development (LCDC's staff)
DMD	Dredged material disposal
DSL	Oregon Department of State Lands
EFSC	Energy Facilities Siting Council
EFU Zone	Exclusive Farm Use Zone(LWDUO 3.560)
FERC	Federal Energy Regulatory Commission
F-80 Zone	Forest 80 Zone (LWDUO 3.550)
GC Zone	General Commercial Zone (LWDUO 3.340)
HI Zone	Heavy Industrial Zone (LWDUO 3.400)
JPA	Joint Permit Application
LNG	Liquefied natural gas
LCDC	The state Land Conservation and Development Commission
LW Zone	Lake and Wetlands Zone (LWDUO 3.610)
LWDUO	Land and Water Development and Use Ordinance (the County's zoning ordinance)
NMFS	National Marine Fisheries Service
MI Zone	Marine Industrial Shorelands Zone (LWDUO 3.620)
OCMP	Oregon Coastal Management Program
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OPR Zone	Open Space, Parks and Recreations Zone (LWDUO 3.580)
OWRD	Oregon Water Resources Department
ROW	Right-of-way (an easement for a road or facility such as a pipeline)
SEI	Salmon Enhancement Initiative
TIA	Transportation Impact Analysis
TPR	LCDC's "transportation planning rule" (actually, a set of rules)
TSP	Transportation System Plan (for the County)
v/c Ratio	Volume (of traffic on a road) divided by Capacity (of that road)

Table 4: Chronology of Key Events

April 15, 2005	Northern Star Natural Gas submits to state's Energy Facility Siting Council (EFSC) a "notice of intent" to develop an LNG marine terminal at Bradwood.
June 22, 2005	The County submits comments to EFSC on the Bradwood Landing proposal.
August 8, 2005	President Bush signs Energy Policy Act of 2005. The act preempts state review of LNG import facilities (thereby halting EFSC's review of the Bradwood Landing proposal) and giving FERC exclusive jurisdiction.
June 5, 2006	Bradwood Landing LLC, a wholly owned subsidiary of Northern Star Natural Gas, submits application to FERC.
December 12, 2006	Bradwood Landing LLC submits consolidated application for land use approvals to the County.
January 11, 2007	The Department finds application to be incomplete and requests additional information.
February 9, 2007	Bradwood Landing submits the requested information.
February 14, 2007	The Department deems application complete.
May 16, 2007	The Department issues notice of first public hearing on the Bradwood Landing proposal.
June 6, 2007	Applicant submits supplemental materials regarding park and ride facility and revised traffic impact analysis (additional traffic impact analysis submitted subsequent to this date on July 5, 2007).
June 28, 2007	The Department issues staff report on Bradwood Landing proposal.
July 10, 2007	The Planning Commission holds first public hearing on Bradwood Landing proposal (at Astoria High School).
July 17, 2007	The Planning Commission holds second public hearing on Bradwood Landing proposal (at Astoria High School).
July 31, 2007	Written record is closed for new evidence.
August 7, 2007	Close of period for submission of rebuttal evidence.
August 14, 2007	Submission of Bradwood Landing's final written legal argument to the Planning Commission.
August 23, 2007	Issuance of Supplemental Staff Report
August 29, 2007	Planning Commission deliberation and oral recommendation.
September 14, 2007	Submission of findings drafted by Applicant.
September 28, 2007	Planning Commission review, revision and adoption of findings.
October 22, 2007	Board of Commissioners holds first public hearing on application.
November 19, 2007	Board of Commissioners holds second public hearing on application.
November 26, 2007	Written record is closed for new evidence.
December 3, 2007	Close of record for submission of rebuttal evidence by Bradwood Landing.
December 11, 2007	Issuance of Supplemental Staff Report
December 13, 2007	Board of Commissioners deliberation and issuance of tentative decision.

PART II

1. Overview

1.1 Proposed Development

The applicant, Bradwood Landing LLC, proposes to develop a liquefied natural gas ("LNG") marine terminal, natural gas pipeline, and related facilities at Bradwood. The Project will receive LNG from ocean-going vessels, temporarily store it, and then regassify it before sending it out by pipeline. The pipeline will transport the gas from the terminal to industries, electric power generating plants, and natural gas distribution companies.[2]

The proposed terminal site lies in the County about 20 miles east of Astoria, at the former millsite of Bradwood.[3] The site adjoins the Columbia River at river mile 38. The proposed underground pipeline would extend from the terminal south and east 36 miles to connect with an interstate pipeline in Washington near 1-5, north of Longview. The first six miles of the pipeline route from Bradwood lie in the County. These findings deal only with the development proposed in the County—that is, the marine terminal and the first six miles of the pipeline.

The proposed development involves a variety of land uses and activities, listed here in alphabetical order:

- Bridge replacement over Hunt Creek
- Concrete batch plants
- Construction worker park and ride facility
- Dredged material disposal
- Dredging
- Electrical power line
- In-water facilities (wharf, mooring dolphins, etc.)
- Lay-down (storage and staging) area
- LNG storage tanks and gasification plant
- Mitigation

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[2] Bradwood Landing's *Narrative in Support of Applications for Local Approval of the Bradwood Landing LNG Terminal and Associated Facilities*, December 12, 2006, page 1. The document is cited hereafter as the "*Terminal Narrative.*" The applicant submitted a similar narrative for the proposed pipeline, titled *Northern Star Energy Narrative in Support of Application for Local Approval of Natural Gas Pipeline*, February 2007. That document will be referred to throughout these findings as the "*Pipeline Narrative.*"

[3] In 1843 the first commercial saw mill in what would later become Oregon was established at the site. The site was considered ideal because most commerce was by water and Bradwood boasted a natural deep water port. At its height, the Bradwood mill was a large operation with 170 employees, homes, a school, a post office, a community hall and a company store.

- Natural gas pipeline (six miles in Clatsop County, passing through seven land use zones)
- Railroad realignment
- Road improvements (to Hwy. 30 and Clifton and Bradwood Roads)

Each of the proposed uses and activities requires one or more permits or other form of development approval from the County, as listed in Table 1 above. The applicant applied for all these approvals in one consolidated application, filing the necessary forms, fees, and documentation with the Department on December 12, 2006. The application has been supplemented with additional submissions into the record. This report presents our[4] findings concerning that application.

In addition, we also consider two subjects related to some or all of the above uses: *decommissioning* of the LNG plant, and *public safety*. These are not land uses for which the applicant seeks permits or approvals. Rather, they are general subjects associated with construction and operation of the entire development. County policies and ordinances call for both subjects to be considered in reviewing this application. *See* Sections 16 and 17 of these Findings.

1.2 Construction and Operation of Project

Construction of the terminal, pipeline, and related facilities is expected to take about three years. During this time, "the estimated average daily construction workforce will be 331, and the estimated peak workforce will be 526."[5] Several approvals sought in the consolidated application are for land uses that will cease when construction is complete. These limited-duration uses are the construction worker park and ride facility at Wauna, two concrete batch plants, and a lay-down (storage and staging) area.

Dredging is expected to occur during the months of November through February. In-water construction of ship berthing structures is planned for the following November through February. These winter months are the "in-water work period" specified by Oregon Department of Fish and Wildlife ("ODFW") to protect fish and other aquatic life.[6] About 700,000 cubic yards of material are expected to be dredged. Between 350,000 and 700,000 cubic yards of that material will be placed on the terminal site, which is designated in the Comprehensive Plan as a Dredged Material Disposal ("DMD") site.[7]

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[4] Throughout these findings, the pronouns "we" and "our" refer to the Board of Commissioners.

[5] *Terminal Narrative*, page 14.

[6] *Terminal Narrative*, page 14.

[7] *Terminal Narrative*, page 18.

The applicant also expects to remove some 50,000 cubic yards of soil from the terminal site. Applicant sought authorization to place that material at a two- to ten-acre disposal site on the subject property, about one mile northwest of the terminal site but has withdrawn that application. We do not discuss it further in these Findings.[8]

After construction, the terminal will operate continuously, with a workforce of about 65 persons (including some security personnel and workers associated with the tugs). Each LNG carrier (ocean-going vessels up to 1,033 feet long) which comes up the Columbia River to the terminal will unload 100,000 to 220,000 cubic meters of LNG. Applicant requested approval of multiple storage tanks 168 feet in height and 262 feet in diameter for storage of the LNG. After being unloaded from an LNG carrier, the LNG will be pumped to "submerged combustion vaporizers," which return it to a gaseous state. The natural gas then will be sent into the pipeline for distribution to customers throughout the northwest.[9]

The terminal will accommodate only one LNG carrier at a time. "Approximately 10 to 11 carriers per month and 125 per year will call at the terminal."[10] Typically, an LNG carrier will dock at Bradwood for about 24 hours.

1.3 Subject Property

The property that is the subject of the application for the marine terminal consists of nine parcels totaling 411 acres, in Township 8 North, Range 6 West, sections 4, 5 and 9 (assessor's maps 8.6, 8.6.5, and 8.6.9). The legal description of the property under consideration in these proceedings for the marine terminal is found at Attachment 3.[11]

Bradwood, an industrial site from 1856 to the early 1960's, has a 150+ year history as a site designated for industrial development including use as a lumber mill, mill town and deep water lumber export dock.

Figure 4 of the *Terminal Narrative* shows the parcels and the terminal construction area. The narrative describes the property thus:

> "The proposed terminal site at Bradwood is only a small part of a much larger property controlled by Bradwood Landing. . . . The property comprises 411 acres and has well over a mile of river frontage. Most of the property is covered by forested ridges that have been logged over the past century and a half and that are

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[8] *Terminal Narrative*, page 15.

[9] *Terminal Narrative*, pages 7-9.

[10] *Terminal Narrative*, page 6.

[11] The "subject property" described in this section does not include the subsurface pipeline route, which extends south and east about six miles in Clatsop County, passing through several zones. See Section 18 for a description of the property involved there.

designated for forest uses by the Clatsop County Comprehensive Plan. A small creek, Hunt Creek, flows north across the property and into the Columbia River in the southern portion of the property the creek flows through a steep, narrow canyon paralleling Clifton Road, but the creek becomes a meandering, low-gradient stream bordered by wetlands as it nears the river. At the northeastern corner of the property, a ridge extends to the river, forming a cliff several hundred feet high. Between this ridge and Hunt Creek is a relatively flat area along the shore of the river. This area is the site of the former mill and the company town of Bradwood.

"Bradwood Landing proposes to develop only the portion of the property in the area of the former mill. . . . The completed terminal, including the access road, will permanently occupy less than 40 acres of the property. In addition, approximately 2500 feet of the 100-foot-wide electric power line right-of-way (less than six acres) will occupy a portion of the property outside the terminal area. Thus, of the property's 411 acres, less than 46 acres, or only about 11 percent, will be developed for the terminal and the power line. Bradwood Landing will leave the remainder undeveloped, which will provide an extensive buffer between the Project and adjacent properties."[12]

The property may be thought of as having two main parts, uplands and lowlands. The upland part consists of wooded slopes on the western and southern portions of the property. The lowlands consist of mostly level estuarine shorelands and wetlands that adjoin the Columbia River. Development of the proposed LNG terminal will occur entirely on this lowland part of the property.

As noted above, the proposed terminal site once was occupied by a mill, which closed in 1962. The only structures on the property now are both abandoned, an open-sided pole barn and what the applicant describes as "a small concrete building (less than 200 square feet)."[13] Evidence of the site's industrial history remains, however, in the form of some decaying pilings and a mill pond.

The application states:

"[T]he closest residences are located on Puget Island, approximately 0.55 miles from the proposed Terminal site. The closest residence on the mainland is in the community of Clifton approximately 0.73 miles from the proposed Terminal site."[14]

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[12] *Terminal Narrative*, page 3 (citations omitted).

[13] Resource Report 8, *Land Use, Recreation, and Aesthetics*, page 5.

[14] Resource Report 8, *Land Use, Recreation, and Aesthetics*, page 5.

Elsewhere, the application states, "Approximately 12 residences on Puget Island are the nearest structures within view of the site."[15] The County's Clifton Channel Subarea Plan (at page 120) describes the rural community of Clifton as "an old fishing community . . . still occupied by several families and used as a staging area for fishing the Clifton Channel gillnet fish drifts." The applicant's *Traffic Impact Analysis* reports that "about 10 full-time residents live in the small unincorporated community of Clifton." A "house count" table appended to Resource Report 5 shows 21 residences within one mile of the terminal site.

The applicant says, "The County has identified a quarry on a portion of the Bradwood property as a significant aggregate resource site under Goal 5[16] . . ." It is said to be "within the F-80 zone southeast of the terminal site." The quarry is not being operated now, and the applicant says that it will not be operated during the life of the LNG marine terminal but that it may be used occasionally during the three-year construction phase. The only map in the application materials that shows this quarry is "figure 3, Phase 1 ESA" in Resource Report 7, *Soils*. The map shows the quarry to be about 750 feet southwest of the millpond.

The applicant states that the quarry is zoned QMO ("Quarry and Mining Overlay") and is subject to "an existing DOGAMI permit." The County staff was initially unable to confirm the existence of a QMO overlay on the property. Bradwood Landing provided a copy of the ordinance applying the QMO overlay to the property and county staff found no indication that the overlay had been removed. The record on the application of the QMO overlay established that the MI site and the QMO area could be developed in a compatible manner because the lands are under common ownership. This remains the case and the development is consistent with the overlay.

A larger quarry, not mentioned in the original application materials, adjoins Clifton Road on its west side, about one mile southwest of the millpond. This is the "Clifton Rock Pit," a County-owned facility that is described in the plan as "a unique resource" and "a priority site."[17] The twenty-acre site is zoned F-80 with a QMO overlay. The County's 1995 findings for the QMO zoning described the site as one that "has not been actively mined in the last ten years" but is likely to be used "intermittently" over the next several decades, with some 300,000 cubic yards of rock available. The Clifton Rock Pit is outside the impact area of the Bradwood Landing development and therefore is not considered a conflicting use.

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[15] Resource Report 8, *Appendix 8A, Visual Assessment*, page 2.

[16] *Terminal Narrative*, page 103.

[17] See findings for Ordinance 95-2, by which the County officially designated the 20-acre site "significant" under the provisions of Goal 5.

1.4 Applicable Policies, Standards and Criteria

Three County documents are central to this review:

- The Comprehensive Plan, adopted with Ordinance 80-13, September 30, 1980 (the "Comprehensive Plan");
- The County's Land and Water Development and Use Ordinance, Ordinance 80-14, September 30, 1980 ("LWDUO"); and
- The County's Standards Document, Ordinance 80-14 on September 30, 1980 ("Standards Document").

The County's original Comprehensive Plan and land use regulations and later modifications to them have been acknowledged to comply with Oregon's statewide planning goals by the state's Land Conservation and Development Commission ("LCDC").

The Comprehensive Plan sets forth policies to guide decision makers in matters such as rezonings. The LWDUO sets forth approval criteria[18] to be used by local development officials in reviewing applications for various permits and land use approvals. And the Standards Document presents standards to be met during development, after a proposal has been approved under the provisions of the Comprehensive Plan and LWDUO.

Among the County's voluminous planning materials, the elements most directly relevant to this application are the Northeast Community Plan, the Bradwood Subarea Plan, and the Goal 9 and combined Goal 16 and 17 elements of the Comprehensive Plan.[19]

The subject property's upland areas are designated "Conservation-Forest" in the County's Comprehensive Plan and zoned Forest-80 ("F-80"). The lands on the lower part of the property are designated "Natural" and zoned Aquatic Natural ("AN"). Much of the former mill site at Bradwood is designated "Water-Dependent Development" and zoned Marine Industrial

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[18] The difference between "approval criteria" and "development standards" is significant. Approval criteria are used by decision makers to decide *whether* a development proposal should be approved. Development standards specify *how* a development proposal, once approved, is to be carried out. Generally, the County's plan and *LWDUO* set forth approval criteria, while the Standards Document presents development standards. That distinction, however, is not absolute: the *LWDUO* and Comprehensive Plan do contain some development standards, and the Standards Document does contain some "standards" that amount to approval criteria and provides for some development.

[19] In Oregon's planning system, there are 19 statewide planning goals dealing with topics such as farmland protection, housing, and urban growth. Goal 9 deals with the economy. Goal 16 deals with estuarine resources, and Goal 17 deals with coastal shorelands. The Comprehensive Plan follows the same format.

Shorelands ("MI"). The adjacent waters within 400 feet of shore are designated "Development" and are zoned Aquatic Development ("AD"). The waters more than 400 feet from shore are designated "Conservation" and are zoned Aquatic Conservation-2 ("AC-2"). For a detailed map of the terminal property's zoning, see Attachment 4 to these Findings.

All of the subject property appears to be designated "Major Big Game Range" on the small map titled "Big Game: Habitat Protection Plan for Clatsop County," at page 22 of the Goal 5 element of the Comprehensive Plan. The associated text, however, makes clear that the designation applies only to areas zoned F-80, and that such zoning is sufficient to protect the habitat. The big game referred to are Roosevelt elk, blacktail deer, black bear, and cougar.[20] Several areas near the subject property are habitat for Columbian white-tailed deer, a threatened and endangered species. The subject property itself, however, is not designated in the Comprehensive Plan as significant habitat for the Columbian white-tail.

The Comprehensive Plan, LWDUO, and Standards Document are implemented or augmented by several technical documents that will be referred to in some sections of these Findings, most notably the County's acknowledged transportation system plan ("TSP") and the Columbia River Estuary Study Taskforce's *Columbia River Estuary Dredged Material Management Plan* ("CREDMMP").

In Oregon's planning system, the local plan and land-use regulations are the controlling documents for most questions of land use. The statewide planning goals need not be considered after LCDC has acknowledged the local plan and regulations. If, however, an applicant proposes to amend the acknowledged plan or regulations, local decision makers then must consider applicable statewide planning goals. Bradwood Landing does propose such amendments, as described below. We therefore review those amendments against not only the Comprehensive Plan and County land use regulations but also applicable statewide planning goals.

In summary, the scope of these Findings is limited to matters of land use and development as governed by the Comprehensive Plan, County land use regulations, and (in some cases) applicable statewide planning goals. This review does **not** address other matters related to Bradwood Landings' proposal, such as compliance with federal laws pertaining to siting of energy facilities under the FERC process. ("FERC" is the Federal Energy Regulatory Commission.) Other agencies reviewing elements of the Project include but are not limited to the U.S. Environmental Protection Agency, the U.S. National Marine Fisheries Service ("NMFS"), Oregon Division of State Lands ("DSL") and Oregon Department of Environmental Quality ("DEQ"). The County's review is one part of a broader permitting process that must be completed by Bradwood Landing to develop an LNG marine terminal and pipeline at Bradwood.

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[20] *Comprehensive Plan*, Goal 5 element, page 11.

1.5 The Coastal Zone

Most of the subject property, all of the terminal construction site, and about 3,000 feet of the pipeline route lie within Oregon's "coastal zone."[21] That zone was designated in accordance with the federal Coastal Zone Management Act ("CZMA") of 1972. Under the provisions of that act, projects proposed in Oregon's coastal zone must be consistent with Oregon's Coastal Management Program ("OCMP"). The OCMP is administered by the state's Department of Land Conservation and Development ("DLCD"). DLCD describes consistency with the CZMA this way at its website (at http://www.oregon.gov/LCD/OCMP/):

> "A project must be shown to be consistent with the various applicable components of the OCMP, that is, with the statewide planning goals, **with coastal city and county comprehensive plans and land use regulations acknowledged by the Land Conservation and Development Commission**, and with various state agency authorities [e.g., land use planning statutes, the Oregon Territorial Sea Plan, the Removal-Fill Law, water quality standards, the Oregon Beach Bill]." (Emphasis added.)

The Comprehensive Plan and County land use regulations have been acknowledged by LCDC. To be consistent with the CZMA, Bradwood Landing's application therefore must comply with all relevant provisions of the Comprehensive Plan and County land use regulations, as well as applicable provisions from Oregon's statewide planning goals. Bradwood Landing's application's compliance with these provisions is the subject of these Findings.

1.6 State and Federal Permits

The LNG terminal, pipeline, and related facilities involve land subject to nine different zones: F-80, AN, MI, AD, AC-2, HI, LW, OPR, and EFU. For each of these zones, the County's LWDUO sets forth an identical requirement:

> **"If any state or federal permit is required for a development or use, an applicant, prior to issuance of a development permit or action, shall submit to the Planning Department a copy of the state or federal permit."**[22]

Numerous state and federal permits will be required for development of the Bradwood Landing LNG marine terminal and pipeline. Many of the state agencies that issue these permits require that all local land use approvals be obtained before the state agency will issue its permit. If "local approval" and "development permit" were one and the same, the result would be an impasse: the County could not act until state agencies issued their permits, and state agencies could not act until the County issued its permits.

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[21] See *Terminal Narrative*, Figure 2, "Terminal Site and Coastal Zone Boundary."

[22] For example, this permit requirement is found in the AD Zone's provisions at LWDUO 3.756, "State and Federal Permits." For each zone, this permit requirement is the last sentence of the LWDUO provisions for that zone.

But local approval of an application such as Bradwood Landing's is **not** the same as issuance of a permit. In this case, the County permits that authorize construction will issue weeks or months after any action by the County to approve the application. The County therefore can ensure compliance with the LWDUO's requirement to obtain necessary state and federal permits by making the multiple approvals sought in this consolidated application subject to this condition: **The County Planning Department will issue development permits for the requested development only after the applicant submits to the department copies of all state and federal permits required for this development.**

To avoid repeating the same condition of approval for every part of this application, we simply state the condition once here, with the understanding that it applies to **all** approvals described in these Findings. As discussed above, this code standard applies to the individual elements approved in this consolidated submission. For example, prior to obtaining a construction permit for the replacement of the Hunt Creek Bridge, Bradwood Landing must submit to the County copies of those state and federal permits required prior to initiation of the bridge replacement.

1.7 Land Use Compatibility Statements

Under Oregon law, state agencies must ensure that their permit decisions involving programs that affect land use are compatible with local land use plans and regulations. Their principal way of doing that is to submit state permit applications to local governments asking whether the activity proposed in the application is compatible with local policies and regulations. When a local government determines that a proposed activity is compatible, it issues a "land use compatibility statement" or "LUCS." Bradwood Landing asks that the County issue the necessary land use compatibility statements as part of this review. The Board found that, subject to the conditions of approval set forth herein, Bradwood Landing's application satisfies applicable County standards. Staff therefore is instructed to sign the land use compatibility statements for the Project indicating compatibility with the applicable land use provisions and attach these Findings thereto. (*See also* Section 28 of these Findings.)

When marking "yes" on the LUCS statements for the project, Staff is instructed to state that the "Project is compatible with the applicable land use provisions as set forth in the attached findings." This LUCS is completed in this manner at the direction of the Board of Commissioners in Ord. 08-05 and the Resolution and Order attached here to as Attachment 9. No discretion has been exercised.

2. Bridge: Replace Span Over Hunt Creek

2.1 Proposed Development

Access from Clifton Road to the terminal site is provided by Bradwood Road, a short private road that crosses Hunt Creek. The bridge across Hunt Creek is an old wooden span that Bradwood Landing proposes to replace.

Because the existing bridge will not support the anticipated vehicle loads during construction of the terminal, Bradwood Landing proposes to replace the bridge in the same location.

The west end of the bridge rests on land zoned F-80; the east end, on land zoned MI. The span itself passes over Hunt Creek, which is zoned AN. The current span rests on pilings in Hunt Creek. The replacement will be a "clear span," reaching across the creek without pilings. The span will rest on two new concrete abutments, one on each side of the creek. Details of the proposed replacement are shown in the supplemental bridge replacement materials submitted by applicant.

2.2 Action Requested and Criteria for Approval

The applicant seeks approval of the bridge replacement as a use allowed outright in the AN, F-80 and MI zones as "maintenance and repair of existing transportation facilities," per L3.035(A) and as maintenance and replacement of a bridge as set forth in S4.210. L3.035 says:

> "Except where otherwise specifically regulated by this ordinance, the following improvements are permitted outright uses and activities: (A) Normal operation, maintenance, repair, and preservation activities of existing transportation facilities."

Replacement of the bridge is also subject to S4.210 allowing maintenance and replacement of bridges in all zones when the following standards are met.

> "(A) The same alignment is maintained; and
>
> "(B) The same width is maintained, except that necessary enlargement to meet current safety and engineering standards may be permitted; and
>
> "(C) The number of travel lanes is not increased.
>
> "(3) Fill-supported causeways or bridge approach fills across significant non-tidal wetlands in shoreland areas shall not be permitted; bridge abutments may, however, be approved."

The area of the proposed bridge relocation is subject to the Northeast Community Plan. We find only one policy in that plan relevant to the proposed bridge replacement: Fish and Wildlife Policy 1 says, "New roads, bridges, etc. over rivers and streams shall be designed to

minimize removal of shoreline vegetation and shall be installed in a manner that will not impede the flow of water or passage of fish."

The area of the proposed bridge relocation also is subject to the Bradwood Subarea Plan. We find no policies in that plan relevant to this bridge replacement.

The Comprehensive Plan's "Use and Activity Table for Aquatic Areas" (Goal 16 and 17 element) lists "bridge crossings" as an "R" use ("development uses and activities permitted with review") in the AN Zone. Policy P20.9.6 of the (Goal 16 and 17 element) specifies that "maintenance of existing transportation systems shall be undertaken in a manner that minimizes expected impacts on aquatic and shoreland estuarine resources" (p. 31).

2.3 Analysis and Findings

The first question presented by this proposal is whether replacement of the bridge constitutes "maintenance and repair." L1.030 provides the answer. It defines "maintenance and repair" thus:

> "Routine upkeep of an existing structure or remedial restoration of a damaged structure in current use or operation. Maintenance and repair may involve changes in the structure's location, configuration, orientation, or alignment if these changes are limited to the minimum amount necessary to retain or restore its operation or function or to meet current building, engineering or safety standards."

The definition mentions upkeep, restoration, and various changes that would "retain or restore" a facility, but it does not specifically mention "replacement." We note, however, that the changes it speaks of include those "necessary . . . to meet current building, engineering or safety standards." The age of the existing span is unknown, but it certainly is several decades old. Pictures of the bridge illustrate its severely worn condition. The applicant states that the bridge "has deteriorated due to age and is no longer able to carry heavy construction loads."[23] A November 13, 2007 letter from Greg Palmer at NW Engineers was placed in the record indicating that the new bridge has been designed to meet engineering standards service to an industrial site.[24] A September 5, 2007 memo from David Glessner was also submitted noting the lack of certification of the existing bridge and its inability to handle anticipated loads.[25] The

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[23] *Supplemental Information*, February 9, 2007, Tab D, p. 3.

[24] We note also that bridge spans are allowed as a review use per LWDUO 3.035 and that as a review use, the span would be required to be consistent with the development standards addressed in Section 2.4. S4.210(3) specifically observes bridge abutments may be approved.

[25] In the September 5, 2007 memo, Bradwood Landing's engineer reported that the existing bridge was not formally engineered, had not been certified by an engineer, and not deemed suitable for long term use or heavy loads. The replacement bridge uses precast structural concrete members designed to AASHTO standards with H20-44 truck loading and the bridge will be certified by a professional engineer. As designed, the bridge will be sufficient for

(continued . . .)

definition of maintenance and repair also includes changes to a structure's "location" and "configuration." Such actions typically would involve major structural changes comparable to the one being proposed here.

S4.210(2) provides that maintenance and repair of roads and railroads and replacement of bridges shall be permitted regardless of the plan design through which the road or railroad passes, provided the same alignment is maintained. This requirement is met because the bridge will remain within the existing easement alignment. The number of travel lanes will remain at two. The increase in width of the roadway is limited to that necessary to provide for safe access for access to an industrial property that is designed to, as Bradwood Landing's engineers attested, provide safe access for industrial traffic to the site while minimizing environmental impact. The bridge replacement is properly allowed under these provisions. This replacement is appropriate to serve an industrially zoned site and not, as an opponent described, limited to Bradwood Landing's specific use.

A second question raised by this proposal is whether it should be reviewed under Type I procedures, as a use permitted outright, or under Type II procedures, as a "review use." L3.035(A) would have us do the former; the Comprehensive Plan's "Use and Activity Table for Aquatic Areas" suggests the latter. The conflict, however, is immaterial for this consolidated application, which is being reviewed under a Type IV process. Type IV review is the most rigorous, and it includes all steps required by L2.015 and 2.020 for Type I and II reviews.

For the reasons stated above, we find (a) that major changes to the bridge are needed to meet current standards, and (b) that such changes fall within the scope of "maintenance and repair" and maintenance and replacement as provided in S4.210 and L1.030. For the same reasons, we also find that the proposed bridge abutments fall within the scope of L3.035(A) and are permitted outright in the F-80 and MI zones.

2.4 Development Standards

In the AN Zone, the replacement span must satisfy seven development standards set forth in L3.810. These are listed below, one by one, with each standard followed by analysis and Findings.

> **L3.810(1):** "All uses and activities shall satisfy applicable regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shorelands element."

Only one policy in the Comprehensive Plan's estuarine and shorelands element seems relevant to this proposed bridge replacement. Policy P20.9.6 specifies that "maintenance of

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(. . . continued)
construction vehicles, fire trucks, emergency and non-abnormal industrial vehicles. This design is appropriately engineered to provide access to an industrially zoned site. Palmer letter dated Nov. 13, 2007.

existing transportation systems shall be undertaken in a manner that minimizes expected impacts on aquatic and shoreland estuarine resources."

The bridge will be replaced without disturbing Hunt Creek. First, portions of the existing bridge that will interfere with the placement of the new bridge will be removed. The bridge deck will be removed, and the tops of the existing wooden support piles will be cut as needed. The piles, however, will be left in place so as not to disturb the creek. A concrete bridge span will be installed. Because the span will cross, rather than enter the 45-foot wide creek, and because the bridge abutments will be outside the creek bank, the bridge replacement will not disturb the creek or its banks. Some minor road grading will be required to match the elevation of Bradwood Road to the new bridge deck elevation.

These measures will "minimize impacts" on aquatic and shoreland estuarine resources. We therefore find that the proposed bridge replacement complies with Policy P20.9.6. We see no other policies in the Goal 16/17 element of the Comprehensive Plan that are applicable to the bridge replacement. **We therefore find that the proposed use meets the standard set by L3.810(1).**

> **L3.810(2):** "All uses and activities shall satisfy applicable Columbia River Estuary Shoreland and Aquatic Use and Activity Standards contained in the Development and Use Standards Document."

The standards referred to here are found in Section 4.200 of the Standards Document. That section contains several subsections that apply only to specified forms of development such as airports or log storage. The subsection applicable to the proposed bridge replacement is S4.210, "Land Transportation Systems." It contains four standards. The first applies only to "new or relocated land transportation routes." The bridge replacement does not create or relocate a transportation route, so we conclude that S4.210(1) does not apply.

As discussed above S4.210 also provides:

> "(2) Maintenance and repair of roads and railroads and maintenance and replacement of bridges shall be permitted regardless of the plan designation through which the road or railroad passes, provided:
>
> > "(A) The same alignment is maintained; and
> >
> > "(B) The same width is maintained, except that necessary enlargements to meet current safety and engineering standards may be permitted; and
> >
> > "(C) The number of travel lanes is not increased."

The bridge is currently approximately 20 feet wide. In this case, the same alignment will be maintained as the bridge will remain within the existing easement. The bridge will be widened only enough to "meet current safety and engineering standards." As explained by Bradwood Landing's engineers, the bridge is designed to meet the standard for industrial traffic loads. We conclude that this is the extent required to meet current safety and engineering standards for the intended use since it will return the bridge to a state capable of safely serving its

function to provide access to an industrially zoned site. The number of travel lanes will not be increased. **We therefore find that the proposed bridge replacement meets the standard in S4.210(2).**

S4.210(3) says:

> "(3) Fill-supported causeways or bridge approach fills across significant non-tidal wetlands in shoreland areas shall not be permitted; bridge abutments may, however, be approved."

The proposed bridge replacement does not involve causeways or fills of the type described in the standard. It does involve bridge abutments, which the standard authorizes. **We therefore find that the proposed bridge replacement meets standard S4.210(3).**

S4.210(4) simply authorizes removal of riparian vegetation on road rights-of-way if such removal is necessary to "maintain clear vision." This is not a standard or requirement. We therefore conclude that the proposed bridge replacement is consistent with S4.210(4). Because the proposal meets all four standards set forth in S4.210, and because the other subsections of S4.200 do not apply to bridge replacements, **we find that the proposal meets the standards of S4.200 and thus complies with L3.810(2).**

> **L3.810(3):** "All other applicable ordinance requirements shall be adhered to."

We view this "standard" as little more than a statement that the proposed land use must comply with all applicable County land use regulations. As stated below, we find that the application has satisfied all applicable land use regulations with regard to the bridge replacement. **We therefore find the proposed bridge replacement also complies with L3.810(3).**

> **L3.810(4):** "A proposal which requires dredging, fill, in-water structures, riprap, new log storage areas, application of pesticides and herbicides, water intake or withdrawal and effluent discharge, in-water disposal of dredged material, beach nourishment or other activities which could affect the estuary's physical processes or biological resources is subject to an Impact Assessment, Sections 5.800-5.840."

Applicant states that the proposed bridge replacement will not involve any of the activities listed in this standard. We have required that prohibitions against dredging, fill, and the other activities mentioned in L3.810(4) be made a condition of approval. With that condition, **we therefore find L3.810(4) does not apply to the bridge replacement.**

> **L3.810(5):** "When a proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure."

This is not a standard to be met by the applicant. Rather, it is an instruction to the County on how to review a land use application. In this case, the County is considering a consolidated application for multiple uses, and it is doing so under a Type IV review, the most stringent of the five procedures specified in LWDUO Article 2, "Procedures for Land Use Applications." **We therefore find that the application complies with L3.810(5).**

L3.810(6): "Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S4.243(2)."

The subsections referred to are not standards. They are criteria for distinguishing water-dependent uses from water-related uses. **We therefore find that L3.810(6) does not apply to the proposed bridge replacement.**

L3.810(7): "Uses and activities permitted under Section 3.804 of this zone, Permitted Developments, are subject to the public notice provisions of Section 2.115, if an impact assessment is required pursuant to Sections 5.810 through 5.840; or if a resource capability determination is required pursuant to Sections 5.860-5.870; or if a determination of consistency with the purpose of the AN zone is required pursuant to Section 5.880; or if the Community Development Director determines that the permit decision will require interpretation or the exercise of factual, policy, or legal judgment."

Item 7 is not a standard. Rather, it is instruction to the County to use public notice procedures consistent with L2.115 if an application involves any of several discretionary review procedures. L2.115 specifies the procedures to be used in Type II reviews. The County is treating this consolidated application as a discretionary quasi-judicial review and therefore exceeding the notice requirements of L2.115. **We therefore find that the proposed bridge replacement is consistent with L3.810(7).**

Oregon LNG alleged (see for example Oregon LNG letter (DWT) 10-19-07) made that there is insufficient evidence to show that the replacement of the bridge is needed to meet safety concerns. A September 5, 2007 memo from David Glessner, an engineer with NorthernStar Natural Gas, addressed the condition of the road and included pictures of the deteriorated bridge and is included in the record. A second letter was submitted from an engineering firm explaining that the bridge was designed to the engineering standard used to serve industrial facilities. Greg Palmer letter of November 13, 2007. It is reasonable to rely on a letter from an engineering firm that the bridge design has been engineered to the standard for and is appropriate for industrial site loads, even if a résumé has not been included. Upgrading is necessary not only to meet safety/engineering standards but also restore the bridge's ability to serve its function of providing access to the industrial site. By definition, maintenance and repair includes the minimum necessary to restore function. LWDUO 1.030. In this case, the evidence shows that the bridge will be replaced with one capable of accommodating standard industrial loads, returning the bridge's function of providing access to an industrial site.

Maintenance and repair of existing transportation systems and maintenance and replacement of bridges is allowed outright in all zones if specific conditions are met. LWDUO 3.035, S4.210. Specifically, "[m]aintenance and replacement" of bridges is allowed in all zones if the same alignment is maintained, number of travel lanes remains constant and the width remains the same except as necessary to meet safety and engineering standards. S.4.210. Approval of bridge abutments is also allowed in all zones per the Standards Document. These standards are met by the maintenance of two lanes for bridge traffic within the existing road easement.

Oregon LNG argues that maintenance and repair should not be interpreted to include replacement of a bridge. The provision of S4.210 providing for maintenance and replacement of bridges contradicts Oregon LNG's position. The LWDUO incorporates the provisions of the Standards Document as applicable provisions. LWDUO 1.040. The Planning Commission and staff properly interpreted the provisions in the LWDUO and Standards document to allow the bridge replacement. Maintenance and replacement of bridges is specifically allowed in S4.210. Maintenance and repair of existing transportation facilities is allowed per L3.035 and, as discussed in Section 2.3, properly interpreted to allow this use. LUBA will affirm a local government code interpretation that gives effect to two code provisions as opposed to nullifying one. *Concerned Homeowners v. City of Creswell*, 52 Or LUBA 620 (2006) aff'd 210 Or App 467 (2007). If the code can be interpreted to avoid the conflict, that interpretation should be adopted. *Waker Associates v. Clackamas County*, 22 Or LUBA 233 (1991). The proper interpretation of the County's provisions is that certain maintenance and replacement of bridges is allowed in all zones.

2.5 Board Action: APPROVE WITH CONDITION

Based on the above findings, we approve Bradwood Landing's request to replace the Hunt Creek Bridge in accordance with L3.035(A) and S4.210, which authorize "maintenance and repair of existing transportation facilities" and maintenance and replacement of bridges as a permitted use in the AN, F-80 and MI zones. This authorization includes construction of the concrete abutments at either end of the bridge as well as replacement of the span. **This approval is granted subject to the following condition**:

> Bridge replacement is to be done in a manner that will not require dredging, fill, in-water structures, riprap, new log storage areas, application of pesticides and herbicides, water intake or withdrawal and effluent discharge, in-water disposal of dredged material, beach nourishment or other activities which could affect the estuary's physical processes or biological resources.

3. Concrete Batch Plants

3.1 Proposed Development

During construction of the terminal, Bradwood Landing expects to operate two limited-duration concrete batch plants at the site:

> "Two temporary concrete batch plants will be operated within the terminal area during construction. A batch plant makes concrete from cement, sand, and aggregate. The main plant will have a capacity of about 80 cubic yards per hour, which is sufficient for tank construction. The secondary or backup plant will have a capacity of about seventy cubic yards per hour. During intensive periods of concrete pouring, such as pouring the foundations for the process area or the pouring of the concrete roof both plants will likely be in use simultaneously. The batch plants will be removed from the site at the completion of construction."[26]

3.2 Action Requested and Criteria for Approval

Applicant has submitted a site plan showing that the batch plants will be located in the MI zoned terminal construction staging and laydown area. Applicant asks the County to consider the batch plants to be part of the terminal, given that they are required for its construction. The terminal is a water-dependent industrial use permitted outright in an MI Zone per L3.624(10). If the batch plants are considered part of the terminal, then they also would be authorized as permitted uses in the MI Zone. If the County decides not to consider the batch plants to be part of the terminal, then Bradwood Landing asks that the County issue a conditional use permit for the batch plants as water-related uses in the MI Zone, per L3.628.

3.3 Analysis and Findings

The LWDUO does not define "batch plant" or "concrete batch plant." Generally, such uses are considered industrial and are limited to industrial zones and mining zones. The LWDUO reflects that practice: it provides for batch plants as a permitted use in the Quarry and Mining Zone and as a conditional use in the Light Industrial Zone, Heavy Industrial Zone, Rural Community Light Industrial Zone, Agriculture-Forestry Zone, Forest-80 Zone, and EFU Zone. The LWDUO generally doesn't provide for batch plants in its residential, commercial, or natural resource zones.

We conclude that the batch plants should not be considered part of the LNG terminal as a result of their use as part of construction. We agree, however, with the applicant that the batch plants here are "water-related." Among the criteria used at S4.243(2) to define "water-related" is that the use involves "supplying materials to . . . water-dependent commercial and industrial uses." We conclude that construction of a water dependent use is an integral part of that use. The batch plants would supply concrete to the LNG terminal during its construction, and as we note in Section 10.0 below, that terminal is water-dependent. We therefore find that the batch

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[26] *Terminal Narrative*, page 20.

plants are a water-related industrial use of the type listed at L3.628(1) (conditional uses in the MI Zone).

L3.628 specifies that conditional uses "may be permitted . . . in the MI zone under a Type II procedure, Section 2.020, when authorized in accordance with Sections 5.000-5.030 Conditional Development and Use, and subject to the provisions of Section 3.634, Development Standards."

L5.015(2) lists seven criteria to be used in reviewing applications for a conditional use:

> "(A) The proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan.
>
> "(B) The proposed use meets the requirements and standards of the Clatsop County Land and Water Development and Use Ordinance (Ordinance 80-14).
>
> "(C) The site under consideration is suitable for the proposed use considering:
>
> > "(1) The size, design, and operating characteristics of the use, including but not limited to off-street parking fencing/buffering, lighting signage, and building location.
> >
> > "(2) The adequacy of transportation access to the site, including street capacity and ingress and egress to adjoining streets.
> >
> > "(3) The adequacy of public facilities and services necessary to serve the use.
> >
> > "(4) The natural and physical features of the site such as topography, natural hazards, natural resource values, and other features.
>
> "(D) The proposed use is compatible with existing and projected uses on surrounding lands, considering the factors in (C) above.
>
> "(E) The proposed use will not interfere with normal use of coastal shorelands.
>
> "(F) The proposed use will cause no unreasonably adverse effects to aquatic or coastal shoreland areas, and
>
> "(G) The use is consistent with the maintenance of peripheral and major big game habitat on lands identified in the Comprehensive Plan as Agricultural Lands or Conservation Forest Lands. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area on big game habitat."

The applicant asserts compliance with the applicable LWDUO criteria in the material quoted. As supplemented below, we adopt the applicant's response to these criteria as our own.

L5.015(2):

> "(A) The proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan.
>
> "(B) The proposed use meets the requirements and standards of the Clatsop County Land and Water Development and Use Ordinance (Ordinance 80-14)."

As a conditional use, the concrete batch plants are subject to the conditional use standards in L5.000-5.030 and the development standards in L3.634. The proposed use meets the requirements and standards of the LWDUO as required by L5.015(2)(B). Consistency with the LWDUO is also required by development standard 3.634 and met as discussed in section 5.2.1 of the *Terminal Narrative*. As demonstrated in the application, the proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan. L5.015(2)A. Consistency with the Comprehensive Plan is also required by development standard L3.634 and established as discussed in section 5.3 of the narrative. As demonstrated in the application and these Findings, the conditional use permit requested meets the requirements and standards of the LWDUO.

L5.015(2)(C): "The site under consideration is suitable for the proposed use considering:

> "(1) The size, design, operating characteristics of the use, including but not limited to off street parking, fencing, buffering lighting, signage and building location.
>
> "(2) The adequacy of transportation access to the site, including street capacity and ingress and egress to the adjoining streets.
>
> "(3) The adequacy of public facility and services necessary to serve the use.
>
> "(4) The natural and physical features of the site such as topography, natural hazards, natural resources values, and other features."

The concrete batch plants will be located within the MI zone and the operators of the batch plant will use the temporary parking site and be shuttled to the concrete batch plant. Transportation access for the concrete batch plant workers will be sufficient as these workers will use the temporary parking lot/park and ride designated for the site. The batch plant will be located on the MI parcel so as not interfere with construction activity and will not require additional fencing, buffering, lighting or signage.

Similarly, the public facility and services necessary to serve the site will be those provided for the terminal construction workers. The proposed batch plants are largely self-

contained and Bradwood Landing will provide any needed services. Neither installation nor operation of the proposed concrete batch plants will impair public facilities or services availability to Bradwood or to other sites.

The proposed use will not interfere with normal use of coastal shorelands. The concrete batch plant will not interfere with but rather will facilitate the normal use of coastal shorelands, development of a water dependent use. The use is consistent with the maintenance of peripheral and major big game habitat on lands identified in the Comprehensive Plan as Agricultural Lands or Conservation Forest Lands. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area in big game habitat. Bradwood is designated a Major Big Game area. The batch plants are short-term, construction uses and will not have any impact on the big game habitat independent of the terminal.

Potential conditions of approval are listed in L5.025 and include the following:

"(1) Limit the manner in which the use is conducted, including restricting the time an activity may take place and restraints to minimize such environmental effect as noise, aberration, air pollution, glare and odor.

"(2) Establish a special yard or other open space or lot area or dimension.

"...

"(3) Limit the height, size or location of a building or other structure."

Batch plant operation will result in noise and dust. These potential nuisances are minimized by the design and operating characteristics of the batch plants. Further, their location near the center of the Bradwood site and substantial distance from surrounding land uses precludes any adverse effects on those surrounding uses from noise and dust.

The plants are proposed within the industrial area during construction and do not require a special yard or other open space on lot area or dimension.

There are no height limits since the plant is within the MI Zone and more than 100' from another zone. The MI Zone does not have a maximum building size and the concrete batch plants will be appropriately sized for the construction project. The plant site will be in the construction storage/laydown area as shown on the site plan and will avoid interference with construction activities.

L5.025(4): "Designate the size, number, location or nature of vehicle access points."

The vehicle access points will be limited to those approved to serve the permanent facility, the LNG terminal.

L5.025(5)-(6):

"(5) Increase the amount of street dedication, roadway width or improvements within the right of way.

"(6) Designate the size, location, screening, drainage surfacing or other improvement of a parking or truck loading areas."

No increase is appropriate. Employees associated with the concrete batch plant are included in the total number of employees identified in the application as construction workers onsite and therefore do not justify additional road improvements. The proposed temporary concrete batch plants provide a solution to a construction-related problem in Bradwood's location. No concrete plants are located near the Project but the Project will require a substantial amount of concrete. Locating the batch plant at the Project site will reduce the burden on the transportation system that would result from shipping concrete to the site. The construction site is remote and the concrete batch plants do not require any of these improvements beyond the level provided for the terminal.

L5.025(7): "Limit or otherwise designate the number, size, location, height or lighting of signs. "

No signs are proposed for the concrete batch plants.

L5.025(8): "Limit the location and intensity of outdoor lighting or require its shielding."

No outdoor lighting is proposed for the concrete batch plants.

L5.025(9): "Require diking, screening, landscaping or another facility to protect adjacent or nearby property and designate standards for installation or maintenance of the facility."

Given that the plants are located within a marine industrial area, additional standards are not necessary.

L5.025(10): "Designate the size, height, location or materials for a fence."

No fence is proposed or necessary for the concrete batch plants as they are located within a marine industrial area with a substantial buffer provided by adjacent property under the control of Bradwood Landing.

L5.025(11): "Require the protection of existing trees, vegetation, water resources, wildlife habitat or other significant natural resources."

The batch plants are proposed within the terminal footprint. No trees, vegetation, water resources, wildlife habitat or other significant natural resources will be displaced by temporary installation of the concrete batch plants.

L5.025(12): "Require provision for public access (physical and visual) to natural, scenic and recreational resources."

The site is private and security and safety dictate that public access not be provided.

L5.025(13): "Specify other conditions to permit the development of the County in conformity with the intent and purpose of the classification of development."

No additional conditions are necessary to make the use compatible with the MI Zone and the Bradwood site in particular. The development standards for the MI Zone are met by the concrete batch plant because it is within the footprint of the terminal which meets the development standards, and as described above and in Sections 10 and 26 of these Findings.

The plants are compatible with abutting property because of their location within the MI zone and their temporary nature. Adjoining property to the south is in the F-80 zone. The property is used for forest uses. A small quarry is located on property to the south of the proposed concrete batch plant site. A small residential development at Clifton is more than a mile away.

The batch plants will not be adversely affected by the permitted development of abutting properties and the surrounding vicinity. Development in the F-80 zone is limited primarily to forest uses. The proposed batch plants are centrally located on the Bradwood site. This location minimizes potential conflicts with adjoining property outside the MI zone.

The batch plants are small relative to the proposed permanent features at Bradwood, including two 160,000-cubic-meter LNG tanks.[27] Moreover, given the great distance to other surrounding uses, the batch plants would be insignificant even of themselves. The neighborhood at Bradwood is characterized by an historic wood products mill site. The Clifton community, located more than a mile northwest of Bradwood, is isolated from the proposed batch plant site.[28]

We concur with the applicant's findings of fact, as stated above, and the applicant's conclusions. **We therefore find that the application for a conditional use permit for proposed batch concrete batch plants in the MI Zone meets the criteria of L5.015(2).**

L5.015(3) specifies:

"In addition to compliance with the criteria as determined by the hearing body and with the requirements of Sections 1.040 and 1.050, the applicant must accept those conditions listed in Section 5.025 that the hearing body finds are appropriate to obtain compliance with the criteria."

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[27] While applicant sought approval of three storage tanks, these findings recommending approval are subject to a condition of approval limiting the project to two tanks and requiring applicant to obtain all necessary permits for a third tank at the time applicant seeks to construct a third tank.

[28] *Terminal Narrative*, pages 49-52.

In accordance with that provision, we impose one condition of approval: that both batch plants must be removed from the Bradwood property no later than 180 days after construction of the LNG marine terminal is finished.

L5.015 has one additional provision that deals specifically with conditional uses proposed in the MI Zone:

> "Where the proposed development involves a non-water dependent use or activity in the Marine Industrial Shorelands Zone, Section 3.620, mailed notice shall also be provided to any interested party who has submitted a written request concerning the proposed development, and to state and federal agencies with statutory planning and permit issuance authority in aquatic areas, including the Oregon Division of State Lands, U.S. Department of Fish and Wildlife, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Corps of Engineers, and the Environmental Protection Agency."

Notice regarding this consolidated application, including the proposed concrete batch plants, was sent to the Department of Land Conservation and Development ("DLCD") on May 16, 2007. DLCD, in turn, notifies key state agencies, including the DSL and Department of Fish and Wildlife. Moreover, the applicant has sought permits related to this application from these state agencies and from the federal agencies listed in L5.015. Finally, the County has provided notice of this application to interested parties in accordance with ORS 197.763 (on quasi-judicial land-use decisions) and has provided mailed notice to those persons who requested it. The County therefore has complied with L5.015 in its handling of this application.

3.4 Development Standards

We address the development standards applicable to the LNG marine terminal, including the concrete batch plants, in Sections 10.0 and 26.0 of these Findings.

3.5 Board Action: APPROVE WITH CONDITION

Based on the above findings, we approve Bradwood Landing's request for a conditional use permit for two concrete batch plants in accordance with L3.628(1) (water-related uses in the MI Zone), subject to the following condition:

> Both batch plants must be removed from the Bradwood property no later than 180 days after construction of the LNG marine terminal is finished.

4. Dredging

4.1 Proposed Development

Bradwood Landing proposes to dredge approximately 58 acres of the Columbia River adjoining the terminal site:

> "The berth and turning basin for the LNG carriers will be dredged to a depth of minus 43 feet CRD to provide 42 feet of depth and one foot of advance maintenance dredging. This depth is the minimum safe depth to berth and maneuver the LNG carriers, which will have drafts of up to 41 feet. It is also approximately equal to the congressionally authorized 43-foot depth of the adjacent Columbia River navigation channel. This will require approximately 700,000 cubic yards of sediment to be dredged from 45.8 acres of the 58-acre berth and turning basin. See Figure 8.[29]
>
> "...
>
> "Maintenance dredging will be required periodically to maintain the marine berth and turning basin at the necessary depth. Bradwood Landing estimates that an average of approximately 39,000 cubic yards of material will need to be dredged every two to four years. This material will be deposited at the Sand Pit site or, if the necessary permits have not been obtained for this site, at another designated dredged material disposal site within close proximity to Bradwood."[30]

4.2 Action Requested and Criteria for Approval

Applicant requests authorization from the County to dredge in the AD and AC-2 zones:

1. In waters adjacent to Bradwood that already are zoned AD, applicant requests the County allow dredging outright in accordance with L3.744(10), "piling and dredging in conjunction with permitted uses."

2. For the area now zoned AC-2, applicant originally requested the County issue a conditional use permit for dredging in an AC-2 Zone in accordance with L3.788(9) and (5), dredging in conjunction with a minor navigational improvement, or as an alternative to authorization of dredging in the AC-2 Zone as a conditional use, applicant requested that 46.1 acres of AC-2-zoned waters be redesignated from "Conservation" to "Development," rezoned to AD, and the Comprehensive Plan amended as appropriate. With that rezoning to AD, the dredging then would be allowed outright in accordance with L3.744(10). Following the Planning Commission action and input from DLCD, the applicant requested that the dredging in

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[29] *Terminal Narrative*, page 16.

[30] *Terminal Narrative*, page 18.

the AC2 zone be approved through a rezoning of that area to AD and amendment of the Comprehensive Plan as appropriate.

4.3 Analysis and Findings

Dredging in the AD Zone

L3.744 lists uses permitted outright in the AD zone. Among the uses listed there is "(10) Piling and dredging in conjunction with permitted uses 3, and 5 through 9 listed above." L3.744(9) is "water-dependent commercial, industrial and port uses." As we explain in Section 10.0 of these Findings, the proposed LNG marine terminal is a water-dependent industrial use. The applicant proposes dredging in the AD-zoned waters to accommodate deep-draft vessels that will serve the proposed LNG marine terminal. **We therefore find that the proposed dredging in the AD Zone is a use permitted outright by L3.744(10).**

Dredging in the AC-2 Zone

The Planning Commission recommended approval of the AD to MI rezoning of the mill pond and AN to MI rezone to support the use of the adjacent MI property. The Planning Commission also recommended action to allow dredging as a conditional use necessary to support a "minor navigational improvement". The Clatsop County Code defines minor navigational improvement in part as "[a]lterations necessary to provide water access to existing or permitted uses including dredging for access channels". LWDUO 1.030. The Planning Commission found the dredging was an alteration necessary to provide access to an adjacent permitted use, the water dependent LNG terminal.

DLCD weighed in, observing in part that the County definition of minor navigational improvement differs from the state's definition. The County definition of minor navigational improvement doesn't say that the permitted use supported by the dredging must be a use permitted in the AC2 zone. The state definition does limit minor navigational improvements to those needed to support a use in the conservation zone. Here, the turning basin is needed to support a use in the MI zone, a different zone.

DLCD concluded that for a variety of reasons, when authorizing dredging to support a water dependent use on the shore, the way to do so is through a zone change of the management unit from conservation to development. Staff previously concluded that an exception is necessarily required to change a management unit but now agrees with DLCD that is not the case.

DLCD stated in its letter of October 11, 2007:

> "If the county determines that the Bradwood site is appropriate for an LNG import terminal the county must assure that the required turning basin and ship berth access area is designated as a Development management unit and zoned for Aquatic Development (AD), unless the county determines that dredging for the turning basin does not maintain the integrity of the estuarine ecosystem. Once designated as AD, the county must apply the appropriate impact assessment and

dredge/fill test requirements o the proposed dredging activity as outlined in estuary planning documents.

"Note: An exception is not required unless a specific goal requirement prohibits a use or activity or otherwise requires the application of a different designation or zone. Application of a Development management unit and AD zone to an estuarine area that findings demonstrate is required to support water dependent development on the adjacent shoreland area implements requirements of Statewide Planning Goal 16 (Estuarine Resources) and Goal 17 (Coastal Shorelands). An exception is not required to apply a development management unit for a required navigational improvement, unless the proposed dredging will adversely affect the integrity of the estuarine ecosystem, requiring the application of a natural or conservation management unit."

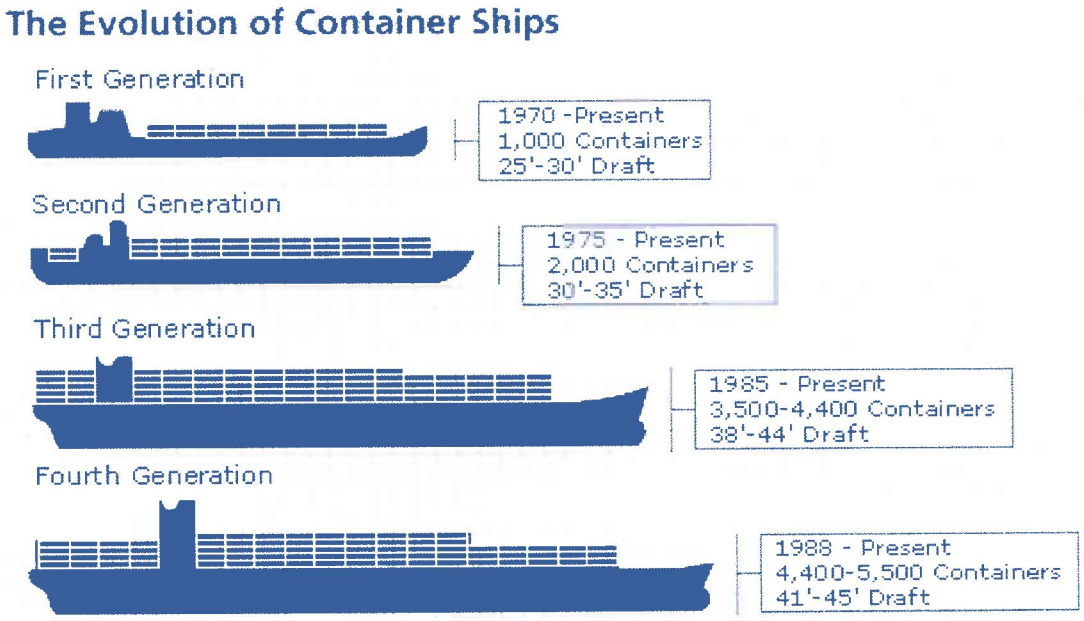
The rezone from AC2 to AD is sought to allow dredging to create a turning basin necessary to accommodate modern ships.

The deepening of the navigation channel was undertaken because

"The lower Columbia River navigation channel has been dredged to insure the safe passage of cargo ships for more than 100 years. The existing channel, however, [was] not deep enough to handle the new generation of larger, deep-draft vessels when they are fully loaded."

"As these larger ships enter the trade in greater numbers, the channel depth limitation threatens the region's ability to gain efficient access to world markets." (http://www.channeldeepening.com/channel_projoverview.asp)

The figures below illustrate the point.



The Board now considers the standards applicable to zone changes in this case. Those standards, and responses thereto, are listed below.

The proposed change is consistent with the policies of the Clatsop County Comprehensive Plan.

Comprehensive Plan policies related to dredging of estuarine areas are found in the Goal 16/17 element of the Comprehensive Plan. To determine whether the proposed zone change meets L5.412(1), we turn to that element and examine the policies directly applicable to the proposed dredging.

Policy P20.2, "Aquaculture and Fisheries," Policy 1: Traditional fishing areas shall be protected when dredging, filling, pile driving or when other potentially disruptive in-water activities occur.

Subarea plans for the area note the significance of commercial fishing and sport fishing near Bradwood. The Bradwood Subarea Plan says, "River use includes sport fishing, commercial gillnet drifts, and commercial ship and barge traffic." The Clifton Channel Subarea Plan says, "The old fishing community of Clifton is still . . . used as a staging area for fishing in the Clifton Channel gillnet fish drifts," and "The fish drifts in this area are very productive." We conclude from such statements that the Clifton Channel is a "traditional fishing area" subject to P20.2.

The applicant says such areas will be protected:

> "Potential adverse consequences on aquatic fish and wildlife habitat include benthic habitat disruption during construction and maintenance dredging. Measures are incorporated into the project design to **minimize or avoid** these impacts. These mitigating measures include the following:
>
> "1. Although any benthic disruption is unavoidable, the impacts are minimized by designing the turning basin to be no larger than necessary to accommodate the proposed use and by siting it in an area with no identified benthic resources warranting a Natural management unit designation. More detailed information is contained in the Biological Assessment and Alternatives Analysis.
>
> "2. The proposed turning basin site does not include any intertidal areas. In the Columbia River Estuary, intertidal areas are generally more biologically productive than subtidal areas.
>
> "3. Dredged material removed during construction will be placed at an upland disposal site, avoiding the water-column impacts associated with in-water and flow-lane disposal.

"4. Ballast water withdrawal will be done through screened intakes to avoid entrapping fish and other mid-water column organisms."[31] (Emphasis added.)

Bradwood Landing is working with state and federal agencies to more fully develop and finalize its mitigation plan and is investigating a number of strategies to prevent entraining and harming of fish. The preponderance of the evidence shows that dredging below the shallow water column (below 20 feet) does not adversely impact the habitat for juvenile salmonids. None of the dredging proposed by Bradwood Landing will occur in areas shallower than 20 feet. A condition of approval will require the applicant to submit and adhere to a shoreline monitoring plan, a dredge material disposal plan, a mitigation plan, and an erosion control plan. Adherence to these conditions, as well as to county ordinances, will ensure that such dredging does not adversely affect juvenile salmonids.

The applicant also notes that dredging will be done during off-season months to minimize impacts to fishing:

"Bradwood Landing anticipates using a cutter suction dredge 24 hours per day in order to complete the dredging within ODFW's recommended November through February in-water work period for the Columbia River and to otherwise minimize the time during which any adverse dredging effects would occur. Assuming this work schedule, up to 30,000 cubic yards per day could be dredged, and the dredging could be completed within a month, depending on weather conditions."[32]

The southeast entrance to the Clifton Channel is the one usually taken by the many boats coming from Westport or Cathlamet. Closure of that entrance would result in boats having to travel around the north end of Tenasillahe Island, increasing the number of miles needed to reach Clifton Channel. The Clifton Channel access may be protected, however, through imposition of a condition of approval limiting its closure.

We agree with applicant that various measures will lessen or minimize impacts of the dredging on fish and on fishing. The question has been raised as to whether these actions equate to protection. We believe they do.

The LWDUO sets out a specific framework to use when the County has not defined a term. Pursuant to L1.035, the definition of a word or phrase not listed in the chapter shall be defined from one of the following sources, in the following order:

(1) The Comprehensive Plan;

(2) Any other County resolution, ordinance, code, or regulation;

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[31] *Terminal Narrative*, page 214.

[32] *Terminal Narrative*, pages 17-18.

(3) Any statute or regulation of the state of Oregon (including the Uniform Building Code and Land Conservation and Development Commission Goals and Guidelines); or

(4) Legal definition from case law or a law dictionary.

Comprehensive Plan Policy 20.2 provides that:

> "Traditional fishing areas shall be *protected* when dredging, filling, pile driving or when other potentially disruptive in-water activities occur." (Emphasis added.)

Comprehensive Plan Policy 20.8 provides that:

> "Endangered or threatened species habitat shall be *protected* from incompatible development." (Emphasis added.)

State regulation defines "protect" as to save or shield from loss, destruction, or injury or to save for future intended use. Oregon Statewide Planning Goals – Definitions. *Barron's Law Dictionary* defines "protect" as

> "to preserve in safety; to keep intact; to take care of and to keep safe. * * * 'Protection' is any measure which attempts to preserve that which already exists. For instance, trade protection attempts to preserve domestic tariffs and custom duties on imported goods."

Barron's Law Dictionary 382 (3d ed 1991). The mitigation actions planned are measures that attempt to preserve the resource and shield it from loss through avoidance and, when necessary, by minimizing impacts, and these measures are appropriate. The appropriate interpretation of "protect" is to "shield and attempt to preserve," and we adopt this interpretation and find that the policies concerning protection and mitigation of impacts on resources are met.[33, 34]

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[33] These definitions are also consistent with the *American Heritage Dictionary* definition of "protect" as to "guard" against injury. A seat belt guards against injury and provides protection; it does not guarantee that no injury may ever occur.

[34] Further, it is appropriate to consider protection of traditional fishing areas and endangered or threatened species as a required yet general approach to development. The loss of one fish is not failure to protect the species, and an occasional delay in access to a fishing area does not equate to failure to protect the area. For example, a neighborhood can be protected from undue levels of traffic speed by nonresidents through the installation of roundabouts. The neighborhood then has to circumnavigate the roundabouts and go slower as well, but a protection has been installed.

The Project incorporates measures to protect fishing areas by protecting fish and other aquatic organisms by minimizing and avoiding impacts on their habitats through

- Minimization of turning basin size;
- Siting of turning basin outside intertidal area;
- Screening of intakes; and
- Upland disposal of materials.[35]

Dredging will be performed to create a safe and sufficient turning basin for ships while minimizing ecological impacts. To minimize impacts and protect salmon,

- Dredging will be allowed only during an approved in-water work window (November 1st through February 28thtime period) established by the Oregon Department of Fish and Wildlife and the National Marine Fisheries Service, US Army Corps of Engineers, designed to minimize impacts to aquatic life by allowing dredging only during times when low fish populations are present in the river.

- The dredge method chosen, suction dredging, will reduce turbidity which reduces the impacts to aquatic life.

- Bradwood Landing will, if possible and at the request of National Marine Fisheries Services, deposit a substantial amount of dredge material back into the estuary, thereby reducing scour of the estuary.

- Bradwood Landing has designed the dredge footprint area in consultation with numerous agencies, to maximize the efficient use of the current basin, minimize the amount of dredging and reduce impacts to fisheries

Bradwood Landing has stated that it is committed to sustainable development and a lasting legacy of environmental, economic and community health. In describing its project, Bradwood Landing has stated its project includes an environmental commitment that ensures a significant net benefit to salmon productivity and the lower Columbia ecosystem.

The area proposed for dredging for the turning basin at Bradwood Landing is already deeper than 20 feet. Bradwood has intentionally designed the dredge footprint in habitat that is deeper than 20 feet, (a depth considered to be deep water habitat), because it has a greatly reduced presence of juvenile salmon. The proposed dredge area is deep water habitat now and would continue to be deep water habitat after construction. Use of this type of habitat by juvenile salmon will be virtually unchanged because they predominately use the top 10 - 15 feet of the water column regardless of total depth. Benthic invertebrates (small "bugs" that salmon and other fishes eat) that live in the deeper habitat substrate (surface) have been shown to quickly

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[35] See discussion of Policy 20.8 as well for a relevant discussion of the use of avoidance and minimization and mitigation to achieve protection.

recover from dredging disturbance. This is because they are present in high numbers in areas surrounding the disturbed area and they quickly re-colonize (move into) the dredged area. The young fish that would consume these invertebrates do not actually forage on the river bottom in the deep water habitat; they eat those materials and organisms that get suspended and float around closer to the surface of the water, and are constantly in motion from river currents and tidal currents. A minor increase in turbidity (suspended sediments) that contain these invertebrate food items actually have been shown to stimulate juvenile and adult salmon and other fishes to feed.

As described by Bradwood Landing:

- Each of the components of the Bradwood environmental commitment goes beyond the established norm and exceeds all applicable standards and includes:
    - State-of-the-art measures to avoid and minimize construction impacts;
    - Innovative design and operational measures that will effectively avoid fish impacts at the facility;
    - Mitigation that more than compensates for unavoidable impacts to shallow water habitat, wetlands, and other sensitive areas; and
    - A $46 to $59 million Salmon Enhancement Initiative (SEI) for top priority salmon and ecosystem restoration efforts identified by watershed and estuary groups.
- Taken as a whole, the components of the Bradwood Landing Environmental Commitment – state of the art avoidance and minimization, robust compensatory mitigation, and the Salmon Enhancement Initiative – add up to a significant and sustained net benefit for salmon and the Lower Columbia ecosystem.
- Bradwood Landing has redesigned the project to greatly reduce impacts at the facility to salmon and other aquatic species and greatly reduced impacts to wildlife. Specific avoidance and minimization measures include:
    - Reduced the facility footprint and reconfigured the terminal to lessen fill impacts and restore temporary work areas to highest habitat value;
    - The use of low impact lighting;
    - Reduced the number of pier pilings needed by using larger diameters, thus reducing in-water construction time and completing work when the fewest fish are present; and

- Using bubble caissons to avoid fish impacts during construction of pilings;

- Changed project design to provide screened water to ships at dock for cooling engines and filling ballast tanks, thus avoiding entrainment impacts to juvenile fish (including listed salmon).

Bradwood Landing has also stated it will:

- Use best management practices to minimize sedimentation impacts from dredging and dredge disposal, including in water disposal of a substantial portion of the dredge material;

- Use directional drilling technology and other best management practices to avoid and minimize impacts from pipeline construction;

- Restore significant wetlands and vegetative cover in place after construction; and

- Utilize Oregon Department of Fish and Wildlife and the National Marine Fisheries Service NOAA approved screen water intakes at the facility to avoid impacts on fish.

Bradwood is proposing to mitigate for unavoidable impacts at four sites: 1) Peterson Point Wildlife Mitigation Site to meet ODFW Fish and Wildlife Mitigation Policy for temporary and permanent impacts to terrestrial habitats; 2) Svensen Island Mitigation Area for wetlands and fish habitat mitigation; 3) Bradwood Hunt Creek/Hunt Creek Estuary Conservation Area for potential impacts to "Other Waters" (Waters of the State) and enhancement of the Conservation Area and restoration of disturbed areas at Bradwood with the addition of on-site cottonwood tree replacement at 5:1 ratio within areas of Designated Critical Habitat for ESA-listed salmonids; and 4) Delameter Creek Mitigation Site (for potential wetland, stream and riparian effects from the pipeline construction in Washington State). All told Bradwood's mitigation acreages total nearly 500 acres of permanently improved habitat conditions for impacts to less than 200 combined acres, most of which are temporary pipeline impacts.

Bradwood Landing has stated that it will go well beyond conventional compensatory mitigation to:

- Acquire, protect and enhance more than ten acres for every acre impacted by the facility in Oregon by restoring diked areas to natural channels and tidal marsh habitat;

- More than replace wetland acreage and function lost by conversion of forested wetlands in Washington by restoring and enhancing, or creating, wetlands;

- Restore wildlife habitat using Oregon's mitigation policy;

- Purchase and enhance habitat for Columbia whitetail deer; and

- Restore estuarine fish habitat to compensate for lost habitat above required standards.

In addition to avoidance and minimization of impacts and robust compensatory mitigation, Bradwood Landing is committing $46 - $59 million (depending on the life of the project) to a voluntary Salmon Enhancement Initiative it has explained is designed to improve salmon productivity in the lower Columbia estuary and improve overall ecosystem health.

The Salmon Enhancement Initiative is a unique program undertaken by a private company to invest in the improvement of the entire salmon population. The initiative goes beyond the necessary regulatory requirements and significantly improves and sustains the health of the lower Columbia ecosystem.

Bradwood Landing appreciates that Oregon and Washington have invested heavily in watershed and salmon assessments, science-based restoration and recovery plans, and initial implementation. The Salmon Enhancement Initiative will tap into these efforts using a collaborative process convened by the Lower Columbia Fish Recovery Board to get maximum ecological value for the committed funds and help sustain these regional initiatives.

The $46 - $59 million in Salmon Enhancement Initiative (SEI) funding includes: $7 million for early actions (prior to project operation) and $1.3 million a year for the expected 30 - 40 year life of the project. It will also include components to reduce fish mortalities, create woody debris banks, and enact other measures to benefit salmon and the Lower Columbia ecosystem.

This commitment of funds will greatly increase, and help sustain, the rate of habitat and salmon restoration in the Lower Columbia: the early action funding for projects like the acquisition of Svensen Island will significantly increase habitat project spending during this phase, and the annual payments will help sustain restoration efforts for years to come.

Under the SEI, the Lower Columbia Fish Recovery Board will help convene regional interests (tribes, watershed and estuary groups, state and federal agencies from Oregon and Washington) to develop an early action package and outline guidance for allocation of the long-term funding. The National Fish & Wildlife Foundation will serve as the SEI's fiscal agent.

Where possible, the Lower Columbia Fish Recovery Board will evaluate, and quantify the ecological and salmon benefits of the Initiative and adaptively manage the Initiative to ensure it maximizes the value of SEI funds.

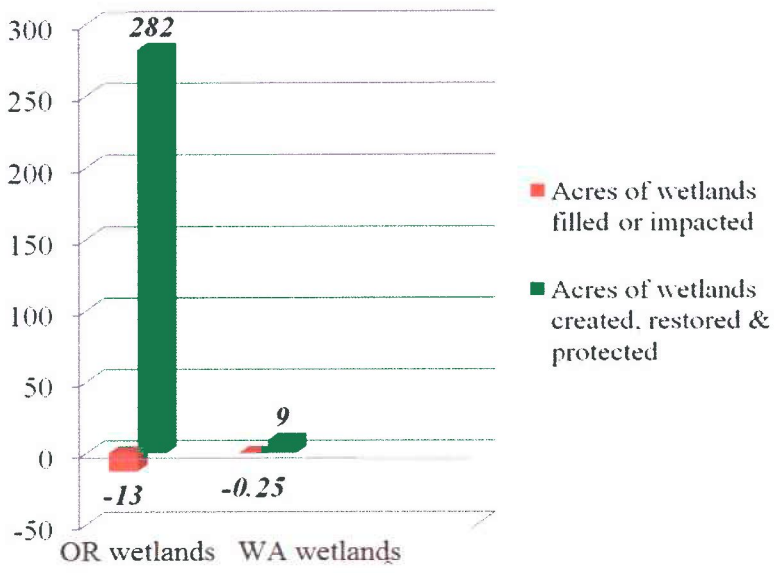
To lock in Bradwood's Environmental Commitment, the Salmon Enhancement Initiative will be memorialized in a Memorandum of Agreement and described as part of the Proposed Action in the Draft Environmental Impact Statement and Biological Opinion for the project.

The Svenson Island mitigation is for the 14 acres of wetland impact at the proposed facility, of which the old mill pond consists of 3 to 4 acres of potential tidal habitat. The mitigation proposed for this impact is restoration and permanent protection of 65 acres of diked pasture on Svenson to high quality tidal habitat.

In addition, Bradwood has optioned the entire 240 acre island and is developing a plan for restoration and permanent protection. This is in excess of regulatory requirements and obligations.

Mitigation Plan Elements

- Compensatory mitigation for wetland and shallow-water fish habitat impacts.
- Restore estuarine influence of up to 65 acres of isolated, degraded and diked wetlands.
- Enhance and protect another 170 acres of breached estuarine wetlands.
- Provides functions of pocket estuaries - protected from high flows, gives animals/fish sheltered refuge.
- Restore habitat complexity and microhabitats that have been lost over time by filling for dikes, riprap, seawalls, railroad and road building.
- The Project will impact 13.25 acres of wetlands to construct the LNG terminal.
- Bradwood Landing will create, improve and protect 291 acres of wetlands.
- For every acre impacted, Bradwood Landing is creating, restoring or protecting 22 acres. This far exceeds state and federal requirements which exceed County requirements.



Bradwood Landing is also working with drift fishermen operating in Clifton Channel to enable the uses to coexist and closure of Clifton Channel will be minimized through a condition of approval.

This interpretation finds further support in the County policy in the Northeast Community Plan providing that the fishing industry will be preserved and promoted, in part, by "the close evaluation of industrial development and other activities to ensure compatibility and maintenance of water quality."

Staff concluded that Clifton Channel is a traditional fishing area and that the mitigation is unproven and may not protect fish from entrapment. Staff also concluded that dredging, construction of in-water structures, and subsequent security measures may block water access at least some of the time. We conclude that the "traditional fishing area" in Clifton Channel will be protected: fish, fish habitat, and both commercial and sport fishing will continue in the area. The mitigation measures proposed by the applicant (described above and in Chapter 11) and required by the state and federal permitting process will provide the requisite protection. Further, Clifton Channel will remain open, during all periods of construction and operation except for the 30 to 45 minutes when a ship is maneuvering at berth, protecting areas identified by Staff as traditional fishing areas. These policies are met. **We therefore find that the proposed conditional use permit is consistent with Policy P20.2.**

P20.3, "Deep Water Navigation, Port and Industrial Development," contains one policy directly related to the proposed dredging: "3. Development, improvement and expansion of existing port sites is preferred prior to designation of new port sites."

The County approved an exception for the MI site that included filling the mill pond so that one cohesive marine industrial site could be created. In doing so, the County recognized the unique benefits of the site, observing that Bradwood boasted a unique confluence of characteristics. Specifically, the County noted that Bradwood offers a location:

(1) At Columbia River Mile 39;

(2) Within 1,000 feet of the Columbia River navigation channel;

(3) With self-scouring water depth of 30 to 40 feet close to shore;

(4) Providing direct railroad access;

(5) With 40 to 50 acres of developable backup land;

(6) Single ownership;

(7) Dredged material disposal and mitigation areas on-site;

(8) Relatively isolated location;

(9) Existing dock structure; and

(10) Rock source on-site for development needs that also has commercial development potential.

The site has 150+ year history as an industrial site including use as a lumber mill, mill town and deep water lumber export dock.

We conclude that the policy to prefer development, improvement and expansion of existing port sites supports the proposed dredging, which would help to develop, improve, and expand an existing port site Bradwood and note that the terminal is proposed at Bradwood, a historically industrial site.[36]

Further, we find that in some instances policies in a plan may appear to be in conflict and require a balancing. To the extent the policies to "protect" fish habitat (see P20.8) or traditional fishing areas (P20.2) could be viewed as inconsistent with this policy, we find the more appropriate interpretation to be that the required protection is achieved through the avoidance, minimization and mitigation provided here to facilitate a planned marine industrial development.

P20.5, "Dredging and Dredged Material Disposal": P20.5 contains some 18 policies. Most deal with how dredging is to be done or with which plan designations and zones will allow dredging.

P20.5(1) states:

"Dredging shall be allowed only:

[36] A photograph of historic industrial use at Bradwood is included in Attachment 8.

"(a) If required for navigation or other water-dependent uses that require an estuarine location or if specifically allowed by the applicable management unit requirements and,

"(b) If a need (i.e., a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust right; and

"(c) If no feasible alternative upland location exists; and,

"(d) If adverse impacts are minimized."

Policy 20.5(1)(d) provides that dredging will be allowed only if adverse impacts are minimized. Staff referenced the *American Heritage Dictionary* and defined "minimize" as requiring reduction to the smallest possible extent. Staff recognized that Bradwood Landing's mitigation proposals are aggressive and substantial, but concluded that Bradwood Landing had not proven reduction to the smallest possible extent. It is unclear how a showing of reduction to the smallest possible extent could ever be made, and this interpretation, *i.e.,* effectively requiring an applicant to prove that absolutely no further reduction of impacts is possible, is not required by the Comprehensive Plan. To satisfy P20.5(1)(d), we must determine that "adverse impacts are minimized." A definition of minimize is imbedded in the LWDUO definition of mitigation. Mitigation is "[a]ny action that, to some degree, softens the impact of development on wetlands and aquatic areas." L1.030. This includes "minimizing impacts by limiting the degree or magnitude of an action and its implementation." *Id.* Here, the adverse impacts of dredging are minimized by limiting it to the area needed for the turning basin and requiring mitigation, such as limiting the dredging to the in water work period.

The Oregon DSL in its mitigation requirements includes the description of mitigation as a sequential process established by state and federal law, whereby the applicant is required to make a *legitimate* effort to avoid and minimize adverse impacts before proceeding to offer compensatory mitigation actions. As described in Bradwood Landing's Mitigation Plan, after a comprehensive process of avoiding and minimizing impacts as required by multiple regulatory drivers,[37] Bradwood Landing's proposed compensatory mitigation would occur at four geographically distinct locations in Oregon and Washington. Oregon mitigation sites (specifically Svensen Island) are located in the lower Columbia River estuary ("Estuary means a

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[37] MEMORANDUM OF AGREEMENT BETWEEN the Department of the Army AND The Environmental Protection Agency CONCERNING THE DETERMINATION OF MITIGATION UNDER THE CLEAN WATER ACT SECTION 404(b)(1) GUIDELINES (February 8, 1990); Oregon Administrative Rules ("OAR") 141-085-0240 through 141-085-0257 (pertaining to estuarine mitigation as it relates to issuance and enforcement of removal-fill authorizations within waters of Oregon including wetlands); Washington State Water Pollution Control Act (chapter 90.48 RCW), Growth Management Act (chapter 36.70A RCW), Aquatic Resources Mitigation Act (chapter 90.74 RCW), Water Quality Regulations (chapter 173-201A WAC); Oregon Division 415 Fish and Wildlife Habitat Mitigation Policy.

body of water semi-enclosed by land and connected with the open ocean, within which salt water is usually diluted by fresh water derived from the land. In the general sense, 'estuary' includes all estuarine waters, tidelands, tidal marshes and submerged lands extending upstream to the head of tidewater. However, the Columbia River Estuary has been more narrowly defined to extend to the western edge of Puget Island [ORS 54.605])." Mitigation is also proposed at Hunt Creek. The Peterson Point Terrestrial Habitat Mitigation Site would be associated with the estuary in the general sense in that it is located just upstream in the Westport Slough area. The remaining site, known as the Delameter Creek Wetland and Riparian Enhancement Mitigation Site, is located in Cowlitz County, Washington. Each mitigation site was selected based on its ability to provide compensatory mitigation for wetlands, ESA-listed fish, and/or wildlife. For example, the restoration efforts at the Peterson Point Terrestrial Habitat Mitigation Site would target wildlife (*i.e.*, Columbia White Tailed Deer (CWTD)), while those at Svensen Island would focus on habitat improvement and access for listed salmonids. Compensatory mitigation for wetland impacts would occur at Svensen Island (Oregon) and at the Delameter Creek (Washington) mitigation site. Because mitigation requirements for impacts to wetlands and listed salmonids are not mutually exclusive (fish habitat functions being one of the wetland functions), the riparian enhancements at Delameter Creek and restoration activities at Svensen Island sites serve the dual purpose of addressing mitigation requirements of both.

Compensatory mitigation for unavoidable impacts is designed to exceed existing County mitigation standards. Construction of the proposed Terminal in Oregon will result in permanent and temporary estuarine and nonestuarine wetland and waterway impacts (*see* Figure 2-1 in the Mitigation Plan). In addition, construction of the Pipeline will result in temporary impacts to wetlands and waterways. These construction areas have been designed to avoid impacts to wetlands and, as such, are not discussed in the mitigation plan.

The applicant has submitted information fully documenting the water-dependent nature of the proposed use and the need for dredging to accommodate the LNG carriers that would serve that use. Likewise, the applicant has documented substantial public benefits that would result from development of the Project. Among them are a continuing supply of natural gas to energy users in the northwest, hundreds of new family-wage jobs for workers during construction of the facility, and substantial property tax revenues for the County. And in this instance, it seems clear that no feasible upland alternative to the proposed dredging exists: the dredging is proposed to allow passage of large LNG-carrying ships, something no "upland alternative" can provide. Further, the benefits of development of the adjacent MI site that cannot be realized elsewhere or at some other upland location are discussed extensively later in these Findings.

Finally, we are persuaded that the applicant has identified numerous strategies to minimize adverse impacts from the proposed dredging. For example, extensive mitigation for damage to fish habitat is proposed, about which the applicant concludes:

> "Through these actions, several times as much acreage as will be lost will be restored to function as rearing habitat, particularly for Chinook and chum salmon,

but also for other species. These restored wetland areas will provide substantial primary productivity that will support multiple ecosystem functions."[38]

We therefore find that the proposed activity is consistent with P20.5(1).

P20.8, "Fish and Wildlife Habitat," Policy 1: "Endangered or threatened species habitat shall be protected from incompatible development."

At page 36 of the Staff Report, Staff quoted policy 20.8 as "Endangered or threatened species shall be protected from incompatible development", inadvertently omitting the word "habitat" found in the Comprehensive Plan between the words "species" and "shall". The policy in fact reads "Endangered or threatened species habitat shall be protected from incompatible development." Protection of habitat does not require a guarantee that absolutely no individual fish is ever injured. The policy is in fact focused on habitat protection and the extensive avoidance and mitigation program set out by Bradwood Landing provides the requisite protection. As we explained in our discussion of the dredging and policy P20.2 above, we conclude that the proposed dredging and ensuing activities such as LNG carriers drawing water for ballast and engine-cooling, as mitigated, will protect endangered or threatened species habitat. Bradwood Landing has submitted a revised mitigation plan detailing Bradwood Landing's environmental and mitigation process approach. The mitigation plan outlines how Bradwood Landing has worked its way through the Mitigation Process to date by first describing the footprint and facility changes that took place to avoid and minimize impacts wherever possible during the design process. Avoidance and minimization did not stop with conceptual design; it has continued (and will into the future) as Bradwood Landing responds to agency and public feedback on the proposal. Avoidance and minimization includes protection of the most sensitive and highly functional natural resources, both at the Bradwood site, as well as protection of existing high quality habitat adjacent to the Svensen Island mitigation area. **We therefore find that the proposed activity does comply with P20.8(1) Policy.**

P20.8, "Fish and Wildlife Habitat," Policy 2: "Measures should be taken to protect nesting, roosting, feeding and resting areas used by resident and migratory bird populations."

The applicant says:

"[The County] has adopted and implemented a Sensitive Bird Habitat Overlay district to comply with policy 10 [a policy in the Goal 5 element of the *Comprehensive Plan* similar to P20.8(2)]. The Project is not within the area covered by this overlay district. Because of this, neither the policy nor its implementing measure is applicable to the proposal."[39]

We agree with applicant's conclusion. We therefore find that P20.8 Policy 2 is not applicable to the proposed rezoning.

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[38] *Terminal Narrative*, page 23.

[39] *Terminal Narrative*, page 114.

P30.21, Bradwood Subarea Plan: The policies in the Bradwood subarea plan are:

"1. Large scale fills along the Columbia River shoreline and impacting areas in excess of 20 acres are not appropriate.

"2. The exact location of the 200 foot wide access channel to the Bradwood site is not designated in this plan. The location of the channel shall be determined at the time of permit application.

"3. The old Bradwood mill pond could be filled in order to provide a contiguous marine industrial site provided that proper state and federal permits were obtained."

The narrative in the Subarea Plan provides a description of the land and aquatic areas at Bradwood. Aquatic features in the Bradwood Subarea Plan are described thus:

"The aquatic portions of this subarea include portions of Clifton Channel, the main navigation channel, an embayment and tidal marshes and swamps near Bradwood. The biological and physical characteristics of the aquatic area are similar to those in adjacent subareas (see River Channels and Clifton Area Subarea Plans)."

Regarding suitable uses of land and aquatic areas, the Subarea Plan says:

"The Bradwood site offers limited potential for small to medium sized water-dependent industrial development. There is deep water close to shore, some available vacant land and railroad access. There are constraints to development however, including poor highway access and proximity of the wildlife refuge.

"Future development which would require extensive filling (impacting aquatic areas in excess of 20 acres) along the Columbia River shoreline for the purpose of creating additional industrial land is not appropriate. In order to fully utilize the marine industrial shorelands, it would be appropriate to fill the old Bradwood mill pond. This pond covers an area of less than 10 acres. This fill activity would be subject to the state and federal permit process and the development of proper mitigation areas. An upland area along the entrance road into Bradwood has been identified as a potential mitigation site. The site is different from a nearby mitigation site designated in the Mitigation and Restoration Plan for the Columbia River Estuary."

The dredging will support a permitted use, a marine industrial LNG terminal. Similar to the filling of the millpond, creation of the turning basin will facilitate full utilization of the Bradwood site. The consistency of the project with the information provided in the County Comprehensive Plan narrative is discussed elsewhere in these Findings. The County Comprehensive Plan narrative is not an approval criterion. However, we find that the policies are met. Fill will not exceed 20 acres. The exact location of the access channel has been identified in the application and we note that the required state and federal permits must be obtained before the mill pond is filled.

For the reasons described in our discussions in § 10.4 of those findings regarding the Bradwood Subarea Plan, we find that the dredging is consistent with the Bradwood Subarea Plan.

4.4 Development Standards

Standards from the AD Zone

LWDUO 3.754 sets forth eight development standards for activities in the AD Zone, quoted in italic below. Our finding with regard to each follows in roman type.

"(1) All uses and activities shall satisfy regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shorelands element."

As explained above, the proposed rezoning complies with the applicable policies in the county's Goal 16/17 element of the Comprehensive Plan. **We therefore find that the proposed use meets L3.754(1).**

"(2) All uses and activities shall satisfy applicable Columbia River Estuary Shore land and Aquatic Use and Activity Standards contained in the Development and Use Standards Document."

We consider these standards in the subsection following this.

"(3) All other applicable ordinance requirements shall be satisfied."

We determined above that the applicant has complied with all applicable ordinance requirements. **We therefore find that the application satisfies L3.754(3).**

"(4) A proposal which requires new dredging, fill, in-water structures, riprap, new log storage areas, water intake or withdrawal and effluent discharge, in-water disposal of dredged material, beach nourishment, application of pesticides and herbicides, or other activities which could affect the estuary's physical processes or biological resources is subject to an Impact Assessment, Sections 5.810-5.840."

The applicant submitted an *Enhanced Impact Assessment and Resource Capability Determination* (February 2007) in two large volumes containing several hundred pages and nine appendices. **We find that the application satisfies L3.754(4) and note that findings of consistency with the applicable sections of 5.810-5.840 are provided in Section 11.3 of this document.**

"(5) When a development proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure."

This is not a standard to be met by the applicant. Rather, it is an instruction to the County on how to review a land use application. In this case, the County is considering a consolidated application for multiple uses, and it is doing so under a Type IV review, the most stringent of the

five procedures specified in LWDUO Article 2, "Procedures for Land Use Applications." **We therefore find that the application complies with L3.754(5).**

> *"(6) Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S4.243(2)."*

The subsections referred to are not standards. They are criteria for distinguishing water-dependent uses from water-related uses. **We therefore find that L3.754(6) does not apply to the proposed dredging.**

> *"(7) Uses that are water-dependent shall not preclude or conflict with existing or probable future water dependent uses on the site or in the vicinity."*

We find no evidence that the proposed dredging would preclude or conflict with existing or probable water-dependent uses "on the site" (Bradwood, in this case). On the contrary, the dredging would facilitate water-dependent development there. We also find no evidence that the proposed dredging, in and of itself, would preclude or conflict with water-dependent uses "in the vicinity." We did find some evidence that the combination of dredging, construction, placement of in-water structures, and the berthing of large LNG-carrying ships might on occasion conflict with fish, fishing, and fish habitat if unmitigated or uncoordinated. Fishing is a water-dependent use. Avoidance and mitigation measures will be a condition of Project approval. We thus conclude that the proposed dredging and construction will not preclude or conflict with water-dependent uses on site or in the vicinity. **We therefore find that the proposed use does satisfy L3.754(7).**

> *"(8) Piling, dredging, filling or other estuarine alteration permitted under Section 3.744 of this zone, Permitted Developments, are subject to the public notice provisions of Sections 2.115, if an impact assessment is required pursuant to Sections 5.810 through 5.840; or if a determination of consistency with the purpose of the AD zone is require pursuant to Section 5.880; or if the Community Development Director determines that the permit decision will require interpretation or the exercise of factual, policy, or legal judgment."*

This is not a standard that can be met by applicant. Rather, it is a directive to the County to expand its notice procedures under certain circumstances. The County is considering the consolidated application from Bradwood Landing under its Type IV review procedures and also following notice requirements for quasi-judicial decision making. **We therefore find that the proposal satisfies L3.754(8).**

From the above, we conclude that the standards of the LWDUO have been met.

Standards from the Estuarine and Coastal Shorelands Element

Standards for various activities in estuarine waters are set forth in the Standards Document at S4.200, "Columbia River Estuary Shoreland and Aquatic Use and Activity Standards." Standards specifically applicable to dredging are found in S4.232, "Dredging and Dredged Material Disposal," standards 1-12. Applicant responds to those standards with

findings in the *Terminal Narrative*, pages 80 through 85. With exceptions noted below, we agree with those findings and adopt them as our own.

Standard S4.232(3) says, "Undesirable erosion, sedimentation, increased flood hazard, and other changes in circulation shall be avoided at the dredging and disposal site and in adjacent areas."

The applicant submitted a hydrodynamic and sediment transport analysis (Appendix 8 to the *Enhanced Impact Assessment*) to evaluate whether the dredging will change the channel morphology of Clifton Channel or change the flow or hydraulics of Clifton Channel. Historic survey data in the area from the Army Corps shows variable aggradation (modification of the earth's surface in the direction of uniformity and grade by deposition) and degradation (raising or lowering of the channel bed) from year to year as the navigation channel was dredged.

The applicant's hydrodynamic model addresses the entire turning basin (both the AD and AC-2 zoned areas) and finds generally that the Project will change flow distribution between the Columbia River, Clifton Channel and Cathlamet Channel, with an overall reduction in flow through the Columbia River upstream and Clifton Channel and an increase in flow in the Cathlamet Channel and Columbia River downstream, with the largest changes taking place in the Clifton Channel during all tidal cycles. The model also indicates that velocities will decrease at the Project shoreline due to the greater depths, but that velocities will increase within the vicinity of the existing pile dike near the upstream entrance to the Clifton Channel and near the southern tip of Tenasillahe Island. Supplemental information on hydrodynamics was submitted by applicant responding to questions raised concerning hydrodynamics.

The applicant concludes that changes in the hydraulic conditions will be minor. However, should the dredging Project be approved, the downstream shoreline should be monitored for increased erosion. **We therefore impose a condition of approval requiring that a simple shoreline monitoring plan be prepared and submitted to the County that includes a mechanism to annually report the conditions of the Clifton Channel shoreline with respect to new hydraulic conditions created by the dredging Project. The monitoring plan should also include measures to reduce erosion of downstream banks should it occur at an increased rate as a result of this Project. With that condition, the application satisfies L4.232(3).**

Finally, we note that L5.800 requires that an impact assessment be prepared for certain uses, including dredging. L5.800 also sets forth a number of standards for the uses addressed in the impact assessment. The applicant has prepared an impact assessment. We consider it and the related standards from L5.800 in Section 26.0 of these Findings.

4.5 Development Is A Potentially Appropriate Use Of These Goal 16 Areas and An Exception Is Not Necessary or Appropriate.

- Goal 16: "To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and [t]o protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries." This

project develops and restores a unique industrial site and through design and mitigation protects and improves the environment.

- Deep water areas shall be designated for development. OAR 660-015-0010.

- Because this is a deepwater area and mitigation at levels above and beyond that legally required will be performed, the dredging will not adversely affect the integrity of the estuary.

    - The turning basin is needed to support the Marine Industrial site.

    - Less than a third of the AN area contains wetlands and the rezone allows avoidance of a significantly larger amount of wetlands that happen to be within the MI site.

- The draft Environmental Impact Statement issued for the Project concludes and we agree that the Project will not have a significant adverse impact on the environment as mitigated.

> "While construction and operation of the Bradwood Landing Project could contribute cumulatively to impacts on water quality in the Columbia River, we believe these impacts would not be significant. Additionally, NorthernStar has committed to providing an overall significant net benefit to the environment of the lower Columbia River ecosystem by implementation of their Mitigation Plan and SEI (see sections 4.5 and 4.6). Therefore, even when considered in light of post or present activities in the lower Columbia River, water quality would not be adversely affected by the proposed project activities." dEIS at pg. 4-451.

(We also note that Bradwood Landing submitted into the County record a copy of the mitigation plan filed with FERC.)

Given the unique attributes of the Bradwood site, failing to make changes necessary to accommodate current ships would reduce the viability of the site for water dependent industrial use, reduce the diversity of economic features in the estuary and limit opportunities for estuary environmental enhancement.

The Supplemental Staff Report concluded that under Goal 16 the applicant must show exceptional potential for deep water development potential.

Statewide land use Goal 9 and the corresponding section of the Clatsop County Comprehensive Plan recognizes the value of diversity in the County's economy. In addition to considering sectors such as tourism, forestry and maritime, it considers industry and inventories the County's industrial sites. The exceptional potential of the site is already formally recognized in the County's planning documents.

In its inventory of industrial sites the County specifically identifies Bradwood as a deep draft access industrial site suitable for development.

The County has already discussed the unique suitability of the site for deep water development in the Comprehensive Plan in its discussion of the zoning of the site to MI as well as in the discussion of Bradwood in the Plan's Industrial Lands Inventory. The Comprehensive Plan also notes that the site was identified as suitable for port development in the Lower Columbia River Port Region Development Study by the Oregon Department of Transportation (1975). The site has exceptional potential for deep water development.

4.6 Board Action: APPROVE WITH CONDITIONS

For reasons described above, we take the following actions:

1. **Approve** applicant's request to allow dredging outright in waters already zoned AD, for the purpose of navigational access and turning of deep-draft vessels to serve a water-dependent use, in accordance with L3.744(10).

2. **Approve** applicant's request to rezone the turning basin (46.4 acres shown as Area 5 in Attachment 4) from AC2 to AD and amend the Comprehensive Plan as discussed in these Findings, including the attachments and authorize dredging therein.

Conditions of Approval: Approval is made subject to the following two conditions:

1. The applicant must prepare and submit to the County a simple shoreline monitoring plan that will be considered through a Type IIa procedure. This plan will include a mechanism to annually report conditions of the Clifton Channel shoreline with respect to new hydraulic conditions created by the dredging Project. The monitoring plan also should include measures to reduce erosion of downstream banks should such erosion increase as a result of this Project. The shoreline monitoring plan must be submitted to the County for its review and approval before dredging begins.

2. The applicant must ensure that the southeastern entrance to Clifton Channel remains open to commercial and sport-fishing vessels at all times during construction and operation of the LNG terminal, except during the periods when an LNG carrier is actively maneuvering to enter or leave the Bradwood moorage.

5. Dredged Materials Disposal

5.1 Proposed Development

Bradwood Landing plans to dispose of its dredged materials in the following way:

> "Approximately 350,000 to 400,000 of the 700,000 cubic yards of dredged material will be placed on the terminal site, which is already a designated dredged material disposal area. This will result in a final terminal elevation of 20 feet North American Vertical Datum ("NAVD") 88 and provide for a 5-foot perimeter berm with its top at 25 feet NAVD 88. These elevations are well above the 100-year flood elevation of 13 feet NAVD.
>
> "Bradwood Landing proposes to place the remaining approximately 300,000 to 350,000 cubic yards of dredged material at a disposal site on the northwestern end of Puget Island in Wahkiakum County, Washington. This site, known as the 'Sand Pit,' is a designated dredged material disposal site that would benefit from additional material to help offset a long-standing erosion problem. Bradwood Landing, however, will rely on Wahkiakum County to obtain the necessary permits and other approvals to dispose of dredged material at the Sand Pit. If Wahkiakum County does not obtain the necessary approvals, Bradwood Landing will place all 700,000 cubic yards of dredged material on the terminal site. This would raise the elevations stated above by approximately five feet."[40]

As noted in the previous section, Bradwood Landing expects to dispose of an additional 39,000 cubic yards of material from maintenance dredging every four years on average at the Sand Pit or another DMD site near Bradwood.

The Bradwood Subarea Plan (page 122) says, "It [the Bradwood industrial site] is designated as a dredged material disposal site."

Bradwood also is a designated DMD site in CREST's Columbia River Estuary Dredged Material Management Plan ("CREDMMP"). The CREST plan says:

> "Runoff from the disposal site shall not be allowed to flow through potentially sensitive wetlands to the south and west of the site.
>
> "The site is zoned for water-dependent industrial development. The dredging Project proponent must demonstrate that the dredged material disposal will not preclude present or future water-dependent use at the site.
>
> "The western boundary of the site shall be leveed to prevent dredged materials from entering the intertidal area west of the site.

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[40] *Terminal Narrative*, page 14.

"Prior to undertaking disposal, the dredging Project proponent shall demonstrate that the placement of dredged material at the site will not preclude present or future water-dependent use."

5.2 Actions Requested

The applicant asks the County to issue a review use permit for "DMD during construction" in accordance with L4.168 (DMD Overlay Zone). We are unsure why applicant seeks a review use permit: for reasons described below, we consider the proposed use to be one that is permitted outright.[41]

In addition, "Bradwood Landing requests a Comprehensive Plan amendment deleting the Bradwood site from the list of available dredged material overlay sites and from the DMD overlay zone, effective upon completion of the disposal of dredged material on the site."[42]

Most of the land where the applicant plans to deposit the dredged materials is zoned MI, but the mill pond currently is zoned AD. In Section 10.0, we approve applicant's request to rezone the mill pond from AD to MI. We review this request for dredged materials disposal with the understanding that the mill pond will be zoned MI. When we speak of "the DMD site" here, we therefore mean the area now zoned MI plus the 2.51-acre mill pond.

5.3 Analysis and Findings

The Comprehensive Plan designates Bradwood for "shoreland development." The Comprehensive Plan's "use and activity table" in Policy P10 specifies that dredged material disposal at designated sites zoned MI is permitted outright.

L3.624(9) allows "dredged material disposal including beach nourishment at sites designated in the Comprehensive Plan." Bradwood is designated in the County's Comprehensive Plan and also in the CREDMMP as a DMD site (number O-38.9), with a capacity of 420,000 cubic yards of material.[43] Evidence in the record establishes that at least 300,000 cubic yards have already been deposited on the site. The applicant proposes to place at least 350,000 cubic yards of dredged materials on the site, thus filling it to its capacity.

Dredge Material Disposal and Capacity

Oregon LNG contends that Bradwood Landing's disposal plans exceed a site capacity limit. LWDUO § 4.166 states that

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[41] In any event, given the higher level of review associated with this application, it is a distinction without a difference.

[42] *Terminal Narrative*, page 30.

[43] CREST plan at page 34.

> "The purpose of site designations is to protect important dredged material sites from incompatible and preemptive uses that may limit their ultimate use for the deposition of dredged material and to ensure that an adequate number of sites will be reserved in order to accommodate dredge material disposal needs resulting from five years of existing and expected water dependent development and navigation projects."

In the context of the county plan, capacity is the amount of dredge material to be deposited on a site before it will be considered to have filled its proportional role in the regional strategy to ensure adequate disposal sites are available. Capacity in the CREST plan is not an "absolute" limiting number. In its 2005 ordinance revising the Dredge Material Disposal Regulations (Ord. 05-05), Clatsop County attached the 2002 CREST plan. This plan clearly states the capacity numbers are informational and not regulatory. Ordinance 05-05 states that the CREST plan "is an essential source of information for Clatsop County's DMD planning and policies. The County will consider the CREDMMP in adopting and amending its DMD plan and will periodically revise that plan to keep it consistent with the CREST plan." Ordinance 05-05 quotes the CREST plan statement that the purpose of this revised DMMP is to refine the dredging and disposal policies and to inventory an adequate number of disposal sites with sufficient capacity to accommodate projected disposal needs. The County also included in its ordinance a copy of a submittal from the Port of Portland in which it is observed that a site can remain viable for additional dredge material disposal after reaching "capacity" with beneficial use of the dredge spoils.

The volume of dredge material identified for Bradwood in the CREST plan is 420,000 cubic yards. This volume will be exceeded on the site. The remainder of the material will either be disposed of on site or, as some federal agencies have indicated they would prefer, disposed of in water. Maintenance dredging disposal sites have been identified. Once the Bradwood site has received 420,000 cubic yards of dredge material, it has filled its "capacity" obligation. Here, 314,000 cubic yards were deposited on the site in 2002 and deposit of 106,000 cubic yards fills the capacity share assigned to the site. Bradwood will place at least an additional 350,000 cubic yards on site and up to 700,000 cubic yards. This will result in the beneficial use of the material to elevate the site and therefore, the terminal. This action is fully consistent with the plan and code.

We therefore find that the proposed dredged material disposal is a use permitted outright in the MI Zone by L3.624(9).

The provisions of the DMD Overlay Zone are set forth in L4.160. The purpose of the overlay zone is twofold:

> "To designate dredged material disposal sites in the County with respect to present and expected water-dependent development and navigational access

requirements in the Columbia River Estuary and to protect these sites for dredged material disposal operations[44] . . . and

"To protect important dredged material disposal sites from incompatible and preemptive uses that may limit their ultimate use for the deposition of dredged material[45] . . ."

L4.168 says, "Dredged material disposal including beach nourishment at sites designated in the Comprehensive Plan's background report Columbia River Estuary Dredged Material Management Plan is permitted with standards under a Type I procedure if the site is located upland or in the coastal shoreland boundary." Bradwood is an upland site.

We therefore find that the proposed dredged materials disposal is a use permitted outright by the DMD overlay zone, L4.168.

Removing the DMD Overlay

Next, we consider applicant's request for the County to amend its Comprehensive Plan text and zone maps to remove the DMD site designation and the DMD Overlay Zone after Bradwood completes its disposal of dredged materials at the site. The applicant says, "Given that at least 350,000 cubic yards will be deposited on the site as part of this Project, the County should conclude that the site will have filled its required contribution to disposal site capacity, that development of the site is appropriate and that the designation of the site for disposal should end upon completion of the disposal associated with this Project."[46]

The overlay zone is needed during the early stages of the terminal's construction if the applicant is to dispose of dredged materials there. But after the site has been filled to its capacity, the applicant plans to immediately begin construction of the LNG tanks and related facilities on the DMD site. The applicant is concerned that the overlay might prohibit such construction. That is because L4.166 specifies, "The purpose of [DMD] site designations is to protect important dredged material disposal sites from incompatible and preemptive uses that may limit their ultimate use for the deposition of dredged material . . ."

L4.172 defines "preemptive uses" thus:

"Incompatible and preemptive uses of dredged material disposal sites includes the following:

"(1) Uses requiring substantial structural or capital improvements (e.g. construction of permanent buildings);

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[44] L4.162.

[45] L4.166.

[46] *Terminal Narrative*, page 214.

"(2) Uses that require extensive alteration of the topography of the site, thereby reducing the potential usable volume of the dredged material disposal area (e.g. extensive site grading, elevation by placement of fill materials other than dredged materials).

"(3) Uses that include changes made to the site that would present expeditious use of the site for dredged material disposal. Such uses would delay deposition of dredged materials on the site beyond the period of time commonly required to obtain the necessary federal, state and local dredging and material disposal permits (approximately 90 days)."

The applicant is concerned that the LNG facilities would be regarded as a "preemptive use" and that L4.166 and 4.172 thus would prohibit construction of the LNG facility. We believe that concern to be unwarranted, for two reasons.

First, a use is "preemptive" only if it would limit use of the site for the deposition of dredged material. But if the site has been filled to capacity, no further dredged material is necessarily deposited there. Hence, it cannot be argued that the LNG facility would limit DMD as envisioned in the code and plan.

Second, the Comprehensive Plan clearly anticipates construction such as that proposed by the applicant at DMD sites after they reach their capacity. Policy P20.5, page 25, says, "The use of shoreland water dependent development sites for dredged material disposal shall occur only when the project sponsor can demonstrate that the dredged material placed on the site will be compatible with the current or future water dependent development." Bradwood is a "shoreland water dependent development site." In this case, the "project sponsor" (Bradwood Landing) has demonstrated that disposal of dredged material on the site not only is compatible with the "future water dependent development (the LNG facility), it will be an integral part of it. The dredged material will serve as foundation soils to support the LNG tanks and other structures, and it also will be used to construct a berm around the facility.[47]

The applicant is correct in assuming that Bradwood's Comprehensive Plan designation as a DMD site and the DMD overlay zone should be removed after the site is filled to capacity. The County will do that at the appropriate time. But in the period between the site reaching its capacity and the County's removal of the DMD Comprehensive Plan designation and overlay zone, construction of the LNG terminal may proceed. Such construction is not dependent on removal of the DMD Comprehensive Plan designation and overlay zone.

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[47] For example, the *Terminal Narrative*, page 19, says, "The site's existing dredged material piles will be distributed across the terminal area to serve as its base." The same page says, "concrete will be mixed with the dredged material to strengthen the berm and minimize its footprint."

5.4 Development Standards for MI Zone

L3.634 sets forth 16 standards applicable to uses in the MI Zone. We examine each standard below with respect to the dredged material disposal that applicant proposes at Bradwood.

> **L3.634(1)**: "All Uses and Activities shall satisfy applicable regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shore lands Element."

As we have explained above, the proposed use, dredged material disposal, is permitted by the Goal 16/17 element of County's acknowledged Comprehensive Plan. Bradwood is designated in the Comprehensive Plan as a DMD site, and it is inventoried as a DMD site in the CREDMMP. **We therefore find that the proposed use meets this standard.**

> **L3.634(2)**: "All uses and activities shall satisfy applicable Columbia River Estuary Shoreland and Aquatic Use and Activity standards contained in the Development and Use Standards Document."

The "applicable standards" in this case are set forth in S4.232, "Dredging and Dredged Material Disposal." We consider those standards in subsection 5.5 below.

> **L3.634(3)**: "All other applicable ordinance requirements shall be satisfied."

The applicable ordinance requirements in this case are those of the MI Zone and the DMD Overlay Zone. We discuss those requirements above and conclude that applicant has met them. **We therefore find that the application satisfies L3.634(3).**

> **L3.634(4)**: "When a proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure."

Applicant's request for County permits needed to conduct DMD at Bradwood has been submitted as part of a consolidated application for the entire LNG terminal and pipeline project. The consolidated application is being reviewed under a Type IV procedure, the most stringent of the County's five levels of review. **We therefore find that the application satisfies L3.634(4).**

> **L3.634(5)**: "Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S2.243(2)."

Neither of these sections contains standards. Rather, they contain definitions of "water-dependent" and "water-related." **We therefore find them not to apply here. In any case, DMD is a water-dependent use.**

> **L3.634(6)**: "Uses and activities that are not water-dependent shall not preclude or conflict with existing or probable future water-dependent use on the site or in the vicinity. If non-water-dependent development is proposed in the MI zone under Section 3.626, Review Developments or under Section 3.628, Conditional

Developments, the County shall provide mailed notice to state and federal agencies with statutory planning and permit issuance authority in aquatic areas, including the Oregon Division of State Lands, Oregon Department of Fish and Wildlife, US Fish and Wildlife Service, National Marine Fisheries Service, Army Corps of Engineers, and the Environmental Protection Agency."

DMD is a water-dependent use. The water will be used to convey the dredge material to the site. Standard 6 above deals with "uses and activities that are not water-dependent." **We therefore find that the standard does not apply to the dredged material disposal.**

L3.634(7): "Plan review and approval:

"A building permit or other permit for construction or alteration of any structure or use in the MI zone will not be issued until plans have been reviewed and approved for conformity with the performance standards of this zone and the policies of the Comprehensive Plan, and for compatibility of the proposed structures or uses with surrounding uses considering factors such as transportation, access, signs, lighting, building placement and design, noise, air quality, vibration, storage, landscaping, adjoining uses and location of public utilities including water and sewer facilities. Any activity or structures reviewed and approved by the Community Development Director will be considered a permitted development with review satisfying Section 3.626. The approved activity or structure must be completed within the time frame specified in the approval, and not to exceed five years. If the permitted use status is lost due to inactivity or lack of construction within the time specified, a new plan must be submitted for review and approval."

In this case, the DMD is to occur in conjunction with development of the LNG storage tanks and related facilities. Construction plans and permits for the LNG facilities will address, among other things, foundation soils, which include the dredged materials. We address "compatibility of the proposed structures or uses [the LNG terminal, including the dredged materials] with surrounding uses" in Section 26.0 of these Findings. **We therefore need not consider L3.634(7) here.**

L3.634(8): "All uses must meet applicable state and federal air quality and noise laws or regulations."

The applicant states that the Project "will meet applicable state and federal air quality and noise regulations and permit requirements, as discussed in sections 6.2.1 and 6.2.3 of the CZMA Certification and in Resource Report 9." Indeed, we assume that applicant would comply with such laws even in the absence of the County's standard in (8) above and without applicant's declaration to that effect. **We therefore find that the application meets the standard set by L3.634(8) for dredged material disposal.**

The remaining standards in L3.634, standards (9) through (16) deal with structures, not with dredged material disposal. They address matters such as building heights, setbacks, density, and floor area of buildings. **We therefore find that the standards set forth in L3.634(9)**

through (16) do not apply to the proposed dredged material disposal, that the applicable standards under L3.634(1) to (8) are met and that the application complies with L3.634.

5.5 Standards for Dredged Material Disposal

The County's Standards Document contains an extensive list of standards applicable to shoreland uses in "S4.200, Columbia River Estuary Shoreland and Aquatic Use and Activity Standards." The standards in S4.200 generally are grouped by land use or activity: one set of standards applies to airports in the estuary, another to diking, and so on. The set of standards directly applicable to DMD is S4.232, "Dredging and Dredged Material Disposal." As that title implies, some of the standards there are applicable to dredging, others to DMD. We first list all the standards below. We next identify those applicable only to dredging. Finally, we address each standard that does apply to DMD. (The standards applicable to dredging are discussed in Section 4.0 of these Findings.)

"**S4.232, Dredging and Dredged Material Disposal**

"Standards in this subsection are applicable to all Columbia River Estuary estuarine dredging operations and to both estuarine shoreland and aquatic dredged material disposal.

"(1) Dredging in estuarine aquatic areas, subject to dredging and dredged material disposal policies and standards, shall be allowed only . . ." (Rest of standard omitted).

This standard applies only to dredging, not to DMD. This standard therefore does not apply here.

"(2) When dredging is permitted, the dredging shall be the minimum necessary to accomplish the proposed use."

This standard applies only to dredging, not to DMD. This standard therefore does not apply here.

"(3) Undesirable erosion, sedimentation, increased flood hazard, and other changes in circulation shall be avoided at the dredging and disposal site and in adjacent areas."

This standard does apply to the DMD. We believe that the standard can be addressed through a condition of approval. With such a condition, the application complies with S4.232(2). The applicant concludes that changes in the hydraulic conditions will be minor. However, should the dredging Project be approved, the downstream shoreline should be monitored for increased erosion. **A condition of approval requiring that a simple shoreline monitoring plan be prepared and submitted to the County that includes a mechanism to report the conditions of the Clifton Channel shoreline with respect to new hydraulic conditions created by the dredging project on an annual basis is imposed.** The monitoring plan should also include measures to reduce erosion of downstream banks should it occur at an increased rate as a result of this Project. **With that condition, the application would satisfy L4.232(3).** We

already have imposed this condition of approval in Section 4.0 above and therefore do not repeat it here.

> "(4) The timing of dredging and dredged material disposal operations shall be coordinated with state and federal resource agencies, local governments, and private interests to protect estuarine aquatic and shoreland resources, minimize interference with commercial and recreational fishing, including snag removal from development drifts, and insure proper flushing of sediment and other materials introduced into the water by the project."

This standard does apply to the DMD. The applicant says:

> "Bradwood Landing anticipates using a cutter suction dredge 24 hours per day in order to complete the dredging within ODFW's recommended November through February in-water work period for the Columbia River and to otherwise minimize the time during which any adverse dredging effects would occur. Assuming this work schedule, up to 30,000 cubic yards per day could be dredged, and the dredging could be completed within a month, depending on weather conditions."[48]

The applicant also states:

> "Bradwood Landing will conduct dredging and in-water work during ODFW's preferred in-water work period of November through February. Bradwood Landing has purchased the commercial fish drift rights immediately in front of the Bradwood site. Bradwood Landing will also coordinate this work with federal, state, and local agencies and private fishing interests to avoid or minimize any conflicts with commercial fish drifts."[49]

We conclude that the scheduling and coordination described by the applicant meets the standard. **We therefore find that the application satisfies L4.232(4).**

> "(5) Bottom sediments in the dredging area shall be characterized by the applicant in accordance with U.S. Environmental Protection Agency, and Oregon Department of Environmental Quality standards. . . ." (Rest of standard omitted).

This standard applies only to dredging, not to DMD. This standard therefore does not apply here.

> "(6) Adverse short term effects of dredging and aquatic area disposal such as increased turbidity, release of organic and inorganic materials or toxic substances, depletion of dissolved oxygen, disruption of the food chain, loss of benthic

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[48] *Terminal Narrative*, pages 17-18.

[49] *Terminal Narrative*, page 69.

productivity, and disturbance offish runs and important localized biological communities shall be minimized."

This standard applies only to dredging and related aquatic area disposal, not to the DMD proposed in this case. This standard therefore does not apply here.

"(7) Impacts on areas adjacent to the dredging site such as destabilization of fine textured sediments, erosion, siltation and other undesirable changes in circulation patterns shall be minimized."

This standard applies only to dredging, not to DMD. The standard therefore does not apply here.

"(8) The effects of both initial and subsequent maintenance dredging, as well as dredging equipment marshaling and staging, shall be considered prior to approval of new projects or expansion of existing projects. . . ." (Rest of standard omitted).

The effects of dredging have been considered.

"(9) Dredging for maintenance of existing tidegate drainage channels and drainage ways . . ." (Rest of standard omitted).

The dredging proposed by Bradwood Landing is not for the purpose of maintaining "tidegate drainage channels or drainage ways." This standard therefore does not apply.

"(10) Dredging of subtidal estuarine areas as a source of fill material for dike maintenance, in all aquatic area designation, may be allowed upon the applicant's demonstration that. . . ." (Rest of standard omitted).

The proposed DMD is not dredging and does not involve use of fill for dike maintenance. This standard therefore does not apply.

"(11) Dredging for mining and mineral extraction, including sand extraction, shall only be allowed in areas deeper than 10 feet below MLLW . . . ." (Rest of standard omitted).

The proposed DMD is not "dredging for mining and mineral extraction." This standard therefore does not apply.

"(12) When proposing dredging for sand extraction, the project sponsor shall first consider obtaining the material from a shoaled area within a federally authorized navigation channel that is currently shallower than its authorized depth. . . ." (Rest of standard omitted).

The proposed DMD is not "dredging for sand extraction." This standard therefore does not apply.

"(13) Dredged material disposal shall occur only at designated sites or at new sites which meet the requirements of the Dredged Material Disposal Site Selection Policies."

The proposed DMD will occur at a site designated for dredged material disposal in the Comprehensive Plan, in the CREDMMP, and by the DMD overlay zone. **We therefore find that the proposed DMD meets the standard set by S4.232(13).**

"(14) Proposals for in-water disposal of dredged materials, including flowlane disposal, beach nourishment, estuarine open-water disposal, ocean disposal, and agitation dredging, shall . . ." (Rest of standard omitted).

Neither the dredging proposed by Bradwood Landing nor the DMD involves "in-water disposal of dredged materials" within the County. This standard therefore does not apply.

"(15) Proposals for in-water estuary disposal shall be coordinated . . ." (Rest of standard omitted).

Neither the dredging proposed by Bradwood Landing nor the DMD involves "in-water estuary disposal of dredged materials" within the County. This standard therefore does not apply.

"(16) Flowlane disposal, estuarine open water disposal and agitation dredging shall be monitored . . ." (Rest of standard omitted).

Neither the dredging proposed by Bradwood Landing nor the DMD involves "flow-lane disposal, estuarine open water disposal and agitation dredging" within the County. This standard therefore does not apply.

"(17) Flowlane disposal shall be in Aquatic Development areas . . ." (Rest of standard omitted).

Neither the dredging proposed by Bradwood Landing nor the DMD involves "flow-lane disposal, estuarine open water disposal and agitation dredging" within the County. This standard therefore does not apply.

"(18) Ocean disposal shall be conducted such that . . ." (Rest of standard omitted).

Neither the dredging proposed by Bradwood Landing nor the DMD involves "ocean disposal." This standard therefore does not apply.

"(19) Beach nourishment shall only be conducted at sites . . ." (Rest of policy omitted).

Neither the dredging proposed by Bradwood Landing nor the DMD involves "beach nourishment." This standard therefore does not apply.

"(20) Except as noted below, land disposal and site preparation shall be conducted such that:

> "(A) Surface runoff; from disposal sites is controlled to protect water quality and prevent sedimentation of adjacent water bodies, wetlands, and drainage ways. Disposal runoff water must enter the receiving waterway through a controlled outfall at a location with adequate circulation and flushing characteristics. Underground springs and aquifers must be identified and protected;
>
> "(B) Dikes are constructed according to accepted engineering standards and are adequate to support and contain the maximum potential height and volume of dredged materials at the site, and form a sufficiently large containment area to encourage proper ponding and to prevent the return of dredged materials into the waterway or estuary. Containment ponds and outfall weirs shall be designed to maintain adequate standing water at all times to further encourage settling of dredged materials. The dikes shall be constructed within the boundaries of the disposal site and shall be constructed of material obtained from within the site or other approved source. Clean dredged material placed on land disposal sites located directly adjacent to designated beach nourishment sites may be allowed to flow directly into the waterway without conforming to (A) and (B) of this Section, provided that all policies and standards for in-water disposal and beach nourishment are met and the dredged materials are not allowed to enter wetlands or the waterway in areas other than the designated beach nourishment site."

Regarding standard 20, the applicant says:

"Land disposal is the only method proposed for dredged material disposal in Oregon. The proposal meets the requirements of section S4.232(20)(A) and (B). Surface runoff from the [Bradwood disposal site] will be controlled with temporary dikes and weirs to protect water quality and prevent sedimentation of adjacent water bodies, wetlands, and drainage ways. Disposal runoff water will enter the Columbia River through a controlled outfall at a location with adequate circulation and flushing characteristics. No underground springs and aquifers have been identified on the disposal site. Dikes will be constructed according to accepted engineering standards. Containment ponds and outfall weirs will be designed to maintain adequate standing water at all times to facilitate settling of suspended sediments. The dikes will be constructed with dredged material already on the site as a result of channel maintenance dredging by the Corps. The disposal site will be monitored during dredging operations."[50]

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[50] *Terminal Narrative*, page 88.

We conclude that, with conditions, the requested actions described above are sufficient to meet the standard. We therefore find that the application satisfies L4.232(20)(A) and (B).

> "(21) Land disposal sites which are not intended for dredged material disposal or development use within a two year period following disposal shall be revegetated as soon as site and weather conditions allow . . ." (Rest of policy omitted).

The Bradwood DMD **is** intended for dredged material disposal and development within two years. This standard therefore does not apply if Bradwood's development proceeds on schedule. We require, as a condition of approval, that the applicant revegetate the DMD site if construction of the LNG marine terminal has not begun two years after disposal of the dredged material.

> "(22) The final height and slope after each use of a land dredged material disposal site shall be such that:
>
> > "(A) The site does not enlarge itself by sloughing and erosion into adjacent areas;
> >
> > "(B) Loss of materials from the site during storms and freshets is minimized; and
> >
> > "(C) Interference with the view from nearby residences, scenic points, and parks does not occur."

With regard to standard 22, the applicant says:

> "The terminal site may receive up to an estimated 700,000 cubic yards of dredged sediment. This material will be used for terminal construction once it is sufficiently de-watered. The dredged materials placed on the site will be managed to meet the requirements of section S4.232(22) by stabilizing the exposed slopes of the containment dike."[51]

The applicant proposes **either** to deposit 350,000-400,000 cubic yards **or** 700,000 cubic yards of dredged material at the Bradwood site, depending on whether permits can be obtained for DMD at another site. This presents two complications for our review.

First, the CREDMMP states that the capacity of the Bradwood site is 420,000 cubic yards. As discussed previously, applicant plans to deposit sufficient cubic yards of dredge material as to exceed that "capacity." We find nothing in the Comprehensive Plan or the CREDMMP specifying that DMD sites are not to be filled beyond their listed capacity and CREST has advised that the capacity numbers are informational and not regulatory. Further, sites can be filled beyond capacity with beneficial use of the dredge material. Still, one could

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[51] *Terminal Narrative*, page 89.

also conclude that exceeding "capacity" might have adverse effects on neighboring land uses, natural resources, or aquatic areas.

Second, it is difficult to determine that the application meets all standards applicable to DMD if the amount of dredged material to be deposited remains unknown, although meeting the standards is feasible. (*See, e.g.,* Bradwood Landing's Dredge Material Placement and Management Plan.)

We therefore require, as a condition of approval, that the applicant specify the maximum amount of dredged material that will be placed on the Bradwood site. Applicant then must base the site plan for dredged material disposal on that amount and ensure that the design and execution of the disposal meets all applicable standards and satisfies all related conditions of approval. **With this condition, we find that the application satisfies L4.232(22).**

5.6 Board Action: APPROVE WITH CONDITIONS

For reasons stated above, we approve the proposed dredged material disposal at Bradwood as a use permitted outright under provisions of the MI Zone and the DMD Overlay Zone. We make approval subject to the following three conditions:

1. The applicant must provide a detailed DMD site plan to the County for review and approval through a Type IIa review procedure before depositing dredged materials on the site. The plan must specify the amount of material to be deposited at Bradwood. The plan must fully describe the location of individual cells, weirs, dikes, outfalls, berms, and surface water run-off or drainage facilities. The DMD plan must address and be consistent with all guidelines from the *Columbia River Estuary Dredged Material Management Plan* for "Upland Disposal," Section 2, paragraphs i through vii. (*See* http://www.columbiaestuary.org/dmmp/disposal_upland.html). The plan must contain adequate provisions to ensure that undesirable erosion, sedimentation, increased flood hazard, and other changes in circulation will be avoided at the disposal site and in adjacent areas.

2. Runoff from the disposal site shall not be allowed to flow through potentially sensitive wetlands to the south and west of the site. The western boundary of the site shall be leveed to prevent dredged materials from entering the intertidal area west of the site.

3. Upon completion of dredged material disposal, if development of the LNG marine terminal does not begin within two years, the DMD site must be revegetated in a manner consistent with the requirements of S 4.232(21).

6. Electrical Power Line

6.1 Proposed Development

As part of its development of the marine terminal, Bradwood Landing proposes to construct an electrical power line to serve the terminal:

> "A 1.6-mile, 115-kV power line will be constructed on a 100-foot-wide ROW to bring electric power to a new substation at the terminal. The power line will be constructed, owned, operated, and maintained by PacifiCorp, and both the line and the substation will serve only the Project. The power line will extend southeast from the terminal substation to connect with an existing transmission line. Ten standard two pole and three pole wooden structures will be used to support the line. The structures will range in height from 55 to 105 feet above the ground. Bradwood Landing anticipates that existing roads will be sufficient to provide access to the power line ROW for construction and maintenance. Some limited improvements to the roads, such as widening and surfacing with gravel, may be necessary to allow the passage of construction and maintenance vehicles."[52]

The northernmost thousand feet or so of the power line and two of its supporting towers will be in the MI Zone. The remainder of the power line passes south, over land zoned F-80, to connect with a BPA transmission line.[53]

6.2 Action Requested and Criteria for Approval

The applicant states:

> "The MI zone allows the proposed power line as a permitted use under section 3.624(13):
>
> "Section 3.624: Permitted Developments. The following uses and activities, and their accessory uses and activities, are permitted in the MI zone under a Type I procedure, Section 2.015, provided that commercial [sic] and subject to the provisions of Section 3.634, Development Standards:
>
> "....
>
> "(13) Utilities, maximum utilization of existing easements and rights-of-way shall be made.

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[52] *Terminal Narrative*, page 14.

[53] See Figure 2 in the *Terminal Narrative*.

"There are no existing utility easements between the existing transmission line and the proposed terminal."

Regarding the F-80 Zone, the applicant requests that the power line be considered a "local distribution line," a permitted use in the F-80 Zone. L3.553 says, "The following uses and activities and their accessory uses may be permitted under a Type I procedure subject to applicable development standards." Among the uses listed is "(4) Local distribution lines (*e.g.* electrical, telephone, natural gas) and accessory equipment (*e.g.* electric distribution transformers, meter cabinets, terminal boxes, pedestals), or other equipment which provides service hookups, including water service hookups."

The power line is proposed on lands subject to the Northeast Area Plan. We find only one policy in that plan potentially relevant to the proposed power line: Public Facilities and Services Policy 6 says, "New power transmission lines will be confined to existing easements to eliminate further scarring of the hills."

The proposed power line also is subject to the Bradwood Subarea Plan. We find no policies there relevant to this proposed use.

6.3 Analysis and Findings

We agree that the northernmost part of the power line is a "utility" of the type listed as a permitted use in the MI Zone by L3.624(13). We conclude that the qualifier about making "maximum use of existing easements and rights of way" has no relevance here: there are no easements or rights-of-way that the proposed power line might share.

In its initial review of this application, staff concluded that the power line proposed for Bradwood is a "new transmission line" of the type listed in L3.554(5), not a "local distribution line" per L3.553(4). The proposed line's support towers are of the same type and size as those used in large BPA transmission lines, and the voltage in the proposed line (115kV) is identical to that in the large, long-distance transmission lines used by the BPA to serve the County. *See* Resource Report 5, Appendix D, *Oregon PacifiCorp Transmission System Impact Study*. A new transmission line would be a conditional use, subject to review under Type II procedures.

Bradwood Landing disputed that conclusion.[54] The applicant maintained that the proposed power line should be considered a local distribution line per LWDUO 3.553(4) and thus allowed outright.

Staff therefore consulted with legal counsel and reconsidered not only the provisions of the F-80 Zone for power lines but also reviewed L2.052, which says certain activities require no development permit. Among the activities listed there is this:

"(11) The establishment, construction or termination of a public facility or **utility that directly serves a limited area of authorized development** including such

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[54] Email message from Michelle Rudd to Mitch Rohse, January 8, 2007.

facilities as a private or public street, sewer, water line, **electrical power** or gas distribution line, or telephone or television cable system. This activity requires a development permit in special propose districts and resource zones." (Emphasis added.)

The proposed power line may be considered a "utility" because it meets L1.030's definition of utilities: "Local sewer, water, gas, telephone and **power distribution lines** necessary for local utility service." (Emphasis added.) The power line is "local" in that it would directly serve a limited area of authorized development: the line will serve only Bradwood Landing and no other area or development. If the County approves this consolidated application, then the LNG marine terminal to be served by the power line would be "authorized."

It is the local nature of the proposed Bradwood power line and its provision of service to just one customer, not its structure or capacity, which distinguishes it from a "new transmission line." Given these considerations, as well as those set forth in the January 9, 2007 letter from Michelle Rudd to Mitch Rohse, we consider the line to be a distribution line.

L2.052(11) goes on to say, "This activity requires a development permit in special purpose districts and resource zones." Bradwood's power line would lie mostly in the F-80 (Forest) Zone, and that is a "resource zone." A development permit thus would be required. We agree that the appropriate permit for the power line would be the Type I development permit originally requested in accordance with L3.553(4), which allows "local distribution lines (e.g., electrical, telephone, natural gas) . . . ."

For the reasons stated above, we find thus:

1. The proposed power line is a utility that would directly serve a limited area of authorized development (if the application from Bradwood Landing is approved), as specified in L2.052(11);

2. The power line would be in a "resource zone" and therefore requires an appropriate permit;

3. The appropriate permit is one to be issued under Type I review per L3.553(4) ("local distribution lines" in an F-80 Zone);

4. Public Facilities and Services Policy 6 does not apply here: the proposed power line is a "local distribution line," and Policy 6 applies only to "new power transmission lines"; and

5. The proposed power line is a permitted use in the MI Zone, in accordance with L3.624(13).

6.4 Development Standards

For that part of the power line that would be located in the MI Zone, L3.634 lists 16 development standards. With regard to that, the applicant states:

> "The MI zone has no performance standards for power poles or lines. The proposed power line route has no impact on transportation facilities because it does not cross any transportation facilities. The poles are not lighted. No managed landscaping is proposed or required in the right-of-way beneath the power line. This corridor will be kept clear of large trees, but herbs and shrubs will grow in the corridor beneath the power lines. Water and sewer services are not needed for the power lines. The proposed power lines and poles do not generate noise or vibrations, nor do they result in air or water discharges."[55]

An examination of the 16 standards in the MI Zone reveals that none of them are applicable to power lines.

For that part of the power line in the F-80 Zone, L3.557 list eight "development and use standards." Items 1 and 2 deal with the minimum size of new parcels and thus are not applicable here, because no new parcel is proposed. Item 3 specifies setbacks for dwellings and thus is not applicable: The use proposed here is not a dwelling.

Item 4 simply says, "Maximum building height: 45 feet." L1.030 defines *building* as "A structure built for the support, shelter, or enclosure of persons, animals, chattels, or property of any kind." The ordinance defines *structure* to be "Anything constructed, erected, portable, or located on the ground or water, or attached to the ground or to an existing structure, including but not limited to, residences, apartments, barns, stores, offices, factories, sheds, cabins, mobile and floating homes, and other buildings." We understand the main characteristic by which a building may be distinguished from other types of structures is that a building encloses and defines a space. A power line does not do that. We therefore conclude that while a power line is indeed a structure, it is not a building. Item 4 therefore does not apply.

As staff indicated in the initial staff report, the building height limitation applies to buildings enclosing space and is not applicable to the power lines. The building height limitations are intended to apply to enclosed structures and not powerlines. As discussed in the section of these Findings on replacement of the Hunt Creek Bridge, where possible, code provisions should be read to give effect to all the provisions if possible. The provisions cited by Oregon LNG do not undermine the County's interpretation of its code that the height limitation is not intended to apply to power lines and where it is possible to read code provisions to be consistent, LUBA has held that it is proper to do so. *See Clark v. Jackson County,* 313 Or 508, 836 P2d 710 (1992).

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[55] *Terminal Narrative*, pages 56-57.

Items 5 and 6 in L3.557 deal with mining operations and accessory structures. The proposed power line is neither a mining operation nor accessory structure, so items 5 and 6 do not apply here.

L3.557(7) says, "All roads, bridges and driveways providing access to structures in the F-80 zone must meet the design standards in Section S6.000."

S6.000 limits itself to "roads intended to provide access to lots or parcels." The roads described here are for maintenance of power lines, not to "provide access" to lots or parcels. To put it another way, the rough trail needed for trucks and their crews to inspect and maintain a power line is different from a conventional public road such as Clifton Road, and the trail therefore need not be held to the same standard. We therefore conclude that L3.557(7) does not apply to the proposed power line.

L3.557(8) sets standards for "mining or processing of rock." The proposed power line has nothing to do with mining or processing of rock and therefore is not subject to these standards.

For the above reasons, we therefore find that none of the development standards set forth in L3.557 applies to the proposed power line.

Turning from the LWDUO to the Standards Document, we find that most standards specified there deal with uses other than electrical power lines and hence do not apply to this use. One section of that document, however, does apply, at least to part of the power line:

> **"S4.220. Utility.**
>
> "Standards in this subsection are applicable to utility structures and uses in the Columbia River Estuary aquatic and shoreland zones.
>
> "(1) Electrical or communication transmission lines shall be located underground, unless burial is demonstrated as economically infeasible. Routes for major overhead electrical and communication transmission lines shall be chosen which minimize interference with migratory bird flyways and significant habitat of waterfowl, birds of prey and other birds.
>
> "(2) Utilities shall not be located on new land unless part of an otherwise approved development fill project and no other alternative is feasible.
>
> "(3) Above-ground utilities shall be designed to have the least adverse effect on visual and other aesthetic characteristics of the area. Interference with public uses and public access to the estuary shall be minimized.
>
> "(4) After installation or maintenance of existing utility structures is completed, disturbed stream banks and aquatic and riparian vegetation shall be stabilized and "restored.

Note that the utility standards apply only "in the Columbia River Estuary aquatic and shoreland zones." The power line route does not traverse any aquatic zones, but it does pass through one "shoreland zone," the MI Zone. We consider the MI Zone a "shoreland zone" for two reasons. First, its full title is the "Marine Industrial **Shorelands** Zone." (Emphasis added.) Second, the Goal 16 and 17 element of the Comprehensive Plan defines "shoreland" to include "areas necessary for water-dependent uses," many of which are zoned MI.

Regarding Item 1, first we have concluded that the proposed power line is a distribution line, not a transmission line, and the provision is not applicable. Second, with most development proposals one might assume that it would be quite costly and hence "economically infeasible" to install 1.6 miles of power line (much of which is in the F-80, not the MI shorelands zone) underground. With this particular development we note that the power line route lies near the proposed route of the pipeline. If it is economically feasible to install 36 miles of three-foot diameter pipe underground, we may ask the question, "Why is it any less feasible to install the power line underground, perhaps even in the same trench?" We find the apparent answer to that question in Resource Report 5, Appendix D, *Oregon PacifiCorp Transmission System Impact Study*. The study's pages are not numbered, but on the second full page of text, under "Right of Way," we find a paragraph discussing the need to keep power lines separate from natural gas pipelines. The paragraph starts with the statement, "Natural gas pipelines should be kept as far as possible from electrical transmission lines" (presumably for reasons of safety). A May 25, 2007 memo from Michelle Rudd ("Construction of Bradwood Power Distribution Lines") observes, "At the point of the power line tie-in with the BPA line, the pipeline is separated from the power line by about 600 feet of basalt rock."

The memo also says,

> "Underground power lines are significantly more expensive than overhead power lines. One report states the increased cost can be five to ten times the cost of overhead lines. [cites to *Edison Electric Institute Report*] Given the length of the power line at issue, this cost is particularly significant here."

We find the applicant's reasons persuasive, and we therefore agree that it is not "economically feasible" to place the power line we have determined to be a distribution line underground.

S4.220(1) above also specifies, "Routes for major overhead electrical and communication transmission lines shall be chosen which minimize interference with migratory bird flyways and significant habitat of waterfowl, birds of prey and other birds." As noted above, we conclude that the power line is a local distribution line, not a "major electrical transmission line." We therefore find that this standard is not applicable.

Regarding Item 2, the portion of Bradwood zoned MI is part of an approved dredged material disposal site, which we understand to be encompassed by the phrase "approved development fill site." As we note in the preceding paragraph, the only alternative to putting the

power line on "new land"[56] would be underground placement, and that is not feasible. **We therefore find that the proposed power line complies with L 4.220(2).**

Applicant responds to the standard set by S4.220(3) - "least adverse effect on visual and other aesthetic characteristics of the area" - in these words:

> "Aesthetic impacts associated with the proposed power line extension are minimized by the proposed route, which is set back away from the river, and by the proposed wooden poles. The proposed power line does not interfere with public access to the estuary."[57]

Resource Report 8, *Land Use*, also notes (at page 1) that "A revision of the preferred power line route has been developed to avoid impacts to selected sensitive habitats." Visual and aesthetic effects of the power line are described in Resource Report 8's Appendix 8A, *Visual Assessment*, page 6. It concludes:

> "Because they will be installed at relatively low elevations and below the hillside, most of the tower structures [supporting the power lines] will not stand out amongst the trees or against the skyline. There will be only a slight visual effect of the electric power lines from Puget Island."

From the above information, we conclude that the applicant has taken adequate measures to ensure that the proposed line will have the least adverse effect on visual and other aesthetic characteristics of the area. **We therefore find that the standard in S 4.220(3) is met.**

Item 4, dealing with riparian vegetation, is an important standard that must be met after construction of the power line. We therefore require that it be made a condition of approval.

6.5 Board Action: APPROVE WITH CONDITION

We approve Bradwood Landing's request to develop a new electrical power line as a permitted use in the MI Zone in accordance with L3.624(13) and as a permitted use in the F-80 Zone in accordance with L2.052(11) and 3.553(4), subject to the following condition:

> After installation or maintenance of existing utility structures is completed, disturbed stream banks and aquatic and riparian vegetation must be stabilized and restored.

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[56] The term "new land" is ambiguous and is not defined in the LWDUO. It could refer to a new route over land that has never been had a power line placed on it, or it could mean land resulting from "reclamation," the filling of aquatic areas. In this context, where the ordinance is speaking of dredged material disposal, we understand the term to mean the latter.

[57] *Terminal Narrative*, page 79.

7. Construction Worker Park and Ride Lot

7.1 Proposed Development

The applicant proposes to establish a park and ride facility approximately three miles east of the Clifton Road-Hwy. 30 intersection, at Wauna. The park and ride is a short term use as its purpose is solely to provide parking for construction workers during construction of the Terminal. During operations, terminal employees will park on site. The facility would adjoin Hwy. 30 on its south side near the Taylorville Road interchange. The property consists of multiple parcels zoned General Commercial ("GC").

The facility will consist of a large gravel or asphalt parking lot with a surface area of about four acres. The only structures associated with the lot will be some signs, a guard shack, portable restroom facilities, and a fence. The facility will serve workers during construction of the LNG marine terminal at Bradwood. It thus is expected to be in use for about three years.

The applicant states:

> "At the peak of construction, approximately 526 people will be employed at the Bradwood site. A maximum of approximately 100 of the workers, supervisors and skilled workers needing access to tools in their vehicles, will be allowed to park at the Bradwood site in the northern 30' of the railroad right of way and in the western third of the MI zoned area in Ex. 3.[58] The remainder will park at this proposed park and ride facility and be shuttled to the terminal site. The busses will hold approximately 35 people and have 14 round trips in the morning and 14 round trips in the afternoon."[59]

The original application from Bradwood Landing proposed an employee parking lot on Clifton Road, near Hwy. 30. The applicant encountered problems with that site and therefore sought a different location for employee parking. Applicant ultimately decided to establish a park and ride facility at the location described above. This change of plans altered some of applicant's earlier analysis of traffic impacts on Hwy. 30 and Clifton Road. The applicant therefore commissioned updates of the original traffic impact study.

The applicant submitted a packet of supplemental materials related to the park and ride facility on June 6, 2007: "Narrative in Support of Bradwood Landing LLC Application for a Conditional Use Permit for Bus Station/Park and Ride in the General Commercial ('GC') Zone, June 2007." The packet contains applicant's findings in support of the proposed facility, maps and geotechnical data about the site, and "Exhibit 5, Updated Traffic Report." We refer to the findings and attachments as "the *Park and Ride Narrative*." A further update of the traffic study was submitted by applicant on July 5, 2007 and is part of the record. Further explanation of the

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[58] "Ex. 3" refers to the *Park and Ride Narrative's* Exhibit 3, an updated zoning map of Bradwood.

[59] *Park and Ride Narrative*, page 1.

traffic report findings was submitted during the Board's review process in the November 7, 2007 letter from Howard Roll to the Board of Commissioners and the legal argument submitted by counsel for Bradwood Landing.

7.2 Action Requested and Criteria for Approval

Bradwood Landing seeks a conditional use permit for the park and ride facility in accordance with L3.348(9), which provides for bus stations in the GC Zone.

L3.348 specifies that conditional uses "may be permitted under a Type II procedure and Sections 5.000 to 5.030 subject to applicable criteria and development standards and site plan review."

L5.015(2) lists seven criteria to be used in reviewing applications for a conditional use:

"(A) The proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan.

"(B) The proposed use meets the requirements and standards of the Clatsop County Land and Water Development and Use Ordinance (Ordinance 80-14).

"(C) The site under consideration is suitable for the proposed use considering:

> "(1) The size, design, and operating characteristics of the use, including but not limited to off-street parking, fencing/buffering, lighting, signage, and building location.
>
> "(2) The adequacy of transportation access to the site, including street capacity and ingress and egress to adjoining streets.
>
> "(3) The adequacy of public facilities and services necessary to serve the use.
>
> "(4) The natural and physical features of the site such as topography, natural hazards, natural resource values, and other features.

"(D) The proposed use is compatible with existing and projected uses on surrounding lands, considering the factors in (C) above.

"(E) The proposed use will not interfere with normal use of coastal shorelands.

"(F) The proposed use will cause no unreasonably adverse effects to aquatic or coastal shoreland areas, and

"(G) The use is consistent with the maintenance of peripheral and major big game habitat on lands identified in the Comprehensive Plan as Agricultural Lands or Conservation Forest Lands. In making this determination, consideration shall

be given to the cumulative effects of the proposed action and other development in the area on big game habitat."

7.3 Analysis and Findings

Regarding **L5.015(2)(A)** above, the applicant has submitted detailed findings which conclude that the proposed park and ride facility does not conflict with any provision, goal, or policy of the Comprehensive Plan.[60] We agree: **We see no provision, goal or policy in the Comprehensive Plan that deal with the matter of bus stations or park and ride facilities in a GC Zone. We therefore find that the proposed use does not conflict with any policies or provisions in the Comprehensive Plan and is consistent with criterion "A."**

With respect to **L5.015(2)(B)**, we understand compliance with the LWDUO to be a matter of consistency with the applicable zoning, approval criteria, and development standards. The chief question here is whether the proposed park and ride facility may properly be considered a "bus station." The answer to that is "Yes." The LWDUO provides no definition of "bus station," "park and ride," or even "parking lot." The proposed use will consist of a parking area to which Bradwood Landing's construction workers will drive and park their cars. The workers then would board shuttle buses to take them to the construction site at Bradwood.

The key elements of the proposed land use thus are parking and buses. The GC Zone provides for a wide range of commercial uses that typically involve large parking lots, and the phrase "bus station" is broad enough to include a park and ride facility where the "ride" is provided by buses. **We therefore find the proposed use to be consistent with L3.348(9) and hence with criterion "B."**

Regarding **L5.015(2)(C)(1)**, adequacy of the site, the applicant has not submitted construction plans showing details such as signage and lighting. But compliance with the LWDUO in these matters is ensured by applicant's meeting standards from the LWDUO and the Standards Document, as described in Section 7.4 below. Such compliance is feasible and shall be made a condition of approval. **We therefore find that, contingent on the applicant submitting a suitable site-development plan that complies with applicable design standards, the proposed use is consistent with L5.015(2)(C)(1).**

L5.015(2)(C)(2) asks us to consider "adequacy of transportation access to the site, including street capacity and ingress and egress to adjoining streets." The July traffic report says the parking lot will take its access from Rulyville Road. Construction workers would commute to the park and ride facility, leave their cars there, and ride 35-passenger shuttle buses to Bradwood. The buses would enter Hwy. 30 from the Taylorville Road interchange, take Hwy. 30 to Clifton Road, and proceed on that road to the construction site at Bradwood.

The July 2007 *Updated Traffic Report* says (at page 12), "With Bradwood construction traffic to and from the proposed 500-space parking lot, the maximum morning peak hour v/c ratio is projected to be 0.85, at the Hwy. 30/Taylorville Road interchange ramp intersection."

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[60] *Park-and Ride Narrative*, pages 24-54.

Applicant stated that the applicable standard is 0.85. Oregon LNG has contended that the appropriate v/c ratio is lower.

The park and ride will be used only during construction to transport construction workers to the terminal site. The July traffic report notes two important issues with respect to the Rulyville-Taylorville Road intersection. First, traffic there needs to be controlled with a stop sign, either for northbound traffic on Taylorville Road (old Hwy. 30) or for westbound traffic on Rulyville Road. Second, no speed limit is posted on Taylorville Road. The limit thus is 55 mph by default, a speed that the traffic report describes as "clearly inappropriate and unrealistic." We agree: a speed limit of 25 or 35 mph would be more appropriate. A subsequent engineer's memo, dated October 18, 2007, was submitted ("Additional Information or [sic] Proposed Bradwood LNG") addressing the nature of appropriate traffic control measures. **We therefore require two conditions of approval regarding the Rulyville-Taylorville Road intersection**:

1. The applicant shall, following review and approval by the County Engineer, install a suitable stop sign at the intersection, either on Taylorville Road or on Rulyville Road (perhaps with a "right turn permitted without stopping" rider) in accordance with professional engineering standards.

2. The applicant shall post an advisory speed limit sign reflecting a suggested speed of 30 mph or below on Taylorville Road in accordance with professional engineering standards.

We do not know the exact width of the roadway on the short segment of Rulyville Road that would serve the park and ride, but it surely is narrow. Vegetation has grown up close to the road and impedes vision. Two passenger cars have difficulty passing there, and the roadway is not wide enough to accommodate a bus and any other vehicle at the same time. Vehicles coming to and from the restaurant there use the same road. **The Board requires the following two conditions of approval**:

1. That applicant shall widen the travel lane on Rulyville Road so that two vehicles can pass or use some method of traffic control (*e.g.*, a flagger) to direct traffic on Rulyville Road during the morning and evening peak times for bus travel.

2. The applicant shall clear vegetation on both sides of Rulyville Road from the intersection with Taylorville Road to the park and ride lot to improve sight distances for vehicle drivers.

With the conditions set forth on pages 82 below, we conclude that the proposed facility is adequate with regard to "transportation access to the site, including street capacity and ingress and egress to adjoining streets." **We therefore find that the proposed use complies with L5.015(2)(C)(2).** (We address the larger issue of the entire Project's impacts on transportation facilities in Section 15.0 of these Findings.)

L5.015(2)(C)(3) calls for us to consider adequacy of public facilities and services that will be needed for the proposed use. The applicant says that public sewer and water services will

not be required. The facility will be fenced, and a guard shack will be placed on the site, and portable restroom facilities will be provided near the entrance to the parking area.[61] We conclude that the park and ride facility will have minimal impact on services. **We therefore find the proposed use to be consistent with LWDUO 5.015(2)(C)(3).**

L5.015(2)(C)(4) requires us to determine that the "natural and physical features of the site" are suitable for the proposed use. The application indicates that the site is not known to have any geologic hazards, is not in the floodplain, and contains no wetlands.[62] The applicant concludes that "the proposed use is compatible with the site and surrounding uses," and we agree. **We therefore find the proposed use to be consistent with L5.015(2)(C)(4).**

L5.015(2)(D) calls for us to evaluate the compatibility of the proposed facility with "existing and projected uses on surrounding lands." The applicant describes surrounding uses on page 6 of the park and ride narrative. They consist of a restaurant, a few rural houses, Hwy. 30, and the Georgia Pacific paper mill at Wauna. The applicant describes the proposed site as "suitable for the proposed use and compatible with surrounding uses." We agree. **We therefore find the proposed use to be consistent with L5.015(2)(D).**

L5.015(2)(E), (F) and (G) require us to consider impacts of the proposed use on coastal shorelands, aquatic areas, and big-game habitat. The property is not on or adjacent to coastal shorelands or aquatic areas and thus will not affect them. Because the proposed site adjoins a major highway, is directly across from a large mill, and will be fenced, impacts from a park and ride facility there on big-game would be negligible. **We therefore find the proposed use to be consistent with L5.015(2)(E), (F) and (G).**

We also conclude that, with the conditions suggested above, the application will meet L5.015.

7.4 Development Standards

L3.350 and 3.352 list various standards to be met by uses in the General Commercial Zone. These are straightforward requirements regarding matters such as setbacks, lot area, and building height. We see no need to enumerate them here. The applicant presents findings to show that the proposed use will comply with the standards.[63] We agree with those findings and conclude they are adequate to support the proposal and incorporate them here.

L5.353(2) requires a traffic impact study when a proposed use is likely to generate more than 500 trips per day. As we noted above, the applicant has prepared such a study and therefore has complied with this requirement. The state's transportation planning rule and related provisions in L5.350 require us to evaluate the impacts of projects like this on the area's

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[61] *Park and Ride Narrative*, page 6.

[62] *Park and Ride Narrative*, page 7.

[63] *Park and Ride Narrative*, pages 1-4.

transportation facilities. The updated traffic report supports the conclusion that the proposed temporary construction park and ride facility will meet the required performance standards set by ODOT for Hwy. 30 and its intersection with Taylorville Road. We address the larger issue of the entire project's impacts on transportation facilities in Section 15.0 of these Findings.

It is common for commercial zones to require "site-plan review," and the County's GC Zone is no different: L3.348 calls for such a site plan and review. The material submitted by the applicant contains a site plan in Exhibit 1. The plan was submitted in June, 2007, and Staff did not complete a review of it against all applicable County development standards. We therefore recommend that the Board require as a condition of approval that applicant submit the site plan to the Department for review and approval in at least a Type IIa procedure before any permits for the park and ride facility are issued. The site plan must include adequate provisions to satisfy development standards regarding design of parking lots; site clearing and grading; erosion and sediment control; and vehicle access control and circulation. **We conclude that, with the imposition of the conditions set forth above, that the application will meet L3.350, 3.352, and 3.348.**

7.5 Board Action: APPROVE WITH CONDITIONS

We find that this application for a conditional use permit for a park and ride facility in the GC Zone meets the approval criteria set forth in L5.015(2).

The approval is made subject to the following five conditions:

1. Before any permit is issued, the applicant must submit to the Department a site plan to be revised through a Type IIa procedure demonstrating compliance with all applicable development standards, including those related to design of parking lots; site clearing and grading; erosion and sediment control; and vehicle access control and circulation. The site plan also must include information describing how compliance with conditions 2 through 5 below will be achieved.

2. The applicant shall widen the travel lane on Rulyville Road so that two vehicles can pass or use some method of traffic control (e.g. a flagger) to direct traffic on Rulyville Road during the morning and evening peak times for peak travel.

3. The applicant shall clear vegetation on both sides of Rulyville Road from its intersection with Taylorville Road to the park and ride lot to improve sight distances for vehicle drivers.

4. The applicant shall, following review and approval by the County Engineer, install a suitable stop sign at the intersection, either on Taylorville Road or on Rulyville Road (perhaps with a "right turn permitted without stopping" rider) in accordance with professional engineering standards.

5. The applicant shall post an advisory speed limit sign reflecting a suggested speed of 30 mph or below on Taylorville Road in accordance with professional engineering standards.

8. In-Water Structures

8.1 Proposed Development

The application states that ships up to 1033 feet in length will transport the LNG up the Columbia to Bradwood. Evidence presented by applicant at the public hearing before the Planning Commission showed that LNG carriers are not larger than other deep draft vessels that traverse the Columbia River. Ten to 11 LNG carriers per month - about 125 a year - will call at the terminal.

> "The terminal will have a single berth for mooring and unloading one carrier at a time. See Figure 7, Terminal Layout. In order to accommodate the full range of LNG carriers that will serve the terminal, the berth and a contiguous turning basin are designed for LNG carriers with a capacity ranging from 100,000 to 220,000 cubic meters (m3). Carriers with a capacity of 220,000 m3 may be 1,033 feet long, be 164 feet wide, and draw 41 feet.
>
> "The berth will be approximately 300 feet from shore and 1,340 feet in length. It will be approximately 1,250 feet from the main Columbia River navigation channel in order to eliminate any significant risk that ships using the channel might collide with an LNG carrier while it is berthed. The open-water portion of the berth (i.e., the portion that will be occupied by a docked LNG carrier, as opposed to the wharf and other in-water structures) and a contiguous turning basin will occupy an area of approximately 58 acres. See Figure 8, Marine Berth and Turning Basin. This area will be maintained at a depth of minus 42 feet Columbia River Datum (CRD), with an additional foot of advance maintenance dredging, to provide adequate depth for the carriers.
>
> "The structures associated with the berth will include a wharf and four breasting and six mooring dolphins. The wharf will extend from the shore to the berth and will be constructed of reinforced concrete beams and slabs. It will consist of an unloading platform at the end where LNG carriers will dock and a combined roadway and pipeway trestle that will connect the unloading platform to the shore. The unloading platform will be approximately 105 feet wide, and the combined roadway and pipeway trestle will be approximately 45 feet wide. . . .
>
> "Altogether, the in-water structures will occupy less than one acre of the river."[64]

8.2 Action Requested and Criteria for Approval

The waters immediately adjoining Bradwood are designated "Development" and zoned AD. On the zoning map, these AD-zoned waters form an "aquatic band" along the shoreline. The width of that band is described thus in the Bradwood Subarea Plan:

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[64] *Terminal Narrative*, page 7.

"An aquatic band from the entrance of the mill pond upriver to the eastern boundary of the existing Marine Industrial zone and extending either 400 feet out from the shoreline or to the 40 foot depth contour where this contour is closer than 400 feet from shore shall be designated Development Aquatic. A 200 foot access channel from the shoreland to the main ship channel is also designated development."

The applicant asks that the County approve the in-water structures in the AD Zone as uses permitted outright. The in-water structures needed to receive, berth, and unload the LNG carriers at Bradwood all are uses permitted outright in the AD Zone. Table 5 below shows the proposed uses, the section of the LWDUO that authorizes them, and the category of use described by the LWDUO.

Table 5: Proposed In-Water Uses in the AD Zone

Proposed Use	How Allowed	Applicable Category from LWDUO
Wharf	Outright use under L3.744(9)(A)	"Water-dependent commercial, industrial and port uses including but not limited to: . . . (A) docks, moorages, piers or wharves"
Navigational Lights	Outright use under L3.744(3)	"Navigational aids"
Secondary Control Room	Outright use under L3.744(9)(C)	"Water-dependent commercial, industrial and port uses including but not limited to: . . . (C) cargo loading and unloading facilities"
Mooring and Breasting dolphins	Outright use under L3.744(9)(A)	"Water-dependent commercial, industrial and port uses including but not limited to: . . . (A) docks, moorages, piers or wharves"
Cargo-Handling Equipment	Outright use under L3.744(9)(C)	"Water-dependent commercial, industrial and port uses including but not limited to: . . . (C) cargo loading and unloading facilities"

Proposed Use	How Allowed	Applicable Category from LWDUO
Dredging (*See* Section 4.0 of this report.)	Outright use under L3.744(10)	"Piling and dredging in conjunction with permitted uses 3, and 5 through 9 listed above, pursuant to the applicable standards in Sections S4.208 and S4.232."

8.3 Analysis and Findings

As shown in Table 5 above, the in-water structures proposed by Bradwood Landing all are listed as permitted uses in the AD Zone. **We therefore find that the proposed in-water structures are consistent with L3.744.**

The Comprehensive Plan has two sets of policies directly applicable to in-water structures of the type proposed here.

SECTION P20.3 in the Goal 16/17 element of the Comprehensive Plan contains five policies pertaining to "Deep-Water Navigation, Port and Industrial Development." Bradwood Landing responds to the five policies with these findings (with policies shown in italics and applicant's response in roman type):

> **Deep-Water Navigation, Port and Industrial Development policy 1:**
> *Shorelands with adjacent deep-water access, adequate rail or road access, and sufficient backup land shall be reserved for water-dependent recreational, commercial, industrial, or port development.*
>
> **Applicant's Response:** Bradwood is one of the sites reserved by the Comprehensive Plan for water-dependent industrial development under policy 1. The Project directly implements and supports this policy.
>
> **Deep-Water Navigation, Port and Industrial Development policy 2:**
> *Federally designated channels, anchorages and turning basins, including necessary side slopes, shall be in Aquatic Development designations.*
>
> **Applicant's Response:** The adjacent federal navigation channel for the Columbia River is designated Aquatic Development.[65]
>
> **Deep-Water Navigation, Port and Industrial Development policy 3:**
> *Development, improvement and expansion of existing port sites is preferred prior to designation of new port sites.*

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[65] The record does not indicate that the turning basin proposed by Bradwood Landing has been federally designated. Through the rezoning approved herein, the turning basin will be in the AD designation.

Applicant's Response: Bradwood has been used for marine transportation for more than a century and is zoned MI and AD for marine industrial development. The Project is consistent with policy 3 because it does not require the designation of a new port site.

Deep-Water Navigation, Port and Industrial Development policy 4: *Aides [sic] to navigation, including range markers, buoys, channel markers and beacons, shall be protected from development impacts that would render them ineffective. This policy does not preclude development subject to U.S. Coast Guard approved reorientation or relocation of navigation aides [sic].*

Applicant's Response: The Project will not remove, obscure, or otherwise adversely affect any navigation aides (*sic*). In addition, Bradwood Landing is closely coordinating the development of the Project with the U.S. Coast Guard, which is responsible for the safety of navigation on the Columbia River.

Deep-Water Navigation, Port and Industrial Development policy 5: *Permit review for proposals involving treated or untreated waste-water discharge into the estuary will rely on the point source water pollution control program administered by the Oregon Department of Environmental Quality.*

Applicant's Response: Bradwood Landing will apply for and obtain an NPDES permit from DEQ for any discharges of wastewater to the Columbia River from the Project. The NPDES permit will ensure that all applicable water quality regulations are met, including water quality standards for the Columbia River Estuary. . . . Bradwood Landing will comply with all applicable wastewater discharge regulations and will apply for and comply with all applicable DEQ discharge permits and DEQ discharge conditions.[66]

We agree with the above findings and thus conclude that the measures proposed by the applicant are adequate to comply with policy P20.3(1)-(5). **We therefore find that the application is consistent with Policy 20.3 on deep-water navigation, port, and industrial development.** (Regarding policy 2 above, see related discussion in these Findings, Section 4.0 on dredging.)

SECTION P20.6 in the Goal 16/17 element of the Comprehensive Plan contains five requirements and policies pertaining to "Estuarine Construction: Piling and Dolphin Installation, Shoreline Stabilization and Navigational Structures." Regarding those five policies, the applicant presents these findings:[67] (Italics added below by the County to emphasize the policies.)

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[66] *Terminal Narrative*, pages 153-154.

[67] *Terminal Narrative*, pages 164-165.

"The Comprehensive Plan contains five policies in its Columbia River Estuary element addressing estuarine construction. Piling and dolphin installation, shoreline stabilization, and navigational structures are all addressed. The policies apply to over-the-water and in-water structures such as docks, bulkheads, moorages, boat ramps, boat houses, jetties, pile dikes, breakwaters, and other structures involving installation of piling or placement of riprap in Columbia River Estuary aquatic areas. Also covered under these policies are shoreline stabilization and aquatic area fills. The policies in this section do not apply to structures located entirely on shorelands or uplands, but do apply to structures, such as boat ramps, that are in both aquatic and shoreland designations.

*"**Piling and Dolphin Installation, Shoreline Stabilization and Navigational Structures policy 1:** Proper streamside vegetation management is the preferred method of shoreline stabilization, followed by planting of new vegetation, installation of riprap and installation of a bulkhead.*

"The Project is consistent with policy 1. No shoreline stabilization is necessary or proposed for the Project. The Project, however, does include a plan for riparian revegetation.

*"**Piling and Dolphin Installation, Shoreline Stabilization and Navigational Structures policy 2:** Navigational structures, such as breakwaters, jetties, groins, and pile dikes are major estuarine alterations with long term biological and physical effects. Proposals for new or enlarged navigational structures, or for removal of existing structures, must demonstrate that expected benefits outweigh potential adverse impacts on estuarine productivity.*

"The Project does not include navigational structures such as breakwaters, jetties, groins, or pile dikes. Policy 2 does not apply.

*"**Piling and Dolphin Installation, Shoreline Stabilization and Navigational Structures policy 3:** New uses in aquatic areas and in shoreland areas especially suited for water-dependent development that are not water-dependent, if permitted, shall not preclude or pose any significant conflicts with existing, proposed or probable future water-dependent uses on the site or in the vicinity.*

"The Project is water-dependent. Therefore, policy 3 does not apply.

*"**Piling and Dolphin Installation, Shoreline Stabilization and Navigational Structures policy 4:** Where structural shoreline stabilization is shown to be necessary, an impact assessment is required and will include consideration of effects on shoreland and aquatic habitats, effects on fishing areas, uses of the adjacent shoreland and aquatic areas, and potential for adverse impacts in adjacent areas due to the project.*

"Because structural shoreline stabilization is neither necessary nor proposed, policy 4 does not apply.

*"**Piling and Dolphin Installation, Shoreline Stabilization and Navigational Structures policy 5:** Proliferation of single-purpose docks and moorages is discouraged. Public or commercial multi-vessel moorage is preferred.*

"The Project's wharf will serve only the Project. Safety and security needs, together with the specialized characteristics of the berth, preclude its use by the public or other entities. The remoteness of the site, however, means that there is very little demand for docks in the vicinity, and the property does not currently provide public access. Moreover, policy 5 is not absolute. Where, as here, a single-purpose dock and moorage is justified, policy 5 does not require a multiuse dock and moorage."

Again, we agree with applicant's findings on the five requirements set forth in Policy P20.6 in the Goal 16/17 element of the Comprehensive Plan. **We therefore find that the application complies with Policy P20.6.**

8.4 Development Standards

County development standards applicable to estuarine in-water structures in the AD Zone are found in two places:

- Standards Document S4.208, "Estuarine Construction: Piling and Dolphin Installation, Shoreline Stabilization, and Navigational Structures"; and

- L3.754, "Development Standards in the AD Zone."

S4.200, "COLUMBIA RIVER ESTUARY SHORELAND AND AQUATIC USE AND ACTIVITY STANDARDS," in the County's *Standards Document*, sets forth a long list of standards governing development in the Columbia River estuary. We have discussed some of those standards elsewhere in these Findings. Here, we examine the standards specifically directed toward in-water structures.

The key sections directly applicable to the in-water structures proposed by Bradwood Landing are:

- Section S4.207(8): Residential, commercial or industrial development requiring new dredging or filling of aquatic areas;

- Section S4.209(2): New or expanded facilities for deep-water navigation, port or industrial development requiring aquatic area dredging or filling;

- Section S4.209(3): Deep-water navigation, port or industrial development requiring new piling or dolphin installation, construction of pile-supported structures, or other uses or activities which could alter the estuary.

These sections specify that the use or activity described there may be allowed only if it satisfies these criteria:

"(A) The proposed use is required for navigation or other water-dependent use requiring an estuarine location, or if specifically allowed in the applicable aquatic zone; and

"(B) If a need (i.e. a substantial public benefit) is demonstrated; and

"(C) The proposed use does not unreasonably interfere with public trust rights; and

"(D) Feasible alternative upland locations do not exist; and

"(E) Potential adverse impacts, as identified in the impact assessment are minimized."

In addressing those criteria, the applicant presents these findings:

"The need for the Project and the substantial public benefits that it will provide (in addition to substantial local tax revenue) are described in section 3.1 of this narrative.[68] The pilings and dolphins and the dredging for the turning basin are essential for the Project because they form the marine berth. If the berth were constructed on or within the existing shoreline, much more dredging would be required and much more environmental harm would result. The pilings and dolphins will occupy less than an acre of the river and will not substantially interfere with the public's right to use the river for fishing, boating, commerce, or other uses. The proposed dredging of 700,000 cubic yards is more substantial, but, as discussed in the Alternatives Analysis, the Biological Assessment, and sections 3.3.5, 3.4, 3.5, and 6.1.5 of this narrative, Bradwood Landing has minimized the extent and potential harm of the dredging and has proposed very substantial compensatory mitigation and other initiatives to assist the estuarine ecosystem."[69]

We agree with applicant's findings in response to criteria (A)-(E) above **as they pertain to the in-water structures, dredging and subsequent use of the turning basin and moorage by LNG carriers.** We also agree with applicant's conclusion that the **pilings and dolphins** "will not substantially interfere with the public's right to use the river for fishing, boating, commerce, or other uses." **We find that the proposed in-water structures comply with S4.207(8), S4.209(2), and S4.209(3).**

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[68] Substantial additional evidence on public need/benefit of the Project, such as the ability to address natural gas needs in the region, the ability to utilize an existing port site and fund improvements to the public infrastructure was submitted into the record during the hearing and deliberation process. After considering all of the evidence in the record, we are persuaded by that evidence of the public need for and benefit of the Project.

[69] *Terminal Narrative*, page 72.

We agree with applicant's findings with regard to the other applicable standards from Section S4.200 as they pertain to in-water structures, and we hereby adopt them as our own.

L3.754 contains eight standards applicable to uses in the AD Zone. Our review of each follows.

> **L3.754(1)**: "All uses and activities shall satisfy regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shorelands element."

As we have explained above, the proposed in-water structures comply with Comprehensive Plan policies most directly applicable to the proposed structures. **We therefore find that the proposed in-water structures satisfy all applicable plan policies and hence comply with L3.754(1).**

> **L3.754(2)**: "All uses and activities shall satisfy applicable Columbia River Estuary Shoreland and Aquatic Use and Activity Standards contained in the Development and Use Standards Document."

We addressed the issue of compliance with the County's estuarine standards above and concluded that the application satisfies all applicable standards. **We therefore find that the proposed in-water structures satisfy all applicable plan policies and hence comply with L3.754(2).**

> **L3.754(3)**: "All other applicable ordinance requirements shall be satisfied."

The proposed in-water structures are not part of the requested zone changes, and the structures are consistent with all ordinance provisions that apply directly to them. **We therefore find that the proposed in-water structures comply with L3.754(3).**

> **L3.754(4)**: "A proposal which requires new dredging, fill, in-water structures, riprap, new log storage areas, water intake or withdrawal and effluent discharge, in-water disposal of dredged material, beach nourishment, application of pesticides and herbicides, or other activities which could affect the estuary's physical processes or biological resources is subject to an Impact Assessment, Sections 5.810-5.840."

As noted above, the applicant has submitted an extensive impact assessment that evaluates potential impacts to estuarine resources created by the proposed LNG terminal, including the in-water structures addressed here. Applicant's findings of compliance with the extensive provisions of L5.800 are presented in pages 59-64 of the *Terminal Narrative*. We conclude that those findings, as they pertain to the proposed in-water structures, demonstrate compliance with L5.800 and incorporate them.[70]

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[70] Wherever, in these findings, we state we agree with findings in the submitted narrative, these findings are incorporated here by reference.

We therefore find that the proposed in-water structures comply with L3.754(4).

L3.754(5): "When a development proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure."

The multiple requests for land use approvals associated with this Project have been submitted in a consolidated application and reviewed under a Type IV procedure, which is the most stringent of the County's five levels of review. **We therefore find that the application satisfies L3.754(5).**

L3.754(6): "Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S4.243(2). Uses that are water-dependent shall not preclude or conflict with existing or probable future water dependent uses on the site or in the vicinity."

As we explain in Section 10.0 of these Findings, we conclude that the LNG marine terminal, including the related in-water structures, is a water-dependent use, and that the standards of S 4.243(1). S4.234(1) and S4.243(2) are simply definitions. They do not contain development standards that can be met by the applicant. **We therefore find that the application satisfies L3.754(6).**

L3.754(7): "Uses that are water-dependent shall not preclude or conflict with existing or probable future water dependent uses on the site or in the vicinity."

The word "not" may have inadvertently been omitted from the above standard. The MI Zone has a similar standard, which says "uses that are **not** water-dependent shall not preclude or conflict" with water-dependent uses. We assume the same phrasing was intended here, and LWDUO 3.754(7) deals with **non**-water-dependent uses, making L3.754(7) inapplicable here. Our prior findings, however, find the proposed use compatible with other water-dependent uses in the area through mitigations and conditions of approval, so the criterion is met whether or not "not" was inadvertently omitted.

L3.754(8): "Piling dredging, filling or other estuarine alteration permitted under Section 3.744 of this zone, Permitted Developments, are subject to the public notice provisions of Sections 2.115, if an impact assessment is required pursuant to Sections 5.810 through 5.840; or if a determination of consistency with the purpose of the AD zone is require pursuant to Section 5.880; or if the Community Development Director determines that the permit decision will require interpretation or the exercise of factual, policy, or legal judgment."

This is not a standard that can be met by applicant. Rather, it is a directive to the County to expand its notice procedures under certain circumstances. The County is considering the consolidated application from Bradwood Landing under its Type IV review procedures and also following notice requirements for quasi-judicial decision making. **We therefore find that the proposal satisfies L3.754(8).**

We also conclude that the application, with conditions, satisfies the applicable provisions of L3.754.

8.5 Board Action: APPROVE

With respect to the proposed in-water structures in the AD Zone, the application satisfies all applicable ordinance provisions, Comprehensive Plan policies, and development standards. **We therefore approve applicant's request to authorize the in-water structures described above as uses permitted outright in the AD Zone by L3.744.**

9. Lay-Down (Storage and Staging) Area

9.1 Proposed Development

During construction of the LNG facility, land will be needed on which to place construction materials, heavy equipment, service vehicles, and workers' vehicles. The *Terminal Narrative* says, "Approximately 60 acres of land will be needed for terminal construction activities"[71] and that "the terminal will permanently occupy less than 40 acres."[72]

For purposes of our analyses, Lay-Down (Storage and Staging) Area does not include the use of barges on site. Resource Report 5, *Socioeconomics*, at page 16 declares, "Barges will not be used to bring equipment and materials to Bradwood via the Columbia River during the Project construction." But other parts of the application suggest that barges may be used extensively during construction. For example, the *Terminal Narrative*, at page 15 says:

> "During construction, materials and equipment will be transported to the site by road and barge using safe and efficient routes and vehicles. Heavy construction equipment will likely be delivered to and removed from the site by beaching a landing barge."

The extent to which barges may be used is significant here for two reasons. First, the barges provide additional area on which to place construction material and equipment. The applicant did not submit information on barge size. A quick search of the internet suggests that barges typically range from 150 feet by 50 feet to 400 feet by 100 feet and carry several thousand tons. If, for example, four 80-foot by 300-foot barges were beached at Bradwood for several years, the additional area provided by the barges would amount to about 2.2 acres.

The second issue presented by the barges is whether they are uses regulated by the LWDUO. A barge beached at Bradwood presumably would have some portion of its bow on land zoned MI, while most of its hull would extend into waters zoned AD.

9.2 Action Requested and Criteria for Approval

When the application was originally filed, the applicant and the County understood the area currently zoned MI plus the area proposed to be rezoned to MI would not be large enough to accommodate the "construction footprint."[73] Staff concluded that some construction lay-down

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[71] *Terminal Narrative*, page 19.

[72] *Terminal Narrative*, page 19.

[73] Resource Report 1, *General Project Description*, at page 16 says 62 acres will be needed during construction, while Table 1-1 in that report says the finished terminal will occupy 45.18 acres "within the fence line." Depending on which figures are used, Bradwood Landing thus will need from 15 to 22 acres during construction for what is referred to in various parts of the application as "lay-down," storage, or staging areas. This activity will, however, be limited to the area designated MI now and with the approved rezonings.

(continued . . .)

and other activities therefore would have to occur on nearby land zoned F-80. The applicant therefore requested two actions by the County:

> "1. Authorize lay-down and other construction within the MI Zone outright, in accordance with L3.624(10), 'water-dependent industrial and port uses.'"
>
> "2. Authorize lay-down and other construction activities within the F-80 Zone outright, in accordance with L3.553(1), 'auxiliary uses'":
>
> "Temporary on-site structures which are auxiliary to and used during the term of a particular forest operation. Auxiliary means a use or alteration of a structure or land which provides help or is directly associated with the conduct of a particular forest practice. An auxiliary structure is located on site, temporary in nature, and is not designed to remain for the forest's entire growth cycle from planting to harvesting. An auxiliary use is removed when a particular forest practice has concluded. A forest operation is any commercial activity relating to the growing or harvesting of any forest tree species."

The applicant also presented an alternative: If the County would not allow the construction activity in the F-80 Zone as an "auxiliary use," then the applicant requested a temporary use permit as well as a variance to the permit-duration limit of one year.

Later, the applicant presented information showing that the area at Bradwood zoned MI is larger than shown on the County's zoning maps. The County maps reflect the MI zoning adopted in 1983 and covering 50.9 acres. But in 1984, the County increased the area zoned MI by adopting Ordinance 84-15. The ordinance rezoned "about five acres" south of the mill site from F-80 to MI, increasing the amount of MI-zoned land to 54.95 acres. Apparently, the County's zoning maps were not updated to reflect that change. In these Findings we approve creation of an additional 7.86 acres of MI land through rezoning.

We find no evidence of any subsequent actions that would have altered or invalidated Ordinance 84-15. In this conflict between the zoning map and the ordinance, we conclude that the ordinance text prevails because it is the most recent official action by the County that we can find with authoritative information on the extent of Bradwood's MI zoning. The LWDUO also provides that where there is a conflict between the text and the map, the text prevails. L3.056. We therefore find that the area currently zoned MI at Bradwood amounts to approximately 55 acres.

(. . . continued)
Using these numbers, the "construction footprint" for the Project will be as large as 62 acres, while its "permanent footprint" will be 40 to 45 acres. The construction footprint and lay-down areas are shown in Figure 1-28 of the *General Project Description*, but no acreage figures are presented there. Applicant provided clarification on the acreage to be occupied by the facility in its November 2007 response to questions from Commissioners p. 8.

The applicant proposes various map amendments that would add 7.86 acres of land to the MI Zone. This includes the millpond acreage, which the County has stated in the Bradwood Subarea Plan should be zoned MI after it is filled. The areas to be rezoned from AN to MI are shown in Figure 12 of the *Terminal Narrative*. We review the proposed rezonings in Section 10.0 of these Findings. If those rezonings to MI are approved, the total area zoned for industrial use at Bradwood would come to about 63 acres, of which applicant plans to use approximately 58 acres.

The applicant therefore concluded that all construction lay-down and related activities could occur within the area zoned MI and withdrew the request to allow such activities in the F-80 Zone. In a May 25, 2007, email message from Michelle Rudd to Mitch Rohse, Ms. Rudd states:

> "You asked about Bradwood Landing's plans related to lay down and staging for the terminal. In Ordinance 84-15 the County expanded the MI zone to the base of the cliffs to reflect the County's original mapping intent.
>
> "Enclosed is an updated zoning map of the terminal area reflecting this correction. Bradwood Landing will limit its terminal construction staging/lay down activities to the corrected MI area and Area 3 as shown on the map. Bradwood Landing has requested that Area 3 be rezoned MI.
>
> "Given that the lay down and staging is consistent with the MI designation and construction of the facility, we believe no further permit is required."

All of this leaves two questions to be answered here:

- Are the construction activities allowed outright in MI Zone?
- Is the use of barges at Bradwood for extended periods of up to three years a "use" regulated by the LWDUO?

The answer to the first question is "Yes." As we explain in the next section, the LNG marine terminal proposed at Bradwood is a use permitted outright under L3.624(10),

> "Water-dependent industrial and port uses, including but not limited to:
>
> "(A) port facilities and/or shipping activities
>
> "(B) fuel storage and dispensing facilities."

If such a land use is permitted in the MI Zone, then it stands to reason that construction of the use also must be allowed. We assume that when the LWDUO speaks of "allowing a use," it means also to allow the construction activities that create the use. This the common practice, and it is a practice supported by L1.020, which says that the purpose of the LWDUO is "to coordinate County regulations governing the **development and use** of land and water, and to implement the objectives, goals and policies set forth in the Clatsop County Comprehensive

Plan." We note that "development" is defined in the LWDUO to include "construction." **We therefore find that to the extent the LNG marine terminal is permitted in the MI Zone, then the same MI-zoned lands may be used for lay-down, staging, storage, and other activities related to construction of the terminal.**

The answer to the second question, about barges, also is "Yes." We find that the use of barges for extended periods at Bradwood for construction is a use or activity subject to the LWDUO.

If barges are to be used, we presume they would be anchored or beached adjacent to the MI-zoned areas of Bradwood, in waters zoned AD. Because most or all of each barge would be in the water, they would not be in areas zoned MI, and they would not be allowed under the permits issued for the on-land construction in the MI Zone.

But the AD Zone allows water-dependent industrial uses outright. L3.744 says:

> "The following uses and activities, and their accessory uses and activities, are permitted in the AD zone under a Type I procedure, Section 2.015, and subject to the provisions of Section 3.754, Development Standards:
>
> ". . .
>
> "(9) Water-dependent commercial, industrial and port uses including but not limited to:
>
> > "(A) docks, moorages, piers or wharves
> >
> > "(B) fuel storage and dispensing facilities
> >
> > "(C) cargo loading and unloading facilities
> >
> > "(D) vessel construction, maintenance or repair facilities."

We therefore find that the L3.744(9) would authorize the use of barges in the water adjacent to the MI-zoned lands at Bradwood outright, subject to a Type I review and development permit. Bradwood Landing has not applied for such a permit. None will be needed if barges are not to be used in construction of the terminal. If barges are to be used, the necessary permit must be obtained.

9.3 Analysis and Findings

For reasons stated above, we find that "lay-down," storage, staging, and other construction activities related to building the LNG marine terminal at Bradwood are allowed outright in the MI Zone under L3.624(10), "water-dependent industrial and port uses."

We find that the applicant has withdrawn the application to allow "lay-down," storage, staging, and other construction activities on lands zoned F-80. The applicant has determined that, if the request to rezone 7.86 acres to MI is approved, the total area of land zoned MI at

Bradwood will be enough to accommodate all construction activities: no lands zoned F-80 will be needed or used.

We conclude that barges used at Bradwood for "lay-down," storage, staging, and other construction activities are allowed outright in the AD Zone under L3.744(9). The applicant has not obtained a permit for such a use in the AD Zone. If the applicant proposes to use barges in AD-zoned areas at Bradwood, a development permit will be needed.

9.4 Development Standards

The development standards applicable to the LNG marine terminal are described in the following section of these Findings and in Section 26.0.

9.5 Board Action: APPROVE

We approve Bradwood Landing's request to authorize lay-down, storage, staging, and other construction activities within the MI Zone outright, in accordance with L3.624(10), "water-dependent industrial and port uses."

10. LNG Storage Tanks and Gasification Plant

10.1 Proposed Development

Bradwood Landing describes its proposed LNG terminal as follows:

The primary components of the terminal will be:

- LNG storage tanks and associated piping
- LNG pressurization and vaporization systems
- Instrumentation and control facilities
- A fire protection and detection system
- A site security system
- Utilities, administrative and other buildings, infrastructure, and support equipment
- Screened water intakes, pumps, and piping to supply water to the terminal and to berthed ships for ballast and engine cooling.[74]

Elsewhere, the application notes that the terminal facilities also will include "the processing areas, pipe racks, control rooms, utility areas, warehouse, instrument buildings, maintenance facilities, administrative offices, and the gate house."[75]

The most prominent feature will be the LNG storage tanks. The applicant describes the tanks thus:

> "LNG will be pumped from the LNG carriers and temporarily placed in storage tanks. The tanks will consist of an inner primary container and an outer secondary container and will be designed and constructed in accordance with all applicable requirements, including 49 C.F.R. part 193 and National Fire Protection Association (NFPA) standard 59A. The terminal is designed for three tanks with a nominal storage capacity of 160,000 m3 each, for a total nominal LNG storage capacity of 480,000 m3. The estimated height of the tanks themselves will be 168 feet, although equipment on top of the tanks will extend up to 190 feet above grade. The tanks' outer diameter will be approximately 262 feet. The tanks will be painted to minimize visual contrasts with the surrounding terrain. A five-foot high containment berm will entirely surround the tanks and the terminal."

Some passages in the application materials describe an LNG terminal that would have three LNG storage tanks. Other passages describe a terminal with only two tanks, and space for a third. It thus is unclear whether the application's data and analysis on matters such as noise, air

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[74] *Terminal Narrative*, page 8.

[75] *Terminal Narrative*, page 20.

pollution, runoff, etc. pertain to a two-tank or three-tank development. For some variables, the number of tanks may make no difference, but for others, a three tank development might have impacts significantly different from a two-tank development. We find the evidence in this record adequate to justify approval of an LNG terminal with two tanks. We make no finding regarding the sufficiency of that evidence to justify approval of an LNG terminal with three tanks. If applicant seeks to construct a third tank at some point in the future, applicant must apply for and obtain all necessary permits and approvals from the county, and submit suitable evidence showing the likely effects and impacts of a third tank. Applicant has committed to the County that it will not appeal the conditions of approval set forth in Table 2 of these findings to FERC. (See November 14, 2007 letter from William S. Garrett to Board of Commissioners.)

In addition to the tanks, the LNG terminal's on-land facilities will include seven submerged combustion vaporizers, a vapor management system, two boil-off gas compressors, a main control room, a subsidiary control room, a fire detection and protection system, site security system, on-site wastewater and sewage disposal system, and a groundwater well for irrigation and sanitation.[76]

The terminal will be self-contained with regard to water, sanitation, and storm drainage, requiring no public utilities or municipal systems for those services.[77] The primary road access to the facility is Clifton Road. The facility also has rail access, and after completion of the terminal, dredging, and in-water facilities, it also will have deep-water access to the Columbia River. Electricity will come from the power line described in Section 6.0 of these Findings.

The LNG facility at Bradwood will have its own fire-detection, protection, and suppression systems and its own security force and security system, including fencing and lighting and helicopter landing areas for use in emergencies during construction and operation.[78] With its own fire-protection and security systems, the facility clearly will have stand-alone capacity to deal with some incidents and emergencies after the plant is complete. The extent to which it might rely on local service providers during construction and in the case of major emergencies is discussed in these Findings' Section 17.0 on public safety.

10.2 Actions Requested

The Bradwood mill site has a history of industrial use, and it is planned and zoned for future industrial use. The amount of land now planned and zoned for industrial use (54.95 acres) is not, however, configured to accommodate the proposed LNG facility (or sensitively designed industrial development requiring similar acreage generally) and allow applicant to avoid sensitive wetlands on land zoned MI on the western portion of the site. The applicant therefore seeks to increase the area zoned for industrial use by about eight acres. The land to be added consists of 2.51 acres in the millpond, and 5.35 acres in adjoining land. As described in

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[76] *Terminal Narrative*, pages 9-11.

[77] *Terminal Narrative*, page 11.

[78] *Terminal Narrative*, page 11.

Section 4.0 of these Findings, the applicant also proposes dredging near the site to provide a turning basin for the LNG carriers.

The site proposed for development of the LNG facility is planned and zoned in three different ways.

- The former mill site is designated in the plan for development and for dredged material disposal. The 55-acre site is zoned MI, with a DMD overlay zone.

- The aquatic areas bordering the mill site are designated in the plan for aquatic development and zoned AD, as is a former mill pond within the MI-zoned area.

- The area immediately to the west and northwest of the mill site containing some wetlands is currently designated "Natural" and zoned Aquatic Natural ("AN").

The applicant asks the County to take four actions for the LNG terminal site:

1. Consider the LNG marine terminal to be a water-dependent industrial use in the MI Zone in accordance with L3.624(10) and allow the use outright.

2. Conclude the Project is consistent with the Bradwood Subarea Plan or, in the alternative or concurrent action, amend the text of the Bradwood subarea plan to (a) delete wording about small- to medium-sized industrial plants, and (b) delete Bradwood as a dredged material disposal (DMD) site after construction of terminal, in accordance with L2.300.

3. Amend County planning and zoning maps to rezone 5.35 acres from AN to MI, redesignate the area 'Development,' and adopt appropriate Comprehensive Plan Amendment to Statewide Planning Goal 16, *Estuarine Resources*, to allow such rezoning.

4. Amend County zoning maps to rezone the millpond (2.51 acres) from Aquatic Development to Marine Industrial Shorelands (MI).

We consider the four requests in that order below.

Also, the proposed terminal site lies in the 100-year floodplain of the Columbia River. The County therefore has applied its Flood Hazard Overlay ("FHO") District there in accordance with L4.000. The applicant seeks no particular permit related to the FHO zoning but does present findings that the proposed industrial use is consistent with L4.000. We address that question below, following our findings on the requested permits and actions.

10.3 LNG Facility as Water-Dependent Use in the MI Zone

L3.624: "Permitted Developments," says:

"The following uses and activities, and their accessory uses and activities, are permitted in the MI zone under a Type I procedure, Section 2.015, provided that

commercial and subject [sic] to the provisions of Section 3.634, Development Standards:

". . .

"(10) Water-dependent industrial and port uses, including but not limited to:

"(A) port facilities and/or shipping activities."

LWDUO § 1.030 defines "water-dependent" as follows:

"WATER-DEPENDENT -- A use or use and activity which can only be carried out on, in or adjacent to water areas because the use requires access to the waterbody for water-borne transportation, recreation, energy production, or source of water."

The applicant concludes, "The proposed onshore terminal facilities are water-dependent because the use—receiving shipments of LNG from ocean-going ships—requires access to water and, more specifically, access to shipping channels navigable by ocean-going ships."[79]

We agree. We do not doubt that the proposed LNG marine terminal is a water-dependent use, that it is industrial, and that it involves a port and is consistent with S4.243(1)(A). **We therefore find that the proposed terminal is allowed outright in the MI Zone under the provisions of L3.624(10)(A), "water-dependent industrial and port uses."**

To develop the LNG facility and related port facilities at this site, applicant proposes to dredge a turning basin and to deposit some or all of the dredged materials at Bradwood. The MI-zoned land at Bradwood currently is zoned for such disposal under the provisions of L4.160, "Dredged Material Disposal Site Reservation Overlay District (DMD)."

"The County's inventory document states that the Bradwood DMD site's remaining capacity is about 420,000 cubic yards. Bradwood Landing proposes to place 350,000 to 700,000 cubic yards of dredged material on the Bradwood site, which would effectively fill it to capacity. Therefore, Bradwood Landing requests a plan amendment deleting the Bradwood site from the list of available dredged material overlay sites and from the DMD overlay zone, effective upon completion of the disposal of dredged material on the site."[80]

The sequence of events envisioned by the applicant is to:

- dredge Columbia River waters near Bradwood;

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[79] *Terminal Narrative*, page 28.

[80] *Terminal Narrative*, page 30.

- place the dredged materials on the MI/DMD-zoned land at Bradwood until the site's capacity is reached;

- remove the DMD overlay zone; and

- proceed with construction of the LNG facility in accordance with the MI zoning. The dredged materials will serve as foundation soils on which the facility will rest. They also will be used to construct a berm around it.

We address the issues of dredging, dredged material disposal, and removal of the DMD overlay zone in Sections 4.0 and 5.0 of these Findings.

10.4 Consistency with Northeast Community and Bradwood Subarea Plan Text

The Bradwood site is subject to the provisions in the Northeast Community Plan and the Bradwood Subarea Plan. In its explanation of how to use the plan, the Clatsop County Comprehensive Plan expressly states that the significance of narrative language is that it explains the basis for the County's position on each subject in the plan.

In the section "Using the Plan," the Comprehensive Plan states that

> "The Clatsop County Plan is a statement of public goals, policies, objectives, standards and maps that are intended to be used in making specific decisions about present and future land use. *In addition, the County-wide Element and Community Plans contain information, explanations and findings in narrative form. These statements have significance in clarifying the basis for the County's position on each subject in the Plan.* Goals, policies, objectives and standards are implemented when the County reviews individual land use actions. *To determine whether a specific land use proposal is appropriate a decision must be made on whether the proposal conforms to each applicable goal, policy and standard.*" (Emphasis added.)

Clatsop County Comprehensive Plan "narrative" is not the same as goals, policies and standards and is not an approval criterion. Where a comprehensive plan explicitly provides that certain plan provisions are advisory, such provisions are not mandatory even if worded in mandatory terms. *Downtown Comm. Ass'n. v. City of Portland*, 80 Or App 336 (1986). A requirement in a local code that development be consistent with comprehensive plan policies does not transform nonmandatory plan standards into approval criteria. *McGowan v. City of Eugene*, 24 Or LUBA 540 (1993).

The Northeast Community Plan says this:

> "The Bradwood industrial site is not currently used but offers **excellent potential for small to medium sized water dependent development.** There is deep water close to shore, some available vacant land, and railroad access. There are constraints to development, however, including **poor highway access** and proximity to the wildlife refuge." (Emphasis added.)

This is, however, a description of the site and not an approval criterion.

A two-paragraph section titled "Issues" in the Bradwood Subarea Plan also discusses features of the site:

> "The Bradwood industrial site offers **limited potential for small to medium sized water-dependent industrial development. There is deep water close to shore, some available vacant land, and railroad access. There are constraints to development, however, including poor highway access and proximity to the wildlife refuge.**"[81] (Emphasis added.)

> "Future development which would require extensive filling (impacting aquatic areas in excess of 20 acres) along the Columbia River shoreline for the purpose of creating additional industrial land is not appropriate. In order to fully utilize the marine industrial shorelands, it would be appropriate to fill the old Bradwood mill pond. This pond covers an area of less than 10 acres. This fill activity would be subject to the state and federal permit process and the development of proper mitigation areas."[82]

Similarly, this is a description of the site and not an approval criterion or policy. "Small to medium" language in the narrative text is provided as information. It does not stand alone as an approval criterion.

The Northeast Community Plan does contain this policy:

> "1. Development activities at Bradwood shall be of **small or moderate** scale, not involving extensive filling to create new land areas." (Emphasis added.)

The Bradwood Subarea Plan contains this policy:

> "1. Large scale fills along the Columbia River shoreline and impacting fill areas in excess of 20 acres is not appropriate."

One of the central questions in this review is this: What scale industrial use is appropriate at Bradwood? The MI zone is quite precise regarding the type of uses allowed there: it says water-dependent industrial uses are appropriate. The Bradwood site is specifically exempted from the building size limitations in the MI development standards. L3.634(16)(A). Reading the above policies together, we conclude that development activities at Bradwood shall be of a scale not requiring fill of more than 20 acres. The Project will result in fill of 13 acres. This is well below the 20 acres in the policies (read together) and therefore not extensive fill. Further, even if the 5.35 acres proposed for rezoning to MI is considered, the total remains below 20 acres. If the corresponding creation of a perpetual conservation easement of 4.7 acres of

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[81] *Bradwood Subarea Plan*, page 123.

[82] *Bradwood Subarea Plan*, page 123.

wetlands is included in the new land area, this represents a change of .6 acres, and the aggregate total remains substantially less than 20 acres. We impose as a condition of approval that applicant will not object to the County rezoning the 4.7 MI acres to AN.

The relationship of amount of fill and non-creation of new land areas (and therefore site size) to the scale of development is also evident in the County's Goal 9 narrative. The Clatsop County Industrial Lands Inventory discusses the size of industrial sites and notes that large industrial users need large sites and the lack of smaller industrial sites (less than 100+ acres) limits the ability of the jurisdiction to attract industrial users that are not large. The corollary of this is that industrial sites smaller than 100 acres in size accommodate small to medium industrial users.

The Goal 9 element of the Plan describes large sites as suitable for large scale uses, stating

> "[t]he Estuarine Resources Goal (#16) requires identification and protection of areas especially suited for water dependent development. These areas were identified in the County through the CREST plan and are appropriately protected in this plan. *** A problem exists in that the larger industrial tracts tend to be available on an all or nothing basis due primarily to ownership patterns. The only client currently capable of utilizing such a large parcel would be a heavy large industrial activity. ***By opening one or more of the large hundred plus acre sites for small industrial usage it may be possible to meet demand for industrial land more efficiently and also make it easier to attract smaller firms to the area.***" (Emphasis added.) Clatsop County Comp Plan Goal 9, page 9.

and

> "By opening one **of the large two hundred plus acre sites for small industrial uses,** it may be possible to meet projected demand more efficiently and also ease the task of attracting smaller firms to the area." *Id.* at 21.

These provisions illustrate that large scale industrial developments require at least 100 acres. Bradwood Landing is acquiring 411.6 acres at Bradwood. Only 10% of the site will be used for the development of the terminal. The majority of the terminal site is zoned Marine Industrial. Bradwood Landing seeks to have an additional 5.35 acres zoned MI and will place a perpetual conservation easement prohibiting development on 4.7 acres currently zoned MI but containing rare wetland habitat. The total developed area will be less than 40 acres. Bradwood Landing, which will occupy less than 40 acres and has substantially less than 100 acres zoned industrial is therefore small to medium in scale. This is consistent with the policy restricting large scale fills at the site. Once again, the Plan is clearly relating scale of development to the size of the site.

> **If the County intended for additional factors identified by staff to restrict the scale of development at Bradwood, we easily could have included Bradwood specific policies to that effect. We did not do so.**

Bradwood subarea policies also provide:

1) The exact location of the 200-foot access channel to the Bradwood site is not designated in the Plan. The location of the channel shall be determined at the time of permit application.

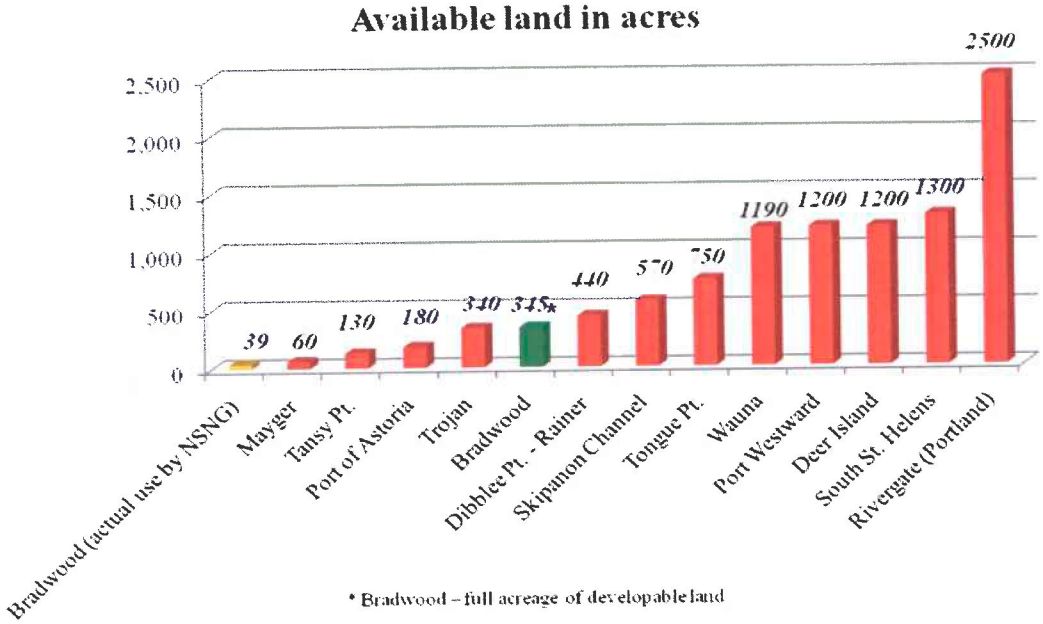
2) The old Bradwood millpond could be filled in order to provide a contiguous marine industrial site provided that proper state and federal permits were obtained.

Staff has argued the Project should be considered large based on considerations such as the area needed for powerlines or the size of the dredging area. The County easily could have provided policies restricting area for power lines or prohibiting dredging, or development above a specific size based on proximity to the wildlife refuge. It did not and new "policies" cannot be created in response to a pending application. The rules of statutory construction prohibit "inserting" what is omitted and the most reasonable conclusion is that the County's decision not to include other restrictive policies in the Subarea Plan was intentional. *PGE v. BOLI*, 317 Or 606 (1993).

Even if, however, a broader view is taken of what makes a development small/medium/moderate under this policy, we find the Project to be medium to moderate in scale. The proposed development is also medium/moderate in scale considering historic development of the site, which was of a large intensity. Bradwood has been an industrial site since the mid-1800's, and has been the location of much larger developments in the past than is currently being proposed. In its 1996 Industrial Lands Inventory, Clatsop County described Bradwood as the former location of a "large" lumber mill. At its height, the Bradwood mill employed 170 persons on site. Bradwood Landing will employ less than 50 people on site and is therefore significantly smaller than the "large" lumber mill that previously occupied the site when considering employee numbers.

The Comprehensive Plan describes industrial uses appropriate for rural sites as including those that do not have large numbers of employees traveling over county roads. During operations, Bradwood Landing employees traveling to the site on a given day will be under 50. This is not a large number and is substantially less than the 170 individuals employed at the Bradwood mill during the height of its operations.

In addition, Bradwood is small to medium when compared to historical levels of industrial use on the river. The 1975 Lower Columbia River Port Study by ODOT and area ports found Bradwood to be an appropriate site for deep draft port development and the physical/cultural components map classified the area as having only minor limitations on development.



The Bradwood Landing Project is consistent with Clatsop County Comprehensive Plan policies and zoning ordinance provisions designed to ensure the development of a site does not exceed its carrying capacity.

It is likely that the County did not include additional policies specific to Bradwood or the Northeast Community on the supplemental issues raised by staff since, to the extent the issues raised are relevant to site development, they are already addressed by other policies in the Comprehensive Plan or standards in the development code. With the approval restricted to development of two tanks, we find the evidence supports the conclusion that these policies are met.

Summary of Issue Raised and Responsive Plan Policy		
Issue raised by staff	**Policy or standard addressing issue**	**Facts Specific to Bradwood**
Highway Access	The Comprehensive Plan policies call for roads to be "designed, constructed and maintained" to "ensure unrestricted travel to and from a property," to provide adequate, safe and legal access with minimal public cost; "place the burden of the costs on the benefited person(s)," and "provide access for fire protection [and] ambulance, police, mail, school bus, public transit and garbage services." Goal 12, Policy 16. P20.9 Land transportation systems shall be maintained and improved to support existing	*The 1996 Industrial Lands Inventory observes that development at Bradwood that adds significant trips to Clifton Road will need to improve the road. Bradwood Landing proposes to make such appropriate improvements. The size of the construction workforce reflects*

Issue raised by staff	Policy or standard addressing issue	Facts Specific to Bradwood
	urban areas, allow industrial site development and support rural and recreational uses.	*construction timeframe and project component complexities and will not unduly burden the site for the short time it is ongoing because a park and ride facility is being developed to limit traffic on Clifton Road.*
Proximity to wildlife refuge	**The Fish and Wildlife Areas and Habitats portion of the Plan, policy 9, provides that** "The County shall submit all proposals with a potential for substantial impact or identified Columbian White-tail deer habitat (e.g., subdivision, dredge material disposal, industrial development, and land clearing of more than one acre) to the Oregon Department of Fish and Wildlife and the U.S. Fish & Wildlife for their determination of conflicts. If either agency identifies conflicts and makes recommendations for resolving these conflicts, the County shall implement those recommendations to the maximum extent feasible, consistent with other land use planning requirements. If in the future subpopulation of the Columbian White-tailed deer are located which are not within identified essential habitats, the County will consider recommendations for protection of these areas to the extent feasible consistent with other land use planning requirements, including but not limited to the Goal 5 Administrative Rule."	*USFW and ODFW are currently reviewing the project and their recommendations will be incorporated into the project through the Biological Opinion and Incidental Take Study.*
Size of area to be dredged and volume of dredge material	Columbia River Estuary Shoreland and Aquatic Regional Policies, policy 20.5(2), provides in relevant part that "[d]redging and dredge material disposal shall not disturb more than the minimum area necessary for the project and shall be conducted so as to minimize impacts on wetlands and other estuarine resources. Loss or disruption of fish and wildlife habitat and damage to essential properties of the estuarine resource shall be minimize through careful location, design, and construction of:	*This policy is met. Details concerning Bradwood Landing's consistency with this policy are provided in the applicant's letter addressing two Commissioners' request for additional detail on the dredging.* *Further, the information*

Issue raised by staff	Policy or standard addressing issue	Facts Specific to Bradwood
	(a) Facilities requiring dredging, (b) Sites designated to receive dredged material, and (c) Dredging operation staging area, and equipment marshalling yards. Dredged materials shall not be placed in intertidal or tidal marsh habitats or in other areas that local, state or federal regulatory agencies determine to be unsuitable for dredge material disposal."	*provided on dredging projects along the Columbia illustrate that considered in the context of Columbia River dredging, the Bradwood Landing Project is medium in scale.*
Powerline	General Public Facilities Policies 9 provides "When a Comprehensive Plan a zone change or both are requested that would result in a higher residential density, commercial or industrial development would result in a higher residential density, commercial or industrial development it shall be demonstrated and findings made that the appropriate public facilities and services (especially water, sanitation (septic feasibility or sewage) and schools) are available to the area being changed without adversely impacting the remainder of public facility or utility service area."	*The 1996 Industrial Lands Inventory states that the Bradwood site is appropriate for uses self contained or utilizing limited public facilities. The Bradwood Landing Project is such a facility.* *The powerline to serve the site is allowed in the MI and F-80 zone and will not adversely impact PacifiCorp's service area.*
Size of Facility Storage tanks	Marine Industrial Development Standard L 3.634(16) expressly exempts Bradwood from building size limitations.	*The tanks at the site are tall and wide. The MI Zone, however, includes in its development standards an exemption for Bradwood from otherwise applicable limitations on building size, suggesting this does not make the facility inconsistent with the site. L3.634(16)(A).*
Pipeline or pipelines	The Marine Industrial Zone is specifically allows fuel dispensing in L 3.624(10)(B).	*The pipeline will not be located on "new" MI land and is allowed under the development code.*

Issue raised by staff	Policy or standard addressing issue	Facts Specific to Bradwood
Rezoning of Land to Marine Industrial	Policy 20.15(7) Residential, Commercial and Industrial Development. Shoreland developments shall be designed and constructed to minimize adverse environmental and aesthetic impacts. Where appropriate and feasible development shall be clustered to provide open space.	*The rezoning clusters the development and allows avoidance of the rarest wetland habitat located in the MI area to the northwest.*

Staff concluded that the Bradwood Landing development is not consistent with a statement in the Bradwood Subarea Plan that Bradwood is appropriate for small to medium industrial development because of:

- poor highway access;
- proximity to wildlife refuge;
- amount of dredging;
- size of the construction workforce;
- an increase in the amount of land zoned MI and amount of land to be used (including additional area for the pipeline and powerline);
- the cost of the project; and
- the complexity of the application.

In response to the factors identified by Staff as relevant to the determination of whether a facility is small or medium, Bradwood Landing collected and submitted additional evidence and proposed additional road improvements.

Amount of Fill

The Subarea Plan specifically discusses the amount of fill that would be appropriate at Bradwood, and states that development that would require fill of wetlands and waters of more than 20 acres is inappropriate. The Project proposes to fill only 13 acres of wetlands. Staff opined that the amount of fill is not determinative of whether a use is small to medium. As discussed, our policy does relate scale to the amount of fill and the policy is met. The facility also occupies essentially the same amount of land currently zoned MI and AD, the physical constraint the County placed on the site through adoption of its zoning map. Thus, the scale of industrial development proposed is within that contemplated by the County when it adopted the Comprehensive Plan.[83] Further, even if staff's broader view were adopted, the magnitude of fill remains at least one element of a small-to-medium development, and is supportive of the conclusion that the Project is appropriately scaled for the site.

[83] *Terminal Narrative*, page 190.

Highway Access

The Subarea Plan notes that the area has limited highway access. The staff has suggested that a small to medium use is one that will not create a burden on the transportation access. As conditioned, the Project does not exceed the capacity of the access available.[84] It is the first three years, during plant construction, that are of most concern. During construction, activities will, at their peak, add less than 600 trips a day to Clifton Road. When the plant begins operating, the traffic it generates on Clifton Road will diminish. The traffic added to Clifton Road, both during construction and operation, is consistent with the capacity of Clifton Road. Further, the road will be substantially improved as part of the Project, addressing the concern related to "poor highway access."

Staff's original conclusions concerning highway access were based at least in part on a misunderstanding with respect to traffic associated with the Project, and Bradwood Landing submitted a revised and clearer traffic report (July 2007) explaining why the traffic levels are in fact consistent with the capacity of Clifton Road. Limited highway access is not inconsistent with this development, because of the low amount of traffic to and from the site during operations, the use of park and ride to minimize Clifton Road trips during construction, and special provisions for emergency services as discussed in Section 17.0 of these Findings. Clifton Road has been identified by the County as a County collector, and therefore is characterized by 300 to 1,000 average trips per day. Staff inferred, and we agree, that the performance standard for Clifton Road is 750 average trips per day. During the peak of construction, traffic associated with the Project and background traffic result in fewer than 600 trips on Clifton Road per day. During operations, the number of trips along Clifton Road will be less than 140 trips per day. These levels are well within the limits identified and represent a level of development consistent with any site development constraints related to the "poor highway access" described in the Subarea Plan.

Further, Bradwood Landing has agreed to substantial improvements to Clifton Road and has submitted a variance application for the S6.000 Table I provisions that cannot be met within the right-of-way. By maintaining traffic levels within the capacity of Clifton Road and improving its safety, Bradwood Landing has addressed the concerns related to highway access and is appropriate in scale.

Size of the Construction Work Force

The suggestion was also made that the Project should be considered neither small to medium nor moderate in scale because of the size of the construction work force. The size of the construction work force is not determinative of the size of the development as small to medium and, given the concerns raised about highway access, a park and ride facility is being developed.

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[84] The facility is also properly considered small to medium in comparison to other LNG facilities throughout the U.S. as discussed in the record.

The size of the permanent operational work force is a more appropriate measure of the scale of development, and at less than 70 total[85] workers is small to medium or moderate.

Proximity to Wildlife Refuge

The Project will support wildlife refuge through extensive mitigation measures that will generally improve habitat in the area.

Bradwood Landing has argued that there will be a substantial net gain in habitat function. The reduced availability and function of upland wildlife habitat at the terminal and associated facilities, including habitat for Columbian white-tailed deer, will be mitigated through restoration of approximately 150 acres of river bottom forest habitat, primarily at the Peterson Point (Karamanos) site between Westport Slough and the Columbia River, about six miles southeast of Bradwood. The restoration will be consistent with the requirements of the Oregon Department of Fish and Wildlife's ("ODFW") fish and wildlife habitat mitigation policy, *see* OAR ch 635, div 415, and will include underplanting acreage that is currently hybrid poplars with native conifers and browse shrubs, and planting additional acreage that is currently bare ground and blackberries with native riparian trees and shrubs. Habitat of marginal use and value due to a history of active human use will be lost at the terminal, but the restored habitat will be of the highest potential value for the same species, because the replacement ratio will also be greater than 1:1. The landowner Karamanos manages the property to benefit winter waterfowl and other wildlife species that simultaneously creates excellent browse opportunities in a mosaic of upland, riparian, wetland, meadow and open water habitats that are of high-quality for all life stages of CWTD. Bradwood is closely coordinating with the landowner and USFWS to design and protect habitats that will be of equal and in most cases higher quality than those habitats impacted at Bradwood and along the pipeline.

The Salmon Enhancement Initiative

The Project to develop a liquefied natural gas facility in the lower Columbia River includes an environmental commitment that Bradwood Landing has stated ensures a significant net benefit to salmon productivity and the lower Columbia ecosystem. In addition to avoidance and minimization of impacts and robust compensatory mitigation, Bradwood Landing is committing $46-$59 million (depending on the life of the Project) to a Salmon Enhancement Initiative ("SEI") to ensure the Project significantly improves and helps to sustain ecosystem function and salmon productivity in the lower Columbia estuary. These monies will be spent on advancing high priority recovery plan actions for benefiting terrestrial and aquatic species and protecting and restoring their habitats.

FERC included the SEI in its biological assessment for the Project. The parties to the SEI recognize that this initiative is not required by any federal, state or local regulatory agency but that it is a voluntary enhancement commitment included in Bradwood Landing's proposed action. Under the SEI, the Lower Columbia Fish Recovery Board will help convene regional

[85] Actual employees on the site at any one time will be significantly less than 70.

interests (tribes, watershed and estuary groups, state and federal agencies from Oregon and Washington) to develop a Steering Committee that will allocate SEI funds. Bradwood Landing anticipates that U.S. Fish and Wildlife Service and U.S. NMFS will be participants, and the National Fish and Wildlife Foundation will serve as the SEI's fiscal agent.

Bradwood Landing and the U.S. Fish and Wildlife Service have been discussing the possibilities of utilizing the SEI to assist in the recovery of both aquatic and terrestrial species, including the Columbian White-Tailed Deer (CWTD). Pursuant to these discussions, Bradwood Landing has been investigating and pursuing opportunities to protect and restore high priority habitat for CWTD and other species through the SEI by securing conservation easement options. Such options could be exercised once the SEI Steering Committee is convened (following Project permitting) to consider SEI funding proposals.

Amount of Dredging

Staff concluded that the amount of dredging associated with the turning basin for the Project was not small to medium in scale because it involves the removal of 700,000 cubic yards over 46.2 acres. The river is naturally deep in this location, however, and breaking this number down, it is comes to 0.35 cubic yards per square foot.[86] Dredging is required over 46.2 acres of AC-2 zoned water not due to the size of the terminal development, but rather due to the characteristics of the ships that deliver the product—in this case, LNG. Essentially, the size of the area to be dredged is equivalent to a highway offramp sized to allow trucks to maneuver and deliver product. It is not determinative of the size of the onshore facility. In response to concerns raised, however, Bradwood Landing submitted evidence to illustrate that in the context of Columbia River dredging projects, the Project is in fact medium or moderate in scale, with projects both larger and smaller along the Columbia. During one of the Planning Commission meetings, the observation was made that there were dredging projects identified as larger than Bradwood Landing that were public projects. We do not believe, however, that the nature of the dredging sponsor as public or private relates to whether a project is medium in scale. It makes no difference to the environment whether the party removing material is public or private. Further, many publicly completed dredging projects are intended to further private industry.

Use of Additional Land for the Pipeline, the Power Line, and Soil Disposal

The existing LWDUO provisions allow the pipeline and power line within the Bradwood Subarea, and no new MI acreage is proposed for those uses. The application to store soil on-site in the F-80 site during construction has been withdrawn and we do not consider the request to increase the size of the LNG use.

Further, the request to rezone some land to MI does not support a conclusion that the scale of development is large. First, the Bradwood Subarea Plan anticipated rezoning of the mill pond to MI. Thus addition of that area to the amount of land zoned MI should not be considered an increase in the industrial footprint envisioned by the County. Moreover, applicant studied a

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[86] 700,000 cubic yards/46.2 acres*(43,560 sqft/acre)=0.35 cubic yards/square foot.

broader area than CREST had and submitted detailed information concerning wetlands on the site and a substantial amount of MI-zoned land on the western portion of the property contains sensitive wetlands and is outside the construction area. The addition of land zoned MI, as compared to the MI acreage that will not be used, is minimal and therefore negligible. The AN land to the south of the MI site also appears to be consistent with the County's original mapping intent since much of it is uplands and was part of the original mill site.

The 1990 exception described the site as "a medium sized water-dependent industrial development tract."[87] The minimal increase of the total MI land, will not transform the site into a large development tract. The shift in acreage utilized as MI is more to avoid impacts to the highest quality wetlands on the site, which happened to also be zoned MI, rather than to increase the total developed area. Further, as mentioned above, the County may rezone 4.7 acres currently zoned MI to AN.

The Project is therefore appropriate in scale for the site given many factors.

In addition to meeting the relevant policies, Bradwood Landing's project is a medium or moderate-scale development given

- Low operational traffic (less than 140 trips per day);
- Low amount of fill (~ 13 acres);
- Minimal impact on the wildlife refuge;
- A minimal increase in the amount of MI zoned land to be utilized;
- Medium-scale dredging equivalent to 0.35 cubic yards per square foot in the context of projects along the Columbia River;
- Operational workforce of less than 70;
- Cost of the facility and complexity of the application; and
- Comparing proposed use to level of use historically.

For the above reasons, the Project meets the applicable criteria. Staff states in the October 15, 2007 staff report that the Project "surely must [be] considered large" yet cites nothing in the plan or code to support the position that the cost of the project or the size of the application reflects the scale of the Project. As a planning commissioner noted, the Project could be 4 feet by 4 feet—small yet expensive. The size of the application in significant part reflects the complexity of our code and the filing of multiple applications where there was debate regarding the proper application for a particular project component. The size of the application does not transform small to medium into an independent approval criterion or the Project into an inappropriate development when the policies of the Plan are applied.

The County specifically adopted policies relating the scale of development to the amount of fill. The Project is consistent with those policies. Other issues staff has raised concerning items such as proximity to the wildlife refuge and the scale of the dredging are addressed by other policies the County chose to adopt and are the appropriate mechanism for determining

[87] The 1990 exception also described a small industrial development site as 20+ acres.

whether the scale of the Project is appropriate. As discussed, the Project is consistent with the applicable policies and therefore consistent with the "small to medium" size narrative language.

The Bradwood Landing project meets the conditions of a small to medium size industrial development because it complies with the policies Clatsop County has adopted to ensure that development on the site does not exceed the ability of the site to accommodate the use.

The 1990 Bradwood Subarea Plan states that

> "The Bradwood industrial site offers limited potential for small to medium sized water-dependent industrial development. There is deep water close to shore, some available vacant land, and railroad access. There are constraints to development, however, including poor highway access and the proximity of the wildlife refuge."

The 1996 Industrial Lands Inventory states that:

> "Bradwood is suitable for industry that needs marine access combined with railroad siding [sic] but limited highway access and limited or self-contained public facilities."

The 1996 Inventory also observes that:

> "Bradwood is at the end of a three mile long asphalt county road (*sic*) connects with U.S. Hwy. 30 due south. Improvement to this County road would be necessary to accommodate any significant industrial traffic loads. Since the railroad passes through the site and the Columbia borders it, barge and rail traffic may be the preferred method of transportation."

A statement in the narrative is not an independent approval criterion. Rather, the Comprehensive Plan states that narrative is intended to inform the plan. Considering both the 1990 Comprehensive Plan text and the 1996 Comprehensive Plan text in Goal 9 and the Industrial Lands Inventory as they inform goals, policies and standards, the Bradwood Landing project is of a scale appropriate to the site and is properly deemed moderate or medium in scale. The narrative section of the 1990 Bradwood Subarea Plan describes Bradwood as offering limited potential for industrial development. The 1996 Industrial Lands Inventory states Bradwood is suitable for "industry that needs marine access combined with railroad siding [sic] but limited highway access and limited or self contained facilities." The Bradwood Landing project is such an industry. It needs marine access in order to accept tanker delivery of LNG and will use the railway to deliver construction materials to the site. Bradwood Landing will improve Clifton Road as anticipated in the Inventory. The specific proposal is appropriate because the Project conforms to each applicable goal, policy and standard.

The Northwest Community Plan recognizes the excellent potential of the Bradwood site for small to medium sized development. The first paragraph in the "Issues" section of the Bradwood Subarea Plan discusses the site's potential for certain forms of development. It declares that the site "offers limited potential for small to medium water-dependent industrial development." It notes that the site has certain advantages—proximity to deep water, rail access,

etc. It then notes that the site has some "constraints"—specifically, "poor highway access" and "proximity of the wildlife refuge." "Issues" of "poor highway access" and "proximity to the wildlife refuge" are addressed through traffic and environmental mitigations proposed in this development application.

The second paragraph makes no mention of project size. Rather, it deals entirely with the topic of fill. It concludes that "extensive filling (impacting aquatic areas in excess of 20 acres)" would not be appropriate. It then goes on to explain that some lesser amount of fill would be appropriate. The amount of fill is linked to scale in the Northeast Community Plan provision that development activities shall be of small or moderate scale, not involving extensive filling to create new land areas.

In the final analysis, the policy referencing scale with which the Project must be consistent is "Development activities at Bradwood shall be of small or moderate scale, not involving extensive filling, to create new land areas." We find that to be the case.

Further, the Land Use Board of Appeals has held that it is appropriate to balance arguably conflicting policies. In this case, balancing of policies, such as preference to use and improve existing port sites, supports finding the project consistent with the plan as a whole. *Waker Associates*, *supra*.

For these reasons, we find that the proposed development is of small to moderate scale, not involving extensive fill to create new land areas. Thus, amendment of the Comprehensive Plan is not believed necessary and need not be addressed.

One of the Northeast Area Community Plan policies provides that

> "Coastal shorelands in areas outside of urban or urbanizable areas shall only be used as appropriate for *** [w]ater-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the County that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas."

The County discusses in the Comprehensive Plan its reasoning for determining that some industrial land should be located outside urban and urbanizable areas because they serve a development market not met by land within the UGB. Clatsop County has identified in its Comprehensive Plan a specific need for viable industrial sites less than 100 acres in size and a need for some industrial sites outside the various UGBs in the County.

> "Economic activity or other non-farm activity which could be sited in rural areas, outside of urban or urbanizable areas, includes activities which:
>
> > "*-depend on a unique site specific resource which is located outside of planned urbanizable land*
> >
> > "*-do not need or desire an urban level of services or facilities*

"-cannot budget the costs of unneeded urban services and maintain the comparative advantage necessary to market their product

"*-are compatible with the accepted farm or timber management practices of adjacent activities*

"-have necessary facilities already in place

"-existed prior to adoption of Comprehensive Plan or LCDC goals

"*-are not labor intensive and do not require a large number of employees to travel from urban areas over rural roads.*" (Emphasis added.) Clatsop County Comp Plan Goal 9, page 21.

The County Comprehensive Plan states in Goal 9 that the characteristics that make siting an industrial use outside the UGB appropriate include unique site specific resources located outside the urbanizable land. The requested redesignation of certain shorelands to Marine Industrial (MI) is needed to facilitate the use of a marine industrial site the County chose to create through the exception process. The County specifically recognized the unique suitability of the Bradwood site for marine industrial development in the Comprehensive Plan. The land already zoned MI has already been determined to be appropriate for water-dependent industrial use.

Another need that cannot be accommodated by water-dependent development in the urban or urbanizable area is the need to provide funding for infrastructure facilities outside the urban or urbanizable area. Allowing this development facilitates the substantial improvement of a county road to meet nearly all of the standards the County has stated apply to development of the site. The need to identify funding sources for improvement of a county road to compliance with the majority of county standards cannot be met by distant development in or near a UGB. There is no nexus. Physical improvement of a section of the railroad will also occur at this location and would not occur based on development in or near the UGB.

Staff and Oregon LNG have suggested that the mere existence of the Oregon LNG project proves that the need met by the proposed redesignation can be met on urban or urbanizable lands. They are incorrect for numerous reasons. As discussed above, this approach defines need too narrowly. Further, even if the need is narrowly defined to be provision of a site for a liquefied natural gas facility, the existence of the Oregon LNG project does not establish that such a need can be met within an urban or urbanizable area. The Oregon LNG facility has merely obtained an industrial land use designation for its site from the City of Warrenton. Oregon LNG has an industrially zoned site. It has not proceeded through the type of project-specific review sought by Bradwood Landing in this process. None of the required and particularized inquiries into an LNG facility on the site have been made in a public setting. Oregon LNG has not sought any pipeline route permits from Clatsop County and numerous local, state and federal permits must be obtained by Oregon LNG before it can be said with certainty that the Oregon LNG site is a viable terminal site. There is a risk of contaminated dredge materials at Warrenton as has been the case with dredging at the Port of Astoria. LNG facilities are permitted only by the Federal Energy Regulatory Commission (FERC). Congress

has instructed FERC to work with local communities to encourage the siting of LNG facilities in remote areas. The need to promote consistency with this policy direction cannot be fully met within the UGB.[88]

The need served by the redesignation of land from AN to MI (discussed further in Section 10.5 below) is locationally dependent and cannot be met away from Bradwood. The need to realign the boundaries of the existing site to minimize environmental impact and facilitate a compact layout at Bradwood cannot be satisfied anywhere other than Bradwood and therefore cannot be met on shorelands in urban and urbanizable areas. This redesignation results in the avoidance of a net 3 acres of wetland and those wetlands avoided (and located on land already zoned MI) are of rarer quality. The redesignation allows the arrangement of the site so, similar to the filling of the mill pond, it is not bisected by the railroad and may efficiently function as one industrial site. The need met by these redesignations is not limited to the provision of a suitable site for an LNG terminal. As stated above, the use of the shoreland area for the terminal results in a more environmentally sensitive, cohesive marine industrial site and fulfills an identified need for rural industrial sites.

The proposed redesignation is consistent with the policy requiring that coastal shorelands be used for water-dependent industrial uses only when the use will satisfy a need which cannot be accommodated elsewhere. The use will satisfy the need identified by the County when the larger site is designated MI because it improves the configuration of the existing County site and serves the public need to protect rare wetland habitat. By taking steps to recognize the realities on the site, including the fact that a large part of the land adjacent to the railroad is zoned AN but contains no wetlands, the redesignation allows the County to configure a Marine Industrial site that provides a similar amount of usable area to that already zoned MI, with avoidance of rare wetlands in the existing MI area. Further, a condition of approval will require that the applicant not object to County-initiated rezoning of the 4.7 acres of MI zoned wetlands being avoided. Clifton Road is used to provide access to numerous properties other than that of Bradwood Landing. These properties will clearly benefit from the road improvements. The physical railroad track in this location will not only be realigned, it will be upgraded. This benefits the railroad and those served by it. The development of an industrial use at the site serves the need of providing private funding for infrastructure improvements in rural areas.

10.5 Rezoning 5.35 Acres from AN to MI

The applicant proposes rezoning some land at the edge of the property from AN to MI in accordance with LWDUO 2.300, and amending the county Goal 16/17 element as appropriate. Areas 1, 2 and 3 on Bradwood Landing's zoning map are proposed for rezoning from AN to MI. These areas total 5.35 acres. Of the area currently zoned AN, 3.63 of the 5.35 acres are upland.

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[88] Another specific need served by the Project is to provide an additional source of natural gas to the region, and also to serve specific markets such as Wauna, the Mist Storage Field and the PGE Beaver Plant. It has not been established that these needs can be served in an economical manner by the Oregon LNG project proposed in Warrenton, and environmental impacts would increase with the additional pipeline length required.

The requested rezone results in the use of 1.7 acres of wetland for the project while avoiding 4.7 acres of wetlands zoned MI. This rezone saves a net 3 acres of wetlands.[89]

LWDUO 5.412 sets forth eight zone change criteria:

"The governing body shall approve a non-legislative zone designation change if it finds compliance with Section 1.040, and all of the following criteria:

"(1) The proposed change is consistent with the policies of the Clatsop County Comprehensive Plan.

"(2) The proposed change is consistent with the statewide planning goals (ORS 197).

"(3) The property in the affected area will be provided with adequate public facilities and services including, but not limited to:

"(A) Parks, schools and recreational facilities

"(B) Police and fire protection and emergency medical service

"(C) Solid waste collection

"(D) Water and wastewater facilities

"(4) The proposed change will insure that an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards.

"(5) The proposed change will not result in over-intensive use of the land will give reasonable consideration to the character of the area, and will be compatible with the overall zoning pattern.

"(6) The proposed change gives reasonable consideration to peculiar suitability of the property for particular uses.

"(7) The proposed change will encourage the most appropriate use of land throughout Clatsop County.

"(8) The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County."

These criteria are restated below in italics, followed by findings for each of the proposed zone changes in roman type.

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[89] Utilization of the full area already zoned MI would increase the wetlands impacted by at least 2.5 times.

***L5.412(1)**: "The proposed change is consistent with the policies of the Clatsop County Comprehensive Plan."*

The applicable policies from the Comprehensive Plan are addressed in pages 97-152 of the *Terminal Narrative* and the findings incorporated herein.

***L5.412(2)**: "The proposed change is consistent with the statewide planning goals (ORS 197.175(2))."*

The statewide planning goals are addressed in Section 27 of these Findings. We also note the following:

> "Goal 16 is to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries."

Reasons for not applying the Goal 16 natural management unit restrictions to the AN area are discussed in section 3.3.10 of the *Terminal Narrative*, the *Alternatives Analysis*, the *Biological Assessment*, and elsewhere in these Findings. The fill is necessary to accommodate the proposed LNG terminal, which is a water-dependent marine industrial use for which the remainder of the terminal site is designated. The area of fill cannot be made smaller, and if the change is not approved, the marine industrial designation for the site will likely continue to be unimplemented. Moreover, the wetlands that will be filled are part of a larger site that has long been used for industrial purposes and has recently been used for the disposal of dredged material from the Columbia River navigation channel. Bradwood Landing proposes to compensate for the loss of these wetlands with more acres of high-quality estuary wetlands that it states will provide a net benefit to the estuarine ecosystem.

The reasons for not applying the Goal 16 natural management unit restrictions to the area include:

- This area is in large part not wetlands. Goal 16's Natural management unit designation, and the County's Aquatic Natural zone, is only properly applied to estuarine wetlands and other aquatic areas.

- The Comprehensive Plan and zoning ordinance do not contain a procedure for correcting map errors; the only way to correct a map error is the amendment process.

- Because the proposed rezone area largely lacks estuarine wetland characteristics or values, it can be removed from the Natural management unit designation with no substantial loss of estuarine resources.

We are also imposing as a condition of approval a requirement that applicant not object to County initiated rezoning of approximately 4.7 acres of land for MI to AN, resulting in a net decrease of AN zoned land of only 0.6 acres.

The proposed rezone requires a location in a Natural management unit because the Natural management unit is adjacent to the MI site, acknowledged as a unique resource in the County. The terminal area cannot feasibly be made more compact or relocated to avoid the rezone area without adversely affecting other wetland or sensitive areas and without impairing the Project and its purposes.

L5.412(3): *"The property in the affected area will be provided with adequate public facilities and services including, but not limited to:*

"(A) Parks, schools and recreational facilities

"(B) Police and fire protection and emergency medical service

"(C) Solid waste collection

"(D) Water and wastewater facilities."

The AN to MI zone change satisfies subsection 5.412(3) and is intended to support the proposed LNG terminal. Because the core of Bradwood and the adjacent Columbia River are zoned MI and AD, respectively, which allow water-dependent marine industrial development, the proposed zone changes will not add substantially to the public facilities and services needs of the Project.

Because no residential development is proposed, the Project does not require public parks, schools, or recreational facilities. In addition, as discussed in *Resource Report 5*, the employment increase generated by the Project is unlikely to substantially increase the demand for these services.

Public facilities and safety are addressed more fully in Section 17.0 of these Findings. The Project will provide its own security force and fire suppression systems. The existing public police, fire, and medical services will likely rarely be called upon and are adequate to serve the Project if additional funding and resources are provided by the Applicant. Some law enforcement duties in aquatic areas fall on the U.S. Coast Guard. The Project will be served by U.S. Coast Guard facilities in Astoria and the Coast Guard Air Station in Warrenton. Bradwood Landing has coordinated development plans with the Coast Guard.

The Project will generate very little solid waste. Existing solid waste collection services will be sufficient. No solid waste will be disposed of onsite. As discussed in section 3.2 of the *Terminal Narrative* and elsewhere, the Project will provide its own water from a groundwater well, the Columbia River, and bottled water for drinking water. No community water system is needed. The Project will also provide its own wastewater disposal facilities. An on-site subsurface sewage disposal system will be used for sanitary wastes; storm water runoff and vehicle wash water will be captured and directed to swales for infiltration into the ground; and SCV condensate and hydrostatic test water will be discharged to the Columbia River following appropriate treatment.

L5.412(4): *"The proposed change will insure that an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards."*

Bradwood is served by rail, road, and the Columbia River navigation channel. The proposed zone changes do not conflict with the provision of an adequate and safe transportation network, nor will they cause undue traffic congestion or hazards.

Rail transportation will be protected and improved by the proposed terminal facilities as the realigned track section will be upgraded. The proposed zone change will facilitate the realignment of the railroad tracks, which will, in turn, ensure that there are no conflicts between the railroad and the LNG terminal. Bradwood Landing is coordinating the realignment with ODOT and the Portland & Western Railroad.

Motor traffic will travel to and from Bradwood Landing via Clifton Road and U.S. Hwy. 30. The *Traffic Impact Analysis* and its updates support the conclusion that the existing road system, with the improvements to Clifton Road discussed in Section 15 of these Findings, will be sufficient to serve the Project safely and without undue congestion. Bradwood Landing will take additional measures to reduce traffic effects during construction, including the use of a temporary off-site construction worker parking area at Wauna.

L5.412(5): *"The proposed change will not result in over-intensive use of the land, will give reasonable consideration to the character of the area, and will be compatible with the overall zoning pattern."*

Approximately 5.35 acres at the terminal site consists of lands in the County's Aquatic Natural ("AN") zone. Bradwood Landing proposes to rezone these lands to MI and to fill them as necessary. The proposal will not result in over-intensive use of the land. This area is adjacent to the MI-zoned industrial site, which has historically been used for industrial purposes and dredged material disposal and is designated for future industrial development. A significant part of this property was formerly occupied by mill-related improvements. Bradwood Landing's proposed compensatory and other mitigation will more than compensate in quantity and quality for the loss of the wetlands in this area, producing a net gain for the estuary ecosystem. Thus, rezoning these areas and filling them will help implement the existing MI zone designation for Bradwood while benefiting the estuary.

L5.412(6): *"The proposed change gives reasonable consideration to peculiar suitability of the property for particular uses."*

The proposed zone change from AN to MI for lands at the terminal site is also peculiarly suitable for the proposed use. This area is suitable for MI zoning because of the adjacent MI zoning and the former and designated future industrial use of the terminal site. In addition, the Comprehensive Plan contemplates that it will be necessary to fill up to 20 acres of wetlands to provide sufficient space for industrial development of Bradwood. Because of the compact design of the terminal, only approximately 13 acres will need to be filled (including the former mill pond), and only approximately five of the acres which include wetlands in their perimeter are currently zoned AN. The compensatory and other mitigation proposed by Bradwood

Landing will ensure that the filled and rezoned lands are replaced by wetlands of greater quantity and quality.

> ***L5.412(7)***: *"The proposed change will encourage the most appropriate use of land throughout Clatsop County."*

The proposed zone changes contribute to the most appropriate use of the land at Bradwood Landing, and elsewhere in the County.

Bradwood is one of a small number of sites in the County zoned for marine industrial uses. The Comprehensive Plan and Oregon's statewide planning program both recognize the unique qualities that make a site suitable for waterfront industrial development. Bradwood has many of these relatively uncommon attributes: access to the Columbia River's deep-draft navigation channel; deep water close to shore; road and rail access; a remote location with a relative lack of conflicting uses; and a long history of industrial use. The proposed zone changes facilitate the water-dependent industrial development for which the Comprehensive Plan designates Bradwood. The County's planning documents make clear the County's desire to see the site developed for an appropriate water-dependent industrial use. The proposed zone changes make Bradwood fully suitable for the proposed facilities. The proposed zone changes, and development of the Bradwood Landing site for the proposed use, help the County encourage appropriate land use throughout the County, particularly at other water-dependent industrial sites as they remain available for uses that do not require the site features to be utilized by Bradwood Landing. Moreover, the compensatory and other mitigation proposed by Bradwood Landing will ensure more aquatic habitat of greater quality in the estuary. Thus, the proposed change will encourage the most appropriate use of land throughout Clatsop County.

> ***L5.412(8)***: *"The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County."*

The proposed zone changes will not be detrimental to the health, safety or general welfare of the County. As discussed in sections 3.3.5 and 3.3.10 of the *Terminal Narrative*, the rezone is the minimum necessary to allow the development of the Project. Moreover, Bradwood Landing will implement a number of measures to minimize the effects of dredging and filling—*e.g.*, limiting dredging to ODFW's preferred in-water work period and capturing and treating all dredged disposal runoff and storm water runoff to protect water quality in the Columbia River, Hunt Creek, and adjacent wetlands. Finally, to the extent that filling and dredging produce adverse effects, Bradwood Landing will provide mitigation.

The consistency of the proposal with the requirements in L5.412(8) (as well as L5.412(3) and (4)) is also established in Section 17.0 of these Findings, "Public Safety Issues Related to Land Use." **We therefore find that the proposed rezoning does comply with L5.412.**

10.6 Rezoning the Mill Pond from AD to MI

The applicant also proposes to amend County planning and maps to rezone the mill pond (2.51 acres) from Aquatic Development to MI. In this case, no change of plan designation is

involved: the pond already is designated "Development." Likewise, no Goal 16 exception is requested. An exception already was adopted, in 1990.[90]

L5.412 sets forth eight zone change criteria. We listed those in the preceding section and will not repeat them here. Applicant's findings with regard to those criteria are discussed in a section of the *Terminal Narrative* that addresses all the proposed zone changes collectively.

The proposed filling of the old mill pond will not result in over-intensive use of the land. The County has already adopted an exception to Statewide Planning Goal 16 for this site. A mill pond is not needed for the LNG terminal, and its location at the center of the terminal site would prevent an efficient and compact design for the site if the pond were not filled. The proposed zone change, from AD to MI for about 2.5 acres, will not result in over-intensive use of the site. The current AD zoning, the pond's historic use as a log pond, the County's previous land use decisions regarding the pond, and the surrounding MI zoning all justify the proposed zone change and filling of the site. The potential adverse effects associated with filling the mill pond will be minimized by removing fish in the pond to the adjacent river before it is filled and by assuring that construction-related turbidity does not enter the river. Unavoidable aquatic effects associated with the fill will be mitigated as described in the application, supplemental materials and in the Biological Assessment.[91]

The former mill pond is peculiarly suitable for the MI zone. The proposed use for the mill pond is as part of the Bradwood Landing terminal. The mill pond is a suitable site for the onshore terminal facilities because of its long history of industrial use; because the County has already recognized the appropriateness of MI zoning for the pond in its previous land use decisions; because the mill pond does not provide high-value estuarine aquatic habitat; and because a mill pond does not serve any purpose for a modern industrial use, such as the LNG terminal.[92]

The existing AD zone allows water dependent development. We also note, however, that the Bradwood Subarea Plan in effect calls for such a rezoning. It says:

> "In order to fully utilize the marine industrial shorelands, it would be appropriate to fill the old Bradwood mill pond. . . . The mill pond will be designated Development Aquatic until such time as it is filled; then it will be placed in the Marine Industrial Zone."[93]

Regarding the public safety issues described above, we conclude that this smaller rezoning will have little or no impact on emergency services or traffic. This rezoning involves

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[90] For a description of this 1990 exception, see Section 4.0 of these findings.

[91] *Terminal Narrative*, page 238.

[92] *Terminal Narrative*, page 239.

[93] *Bradwood Subarea Plan*, page 123.

land that already is designated in the Comprehensive Plan for development. **We therefore conclude that the proposal to rezone the 2.51-acre mill pond site from AD to MI is consistent with all applicable criteria from L5.412 and with plan policies pertaining to the mill pond.**

10.7 Compliance with the Flood Hazard Overlay (FHO) District

The FHO Zone's general purpose is to "reduce flood damage or loss of life in those areas" subject to flooding. The zone accomplishes that purpose by regulating development or alteration of structures. The regulations generally aim to prevent damage to new structures; to minimize damage that newly developed structures might cause to other; and to restrict development that might increase the risk or extent of flooding.

A key provision is a requirement for most structures to have the elevation of their lowest floor at least one foot above the level of the hundred-year flood. For example, L4.030(1) says, "New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above the base flood elevation." Some provisions aim to reduce the possibility of structures such as manufactured homes from floating away. Other provisions require that drainage ways and water courses not be altered in such a way as to increasing flooding.

FHO requirements for "critical facilities," however, are more stringent. They require the elevation of the lowest floor to be at least one foot above the 500-year flood.[94]

LWDUO 4.011 defines "critical facilities" thus:

> "CRITICAL FACILITIES" means those structures or facilities which **produce, use, or store highly volatile, flammable, explosive, toxic, and/or water-reactive materials**; hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood; police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood; and public and private facilities that are vital to maintaining or restoring normal services to flooded areas before, during and after a flood." (Emphasis added.)

The proposed LNG facility will store significant quantities of natural gas, a flammable material. We therefore conclude that the proposed LNG terminal is a critical facility, as defined at L4.011.

Bradwood Landing's consolidated application includes a 12-page document titled "Finding Related to Flood Hazard Overlay District," February 12, 2007. The first page of that document says, "Deposit of the dredge material on site will elevate the building site to a point above the 500 [sic] flood level." The 500 year flood elevation is 13.83 NAVD at the terminal

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[94] LWDUO 4.028(5).

site. Final grade elevation of the site after deposit of the dredge material varies from 20 to 25 NAVD.

From that, we conclude that the application complies with the floor-elevation requirement of L4.028(5). We also require, as a condition of approval, that all construction plans for the LNG terminal be reviewed for compliance with all applicable provisions of L4.000 for floor elevation and with applicable flood-prevention standards of L4.028 and 4.030 before building permits are issued.

Finally, we note that L4.030(4) requires that the storage capacity of the area's floodplain be protected:

> "Whenever any portion of a floodplain is authorized for development, the volume of space occupied by the authorized fill below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood elevation. Any such excavations shall be constructed to drain freely to the watercourse. No area below the waterline of a pond or other body of water can be credited as a compensating excavation."

The floodplain storage capacity is protected in this case. Applicant plans to deposit at least 350,000 cubic yards of dredge material on the site. This will elevate the site to 20 feet. The 100-year flood level is 13.3 feet. Assuming conservatively that 350,000 cubic yards of flood water will be displaced, with a river flow of 540,000 cubic yards per second at 100-year flood levels, the 340,000 cubic yards would be filled by river flow in less than 18 seconds. Considering this, as well as the tidal nature of the river, the Project will not affect flood plain storage capacity in any appreciable amount. Further, as shown in the memorandum provided in [Attachment 1 *included in the applicant's FHO findings*], the proposed mitigation at Svenson (*sic*) Island provides about seven times more water storage capacity than the volume being filled by the dredge material placement.[95]

The above information leads us to conclude that the proposed development will comply with LWDUO 4.030(4). **We therefore find that the application meets the criteria set forth in L4.000, if adequate conditions of approval to ensure compliance with L4.028 and 4.030 are adopted.**

10.8 Development Standards

Because of their number and complexity, development standards for the proposed LNG marine terminal are addressed in Section 26.0 of these Findings.

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[95] *Bradwood Landing's FHO Findings*, page 5.

10.9 Board Action: APPROVE WITH CONDITIONS

Based on our analysis and findings above, we take the following actions:

1. **Approve** applicant's request that the County consider the LNG marine terminal to be a permitted use in the MI Zone in accordance with L3.624(10), "water-dependent industrial and port uses."

2. Rather than amend the text of the Comprehensive Plan, find that the proposed development is consistent with the policy that development activities at Bradwood shall be of small or moderate scale, not involving extensive filling to create new land areas.

3. **Approve** applicant's request to amend County planning and zoning maps to rezone 5.35 acres from AN to MI, change the Comprehensive Plan designation for that area from "Natural" to "Development," and amend the Comprehensive Plan to reflect the zoning as stated in Attachment 6 of these Findings.

4. **Approve** applicant's request to amend County zoning maps to rezone the mill pond (2.51 acres) from Aquatic Development to Marine Industrial Shorelands (MI).

5. Require as a **condition of approval** that all construction plans for the terminal be reviewed for compliance with applicable requirements and standards of the Flood Hazard Overlay District (L4.000), including but not limited to those dealing with floor elevation, critical facilities, and floodplain storage capacity.

6. Applicant will not oppose a County-initiated rezone of the 4.7 acres of land currently zoned MI outside the terminal construction area shown on the land use zoning map (Attachment 4) to Aquatic Natural.

7. The number of LNG storage tanks approved is limited to two (2). If applicant wishes to develop a third tank at some future date, applicant must obtain all development permits required for development of the third tank at that time.

11. Mitigation

11.1 Mitigation for Wetlands and Wildlife Habitat

L1.030 defines mitigation thus:

> "Any action that, to some degree, softens the impact of development on wetlands and aquatic areas. This may include all or any one of the following actions: (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations; and (5) compensating for the impact by creation, restoration, or enhancement of wetlands and aquatic areas to maintain their functional processes, such as natural biological productivity, habitat, and species diversity, unique features and water quality. Any mitigation action or combination of actions may involve monitoring and remedial follow-up measures."

Although the definition focuses on mitigation for wetlands, mitigation also is a common way to deal with the impacts of development on wildlife habitat.[96] The distinction between wetland mitigation and habitat mitigation, however, is somewhat artificial. One of the main benefits of wetland mitigation often is to enhance or create areas suitable for fish or other wildlife. "Wetland mitigation" and "habitat mitigation" thus may be one and the same.

11.2 Mitigation Proposed by the Applicant

The applicant proposes mitigation to compensate for unavoidable adverse effects on wetlands and wildlife and fish habitat that may be caused by construction and operation of the LNG marine terminal and pipeline. Bradwood Landing proposes to:

- Replace lost wetland acreage and function by restoring once-diked wetlands;
- Restore wildlife habitat, following ODFW's mitigation policy;
- Enhance habitat for Columbian white-tailed deer; and
- Restore estuarine fish habitat to compensate for lost habitat.

Approximately 13 acres of wetlands need to be filled (including the former millpond).

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[96] *Mitigation* also is commonly used to describe improvements made to roads to compensate for traffic that a development will generate. We address such traffic mitigation in Section 15.0 of these findings.

"The compensatory and other mitigation proposed by Bradwood Landing will ensure that the filled and rezoned wetlands are replaced by wetlands of greater quantity and quality."[97]

"For the temporary and permanent loss of fish rearing habitat and freshwater tidal wetlands described above, Bradwood Landing will provide compensatory mitigation by restoring and preserving formerly diked and farmed habitat at two sites in the Columbia River Estuary, Svensen Island and the Marshland Triangle. Through these actions, several times as much acreage as will be lost will be restored to function as rearing habitat, particularly for Chinook and chum salmon, but also for other species. These restored wetland areas will provide substantial primary productivity that will support multiple ecosystem functions. These functions, in turn, will benefit other species that use the Columbia River Estuary, including fish, birds, mammals, and invertebrates, the latter of which are important to many food chains. Over time, the restored habitat will become more productive than the lost habitat on an acre-for-acre basis, based on experience with other habitat restorations in the Columbia River Estuary. Therefore, the compensatory mitigation will provide not only more habitat, but also habitat of higher quality."[98] [Marshland Triangle was not included in the August 2007 Mitigation Plan and is no longer under consideration.]

The applicant also states:

"Bradwood Landing will place a conservation easement on approximately 57 acres of tidally influenced wetlands at the mouth of Hunt Creek adjacent to the terminal. Although no restoration or enhancement of this wetland area is necessary, the conservation easement will ensure that the area is protected from future development."[99]

Regarding mitigation for wildlife habitat, the applicant states:

"As described in the Mitigation Plan, the reduced availability and function of upland wildlife habitat at the terminal and associated facilities, including habitat for Columbian whitetailed deer, will be mitigated through restoration of 126 acres of river bottom forest habitat, primarily at the Karamanos site between Westport Slough and the Columbia River, about six miles southeast of Bradwood. The restoration will be consistent with the requirements of ODFW's fish and wildlife habitat mitigation policy, see OAR chapter 635, division 415, and will include underplanting 102 acres that are currently in hybrid poplars with native conifers and browse shrubs and planting 24 acres that are currently bare ground and

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[97] *Terminal Narrative*, page 23.

[98] *Terminal Narrative*, page 23.

[99] *Terminal Narrative*, page 24.

blackberries with native riparian trees and shrubs. Habitat of marginal use and value due to a history of active human use will be lost at the terminal, but the restored habitat will be of the highest potential value for the same species. Because the replacement ratio will also be greater than one-to-one, there will be a substantial net gain in habitat function."[100]

The applicant also proposes extensive mitigation to offset any adverse impacts on salmon habitat caused by dredging or the filling of wetlands:

"Bradwood Landing will establish a Salmon Enhancement Initiative (SEI) to ensure that the Project contributes to the recovery of salmon and the lower Columbia River ecosystem. The SEI will be in addition to the avoidance and minimization of impacts and robust compensatory mitigation previously described. Bradwood Landing appreciates that Oregon and Washington have invested heavily in watershed and salmon assessments, science-based restoration and recovery plans, and initial implementation. The SEI will tap into this body of science, the restoration and recovery plans, and associated entities interested in participating in the SEI. Bradwood Landing will also provide significant funding to the SEI for an Early Action Plan (EAP) between Project permitting and initial Project operations, as well as in yearly installments beginning with the initial operation of the Project and continuing for as long as the Project operates. Bradwood Landing has proposed funding of $7 million for the EAP and yearly installments of $1.3 million for the SEI. If the Project operates more than 35 years, as expected, these finds would total more than $50 million. The SEI and EAP are described more fully in section 2.2 of Bradwood Landing's November 2006 Supplement to the Draft Biological Assessment."[101]

The LNG permitting process encompasses local, state and federal agencies tasked with reviewing an application to ensure compliance with all applicable rules and regulations as required by law. The County record is extensive, encompassing thousands of pages of testimony, expert technical reports, legal arguments and public comment. All of this information is reviewed as part of a well-defined process that allows for input by all parties.

State agencies are currently engaged in a rigorous and thorough review of the Bradwood Landing application pending before FERC, which is a separate and distinct process from the land use application issues before the County.

Prior to the close of the public comment period, the County received from Columbia Riverkeepers (CRK) a draft of state agency comments regarding FERC's draft Environmental Impact Statement (dEIS). The release of this internal draft was not authorized by the state.

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[100] *Terminal Narrative*, page 24.

[101] *Terminal Narrative*, page 24.

In a letter dated December 3, 2007, Mike Grainey, Director of the Oregon Department of Energy, the state agency charged with coordinating the comments, stated that the draft is incomplete and should not have been released and should not be relied upon.

> "The Oregon Department of Energy is coordinating comments by the different state agencies of the FERC DEIS; the review of the DEIS by our state agencies is still underway. Legal review by the Attorney General's Office is also continuing, as well as review by the Governor's Office. The recent release of these draft comments to the press was premature and should not have occurred. The State review of the DEIS will not be complete until we file our agency comments with FERC on or before the FERC deadline of December 24, 2007. Our draft comments may change and no one should rely on these comments until we file our comments with FERC later this month." Mike Grainey, Director, Oregon Department of Energy, December 3, 2007 letter to Margaret Kirkpatrick.

Further, County regulations require all conditions of the LUCS to be satisfied and copies of all applicable state and federal permits to be submitted before the County will issue its permits for the various elements of the Project in this consolidated application.

This approval includes the following condition of approval:

> "The Department will issue development permits for the requested development only after the applicant submits to the Department copies of all state and federal permits required for this development."

This condition reflects the standard provision in the zone development standards throughout the LWDUO requiring that, "If any state or federal permit is required for a development or use, an applicant, prior to issuance of a development permit or action, shall submit to the Planning department a copy of the state or federal permit." *See, e.g.,* LWDUO sections 3.408, 3.558, 3.636.

The state has actively followed the local process, and where the state determined it was appropriate to submit comments, it has done so, as evidenced by the letter from DLCD on dredging in the AC2 zone. The PBS&J report also reflects state involvement in Appendix A, noting the involvement of the Oregon Office of Energy and Oregon Office of the State Fire Marshall. The state would have submitted these draft EIS comments to the County had it wanted them considered. The draft comments pertain to the FERC proceedings and were developed for that proceeding. It would be unreasonable to rely on them here or give them significant weight given these considerations. All of the issues identified in the draft EIS will be adequately addressed through a combination of local, state and federal review or the FERC permit will not issue.

We conclude that given the draft nature of the comments, the FERC process which will review and respond to those comments, and the extensive local review not reflected in the comments, the comments should be given little weight in these proceedings.

11.3 County Requirements for Mitigation

Mitigation for wetlands and for wildlife habitat is required by various state and federal laws. For example, Oregon's DSL requires mitigation as a condition of any state permit to place fill or excavate in a wetland. We do not review the application from Bradwood Landing for compliance with those state or federal laws. We review this application only as it pertains to compliance with County policies and land use regulations.

The County requires mitigation for any project that involves the filling of wetlands in the Columbia River estuary. The Comprehensive Plan's Goal 16/17 element contains an extended policy on this topic, P20.12, "Mitigation and Restoration."[102] It consists of 42 mitigation policies and standards, many of which are echoed in Section S4.218 of the County *Standards Document*.

The County's Goal 16/17 element also contains Policy P50, "Mitigation and Restoration Plan for the Columbia River Estuary." Policy P50 contains no approval standards relevant to the Bradwood application. Rather, it describes CREST's 1987 *Mitigation and Restoration Plan for the Columbia River Estuary*. Policy P50 is unclear about whether the County has adopted the CREST plan, but that uncertainty need not be resolved here. Policy P50 and the CREST mitigation plan have to do with management of areas already designated for wetland mitigation, and thus are not relevant to this application. We therefore focus here on Policy P20.12.

Policy P20.12(1) says:

> "Any fill activities that are permitted in the Columbia River Estuary aquatic areas or dredging activities in intertidal and shallow to medium depth estuarine subtidal areas shall be mitigated through project design and/or compensatory mitigation (creation, restoration or enhancement) to ensure that the integrity of the estuary ecosystem is maintained."

L5.800 sets forth how we are to assess "the integrity of the estuary ecosystem" and ensure that it will be maintained. "Columbia River Estuary Impact Assessment and Resource Capability Determination." L5.800 requires that "actions which would potentially alter the Columbia River estuarine ecosystem be preceded by an assessment of potential impacts."[103] Among the actions that trigger the requirement are dredging, aquatic area fill, and in-water structures. Bradwood Landing proposes to dredge, fill aquatic areas (the mill pond), and to develop in-water structures. It therefore is subject to L5.800 and must prepare an assessment.

The applicant has done that. Bradwood Landing submitted an extensive *Enhanced Impact Assessment and Resource Capability Determination*, February 2007. The assessment consists of two large volumes containing detailed information of aquatic life forms, shoreland life forms, water quality, hydraulic characteristics, and air quality. It then assesses how the proposed development will affect each of them. Finally, it analyzes how adverse impacts on

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[102] *Comprehensive Plan, Goal 16 and 17 Element: Columbia River Estuary*, pages 33 to 39.

[103] L5.810.

each will be avoided, minimized, or mitigated. Those measures are summarized in Appendix 7 of the *Enhanced Impact Assessment*, in a table titled "Proposed Compensatory Mitigation Sites."

Next we turn to the question of whether the resource assessment is adequate. L5.800 is somewhat vague on how that is to be done. It says, "The Impact Assessment need not be lengthy and complex, but it should enable reviewers to gain a clear understanding of the impacts expected." L5.830. "Information To Be Provided in the Impact Assessment," lists 11 categories of information the assessment must address. The applicant's *Enhanced Impact Assessment* contains detailed information pertaining to all of them.

L5.840 then asks us to use the information gained from the impact assessment to reach a conclusion about those impacts:

> "Based on the information and analysis in Section 5.830, one of the following four conclusions shall be reached:
>
> "(1) The proposed uses and activities do not represent a potential degradation or reduction of estuarine resource.
>
> "(2) The proposed uses and activities represent a potential degradation or reduction of estuarine resources. The Impact Assessment identifies reasonable alterations or conditions that will eliminate or minimize to an acceptable level expected adverse impacts.
>
> "(3) The proposed uses and activities will result in unacceptable losses. The proposed development represents irreversible changes and actions and unacceptable degradation or reduction of estuarine resource properties will result.
>
> "(4) Available information is insufficient for predicting and evaluating potential impacts. More information is needed before the Project can be approved."
>
> The applicant says:
>
> "L5.840(2) is applicable in this case. The Project represents a potential degradation or reduction of estuarine resources. The Impact Assessment and supporting documentation identify reasonable alterations or conditions that will eliminate or minimize to an acceptable level expected adverse impacts as set forth in table format in Appendix 9."[104]

The table in Appendix 9 summarizes various measures that will avoid, minimize, or compensate for the impacts. Among those measures are the various types of mitigation described above.

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[104] *Enhanced Impact Assessment*, Vol. 1, page 7.

For the reasons stated above, we therefore find:

1. The applicant has complied with L5.800's requirement to prepare an impact assessment.

2. The impact assessment meets L5.800's standards for completeness and adequacy.

3. The impact assessment complies with L5.840's requirement for conclusions about impacts.

4. The proposed dredging is consistent with the purpose of the AD Zone.

11.4 Mitigation Plan

As noted above, Policy P20.12(1) requires mitigation in this case, and the applicant has agreed to that. The applicant also has prepared the necessary impact assessment to determine what types of mitigation will be needed. The next step is to develop a suitable mitigation plan.

S4.218(4) says, "Permit applicants shall submit a mitigation plan for each project proposal that requires mitigation." The applicant has prepared and revised a detailed mitigation plan describing how mitigation is to occur at the sites identified: "Applicant continues to confer with the responsible federal agencies to finalize the [federal] mitigation plan."[105] We find mitigation consistent with County standards, however, to be feasible.

1. The County's requirement for a mitigation plan can be satisfied through a condition of approval.

2. Applicant may obtain the necessary local permits for mitigation activities after a suitable mitigation plan has been completed and approved by County.

3. The County may specify that a mitigation plan is adequate if it satisfies state and federal permit requirements.

We agree with those three conclusions.

The submitted mitigation plan describes the compensatory mitigation actions proposed to offset beyond minimum standards for unavoidable impacts to wetlands, "other waters", aquatic resources such as fishes and terrestrial resources such as wildlife, especially those protected under the Oregon Fish and Wildlife Mitigation Policy and the federal Endangered Species Act. We conclude that the necessary protection and minimization is feasible and approval should be conditioned on compliance with a state and federally approved mitigation plan. This is accomplished through the requirement that a copy of the required federal permit be provided to the County.

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[105] *Enhanced Impact Assessment*, Vol. 1, page 7.

Bradwood Landing submitted a comparison of the mitigation and restoration requirements described in S 4.218 of the County's Standards Document to wetland mitigation requirements imposed by DSL under the Removal-Fill Law and the United States Army Corps of Engineers in administering section 404 of the Clean Water Act. Those regulations, although far more detailed and exacting than the provisions of the Standards Document, are in no way inconsistent with County requirements. Thus state and federal approval of a Bradwood Landing mitigation plan will in all respects satisfy the more general requirements of the Standards Document.

CRK contended that the letter fails to prove that compliance with state and federal standards ensures compliance with the County Standards. (Columbia Riverkeeper letter to Community Development Department dated August 8, 2007.) However, as explained below, that position is based on a narrow syntactical explication of the Bradwood Landing letter that extracts portions of the letter from their context and sacrifices real understanding of Bradwood Landing's analysis or the DSL regulatory scheme. The state and federal regulations are both consistent with and more detailed and exacting than the County requirements.

CRK takes exception to Bradwood Landing's comparison between the "Resource Category" definitional system for classification of impact sites under S 4.218 and the classification system codified in DSL's Division 85 rules. Specific objection is made to the absence of the term "Relative Value" in OAR 141-085-0254 and appears to suggest that Bradwood manufactured the term. (Riverkeeper Aug. 8, 2007 Comments at 3 ("Values are assigned to estuarine habitats, and they are indeed relative to each other, but manufacturing term [sic] 'Relative Value' lends to an inaccurate appearance of the manner in which DSL utilizes such assigned values.").)

CRK has misread Bradwood Landing's analysis. Bradwood Landing cited OAR 141-085-0256, not -0254, in its discussion of how DSL regulations assign Relative Values to estuarine habitats and associate particular mitigation requirements based on those values. "Relative Value" is a term defined and applied in OAR 141-085-0256(5)-(11), and it represents a system of classification that is more detailed but otherwise remarkably similar to the use of Resource Categories in the County Standards Document.

CRK also points to the provisions of the Standards Document that provide for coordination with state and federal agencies, positing that such provisions do not support Bradwood Landing's argument that state and federal requirements will suffice to meet County standards. (*Id.* Comments at 3.) In removing the language of Bradwood Landing's letter from its context, however, the commenter fails to take account of the fact that subsection (9) of the Standards Document expressly incorporates DSL's "mitigation trade method" found in OAR 141-085-0256.

Finally, CRK argues that S 4.218(6) of the Standards Document contains "additional requirements" for contingency plans in case of CWM failure, while OAR 141-085-0141(1)(c)(I)(viii) simply requires that such a contingency plan be submitted as part of a monitoring plan. (*Id.* Comments at 4.) This comment indicates that the CRK may lack a full appreciation of DSL's regulatory scheme for wetlands mitigation, which requires, for example, annual monitoring of mitigation sites for at least five years; annual reports that evaluate the

success criteria for the site, results, and recommendations; and a final determination by DSL about whether the site has met its success criteria or whether modifications or further monitoring are required. OAR 141-085-0151. DSL also requires that permit holders post a bond sufficient to cover the costs of a successful mitigation site. OAR 141-085-0176.

The County clearly has authority to approve a local permit application for compliance with County ordinances. It also has authority to establish conditions of approval for such a permit. And it has authority to determine what constitutes compliance with such a condition.

We note the staff stated it had not reviewed the mitigation plan submitted by applicant. We note that plan is the same as the plan submitted to FERC and that in the dEIS, FERC concluded that adverse impacts could be adequately mitigated. FERC has expertise in this area. We also note that state and federal mitigation requirements meet or exceed those of the County. Thus, we find it likely and reasonably certain that compliance is feasible.

During the County process, Bradwood Landing submitted to the County copies of mitigation plans marked "draft" that Bradwood Landing had submitted to federal regulators. We understand that the August 2007 mitigation plan submitted to the County is in the process of being reviewed by the following governmental agencies: NMFS, USFWS, Corps, EPA, DLCD, ODFW, DEQ, DSL, ODOE, with potential review also by OWRD, ODF, and in WA: Cowlitz County, Ecology, WDFW, and WDNR.

In response to staff's conclusion that it was unable to review a mitigation plan designated "draft", Bradwood Landing committed to, at a minimum, perform all the mitigation set forth in the plan submitted in August 2007. Bradwood Landing labeled that plan "Final Mitigation Plan." The "final" label was applied because Bradwood Landing had committed to treat that plan as final for County purposes.

The County agrees with the analysis provided by Bradwood Landing establishing that federal and state mitigation standards meet or exceed County standards. We recognize that Bradwood Landing's mitigation program has been and continues to be reviewed as part of the federal government's development of a draft Environmental Impact Statement for the project and the County agrees with the conclusion in the draft Environmental Impact Statement that it is possible to construct the project with adequate mitigation.

Staff concluded, however, that due to time and expertise constraints it was unable to advise the County concerning the consistency of the plan designated "Final Mitigation Plan" with the County's standards. The County, in approving the Project, finds that solutions consistent with the County regulations addressing mitigation are possible, likely and reasonably certain to succeed and that it is therefore feasible for the mitigation plan to be developed in a manner consistent with the Clatsop County regulations. Given, however, that staff was not able to advise the Board on the specifics of the "Final Mitigation Plan" submitted at the time of the Board's action in this case, the Board has decided to impose a condition of approval requiring Type IIa review of a Bradwood Landing Mitigation Plan. We understand that subsequent to issuance of these findings, Bradwood Landing will submit to the County for Type IIa review a mitigation plan for the required, detailed review and approval. This plan may incorporate the feedback Bradwood Landing received from federal regulators since August 2007.

We therefore find:

1. That S4.218(4)'s requirement for a mitigation plan can be satisfied by adopting a condition of approval requiring the applicant to adopt a suitable mitigation plan and submit it to the County for review and approval.

2. That the County can and should use compliance with relevant federal and state permit requirements as a criterion for determining suitability of the mitigation plan.

3. That the applicant may obtain the necessary local permits for mitigation after the County approves the mitigation plan.

11.5 Development Standards

S4.218 sets forth 25 standards applicable to mitigation activities. Staff did not complete review of final mitigation plan for compliance with those standards within the time provided. The standards are not approval criteria for determining whether the Bradwood Landing proposal may be approved. They are, instead, standards that must be met if the mitigation plan is approved. We therefore simply note here that Bradwood Landing's mitigation efforts ultimately must comply with S4.218.

11.6 Board Action: APPROVE WITH CONDITIONS

Bradwood Landing has submitted an extensive and detailed impact assessment as well as an ambitious proposal for mitigation. We therefore find Bradwood Landing's application to comply with Policy P20.12(1), L5.800, and Standards Document S4.218(4) if the following four conditions are met:

1. Applicant will submit a suitable mitigation plan to the County for review and approval through a Type IIa review procedure.

2. The County will determine the mitigation plan to be suitable if:

   - The plan provides for mitigation of a type and extent identical or similar to that described in the applicant's *Terminal Narrative* and Enhanced Impact Assessment.

   - Applicant has obtained all necessary permits from state and federal agencies with responsibilities for wetlands, wildlife, water quality, air quality and other natural resources in the Columbia River Estuary.

3. Applicant will obtain all necessary County permits to carry out measures and activities described in the mitigation plan approved by the County.

4. Applicant's mitigation plan and mitigation measures will comply with applicable performance standards from Standards Document S4.218 and Policy P20.12.

12. Railroad Relocation

12.1 Proposed Development

Bradwood Landing describes the proposed relocation of the railroad this way:

> "The Portland & Western Railroad runs through Bradwood on a 100-foot right-of-way (ROW) that is roughly parallel to the river. A 4,200-foot segment of the railroad and ROW will be rerouted away from the river to accommodate the terminal. Both the existing and realigned ROW will be within the 60-acre construction area. See Figure 5. Existing or new ballast (the rocks under the railroad ties) will be moved or placed in the new ROW, and the old tracks will be moved or replaced by new tracks. The track will be in the center of the realigned ROW and will be approximately 22 feet wide, as measured from the outer edge of the ballast. Thus, the distance from the outer edge of the ROW to the outer edge of the ballast will be approximately 39 feet on each side. Because there is currently no freight or passenger service on this portion of the railroad, the realignment will not disturb railroad operations."[106]

The right-of-way for the railroad is owned by ODOT. Details of the proposed realignment are shown in Figures 1-21 and 1-22 of Terminal Resource Report 1, *General Project Description.*

The railroad's current alignment takes it straight through the area zoned MI, on land where the applicant proposes to build the LNG storage tanks. The applicant therefore seeks to move the railroad several hundred feet to the south to provide sufficient room for the tanks. That relocation would put the railroad on some land that is now zoned AN. That zone does not permit railroads and the applicant seeks to rezone the affected AN lands to MI. With such rezoning, the relocation of the railroad would take place primarily on land zoned MI.

12.2 Action Requested and Criteria for Approval

The applicant requests the following land use actions by the County for the proposed realignment of the railroad:

1. For Areas 1, 2 and 3 on Attachment 3 of these Findings, amend the plan map and rezone the areas from AN to MI.

2. Then allow the realignment outright in the MI Zone under the provisions of L3.624(10) ("water dependent marine railway"). Or, if the County decides not to allow the realignment outright, then issue a conditional use permit for the realignment under the provisions of per L3.628(11), "land transportation systems" in the MI Zone.

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[106] *Terminal Narrative*, page 13.

3. Allow realignment of the railroad within the F-80 zone as an alteration of legal nonconforming use.

We already addressed the proposed rezoning from AN to MI in Section 10.0 of these Findings. We therefore consider here only the question of whether the proposed realignment of the railroad is permitted in the MI Zone and F-80 zone.

12.3 Analysis and Findings

L3.624 says, "The following uses and activities, and their accessory uses and activities, are permitted in the MI zone under a Type I procedure, Section 2.015, provided that commercial (*sic*) and subject to the provisions of L3.634, Development Standards." It then lists various uses, among which is item (10)(D), "Water-dependent industrial and port uses, including . . . marine railway facilities."

The applicant asserts that the proposed relocation of the railroad is permitted under L3.624(10)(D). We agree.

The LWDUO offers little guidance here. It does not define "marine" or "railway," so we rely on the ordinary meaning of these words. "Marine" means "of or relating to the sea."[107] In this case, the railroad may be considered of or related to the sea because it is proposed in the "**Marine** Industrial Shorelands Zone," on land that lies in Oregon's coastal zone, near the Columbia River estuary. (The LWDUO defines "estuary" to be "a body of water semi-enclosed by land, **connecting with the open ocean**, and within which salt water is diluted by freshwater derived from the land." (Emphasis added.)) These factors all demonstrate a relationship between the railroad site and the sea.

Railroad service was provided in Seaside as early as 1888 and was extended to serve the Bradwood area by 1898. A new mill was built in the area in 1910, east of the railroad and over the river, taking advantage of the location's suitability for a deep water port. A freight station was built on the south of the site on land the railroad referred to as Parsons. Bradwood Mill later rebuilt and extended the railroad in the area and brought it up to Hunt Creek and into the mill site. The rail is now operated by Portland & Western Railroad. A suggestion was made that this is not a marine railway because Bradwood Landing will not use the railway as part of its operation, and proximity to the water is not sufficient to be a marine railway. We note that the rail will be used to deliver construction material to the Bradwood site and currently serves the deep water port in Astoria. The rail was placed in this location historically to assist in rail transport at the deep water source. The proposed work is a modification to an existing system, a system we find to be a marine railway.

For these reasons, we conclude that the site of the proposed railroad realignment is "marine." The proposed use involves a "railway facility." **We therefore find that the**

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[107] *American Heritage Dictionary of the English Language*, Third Edition, Houghton Mifflin Company, 1992, page 1100.

proposed railroad relocation in the MI Zone is a "marine railway" authorized by L3.634(10(D).

Because the use is allowed outright in the MI Zone, we do not consider here the applicant's alternative request, to allow the railroad realignment as a conditional use under L3.628(11). We do note that our finding here is contingent on our approval of the proposed AN to MI rezoning. Such approval is discussed and given in Section 10 of these Findings.

We also note that Comprehensive Plan policy 20.9(6) (p. 31) says, "Construction of new land transportation systems and maintenance of existing land transportation systems shall be undertaken in a manner that minimizes expected impacts on aquatic and shoreland estuarine resources." The railroad is also a "land transportation system," and its relocation will affect aquatic resources—in this case, the wetlands south of the current railroad. We address this issue in Section 10.0 above.

12.4 Development Standards

As noted above, the LWDUO specifies that uses allowed in the MI Zone are "subject to the provisions of Section 3.634, Development Standards." We describe those standards and their relationship to the Project, which includes the railroad realignment, in Section 26.0 below.

12.5 Realignment of Railroad in the F-80 Zone

Relocation of the railroad is necessary in order to provide the requisite separation between the track and the liquefied natural gas storage tanks. Achieving the proper alignment adjacent to the tanks will require beginning the realignment to the east of the tanks in the F-80 zone. The shift will gradually move the portion of the track in the F-80 portion of the construction area from 0' at its eastern edge to approximately 40' at the point the track enters the MI zone.

The slight realignment is properly authorized as an alteration of a nonconforming use. Although railroads are not listed as permitted uses in the F-80 zone, alterations of legal nonconforming uses are permitted. L5.608(1). A nonconforming use is a "use which does not conform to the use regulations of the zoning district in which it is located, but which lawfully occupied a building or land at the time the applicable use regulation became effective." L5.604. The railroad, having been in existence since at least the late 1800s, predates the code and is a nonconforming use.[108]

The proposed realignment of track in the F-80 zone is an alteration of a nonconforming use. Alteration is defined as "[a] change to a structure, not involving enlargement of the external dimensions of the structure." L5.604. The width and height of the tracks will remain the same

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[108] Resource Report 6, Geology contains a series of aerial photographs of Bradwood dating from 1929. All of them appear to show a railroad passing through the area. A copy of a 1954 aerial showing the right of way was also presented in Bradwood Landing's 7/10/07 presentation materials.

before and after the realignment. The length of the tracks and therefore F-80 area covered by the tracks will decrease as a result of the realignment since the tracks will take a more direct path to the MI zone. Therefore there is no enlargement of an external dimension of the structure and the realignment is an alteration.

The railroad company has requested that Northern Star upgrade the gauge some of its track. The upgrading of some of the track is not a replacement of a nonconforming structure. The structure at issue is the rail line. There is no proposal to replace the rail line but rather only to upgrade and slightly realign a portion of the line. Conformance with the current standards is therefore not required. In any event, however, the development standards of the F-80 zone are not implicated by this realignment. The development standards are set forth in L3.557 as follows in italics; applicant's responses appear in roman type:

*"**Section 3.557**. Development of Use Standards*

"The following standards are applicable to permitted and conditional development in the zone:

"(1) The minimum lot size for land divisions other than those described under subsections below, is 80 acres."

Applicant's Response: The realignment will not create a land division.

"(2) Land divisions resulting in parcels smaller than 80 acres may be approved for the following uses provided that such uses have been approved subject to the standards in Section S3.509, and the resulting parcels are the minimum size necessary for the use:

"(A) Exploration for and production of geothermal resources, gas, oil and other associated hydrocarbons, including the placement and operation of compressors, separators and other customary production equipment for an individual well adjacent to the well head. (Section S3.512 and S4.311).

"(B) A facility for the primary processing of forest products subject to the standards in Section S3.509.

"(C) Permanent logging equipment repair and storage subject to the standards in S3.509.

"(D) Log scaling and weigh station subject to the standards in Section S3.509.

"(E) Disposal of solid waste approved by the governing body of a city or a county or both and for which the Oregon Department of Environmental Quality has granted a permit under ORS 459.245, together with equipment, facilities or buildings necessary for its operation, subject to the standards in Section S3.509.

"(F) Parks and campgrounds subject to the standards in Section S3.509.

"(G) Mining or processing of oil, gas, mineral, aggregate or other subsurface resources not otherwise permitted under Section 3.553(6) of this zone, subject to the standards in Section S3.509; and mining and processing of aggregate and mineral resources not otherwise permitted under Section 3.55(13), subject to the standards in Section S3.509.

"(H) Communication facilities and transmission towers subject to the standards in Section S3.509.

"(I) Fire stations or rural fire protection subject to the standards in Section S3.509.

"(J) Utility facilities for the purpose of generating power, subject to the standards in Section S3.509. A power generation facility shall not preclude more than ten acres from use as a commercial forest operation unless an exception is taken pursuant to OAR Chapter 660, Division 4.

"(K) Aids to navigation or aviation subject to the standards in Section S3.509.

"(L) Water intake facilities, related treatment facilities, pumping stations and distribution lines subject to the standards in Section S3.509.

"(M) Reservoirs and water impoundments subject to the standards in Section S3.509.

"(N) Firearms training facility subject to standards in Section S3.509.

"(O) Cemetery subject to the standards in Section S3.509."

Applicant's Response: The realignment will not result in a land division.

"(3) Minimum setbacks for dwellings:

"(A) Front yard: 30 feet.

"(B) Side and rear yard: 30 feet.

"(C) Setbacks in wetland areas shall be in accordance with Section S4.500. These are minimum setbacks. Actual setbacks for dwellings will be based on the forest management plan, and may exceed these minimums."

Applicant's Response: No dwellings are proposed.

"(4) Maximum building height: 45 feet."

Applicant's Response: No buildings are proposed.

"(5) Setback for surface and subsurface mining operations: 1,000 feet from adjacent residence and residential lands."

Applicant's Response: No surface or subsurface mining operations are proposed.

"(6) An accessory structure separated from the main building shall be located in accordance with yard setback requirements."

Applicant's Response: No accessory structures are proposed.

"(7) All roads, bridges and driveways providing access to structures in the F-80 zone must meet the design standards in Section S6.000."

Applicant's Response: No roads, bridges or driveways providing access to structures in the F-80 zone are proposed.

"(8) Mining or processing of rock permitted under Section 3.553(13) of this zone is permitted subject to the following restrictions:

"(A) No more than 50,000 cubic yards of material may be removed during a three year period from a single quarry;

"(B) A minimum distance of 2,500 feet between the quarry/processing operation and any school, church or residence must be maintained;

"(C) The quarry/processing operation must not be visible from a public road;

"(D) Measures recommended by the Oregon Department of Fish and Wildlife to protect aquatic habitat must be followed;

"(E) There must be no conflict between the quarry/processing operation and any Goal 5 resources; and

"(F) Applicable state requirements must be met."

Applicant's Response: No mining or processing of rock is proposed.

We agree. The development standards are therefore not implicated.

A remaining question is whether and how such an alteration is permitted in the F-80 Zone. L5.608(1) says, "Alterations shall be permitted to a non-conforming structure, or to a structure devoted to a Non-conforming use." It does not specify that any type of permit or review is required before such alterations may be done. We note, however, that the railroad right-of-way is owned by ODOT, so such alterations will require permission from and

coordination with that agency. We also note that the record includes evidence of an agreement between Bradwood Landing and the railroad that allows the relocation.

For the reasons stated above, we find that the proposed realignment of that portion of the railroad in the **F-80 Zone, as described in the May 25, 2007, *Narrative in Support of Realignment of Railroad Track in F-80 Zone by Bradwood Landing*, is permitted under L5.608(1).**

12.6 Board Action: APPROVE WITH CONDITION

Recognizing that we have approved the rezone of areas 1, 2 and 3, currently zoned AN to MI, we approve the proposed railroad realignment as a use permitted outright in the MI Zone in accordance with L3.634(10(D), "marine railway facilities," and as an alteration of a non-conforming use in the F-80 Zone. Approval is conditional upon the AN to MI rezone approved in this action.

13. Road Improvements (to Clifton and Bradwood Roads)

13.1 Proposed Development

Clifton Road provides the primary land access to the subject property. This road is about 3 1/2 miles long. It extends north from Hwy. 30 (at milepost 75.73), passes near Bradwood, and goes on another mile to terminate in the small unincorporated community of Clifton.

Bradwood Road is essentially a private driveway that meets Clifton Road in a tee-intersection at milepost 2.4. Bradwood Road heads east into the subject property, crosses Hunt Creek, and stubs out at the proposed LNG terminal site.

Improvements to Clifton Road

The application describes Clifton Road as "between 12 and 18 feet wide with an off center right-of-way due to its relationship to the hillside and steep slopes."[109]

> "The road into Bradwood and Clifton is a two lane road that is cut into the side of a slope for the most part and in several places is too narrow for two large trucks to pass safely at normal speed. As the road travels north from Route 30 to Bradwood it loses several hundred feet of elevation.[110] The slope rises to the west and falls to the east. Hunt Creek runs most of the length on the eastern side."[111]

The applicant summarizes the improvements to Clifton Road initially proposed in these words:

> "Clifton Road is a paved, two-lane county road that provides access to the terminal site from U.S. Hwy. 30. The road, which is designated as a county collector, primarily serves the residents of Clifton and has fewer than 50 vehicle trips per day. To accommodate increased use of Clifton Road, primarily during the construction of the Project, minor improvements will be made to the approximately 2.4-mile segment of the road between Bradwood Road and U.S. Hwy. 30. These improvements, which are described in a traffic impact analysis prepared for Bradwood Landing, will include widening or other safety

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[109] Resource Report 5, *Socioeconomics*, page 14.

[110] The elevation where Clifton Road meets Hwy. 30 is about 550 feet above mean sea level. The elevation at Bradwood is less than 20 feet MSL. See USGS Cathlamet quadrangle map.

[111] Resource Report 5, *Socioeconomics*, page 26.

improvements to segments of the road, as well as improvements to the intersection with U.S. Hwy. 30."[112]

The improvements now proposed are described in some detail in the July 16, 2007 drawings submitted by Bradwood Landing.

Improvements to Bradwood Road

The applicant describes the proposed improvements to Bradwood Road thus:

"Bradwood Road is an existing private access road that connects the terminal site to Clifton Road. Bradwood Landing will improve the access road by widening it from approximately 18-20 feet to 24 feet, realigning it slightly within the existing road easement, and paving it.[113] See Figure 5."[114]

We have concluded that the improvements to Clifton Road originally proposed by Bradwood are not sufficient, but that the improvements now proposed are properly allowed. The more recent improvements proposed by the applicant still fail to meet some county road standards as to curve radii and as a result of the curve radii achieved, design speed limit. County counsel has advised that under the applicable county regulations any development of the site would require full compliance with the standards set out in S6.000 Table 1. We require that the applicant obtain a variance for standards that are not met and the applicant already has filed an application for such a variance.

13.2 Action Requested and Criteria for Approval

The 2.4-mile section of Clifton Road that is to be improved is zoned F-80. The first half of Bradwood Road also is in the F-80 Zone. The site of the bridge crossing at Hunt Creek is zoned AN. (For these Findings' analysis of the bridge replacement, see Section 2.0.) The last quarter mile of Bradwood Road is zoned MI.

The applicant seeks County approval to carry out the road improvements in the F-80 Zone in accordance with LWDUO 3.553(9). That section provides for "widening of roads within existing rights-of-way in conformance with the Transportation Element of the Comprehensive Plan" as a permitted use under Type I review. For that portion of Bradwood Road in the MI Zone, the applicant asks the County to authorize road improvements as a permitted use under LWDUO 3.035(1)(A):

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[112] *Terminal Narrative*, page 13. Although the quoted passage says that Clifton Road is "paved," the road actually has an oil-mat gravel surface. "Paving" generally refers to a surface of asphaltic concrete.

[113] Bradwood Road currently has a gravel surface.

[114] *Terminal Narrative*, page 13.

"Section 3.035: Review of Land Transportation Facilities for Compliance with Land Use Regulations.

"(1) Except where otherwise specifically regulated by this ordinance, the following improvements are permitted outright uses and activities:

"(A) Normal operation, maintenance, repair, and preservation activities of existing transportation facilities . . ."

13.3 Analysis and Findings

The above-stated ordinance provisions establish three main approval criteria for deciding whether to allow the proposed road improvements in the F-80 Zone:

- That the improvements will be done within the existing right-of-way;
- That the improvements will be "in conformance with the Transportation Element of the Comprehensive Plan"; and
- That the work will consist of "widening" and other maintenance and repair.

The supplemental materials establish applicant's intent to confine all improvements of Clifton Road to the existing public right-of-way. We note that any improvements that would extend beyond the current right-of-way cannot be authorized under LWDUO 3.553(9). If the applicant later finds that work to Clifton Road must go beyond the current right-of-way, a conditional use permit will be required.

Bradwood Landing has submitted legal argument that not all S6.000 standards are applicable to existing roads and that even if all S6.000 standards applied generally, the rough proportionality standard established in both our ordinance and case law prohibit requiring full compliance with S6.000 in this case. Our review of the applicable regulations concludes that Clifton Road must be brought up to County collector standards, except as excused by variance. Bradwood Landing has submitted an application for a variance to those County collector standards it has determined cannot be met within the right-of-way. **We find that the proposed improvements to Clifton Road are consistent with Comprehensive Plan's transportation element.**

With regard to improvements to Bradwood Road (in the MI Zone), the ordinance provisions quoted above establish two main approval criteria:

- That the improvements will be done within the existing right-of-way; and
- That the work will consist of "widening" and other maintenance and repair (as opposed to actions such as adding new traffic lanes).

The applicant states, "Bradwood Landing will improve the access road by widening it from approximately 18 to 20 feet to 24 feet, realigning it slightly within the existing road

easement, and paving it."[115] Since the improvements will be done within the existing right-of-way and will consist mainly of widening and paving the present road, we conclude that the proposed road improvements in the MI Zone are consistent with L3.035(1)(A).

For the reasons described above, we therefore find that the proposed improvements to Clifton Road and Bradwood Road are a use permitted outright in the F-80 Zone per L3.553(9). We also find that the improvements proposed to Bradwood Road in the MI Zone are a use permitted outright by L3.035(1)(A).

13.4 Development Standards

L3.557 lists eight development standards applicable to uses permitted in F-80 Zone. Most of those standards deal with lot size, building heights, setbacks, and special uses such as quarries, and are not applicable to the proposed road improvements. Only one of them does apply: L3.557 says, "All roads, bridges and driveways providing access to structures in the F-80 zone must meet the design standards in Section S6.000."

S6.000 consists of 12 pages of standards regarding details such as culvert size and pavement thickness. There is no need to repeat them here. We simply note that among the requirements of S6.000 is this: "A complete set of Improvement Plans shall be submitted and approved by the County Public Works Director prior to the start of construction on any County maintained road, public way or subdivision road which is to become a public way." Compliance with S6.000 thus will be assured when Bradwood Landing submits such plans for review by the Public Works Director.

Moreover, S6.005(2) specifies, "No development may occur unless required transportation facilities are in place or guaranteed, **in conformance with the provisions of this document**." (Emphasis added.) We infer from this statement that (a) roads serving proposed development must be brought up to County standards before the development may take place, and (b) the applicable standards are those in S6.000. This seems especially important in a situation such as this, where one road will provide primary access to an industrial facility.

By letter dated July 6, 2007, Bradwood Landing called into question the standard to which Clifton Road must be constructed under applicable County regulations. Bradwood Landing first asserts that Section 6 of the County's Standards Document ("Standards Document") does not apply because as part of the Project, Clifton Road will not provide access to new structures in the F-80 zone. Bradwood next asserts that if Standards Document Section 6 does apply, the Section does not reflect an intent that "the entire length of Clifton Road be brought up to County collector road standards." Bradwood Landing bases this assertion on an argument that Section 6 standards only apply to "new roads." The argument is based on S6.050(1)(1) which says that: "Cross Sections and Tables: All new arterials, collectors, and local streets must conform with the design standards of table 1 Road Right-of-Way and Improvement Standards."

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[115] *Terminal Narrative*, pages 12-13.

Bradwood Landing then argues that if Table 1 expressly applies to only "new" collectors, it must not have been intended to apply to improvements to existing collectors like Clifton Road. As such, Bradwood Landing asserts that only the more general criteria set forth in S6.005(3) apply to Bradwood Landing's application, and that the specific design standard, travel width, right-of-way width, surface type, design speed, maximum grade and minimum curve radius requirements set forth in Table 1 have no application when new development impacts require road improvements.

Lastly, Bradwood Landing contends that the County's interpretation is inconsistent with the rough proportionality requirement set forth in *Dolan v. City of Tigard* and S6.000.

We think that Bradwood Landing's analysis is too narrow. Several County and state land use regulations apply to the improvement of Clifton Road in this proceeding:

13.4.1 ***Standards from the County's Transportation Plan.***

The County's TSP contains road classifications for County roads and design standards for each classification. Clifton Road is classified as a rural collector. TSP, page 1-19. The TSP design standard for collector roads shows a sixty-foot (60') minimum right-of-way width, a minimum twenty-four (24') wide total travel lane width and a 6' paved shoulder on both sides of the street. The shoulder width may be reduced to minimum AASHTO standards if approved by the County Engineer. *See*, TSP, Figure 5-4 and Table 5-5. These standards are the same as those set forth in Table 1 of the Standards Document.

13.4.2 ***Standards from the County's Standards Document.***

Standards Document Section S6.005(2) states that: "No development may occur unless required transportation facilities are in place or guaranteed, in conformance with the provisions of this document."

This provision makes at least two things clear. First, all transportation facilities associated with development must, at a minimum, comply with the Standards Document. Thus, improvements over and above those required in the Standards Document may be imposed if required by other applicable County land use regulations. Second, the Standards Document applies to all "development." That term is defined in Section 1.030 of the LWDUO as:

> "[A]ny man made change to improved and unimproved real estate, including but not limited to: construction, reconstruction, conversion, relocation or enlargement of any structure . . . land disturbance, any use or extension of the use of land."

This language evidences intent that the Standards Document be applied broadly rather than narrowly as Bradwood Landing suggests.

Standards Section 6.050(1)(A) provides that:

> "The radius of curvature, grade, and intersection curb return radius of streets, shall conform with the minimum standards prescribed in Tables 1, 2, 3 and 4 of these standards."

Standards Section S6.050(12) provides that:

> "Asphalt Concrete Pavement: Where asphalt concrete pavement is required it shall be done in accordance with Sections 401 and 403 of the Standard Specifications."

There is only one place in the Standards Document which indicates "where asphalt concrete pavement is required," under Section S6.050(12), namely, Table 1. *See* Standards Document, Section 6, Table 1, Column 6. Under Bradwood Landing's reading of Standards Document, Section 6, the County could not go to Table 1 without a reference to it there. It would be unreasonable to read the Standards Document so narrowly.

Finally, Table I itself is labeled: "Right-of-Way and Improvement Standards Table." It does not say it applies to "new" streets and there is no limiting language on the face of the table itself that it be applied as narrowly as Bradwood Landing suggests.

The foregoing provisions of Standards Document Section 6 demonstrate that the basic argument supporting Bradwood Landing's assertions are untrue. Rather, they demonstrate that: (i) Table 1 standards apply to both new and existing streets and (ii) there can be no negative implication in Section S6.050(1)(I) that Table 1 applies only to new streets. In other words, Section S6.050(1)(I) means only what it says, *i.e.*, that Table 1 applies to new streets, but not only to new streets.

13.4.3 ***Standards from the LWDUO.***

L5.412 lists various zone change criteria, among which is subparagraph (2) which requires the proposed change "be consistent with the statewide planning goals," subparagraph (3)(B) which requires the property in the affected area of the proposed change to be provided with adequate public facilities for fire protection and emergency medical services, and subparagraph (4) which requires "an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards."

13.4.4 ***Standards from the Statewide Planning Goals.***

Policy 3 of the County's 2003 Transportation Plan ("TSP") requires the County to: "Ensure that amendments to the comprehensive plan, plan use designation amendments and land use regulation changes that are found to significantly affect a transportation facility are consistent with the identified function and capacity of that facility."

This provision is a shorthand version of LCDC's Transportation Planning Rule as it applies to land use decisions involving zone changes such as the one before the County. In relevant part, OAR 660-012-0060 provides that:

> "(1) Where an amendment to . . . an acknowledged comprehensive plan . . . would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of

service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

"(a) . . . .

"(b) . . . ; or

"(c) As measured at the end of the planning period identified in the adopted transportation system plan."

As for the *Dolan* issue, we offer three observations. First, the Standards Document specifically addresses that issue. It says:

"Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of development on public facilities and services. Findings in the development approval shall indicate how the required improvements are roughly proportional to the impact."

The quoted wording makes it quite clear that in those circumstances where there is a question of proportionality, the proper course is to ensure that required improvements are proportional, not simply to waive S6.000 and apply no road standards at all.

Second, we believe that the requirements of S6.000, as applied to County collector roads serving an industrial development, **are**, subject to the variance provisions, proportional to the likely impacts of the use. The standards outlined in Table 1 for collectors with an ADT ("average daily traffic") of 300-1,000 vehicles are these:

- Width of travel way should be 24 feet, with the option to reduce that to 22 feet with approval of the County Engineer.
- Right-of-way should be 60 feet wide.
- The surface of the road should be asphaltic concrete.
- The "design speed" is 40 mph.
- Maximum grade is 12 percent.
- Minimum curve radius is 500 feet.
- There will be a street sign at the intersection of each named street.

The applicant's updated *Traffic Impact Analysis* establishes that traffic added to Clifton Road during site development will be under 600 trips per day during construction and much less during operations. The standards listed above are intended for roads that will handle an ADT of 300 to 1,000, and total trips during operation will exceed 300 trips per day.

Finally, we fail to see anything in the required standards for road improvements that would violate any "constitutional requirement" regarding exactions. We presume the applicant is referring to the Supreme Court's 1994 ruling in *Dolan v. City of Tigard.* In *Dolan*, the Supreme Court said this:

"We think a term such as "rough proportionality" best encapsulates what we hold to be the requirement of the Fifth Amendment. No precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."[116]

The County's road standards in this case would require the applicant to bring a narrow two-lane rural collector road up to standards necessary to serve a proposed industrial development with an estimated construction cost of $580 million and approximately 500 trips per day during construction[117] on the primary road serving the development. County counsel opined at the December 13, 2007 hearing that most of the standards are proportional in this case. Such standards are, subject to the County's variance process, "related in nature and extent to the impact of the proposed development."

13.5 Board Action: APPROVE WITH CONDITIONS

Approve Bradwood Landing's request to make improvements to Clifton Road and to the F-80-zoned part of Bradwood Road per L3.553(9), as a use permitted outright in the F-80 Zone and require that Bradwood Landing bring Clifton Road up to County collector standards or obtain a variance as to those standards that are not met.

We further approve Bradwood Landing's request to improve that part of Bradwood Road in the MI Zone as a use permitted outright by L3.035(1)(A).

Finally, these approvals are made **subject to the following three conditions:**

1. All improvements are to be made within the area of the existing public right-of-way for Clifton Road and the existing 50-foot easement for Bradwood Road.[118]

2. All improvements are to be done in accordance with the standards set forth in Standards Document S6.000. "Transportation Improvements and Road

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[116] *Dolan v. City of Tigard*, 512 U.S. 687 (1994).

[117] Operational traffic is less.

[118] Improvements outside the right of way require a conditional use permit.

Standard Specifications for Design and Construction," except as provided by County variance.[119]

3. All road improvements will be described in a complete set of improvement plans submitted to the County Public Works Director and subject to the Director's review and approval.

[119] The applicable standard in this case is the so-called "A-28 standard" for collectors. Specifications for that standard are set forth in the second row of Table 1, "Right-of-Way and Improvement Standards Table," as well as the text of S6.050 of the county Standards Document (except as provided by variance).

14. Soil Disposal Area

14.1 Application Withdrawn

15. Transportation Facilities

15.1 Proposed Development

Because Bradwood Landing's proposal involves a Comprehensive Plan amendment and various zone changes, the County must consider Oregon Administrative Rule ("OAR") 660-012-0060 (part of the state's "transportation planning rule") during its review. This is required not only by state law but also by the County's L5.350, "Transportation System Impact Review." That section echoes many of the provisions in OAR 660-012-0060.

As we have described in other sections of these Findings, the development proposed at Bradwood will generate significant car and truck traffic during the initial three years of construction. OAR 660-012-0060 and L5.350 require the County to consider the effects of that on "existing or planned transportation facilities." In this case, the public transportation facilities that will be affected are Clifton Road and Hwy. 30. (Bradwood Road, the half-mile road linking the LNG terminal site to Clifton Road, is a private road, and we do not consider it here.)

Clifton Road is a County road designated in the County's TSP as a "minor collector."[120] Hwy. 30 is a state-owned highway designated as a "principal arterial."[121] It is designated a Priority 2 lifeline route[122] and a "Statewide National Highway System freight route" in the Oregon Highway Plan.[123]

In order to know how additional traffic will affect a highway, the TSP sets "mobility standards." The County standards are similar to those used by ODOT. These standards are expressed in a simple ratio: volume of traffic in a fixed time to the theoretical capacity during that time ("v/c ratio"). A v/c ratio of 1.0 indicates a roadway that is operating at peak capacity. The TSP sets mobility standards for various types of roads. For Clifton Road, the TSP's standard is a maximum v/c ratio of 0.75.[124] For Hwy. 30, the standard is a v/c ratio of 0.70 or better.

For Clifton Road, the TSP provides no data either on the capacity of the facility or its current volumes of traffic. As noted above, the TSP classifies Clifton Road as a collector. County design standards in Table 1 of S6.050 use an average daily traffic of 300 to 1,000 trips

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[120] Clatsop County *Transportation System Plan (TSP)*, Figures 2-2 and 2-3.

[121] Clatsop County *TSP*, Figures 2-2 and 2-3.

[122] Clatsop County *TSP*, page 1-17.

[123] Clatsop County *TSP*, page 1-21.

[124] Clatsop County *TSP*, page 1-29: "Roads under the jurisdiction of Clatsop County are considered local roads. The mobility standards designated in the OHP for local roads match the standard for district highways." Table 2-9, on the same page, shows the standard for district highways in rural areas to be a v/c ratio of 0.75.

per day as the design target for such collectors. From that, we infer that a rural collector meeting County standards has a capacity of about 1,000 trips per day. The TSP's standard for Clifton Road is a v/c ratio of 0.75. We therefore conclude that the performance standard for Clifton Road is 750 trips per day.

For Hwy. 30, the TSP provides extensive data on volume of traffic and capacity of the facility. The data show that current volumes of traffic on most segments of the highway are well within the current mobility standard (v/c 0.70). The TSP states,

> "Hwy. 30 operates at a v/c ratio of 0.64 or better for most of its length. Near the east city limits of Astoria and near Westport, Hwy. 30 experiences the highest v/c ratios of the entire length due to high ADT volumes."[125]

Bradwood Landing first analyzed the effects of Bradwood Landing's development on Clifton Road and Hwy. 30 in a *Traffic Impact Analysis* done in August 2006 by CTS Engineers.[126] In response to the initial incompleteness determination, the applicant submitted *Supplemental Information* of February 9, 2007, Tab E, "Findings of Compliance with OAR 660-012-0060."

After it submitted the above material, Bradwood Landing changed the planned location for the proposed park and ride facility. The applicant therefore commissioned a second traffic impact analysis, to determine impacts of the park and ride facility. We received that analysis on June 5, 2007. Additional analysis was submitted by applicant in July 2007, and following public comment, applicant submitted clarification and explanation of the traffic reports. (*See* November 7, 2007 letter from Howard Roll to Board of Commissioners.)

15.1.1 LNG Carrier Traffic on the Columbia River

Many commenters testified that the County must consider the effects of LNG carrier traffic on the Columbia River. Columbia Riverkeeper (CRK) mentions this several times in its July 10, 2007, written testimony.[127] For example, on page 2 CRK says that staff "did not consider the major impact to the river traffic along the entire length of the river." It argues on page 15 that "The security zones around the LNG tankers will adversely affect efficient transportation for ships, barges, other commercial vessels." CRK then urges the County to "go beyond the Staff Report's narrow review" (p. 23) and consider a wide variety of issues that might arise along the entire LNG carrier route from the mouth of the Columbia to Bradwood and even beyond.

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[125] Clatsop County *TSP*, page 1-31.

[126] *Traffic Impact Analysis for Bradwood Liquefied Natural Gas Facility in Clatsop County, Oregon*, CTS Engineers, August 15, 2006.

[127] Letter from Scott Jerger to the Planning Commission, July 10, 2007, "RE: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LNG terminal."

CRK and others who argue that the County must consider LNG carrier traffic on the river rest their argument on three main premises:

- That Statewide Planning Goal 9, Economic Development, requires an extended analysis of economic impacts, including the impact of LNG carriers on river traffic.
- That L5.412(4)'s zone change criterion about "an adequate and safe transportation network" requires such analysis;[128]
- That L5.412(8)'s zone change criterion on public health, safety and welfare requires it.[129]

We disagree with all three premises, for the following reasons.

GOAL 9: Neither Goal 9 nor its administrative rules (OAR Chapter 660, Division 9) require this type of economic impact analysis. Rather, they offer broad direction to local governments on how to plan for economic development. Their emphasis is on planning and zoning adequate supplies of land for commercial and industrial use. Finally, the rules apply only to lands inside urban growth boundaries. Goal 9 specifically says "Comprehensive plans for urban areas shall. . ," and then goes on to list various requirements. OAR 660-009-0010(1) says:

> "This division applies to ***comprehensive plans for areas within urban growth boundaries***. This division does not require or restrict planning for industrial and other employment uses outside urban growth boundaries." (Emphasis added.)

Bradwood is not within an urban growth boundary. We therefore conclude that Goal 9 and the related administrative rules do not apply to require the extended analysis of economic impacts posited by CRK with regards to this application for an LNG marine terminal at Bradwood.

TRAFFIC AND THE "TRANSPORTATION NETWORK": L5.412(4) is one of eight criteria to be used in reviewing requests zone changes. It says, "The proposed change will insure that an adequate and. safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards." For reasons described below, we do not consider this criterion to extend to vessel traffic on the Columbia River.

First, none of the eight criteria in L5.412 mentions marine commerce or river travel. The criteria do mention "use of the land" and "suitability of the property" in several places, and they are quite specific about the public facilities and services that must be considered. We thus infer

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[128] L5.412(4): "The proposed change will insure that an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards."

[129] L5.412(8): "The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County."

that the zone change criteria are intended to address matters of **land** use: if policy makers had intended for impacts of zone changes on riverine transportation to be considered, they would have specified that.

Second, we understand L5.412(4) to deal with **man-made** transportation facilities such as highways, not with rivers or air. This view is reinforced by a reading of the Transportation Element of the County Plan. It mentions the importance of the Columbia River with respect to "water transportation activities," but its only policies regarding such transportation have to do with development of port facilities. Similarly, it mentions air transportation, but the related policies deal only with airports, not with regulation of air travel.

Third, the objectives listed for the County Comprehensive Plan's Transportation Element strongly emphasize land transportation while omitting any mention of water or air travel. For example, Goal 1, Objective 4, says, "Safely, efficiently, and economically move motor vehicles, pedestrians, bicyclists, transit, trucks, and trains to and through the County." Similarly, Goal 2, Objective 3, says, "Promote a transportation system that is adequate to handle the traffic, transit, and automobile traffic in such a way to encourage successful implementation of County economic goals and the preservation of existing residential neighborhoods."

Fourth, we understand the "traffic" referred to in L5.412(4) to be the volume of **land** vehicles such as cars and trucks on public roads, not vessel traffic on rivers, air traffic in the skies over the County, or rail traffic. We find no definition of "traffic" in the LWDUO, the Standards Document, the Transportation Element of the County Comprehensive Plan, or the County's TSP. But all four documents clearly speak of traffic only in the limited context of motor vehicles on streets and roads. They do not address, let alone regulate water or air travel.

Finally, all four documents mention the significance of the Columbia River with regard to the County's economy, natural resources, and transportation. All four have provisions dealing with certain types of development, such as marinas or ports, on or next to the river. But none of them contains policies or provisions dealing with the number or type of vessels traveling on the Columbia River (or number and types of aircraft or trains). This is a sharp contrast with the extensive provisions for land transportation found throughout the County's Comprehensive Plan and implementing ordinances.

For all of the above reasons, we find that L5.412(4) does not extend to the movement of vessels up and down the Columbia River.

15.1.2 Possible closure of Astoria-Megler Bridge

CRK implies that the Astoria-Megler Bridge would need to be closed—or should be closed—every time an LNG carrier passes under it.[130] Others testifying at the July 10 and July 17 public hearings raised similar concerns, as did ODOT in its letter of May 9, 2007. ODOT said:

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[130] Brent, Foster (for Columbia Riverkeeper) to Planning Commission, letter of July 15, 2007, "RE: NorthernStar Natural Gas Liquefied Natural Gas project request," page 7.

> "Although ODOT has yet [sic] been unable to secure definitive rulings from the U.S. Coast Guard and the U.S. Department of Energy, there is some reason to expect that the passage of LNG ships may require the Astoria-Megler [sic] Bridge and possibly the highways adjacent to the Columbia River to be closed while they are passing through the "safety zone" around the LNG ships."

Bradwood Landing asserts, "LNG vessels will not affect traffic on the Astoria-Megler Bridge."[131] The Coast Guard's Waterway Suitability Report is silent on that point: it offers no evidence that the bridge might have to be closed during passage of LNG carriers, but likewise it offers no definitive statement that the bridge would not have to be closed.

In a July 27, 2007, email message from Mitch Rohse to Stephen L. Jacobson, author of the ODOT's 'May 9 letter raising the bridge-closure issue, we said, "We have received no further communication on this point from ODOT and thus wonder whether you still consider periodic bridge and highway closure to be a possibility?" ODOT replied in an August 2 email message from Dean Fuller, District 1 Manager:

> "Thank you for your email. The message that we received from the USCG, LT Shadrack L. Scheirman, on May 14, 2007 is as follows;
>
> "There should be no impact to routine bridge traffic from LNG transits. The Coast Guard's Safety/Security zone will be in effect for both inbound and outbound transits; however, bridge traffic and other shore based activities should not be erected. The Coast Guard's authority to establish a safety & security zones is limited to the waterway (not 500 yards) and can be extended or contracted as required; however, it can not be used to limit access on the shore.
>
> "In the event of an unusual threat to/from the bridge, we would be working very closely with State & Local LE as well as other relevant state agencies to address the issue in an appropriate manner."

Bradwood Landing also responded to ODOT's May 9 letter. In a July 15, 2007, letter from Gary Coppedge to Ed Wegner, Mr. Coppedge writes, "[T]here is no reason to expect a closure of either the Astoria-Megler Bridge or the adjacent highways during the transit of the LNG carrier." The letter notes that closure of the bridge is not mentioned in the US Coast Guard's Waterway Suitability Report for Bradwood (February 28, 2007). Mr. Coppedge therefore concludes, "The omission of a requirement in any part of the WSR to close the Bridge constitutes a definitive ruling that there is no such requirement".

The WSR is not the final word on how LNG carrier traffic on the Columbia River will be managed. It specifically calls for a "Vessel Traffic Management Plan" to be prepared sometime "prior to the first transit." One may reasonably infer that such a plan could call for closure of the bridge under certain circumstances.

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[131] Bradwood Landing, presentation notes for public hearing, July 10, 2007, "Presentation to the Clatsop County Planning Commission for the Bradwood Landing LNG Terminal" (page 88).

With issues such as this, we face two questions about effects of the proposed development:

1. Is there credible evidence in the record that such an effect is likely to result from the proposed development?

2. Is that effect within the County's scope of review? That is, do policies or provisions in County's Comprehensive Plan including the TSP or implementing regulations direct the Board to consider this effect in its review of the application for land use approvals or permits?

In this case, the answer to the first question is "No": We find no credible evidence in the record to indicate that the Astoria-Megler Bridge would have to be closed when an LNG carrier passes under it. Lacking evidence that the proposed development is likely to result in bridge closures, we need not answer the second question, of what land use policies or ordinance provisions, if any, deal with such an effect.

Conclusion

For the reasons stated above, we decline to consider the possible closure of the Astoria-Megler Bridge to be material to this application.

15.2 Action Requested and Criteria for Approval

The applicant asks the County to review its traffic studies, supplemental findings, and proposed mitigation measures for Clifton Road and Hwy. 30 and determine that they comply with OAR 660-012-0060 (a part of Oregon's "transportation planning rule"). We also review these documents against L5.530, which to some extent duplicates the state rule but also adds some local criteria and requirements regarding transportation impacts.

OAR 660-012-0060 (which we shall refer as "the rule" hereafter) consists of eight long sections, some of which apply only to urban areas, mixed use development, and other matters not relevant to this application. We quote the most relevant sections below.

OAR 660-012-0060, Plan and Land Use Regulation Amendments

> "(1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g., level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:
>
> > "(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

"(b) Change standards implementing a functional classification system; or

"(c) As measured at the end of the planning period identified in the adopted transportation system plan:

"(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

"(B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or

"(C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

"(2) Where a local government determines that there would be a significant effect, compliance with section (I) shall be accomplished through one or a combination of the following:

"(a) Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.

"(b) Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plan so that the facility, improvement, or service will be provided by the end of the planning period.

"(c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.

"(d) Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.

"(e) Providing other measures as a condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as part of

the amendment specify when measures or improvements provided pursuant to this subsection will be provided."

The applicable parts of L5.350 are quoted below. We emphasize key passages in bold:

"**Section 5.352 Traffic Impact Study**

"(1) Purpose.

"The purpose of this section of the code is to implement Section 660-012-0045(2)(e) of the State Transportation Planning Rule that requires the County to adopt a process to apply conditions to development proposals in order **to minimize adverse impacts to and protect transportation facilities.** This section establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Study must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the Study.

"(2) When Required.

"A Traffic Impact Study may be required to be submitted to the County with a land use application, when the following conditions apply:

"(A) The development application involves one or more of the following actions:

"1) A change in zoning or a plan amendment designation; or

"2) Any proposed development or land use action that ODOT states may have operational or safety concerns along a state highway; and

"3) The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, or crash history. The Institute of Transportation Engineers Trip Generation manual shall be used for determining vehicle trip generation:

"(a) **An increase in site traffic volume generation by 500 Average Daily Trips (ADT)** or more (or as required by the County Engineer); or

"(b) An increase in ADT hour volume of a particular movement to and from the State highway by 20 percent or more; or

"(c) **An increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day**; or

"(d) The location of the access driveway does not meet minimum site distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the State highway, creating a safety hazard; or

"(e) A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area.

"(3) Traffic Impact Study Requirements;

"(A) Preparation. A Traffic Impact Study shall be prepared by a professional engineer in accordance with OAR 734-051-180.

"(B) Transportation Planning Rule Compliance. See Section 7 of the Transportation Plan.

"(C) **If the proposed development may cause one or more of the effects in Section 5.352(2), above, or other traffic hazard or negative impact to a transportation facility, the Traffic Impact Study shall include recommended mitigation measures.**

"(4) Approval Criteria:

"(A) Criteria. **When a Traffic Impact Study is required, approval of the development proposal requires satisfaction of the following criteria, in addition to other criteria applicable to the proposal:**

"1) The proposed site design and traffic and circulation design and facilities, for all transportation modes, including any mitigation measures, are designed to:

"(a) Have the least negative impact on all applicable transportation facilities; and

"(b) Accommodate and encourage non-motor vehicular modes of transportation to the extent practicable; and

"(c) Make the most efficient use of land and public facilities as practicable; and

"(d) Provide the most direct, safe and convenient routes practicable between on-site destinations, and between on-site and off-site destinations; and

"(e) Otherwise comply with applicable requirements of the Clatsop County Land and Water Development Use Ordinance and the Standards Document.

"(5) Conditions of Approval.

"(A) **In approving an action that requires a Traffic Impact Study, the County may condition that approval on identified mitigation measures.**

"Section 5.354 Amendments Affecting the Transportation System

"(1) Review of Applications for Effect on Transportation Facilities.

"When a development application includes a proposed comprehensive plan amendment, zone change or land use regulation change, the proposal shall be reviewed to determine whether it **significantly affects** a transportation facility. An amendment significantly affects a transportation facility if it would:

"(A) Change the functional classification of an existing or planned transportation facility. This would occur, for example, when a proposal causes future traffic to exceed the capacity of "collector" street classification, requiring a change in the classification to an "arterial" street, as identified by the Clatsop County Transportation System Plan ("TSP"); or

"(B) Changes standards implementing a functional classification system; or

"(C) Allows types or levels of land use that would result in levels of travel or access that are inconsistent with the functional classification of a transportation facility; or

"(D) Reduce the performance standards of the facility below the minimum acceptable level identified in the Transportation System Plan.

"(2) Amendments That Affect Transportation Facilities.

"Amendments to the comprehensive plan, zoning map and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the TSP. This shall be accomplished by one of the following:

"(A) Amending the TSP to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses consistent with the requirements of the Transportation Planning Rule (TPR); or,

"(B) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes of transportation; or

"**(C) Limiting allowed land uses to be consistent with the planned function of the transportation facility**; or

"(D) Amending the TSP to modify the planned function, capacity and performance standards, as needed to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided."

15.3 Analysis and Findings

Hwy. 30

The applicant's supplemental information of February 9, 2007 and *Updated Traffic Reports (June and July 2007)* and supplements conclude that traffic generated by the proposed use would significantly affect Hwy. 30 but that the effects are adequately mitigated by proposed improvements to the highway: an eastbound left-turn lane for the Clifton Road intersection and widening of the highway shoulders there. The applicant states that such mitigation keeps the highway and that intersection well within ODOT standards. The applicant therefore concludes that, with the regard to Hwy. 30 and to its intersection with Clifton Road, the proposal satisfies OAR 660-012-0060.[132]

The traffic report submitted in July 2007 revised the trip data to reflect the new location of the construction worker park and ride lot at Wauna. It added data on the type of shuttle buses that would be used and the number of trips they would generate. Additional trips were added to

[132] Supplemental Information of February 9, 2007, Tab E, pages 2 and 3.

reflect the potential for trips to or from the County rock pit. Where there are conflicts in the data, we use the higher number. But even when these additional trips are considered and the higher numbers are used, the total traffic generated by the development remains within the performance standards set by the County and ODOT for Hwy. 30 at Clifton Road.

The July 2007 traffic report concludes that the intersection of Hwy. 30/Clifton Road will meet applicable v/c ratio standards with peak construction traffic, and with improvement agreed to by the applicant and ODOT in place. It goes on to conclude that intersection operations are projected to be slightly better in 2027 under typical operations than 2011 with peak construction activity, even with an additional 16 years of background growth on the highway.

We conclude from all this that, with specified highway improvements in place, traffic generated by the proposed development will not exceed mobility standards for Hwy. 30 during the 20-year planning period (2007-2027), even at the peak of construction in 2011. **We therefore find that the proposal complies with OAR 660-012-0060 and with L5.350, "Transportation System Impact Review," as they pertain to Hwy. 30 and its intersection with Clifton Road.**

Clifton Road

The supplemental information concludes that traffic generated by the proposed use would not significantly affect Clifton Road. The applicant argues that the additional traffic would not:

- change the road's functional classification;
- alter the mobility standard that applies to Clifton Road;
- generate traffic inconsistent with its functional classification;
- reduce its performance below the minimum performance standard.

For those reasons, the applicant asserts that traffic on Clifton Road is not subject to the requirements of OAR 660-012-0060.

The June and July 2007 traffic reports indicate that the peak of construction will add 396 vehicle trips per day to Clifton Road, bringing the total volume of traffic on the road to less than 500 trips per day. This is less than the 1,000 vehicle trip classification of collector standards set forth in the TSP and the 750 capacity inferred. Once the LNG marine terminal is complete and enters its operational phase, traffic volumes would become even less. Thus the project meets the requirement of OAR 660-012-0060 to the extent it applies.

L5.350 contains significant requirements not found in the state rule. For example, the ordinance states, "If the proposed development may cause one or more of the effects in L5.352(2), above, or **other traffic hazard or negative impact to a transportation facility**, the Traffic Impact Study shall include recommended mitigation measures." (Emphasis added.) Among the effects listed in L5.352(2) are these:

> "(a) An increase in site traffic volume generation by 300 Average Daily Trips (ADT) or more (or as required by the County Engineer); or

"(b) An increase in ADT hour volume of a particular movement to and from the State highway by 20 percent or more; or

"(c) An increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day."

The development proposed at Bradwood is likely to result in some or all of those effects. The Traffic Study includes recommended mitigation measures. We require that approval of the application be conditioned upon improvement of Clifton Road to County collector standards, except to the extent such consistency is excused through issuance of a variance.

For the reasons stated above, we therefore find that with respect to Clifton Road, the application does comply with OAR 660-012-0060 and with L5.350.

Rulyville Road, Taylorville Road, and Hwy. 30 at Wauna

In Section 7.0 of these Findings, we described the construction worker park and ride lot proposed by the applicant on GC-zoned property near Wauna. The park and ride will only be in use during construction of the facility. The July 2007 traffic report addresses the traffic likely to be generated by such development: "With Bradwood construction traffic to and from the proposed 500-space parking lot, the maximum v/c ratios at the Hwy. 30/Taylorville Road interchange ramp intersections would be 0.85."[133]

Regarding traffic impacts on Taylorville Road and Rulyville Road, the *Updated Traffic Report* (page 15) says, "Traffic volumes are very low on these facilities, and no capacity improvements are needed to accommodate Bradwood construction traffic."

We described in Section 7.0 of these Findings, certain conditions of approval we require for traffic management at the park and ride facility. With those conditions, we conclude that the traffic generated by that facility will be within applicable performance standards at the relevant time. **We therefore find that this application, with respect to the proposed park and ride facility at Wauna, complies with OAR 660-012-0060 and LWDUO 5.350.**

Transportation Impacts

Oregon LNG asserts that the applicant's transportation system analysis is flawed, and that the adequacy of the transportation system is a critical issue because of limited access to the facility site. First, Oregon LNG argues that in the amendments to the Comprehensive Plan, Zoning Map, and LWDUO, Bradwood Landing has failed to comply with the Transportation Planning Rule, which requires specific traffic analysis that assumes the worst-case use and is evaluated over the twenty year planning period. Second, Oregon LNG argues that flaws remain in the Traffic Impact Analysis ("TIA") with regard to construction worker trip generation, on-site parking by construction workers, and the Taylorville Road interchange volume-to-capacity ratio ("v/c ratio"). Third, Oregon LNG suggests that the applicant ignored its assertion that it cannot

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[133] *Updated Traffic Report*, page 12.

satisfy the variance approval criteria with respect to Clifton Road. Bradwood Landing has previously explained why it believes variance to the road standards is not needed in this case. Further, the variance application has been submitted into the record and addresses the applicable approval criteria. We incorporate that narrative by reference and conclude that it is feasible for Bradwood Landing to obtain a variance. We reject the argument of Oregon LNG (DWT letter of October 19, 2007) contending that physical limitations must be limited to the Bradwood site itself. We also find that the nature of the land adjacent to the right of way is such that expanding the road into this area could adversely impact neighboring, sensitive lands, lending further support to a variance request. Concerning the remaining assertions, we find as follows:

a. *Transportation Planning Rule*

OAR 660-012-0060 (the "Transportation Planning Rule") requires that where a local government determines there would be a significant effect on an existing or planning transportation facility from amending a comprehensive plan or land use regulation, compliance with the rule may be accomplished by transportation improvements that assure the land use will be consistent with the function, capacity, and performance standards of the facility. The Planning Commission's findings conclude that specific highway improvements—an eastbound left-turn lane for the Clifton Road intersection and widening of the highway shoulders there—adequately mitigate such negative impacts, and that traffic generated from the proposed development will not exceed mobility standards for Hwy. 30 during the 20-year planning period, even at the peak of construction in 2011. We agree.

The applicant's traffic study was prepared in accordance with County and ODOT requirements. (*See* November 7, 2007 letter from Howard Roll to Board of Commissioners.) ODOT staff directed the traffic study to analyze site development and construction traffic as a "worst-case" scenario. That analysis determined that site development and construction represent peak traffic generation for the proposed LNG facility. Because site development and construction would occur during a 3-year period ending many years before the end of the planning period, ODOT elected to replace its standard traffic study requirements with specific improvement requirements for the intersection of Hwy. 30 and Clifton Road. These improvements must be in place before ODOT will issue an access permit. The improvements will also satisfy the applicable highway performance standards throughout the 20-year planning period, exceeding the requirements of the Transportation Planning Rule.

Contrary to the allegations of Oregon LNG, the proposed improvements will adequately mitigate traffic impacts generated from the proposed use and, thus, the proposal complies with OAR 660-012-0060.

b. *Traffic Impact Analysis (TIA)*

i. Construction Worker Trip Generation

Oregon LNG's last critique of Bradwood Landing's traffic analysis appears to be targeted at the June 2007 analysis prepared by Bradwood Landing's traffic engineer. The applicant submitted an updated TIA to the County on July 5, 2007 that focuses on the 3-year period for site development. The construction phase of the project represents the period of highest traffic

generation. Because the proposed use is not represented in available trip generation data sources, vehicle trip generation was based on expected monthly, daily, and hourly traffic volumes from construction workers and delivery vehicles. Construction employment is expected to peak with about 500 workers at the site daily. During this period, the applicant will operate a shuttle service to transport approximately 400 workers to and from the site. Approximately 100 workers will be allowed to park on-site. The trip generation estimates reflect these figures, as provided in the TIA, pages 1 and 10. Therefore, contrary to Oregon LNG's assertion, the trip generation analysis reflects a reasonable worst case scenario.

In response to Oregon LNG's concern over managing construction worker schedules to minimize traffic impacts, as the TIA indicates, the remote parking at the Hwy. 30/Taylorville interchange and shuttle service to and from the site will serve to minimize traffic on Clifton Road.

ii. Percent of Construction Workers That Park on Site

Oregon LNG's concern about on-site parking by construction workers confuses TIA figures for construction trip generation and those for trip generation during post-construction daily operation. As reflected in applicant's Tables 4b and 5, trip generation during the peak AM hour is estimated at an additional 133 trips during construction and 35 trips during normal operations, respectively. Therefore, contrary to Oregon LNG's contention, it was not an error to assign 35 vehicles to Clifton Road during normal operations at the peak AM hour. This trip generation estimate accurately reflects that during normal operations only approximately 50 employees will be working at the facility on a daily basis.

iii. Clifton Road/Taylorville Road Interchange v/c Standards

Per ODOT's Highway Design Manual, the applicable performance standard is a v/c ratio of 0.60 or better for the Clifton Road/Hwy. 30 interchange. The applicant's worst case analysis at the Hwy. 30/Clifton Road interchange projects a v/c ratio with the park and ride of 0.31 or better and, therefore, the intersection will meet applicable v/c ratio standards with peak construction traffic, and with improvements agreed to by the applicant and ODOT in place. Oregon LNG and Bradwood Landing maintained that higher v/c mobility standards were applicable to the ramp and we agree with applicant that the requisite standard is met.

Additionally, the applicant conducted a study of the long-term performance of the Hwy. 30/Clifton Road intersection, using projected 2027 volumes over the 20-year horizon. As shown in the TIA, once the facility is in full operation, it will have only minor impacts on traffic operations at the intersection and on Clifton Road. Intersection operations are projected to be better in 2027 under normal operations than during peak construction in 2011, even considering the additional 16 years of background growth on the highway.

The proposed development has the least negative impact on facilities, as conditioned, by substantially upgrading Clifton Road within the right of way, recognizing that nonvehicular transportation is not practicable at the site given its relatively remote location. As noted above, the park and ride will be used during construction of the terminal. The proposed development makes efficient use of an existing collector road and industrially zoned site and provides safe,

direct, convenient access, as improved. As discussed below, other standards and criteria of the code are also met.

15.4 Development Standards

We already addressed the subject of development standards for the proposed road improvements in Section 13.0 above. We see no need to repeat the analysis here, except to reiterate that the improvements are subject to the standards set forth in Standards Document S6.000, "Transportation Improvements and Road Standard Specifications for Design and Construction" except as provided by variance.

15.5 Board Action: APPROVE WITH CONDITIONS

See conditions under Chapter 13.

16. Decommissioning

16.1 Analysis and Findings

Bradwood Landing proposes to build a marine industrial facility that eventually will cease to operate. Over time, an industrial facility may simply deteriorate to a point where it is no longer economic or safe to operate. It may become functionally obsolete. It may encounter shrinking markets or rising costs that force the plant to close (as happened to several LNG terminals during the 1980s). Also, some facilities never get finished: construction is halted for various reasons, such as escalating costs in the face of weakening markets.

Bradwood itself is evidence of this. It once was an industrial complex consisting of a marine terminal, worker housing, and a mill operated by the Columbia Hudson Lumber Company. The mill closed in 1962. The application materials from Bradwood Landing note that "mill structures, included the housing units for mill workers have been removed from the site."[134]

Regarding the projected life of the terminal, the applicant says:

> "The proposed Terminal is projected to have a minimum life cycle of 25 years, but this is not a limit on the potential useful life of the Terminal. Future supplies of natural gas and market needs are the major factors in determining the practical useful life of the Terminal. Properly maintained, all projected facilities can be expected to be operational for more than 50 years."[135]

When industrial facilities cease to operate, or when they are abandoned before construction is complete, the remaining structures and sites have the potential to generate significant problems such as:

- Risks to public health and safety from decaying or collapsing structures;
- Pollution from chemicals leaking into the air, groundwater, or surface waters;
- Unsightliness, as structures decay, discolor, rust, or collapse;
- Litigation and liability risks for public agencies;
- Unduly high public costs to repair environmental damages—federal "Superfund" clean-ups, for example—that could have been prevented with appropriate reclamation or plant-retirement procedures.

In the past, costs of decommissioning, restoring, or reclaiming a "retired" industrial facility or its site often were passed on to taxpayers. More recently, however, it has become common practice for agencies that authorize industrial land uses to require, as a condition of approval, performance bonds, cash deposits, insurance, or similar guarantees to ensure that such costs will be borne by the developer, not the public.

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[134] Resource Report 8, *Land Use, Recreation, and Aesthetics*, page 8.

[135] Resource Report 1, *General Project Description*, page 29.

For example, the state's Energy Facility Siting Council ("EFSC") has adopted the following administrative rules for retirement of the energy facilities that it certifies:

"**345-022-0050: Retirement and Financial Assurance**

"To issue a site certificate [to approve the energy facility], the Council must find that:

"(1) The site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.

"(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition."

"**345-027-0020: Mandatory Conditions In Site Certificates**

". . . .

"(7) The certificate holder shall prevent the development of any conditions onsite that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.

"(8) Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit, satisfactory to the Council, in an amount specified in the site certificate to restore the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility.

"(9) The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.

"(10) The Council shall include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant."

But the EFSC rules quoted above do not apply to Bradwood Landing's proposal: recent changes to federal law preempt review by EFSC in this case. FERC does not require plant-retirement measures.

The LWDUO, however, contains a retirement provision similar to EFSC's. The County provision requires performance bonds or similar measures for certain types of development:

"**Section 6.110. Bond or Cash Deposit.**

"Before issuing or renewing a development permit when the applicant has an obligation to construct or improve public facilities to serve the development and use or to reclaim land such as that due to surface mining operations or to fulfill requirements for revegetation, or **for any development and use that the Community Development Director, Planning Commission or Board of Commissioners deem necessary**, the obligation shall either be fulfilled prior to the issuance of the development permit or the applicant shall be required to file with the County Clerk and [sic] acknowledgment of obligation. The acknowledgment shall contain the time within which it is to be met and a surety bond or cash or negotiable security deposit sufficient to cover the cost of the work as estimated by the County Engineer for the year fulfillment of the obligation is anticipated. The bond shall be conditioned upon the permittee carrying out the obligation and fulfilling the other requirements of this Ordinance that bear on the approval of the development. The deposit or bond shall be forfeited to the County if the permittee does not fulfill the requirements. The bond or deposit shall remain in the custody of the County until the obligation is completed or the bond or deposit is forfeited, or shall be placed in an escrow account subject to County control." (Emphasis added.)

We further note that the LWDUO also requires that any zone change must comply with the following criteria:

"**Section 5.412. Zone Change Criteria.**

"The governing body shall approve a non-legislative zone designation change if it finds compliance with Section 1.040, and all of the following criteria:

"(1) The proposed change is consistent with the policies of the Clatsop County Comprehensive Plan.

"(2) The proposed change is consistent with the statewide planning goals (ORS 197).

"(3) The property in the affected area will be provided with adequate public facilities and services including, but not limited to:

"(A) Parks, schools and recreational facilities

"(B) Police and fire protection and emergency medical service

"(C) Solid waste collection

"(D) Water and wastewater facilities

"(4) The proposed change will insure that an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards.

"(5) The proposed change will not result in over-intensive use of the land, will give reasonable consideration to the character of the area, and will be compatible with the overall zoning pattern.

"(6) The proposed change gives reasonable consideration to peculiar suitability of the property for particular uses.

"(7) The proposed change will encourage the most appropriate use of land throughout Clatsop County.

"**(8) The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County.**" (Emphasis added.)

The applicant has applied for certain zone changes in order to construct the LNG plant at Bradwood. This application therefore must comply with the criteria in L5.412 quoted above.

The broad wording of L6.110 ("for **any development and use** that the Community Development Director, Planning Commission or Board of Commissioners deem necessary . . .") clearly gives the County authority to require a plant-retirement plan and related financial assurances. And the strong wording of L5.412 on zone changes like those proposed here ("The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County") clearly directs the County to deal with an issue such as plant closure that could have significant ramifications for public health, safety, and welfare.[136]

We note that the application itself in several places refers to "decommissioning." On page 4 of Resource Report 8, for example, it states, "Once the [LNG] facility is decommissioned, the mine [a quarry] may be reactivated." That choice of words, as opposed to "closure," suggests that the applicant anticipated that the LNG plant would be subject to some standards and procedures to ensure a safe and orderly termination of the facility's operation.

Finally, we also note that other agencies have raised questions about plant retirement. For example, in a May 11, 2007 letter to FERC from the U.S. NMFS, NMFS states (on page 15):

"While the details of abandonment are not necessary, NMFS needs to know the likely duration of adverse affects that would result from FERC 's authorization of the proposed terminal and pipeline. Where details are not available, one manner by which NMFS may gain assurance that site restoration would occur is if the applicant is required to hold a bond of adequate value for such eventuality."

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[136] Staff put this question to the county's legal counsel. He affirmed the county's authority in this matter in the attached memo of May 29, 2007, "Bradwood Landing LNG Terminal Decommissioning." See Attachment 2 to these findings.

In response to the concerns stated in the June 28, 2007 Staff Report, Bradwood Landing submitted a decommissioning plan. The Bradwood Landing plan should be carefully reviewed by County fiscal officers and legal counsel. For purposes of this review, we note that Bradwood Landing has submitted a plan and conclude that County approval of the Bradwood proposal should be conditioned on County review and acceptance of a plan.

16.2 Action: REQUIRE A DECOMMISSIONING PLAN AND FINANCIAL ASSURANCES

We find that without guarantees to protect the public from problems and costs that could arise when the LNG facility ceases operation, the proposed zone changes would be detrimental to the public health, safety, and welfare, and hence would not comply with LWDUO 5.412(8). We therefore grant approval of the proposed zone changes, subject to the following four conditions:

1. The applicant must develop a plan specifying how the LNG marine terminal site will be restored to a useful, non-hazardous condition following cessation of the LNG facility's construction or operation.

2. The plan must be developed, submitted to the County, reviewed by the County, and approved by the County before construction of the LNG facility begins.

3. The plan must be consistent with EFSC standards and requirements set forth in OAR 345-022-0050. The plan should be modeled after recent plant-retirement agreements used in EFSC's certification of energy facilities. *See, e.g.,* Section D.3, "Retirement and Financial Assurance," of the *Third Amended Site Certificate for the Port Westward Generating Project*, EFSC, January 28, 2005.

4. The plan must be accompanied by suitable financial assurances such as a letter of credit or surety bond in an amount adequate to cover all costs of restoring the site to useful, non-hazardous condition.

17. Public Safety Issues Related to Land Use

17.1 Key Issues: Emergency Services and Road Access

Bradwood Landing's proposal to build an LNG marine terminal at Bradwood raises significant issues about public safety. Many of those issues will be addressed by state or federal agencies in their review and permitting processes. And many fall outside the scope of the County's land-use review, which is limited to questions concerning compliance of Bradwood Landing's proposal with County land-use policies and regulations.

Two issues of public safety, however, are related to the County's land-use review: emergency services (fire protection, police, and emergency medical services), and road access. The County's interests in these two topics are expressed in several mandatory provisions of the County's Comprehensive Plan and land use regulations. To be approved by Clatsop County, the consolidated application from Bradwood Landing must comply with those provisions.

To approve the Bradwood proposal, the County must be sure that workers, residents of the area, and other users of Clifton Road would be able to travel safely on that road during the three years of construction and the decades of plant operation beyond. The County also must ensure that emergency services (public, private, or both) would be able to respond adequately to traffic accidents, fires, or other emergencies that might reasonably be expected to occur during construction and operation of the LNG plant.

To address these important issues effectively, the County contracted with PBS&J, an engineering firm with expertise in safety and security issues. The firm brought a six-member team of engineers and safety specialists to Astoria in the week of June 18, 2007. The team toured Bradwood, and conferred with County staff and the County's planning consultant. The team also met with fifteen local fire chiefs, police chiefs, and other emergency service providers in a half-day meeting convened by the County on June 20, 2007. Additional meetings occurred subsequent to the June 20, 2007 meeting.

Bradwood Landing's Comments on Emergency Services

With regard to emergency services and possible impacts of emergencies at Bradwood on local responders, Bradwood Landing argues that it "will commit to primary self sufficiency [for emergency services] during operations and construction."[137] We do not find adequate evidence to support the idea that the LNG terminal will or can be fully self-sufficient. Certainly it is appropriate for the applicant to bear the main costs and burdens of dealing with emergencies at its own plant, and we commend Bradwood Landing for the steps it has taken in that direction. But almost any significant emergency will have some effects on local responders. Thus, there remains a need for Bradwood Landing not only to provide appropriate on-site safety resources but also to coordinate with local responders to plan suitable responses for various events.

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[137] Bradwood Landing, presentation notes for public hearing July 10, 2007, "Presentation to the Clatsop County Planning Commission for the Bradwood Landing LNG Terminal," pages 18-19.

Bradwood Landing has coordinated with local responders to develop a draft Emergency Response Plan ("ERP"). In staff's June 28 report, it found the ERP to be inadequate because it is in draft form and because it would not be in effect during the three years of plant construction.[138] Bradwood Landing responded by submitting "Bradwood Landing Construction Safety and Emergency Response Plan," July 28, 2007.

The document discusses the likelihood that various events would occur, describes various emergency response resources and personnel that will be on-site during construction, and declares that Bradwood Landing "will write a project specific Bradwood Landing Construction Safety Plan . . . before the construction begins."[139]

The document presents various statistics regarding the expected frequency of events such as worker injuries and fires. The statistics are based on the assumption that construction of the LNG marine terminal will involve 2 million person-hours. The document does not specify whether that is the number of hours needed for a two-tank or a three-tank development and we condition approval of the application on two storage tanks with further permitting required for a third tank.

The report states (on page 4), "The probability that Clifton Road would become impassable on the day the terminal needed emergency response assistance is one per 830,000 years." Bradwood Landing arrives at this estimate by extrapolating from the road's previous history. The report says there is "no record" of the road having been impassable in the previous 70 years. It assumes that the absence of such records means the road has never been closed. It then says, "Let's presume that the road becomes impassible once per 70 years," and goes on to extrapolate probability of closure using that assumption.

That casual extrapolation is not persuasive. Construction of the LNG marine terminal at Bradwood would increase traffic on this little-used road many times over, and the increase in traffic would greatly increase the odds of a vehicular accident that might close Clifton Road. A straight-line extrapolation of the road's history thus is not credible evidence.

The document commits Bradwood Landing to providing and maintaining on the construction site security guards, a "medical facility," a "vehicle to transport individuals to a medical facility," "at least one certified Emergency Medical Technician," an "unpaved helicopter landing facility," and a "brush truck."[140] An August 7 letter from Gary Coppedge to Ed Wegner

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[138] June 28, 2007, staff report pages 149-150.

[139] "Bradwood Landing Construction Safety and Emergency Response Plan," July 28, 2007, page 2. The document itself lacks page numbers. Our citations here refer to hand-written numbers we placed on the document.

[140] "Bradwood Landing Construction Safety and Emergency Response Plan," July 28, 2007, page 2.

repeats the listing of resources, personnel, and actions Bradwood Landing will undertake for emergency response.[141]

The document then describes other resources that are to be provided as the plant begins operating: an "industrial fire brigade," a brush truck, a dry chemical extinguisher system, emergency medical personnel ("a minimum of one person per shift"), a "medical facility," vehicle to transport injured persons, and a "paved helicopter landing facility" for life flights.[142]

The paragraph preceding this description notes that the ERP had not been completed and some information on plant security cannot be disclosed because it is classified. The paragraph ends with the statement that the information is "true in the context that it is provided." It thus is unclear whether the document represents a firm statement of what *will* be provided during operations or a discussion of resources that *could* be available. The August 7 letter from Gary Coppedge, however, is less equivocal. Taken together, the two documents represent a formal commitment by Bradwood Landing to undertake all the safety measures described there.

PBS&J's Public Safety Assessment

PBS&J Consulting prepared a public safety assessment of the Bradwood proposal for the County.[143] As staff noted in its June 28 staff report, not all public safety issues associated with the proposal fall within the scope of this review for land use permits and approvals: only those directly addressed by policies in the County's Comprehensive Plan or by provisions in County land-use regulations should be addressed here. We therefore do not address every finding or recommendation in the PBS&J assessment here. Many of their recommendations can be addressed after this review, as the County, Bradwood Landing, and other agencies work to develop a suitable ERP.

We believe, however, that the assessment's recommendations with regard to resources needed either on-site at Bradwood or by local emergency services do fall within the scope of this review. Pages 11 through 14 of the July assessment, items 5.2(a) through 5.2(k), present a list of specific actions that need to be taken, resources and personnel that should be provided, and recommendations for cost-sharing. The recommendations address numerous "gaps" between resources that would be needed for responding to emergencies reasonably likely to occur at Bradwood and the current capacities of local agencies to respond to such events. Between July and November, some of PBS&J's recommendations have been met. We condition approval on

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[141] Gary Coppedge (for Bradwood Landing) to Ed Wegner letter of August 7, 2007, regarding vessel traffic safety measures and on-site emergency response measures (12 pages).

[142] "Bradwood Landing Construction Safety and Emergency Response Plan," July 28, 2007, pages 5-6. PBS&J updated its report in November 2007.

[143] PBS&J Consultants for Clatsop County, Public Safety Assessment for the Proposed Bradwood Landing LLC/NorthernStar Natural Gas LNG Project, July 2007 (received July 30, 2007), 21 pages.

Bradwood Landing fully complying with the applicable provisions of 4.1 and 4.3 of the November 2007 PBS&J report.

Comments by Oregon Department of Energy

The Oregon Department of Energy ("ODOE") echoes many of the concerns expressed by staff in its June 28 report and later supplements to it.[144] In a July 30 letter to the Planning Commission, Director Michael W. Grainey says:

> "At this time, we are still without firm commitments from Northern Star to provide the resources that state and local governments have identified as essential emergency response resources. It is important to recognize that the underlying assumption of the draft emergency response plans is that critical response assets are already committed and in place. However this is not the case. If specified emergency response assets are not included as enumerated permit requirements, then the state and local jurisdictions cannot be assured of the ability to respond to emergencies that may occur.
>
> ". . . .
>
> "ODOE urges the Planning Commission to condition any approval upon resolution of the public safety issues identified in Chapter 17 [of the County's June 28 staff report]."

We agree with ODOE' s recommendations and, as noted above, find that appropriate conditions of approval are needed to address and resolve key questions of who will provide what emergency services and how such services will be provided effectively and equitably. We impose such a condition.

Comments by CRK

CRK argues that the June 28 staff report "ignored the major health, safety and economic issues that would affect multiple citizens, resources, and industries throughout the (*sic*) Clatsop County."[145] CRK then expresses concerns about a long list of hazards including explosions, dangers to fishermen, "degradation of clear air," and "decrease in privacy."

We disagree with CRK that the staff report ignores public health and safety issues. Quite the contrary: the report devoted an entire section (nine pages) to such issues, as well as addressing them in many other sections as well. The County has expended many hours, words, and dollars attempting to decide which public safety and health issues properly fall within the

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[144] Michael Grainey, Director, Oregon Department of Energy, July 30, 2007, letter to the Planning Commission.

[145] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal." page 5.

scope of this review and how best to deal with such issues. Furthermore, the County has contracted with a major engineering firm to prepare a public safety assessment and to advise the County as it participates in various safety-related efforts such as preparing an ERP for Bradwood. In short, County officials are very mindful of the significant public health and safety issues associated with this development proposal, but not all of those issues can or should be addressed in the land-use permitting process.

For reasons stated here and in the preceding sections, we decline to address matters such as "decrease in quality of life due to fear of explosion of LNG tankers."[146] We limit ourselves here to public health and safety concerns expressly mentioned in the Comprehensive Plan and land-use regulations. Those have mainly to do with road access and provision of emergency services. The County and other local, state, and federal agencies will deal in other forums with other health and safety issues arising from the Bradwood proposal.

Safety is the County's highest priority and Bradwood Landing has taken great steps to ensure that the design of Bradwood Landing exceeds local, state and federal safety standards. This safety focus has resulted in Bradwood Landing committing to expend in excess of $160 million on the design, construction and operational parameters of the facility specifically to ensure the safety and security of the facility, and to minimize its impact to local communities. This $160 million commitment demonstrates Bradwood Landing's focus on public safety and its desire to be an active and valued member of the local community.

Bradwood Landing has worked closely with local, regional and state first responders to enhance the design of the project and to provide resources and Emergency Response Provider Plan (ERP) procedures that constitute the foundation of its public safety commitments relative to both the construction and operations phases of the project. These resources were outlined in detail in Bradwood Landing's letter to Mr. Wegner of October 19, 2007. The appendix includes an exhaustive list of Bradwood Landing's commitments, principal of which are;

- Maintenance of an Industrial Fire Brigade at the facility, trained by Knappa Svensen Burnside Fire Department to respond to emergency situations at the facility,
- Detailed Conceptual listing of fire fighting systems and controls to be incorporated in the facility design,
- Training for local emergency responders,
- Provision of three fire fighting tugboats, and
- Provision of licensed facility security officers

Furthermore, in addition to the above commitments, in co-operation with the public safety agencies and professionals within Clatsop County, Bradwood Landing has jointly identified additional resources to be funded by Bradwood to further augment the capabilities of these organizations to respond to a project-related incident, and also enhance provision of services to the general community. Bradwood has committed to provide the resources outlined to the public safety agencies in Clatsop County, and has provided draft cost reimbursement and

[146] CRK's July 10 memo, page 5.

resource agreements reflecting such for consideration by the various Boards that govern these public safety organizations.

In addition, there is a very high probability that most of the resources Bradwood has committed to will never be used to respond to an event at Bradwood Landing, however they will be available to increase the general response capability of the public safety agencies and represent a significant contribution to the community.

Bradwood Landing has committed to many safety and emergency response measures recommended in the June 28 staff report and in PBS&J's public safety assessment. We believe any remaining areas of concern can be resolved through the following condition of approval.

Prior to the start of the terminal's operation, Bradwood Landing shall fully comply with all applicable recommendations set forth in sections 4.1 and 4.3 of *PBS&J's Public Safety Assessment for the Proposed Bradwood Landing LLC/NorthernStar Natural Gas LNG Project, November, 2007.*

In its June 28 report (page 158), staff also raised public safety concerns related to road access:

> "We disagree with applicant's conclusion that the road standards of Chapter 6 are not applicable here. We conclude that they do apply. We believe that for Clifton Road to provide "suitable access for emergency vehicles" and be "appropriate" for the expected volumes of traffic, the road must meet the standards in that chapter."

Bradwood Landing has agreed to bring Clifton Road up to the 24-foot roadway standard set forth in Table 1 of Chapter 6 (of the County Standards Document), and it has submitted an application for a variance to certain other standards in Table 1. As we noted above, we approve the application, but impose a condition of approval requiring that the applicant either improve the road so that it meets all Table 1 standards or obtain a variance to the standards that are not met.

CRK asks us to interpret L5.412(8) to include almost any activity that might involve public health, safety, and welfare. We do not read L5.412(8) so broadly, for several reasons.

First, L5.412(8) does not say the County must consider how the proposed rezoning will affect all aspects of public health, safety, and welfare. Rather, it says, the County must consider whether the proposed rezoning would be detrimental to the health, safety and general welfare **of the County**. This sets a very high bar. Almost any development is likely to have some effect on health, safety and general welfare of at least some persons, but few developments are likely to have effects of County-wide significance.

Second, L5.412(8) focuses on "the change" (*i.e.*, the proposed rezoning). It doesn't say "and all subsequent events that might conceivably happen after such a change." We find nothing in the record to indicate that proposed zone change would, in CRK's words, cause "danger of explosion and thermal burns from LNG tanker, terminal, or pipeline." The rezoning itself and the development permitted by it almost certainly would **not** do that. Such danger would result

only from human error, shoddy construction, terrorist attack, or other subsequent events not caused by the rezoning. If L5.412(8) were to be interpreted as broadly as CRK suggests, then the County could never approve another zone change, because every zone change allows development for which one can imagine a scenario involving some danger, injury, or death.

Third, L5.412(8) is one of eight criteria having to do with changes to the County's land use regulations. We understand the scope of these eight criteria to be limited to matters involving the County's land use plan and regulations and to matters over which the County has some control. Many of the issues raised by CRK fall outside those limits. For example, the safety of vessels crossing the Columbia River bar certainly is a significant matter, and it may very well be affected by the addition of 125 large LNG carriers to the traffic crossing the bar. But the Comprehensive Plan and land use regulations do not govern such traffic, and the County has little, if any, control over it.

Fourth, other governments and agencies **do** have authority and control over such matters. For example, vessel traffic on the Columbia River is regulated by the US Coast Guard. In such cases, it is reasonable and appropriate for the County to assume that public safety there will be protected by other agencies with that responsibility.

For all of the above reasons, we believe that vessel traffic on the Columbia River lies outside the scope of L5.412(8) and outside the scope of this review. This is not to say the subject is trivial. Quite the contrary: we regard the subject of LNG carrier traffic as quite significant. But our task in this review is not to consider all things significant. Our task is to consider whether the application from Bradwood Landing complies with applicable policies and provisions of the Comprehensive Plan and implementing ordinances. We therefore may consider vessel traffic only to the extent that the Comprehensive Plan and ordinances address that subject. We find that they say almost nothing about it.

Note: An August 7, 2007, letter from Gary Coppedge (for Bradwood Landing) to Ed Wegner lists numerous vessel traffic safety measures that Bradwood Landing will undertake. We do not address the adequacy of those measures here because we consider them to be outside the scope of this review.

Conclusion

For the reasons stated above, we decline the request to consider effects of LNG carrier traffic on the Columbia River. We find such traffic to be outside the scope of this review.

17.2 County Land-Use Policies and Regulations on Emergency Services

The application from Bradwood Landing involves three zone changes. The LWDUO requires that any zone change must comply with the following criteria:

"**Section 5.412. Zone Change Criteria.**

"The governing body shall approve a non-legislative zone designation change if it finds compliance with Section 1.040, and all of the following criteria:

"(1) The proposed change is consistent with the policies of the Clatsop County Comprehensive Plan.

"(2) The proposed change is consistent with the statewide planning goals (ORS 197).

"**(3) The property in the affected area will be provided with adequate public facilities and services including, but not limited to:**

"(A) Parks, schools and recreational facilities

"**(B) Police and fire protection and emergency medical service**

"(C) Solid waste collection

"(D) Water and wastewater facilities

"**(4) The proposed change will insure that an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards.**

"(5) The proposed change will not result in over-intensive use of the land, will give reasonable consideration to the character of the area, and will be compatible with the overall zoning pattern.

"(6) The proposed change gives reasonable consideration to peculiar suitability of the property for particular uses.

"(7) The proposed change will encourage the most appropriate use of land throughout Clatsop County.

"**(8) The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County.**" (Emphasis added.)

Criteria 3, 4, and 8 thus authorize the County to approve the proposed zone changes only if the resulting development at Bradwood would not:

- exceed capacities of the area's police, fire protection, and emergency medical services;
- cause "undue traffic congestion or hazards"; and
- pose a threat to public safety.

Also, the Comprehensive Plan's General Public Facilities Policy 9 says, "When a Comprehensive Plan or Zone Change or both are requested that would result in a higher residential density, commercial or **industrial development**, it shall be demonstrated and findings made that the **appropriate public facilities and services** (especially water, sanitation (septic

feasibility or sewage) and schools) are available to the area being changed **without adversely impacting the remainder of the public facility or utility service area**."

The Bradwood proposal will "result in . . . industrial development," and it involves a Comprehensive Plan amendment and zone change. General Public Facilities Policy 9 and the County's zone change criteria listed above thus apply to the Bradwood proposal. We therefore must consider whether the development might "adversely impact" emergency services in the Bradwood area. To do that, we need answers to these questions:

1. What are the present capacities of such services?

2. Are those capacities sufficient to meet the additional demands that would be placed upon them by the proposed development?

3. If they are not sufficient, what additional resources are needed?

4. If additional resources are needed, how will Bradwood Landing, the County, and local emergency service agencies provide them?

17.3 County Land-Use Policies and Regulations on Road Access

As we noted above, the County's criteria for a zone change include L5.412(4):

> "The proposed change will insure that an adequate and safe transportation network exists to support the proposed zoning and will not cause undue traffic congestion or hazards."

In addition to that zone-change criterion, the County has several policies related to the safety of the County's transportation system. Because Bradwood Landing seeks a Comprehensive Plan text amendment and several zone changes, all of these policies are applicable here. We have highlighted key passages in these policies below.

Policy 4 under "Transportation Coordination" says:

> "**Coordinate land use and transportation decisions** to efficiently use public infrastructure investments to:
>
> "a. **Maintain the mobility and safety of the roadway system**
>
> "b. Foster compact development patterns in incorporated and rural communities
>
> "c. Encourage the availability and use of transportation alternatives
>
> "d. Enhance livability and economy competitiveness." (Emphasis added.)

Policy 2 under "System Preservation" says:

"**Consider transportation impacts when making land use decisions**, and consider land use impacts (in terms of land use patterns, densities, and designated uses) when making transportation-related decisions." (Emphasis added.)

Policy 3 under "System Preservation" says:

"**Ensure that amendments to the comprehensive plan, land use designation amendments and land use regulation changes that are found to significantly affect a transportation facility are consistent with the identified function and capacity of that facility.**" (Emphasis added.)

The overall goal under "Transportation Safety" is to:

Provide a transportation system that maintains adequate levels of safety for all users.

Also, the *Comprehensive Plan*, May 2004, contains two key policies linking transportation and public safety.

Policy 4, page 52, says:

"Clatsop County shall ensure that roads, for which it has maintenance responsibilities in the unincorporated County, are kept in serviceable condition and **usage does not exceed capacity**." (Emphasis added.)

Policy 16, page 53, says:

"Roads in Clatsop County shall be designed, constructed and maintained to:

"a. Streets and roads in Clatsop County, excluding State highways, should be capable of ensuring unrestricted travel to and from a property.

"b. **Provide adequate, safe, and legal access with minimal public cost.**

"c. **Place the burden of the costs on the benefited person(s).**

"d. **Provide access for fire protection, ambulance, police**, mail, school bus, public transit, and garbage services." (Emphasis added.)

["e" through "i" omitted here]

Taken together, these six transportation policies direct the County to (a) consider the impact of proposed development on public roads, and (b) ensure that traffic generated by the development will not exceed the capacity of any public road and thereby threaten the safety of road users. Bradwood Landing has contended that it will not place a burden on Clifton Road proportional to full improvement to County collector standards as set forth in Table 1 of S6.000. We conclude that the development proposed at Bradwood will be consistent with Clifton Road if Clifton Road is brought up to the County collector standards, except to the extent excused by

issuance of a variance. **We therefore find that the application complies with the six transportation policies listed above.**

In addition to the rezoning criteria, L3.634(7) says:

> "(A) A building permit or other permit for construction or alteration of any structure or use in the MI zone will not be issued until plans have been reviewed and approved for conformity with the performance standards of this zone and the policies of the Comprehensive Plan, and for **compatibility of the proposed structures or uses with surrounding uses considering factors such as transportation**, access, signs, lighting, building placement and design, noise, air quality, vibration, storage, landscaping, adjoining uses and location of public utilities including water and sewer facilities." (Emphasis added.)

The Project is compatible with surrounding uses with respect to transportation. Regarding marine transportation on the Columbia River, the Project is compatible with commercial and recreational vessel traffic on the river and consistent with U.S. Coast Guard requirements for vessel safety. *See* Bradwood Landing Terminal, Resource Report 11, Reliability and Safety § 11.3.3 (June 2006). Regarding vehicle traffic over Bradwood Road, Clifton Road and U.S. Hwy. 30, the Project, with the improvements and measures required by the County to bring the road into compliance with the County collector standard except to the extent excused by a County variance, will be compatible with the capacity of the road system and nearby land uses if improved as recommended in the conditions of approval. The Project includes a slight rerouting of the existing railroad through the property to ensure that the terminal and railroad do not interfere with each other. There is no current freight or passenger traffic on the railroad at Bradwood because of lack of business and the poor state of the tracks adjacent to and west of Bradwood, and no traffic is expected prior to construction of the terminal. Therefore, the rerouting of the tracks and construction of the terminal will not interfere with rail traffic.

Finally, the County has adopted standards for roads in Chapter 6 of its "Standards Document." Chapter 6 says:

> "The Clatsop County Road Standards are intended to provide access to new development in a manner which reduces construction cost, makes efficient use of land, **allows emergency vehicle access while discouraging inappropriate traffic volumes** and speeds, and which accommodates convenient pedestrian and bicycle circulation. The standards apply to County roads, dedicated roads and private roads." (Emphasis added.)

The road improvements proposal will enable two-way traffic along Clifton Road, facilitating emergency vehicle access to the site. Further, in response to safety concerns raised by staff and PBS&J, Bradwood Landing modified its application to provide a place at Bradwood where Life Flight helicopters could land and take off. Bradwood Landing plans to have an unpaved helicopter landing area available during construction of the LNG terminal and then have a paved "helipad" available during the plant's operation. Both sites are zoned Marine Industrial. Staff has concluded and we agree that the helicopter landing sites are allowed as part of the

construction and operation of the marine industrial site and do not require additional local permits. The details of the proposed helicopter landing sites and operations are described in Appendix "Bradwood Landing Construction Safety and Emergency Response Plan," July 28, 2007.

17.4 Board Action: APPROVE WITH CONDITIONS

For reasons stated above, we conclude that with regard to public safety, the application complies with the aforementioned county provisions on public safety and emergency services, road standards and zone changes, subject to the following two conditions of approval:

1. Before Clatsop County will issue development permits for the Project, subject to the exception that those commitments which by their terms are clearly intended to be conducted at a later time, such as during construction or operations, Bradwood Landing shall:

   (a) Comply with all applicable provisions and recommendations in PBS&J's *ERP Revisions and Response Resource Cost Share Report for the Proposed Bradwood Landing LLC/NorthernStar Natural Gas LNG Project*, November 2007, including all appendices thereto.

   (b) Honor and execute all commitments regarding emergency service resources and cost-sharing measures expressed by the applicant in the PBS&J November 2007 report and its appendices. Where commitments described therein differ or conflict, the larger or more stringent commitment will apply.

   (c) Reach agreement with each public emergency service provider described in PBS&J's November 2007 report where an agreement between the applicant and the emergency service provider had not been reached at the time of this March 20, 2008 board decision. The agreement shall specify a distribution of resources or cost-sharing measures or both by the applicant that will ensure adequate and equitable provision of emergency services throughout the district served by that public emergency service provider. If the applicant and emergency service provider reach such an agreement, it must be submitted to the Clatsop County Board of Commissioners for acknowledgment. If the applicant is unable to reach agreement with a public safety agency under this condition, the applicant may request that the Board of Commissioners review and revise the condition at a public hearing. The Board may do so under such terms and conditions as are consistent with the PBS&J report.

2. The applicant must obtain the necessary permits for construction and operation of the helicopter landing area and the helipad before starting construction of the LNG marine terminal.

18. Natural Gas Pipeline

18.1 Proposed Development

Bradwood Landing describes the proposed natural gas pipeline this way:

> "Natural gas will be transported from the terminal through a new, 36-mile underground pipeline. Only the first approximately 0.5 miles of the pipeline lies within the coastal zone. See Figure 2 [of *Terminal Narrative*]. In the vicinity of the terminal, the pipeline will consist of a single pipe with an outside diameter of 36 inches. The pipeline will begin at an inspection "pig" launcher and meter station within the terminal. It will exit the terminal to the southeast and pass under the adjacent railroad. Just beyond the railroad, a horizontal directional drill will be used to construct the pipeline several hundred feet below the high ridge southeast of the terminal. The pipeline will exit the ridge well beyond the property line and the coastal zone boundary. Within the coastal zone, construction of the pipeline will not require any surface disturbance outside the terminal construction area."[147]

The pipeline is proposed to extend south and east from Bradwood, along the Columbia River, to the County's border with Columbia County, and beyond. The first 6.2 miles of land on that route are under the County's jurisdiction. In the County, the pipeline will pass through seven different zones: MI, F-80, HI, LW, AD, OPR, and EFU. Table 6 below shows the seven segments of the pipeline, starting from the LNG terminal at Bradwood. The table is based on the two "Pipeline Zoning Maps" appended to Bradwood Landing's *Pipeline Narrative*.

The pipeline narrative explains that the pipeline will be placed underground either by drilling or trenching. "Horizontal directional drilling" ("HDD") is to be used in areas such as the Bradwood Cliffs, where trenching is not feasible, and also where the pipeline passes under roads or waterways. The narrative's Table 5 and related maps show that such drilling will be used for 2.62 miles (about 40 percent of the total length of pipe to be installed in the County). The applicant states that "there is minimal disturbance of the surface between the entry and exit points of the HDD."[148]

Trenching is to be used for the remainder of the pipeline installation. The trench will be excavated so as to be at least 12 inches wider than the pipe (which will be 30 inches in diameter in some places and 36 inches in others). The trench would be up to 25 feet wide, depending on stability of soils at the site. It would be deep enough to allow installation of the pipe plus "a minimum of 3 feet of soil cover between the top of the pipe and the final land surface after backfilling."[149] Table 6 describes the zoning segments of the pipelines and the requested action.

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[147] *Terminal Narrative*, page 14.

[148] *Pipeline Narrative*, page 28.

[149] *Biological Assessment*, page 24.

Table 6: Natural Gas Pipeline	
Segment	**Requested Action**
1. Pipeline leaves LNG terminal, passing south through a few hundred feet of land zoned **Marine Industrial Shorelands**. (MI)	Allow outright in MI Zone, per L3.624(13) ("utilities") and L3.624(10)(B) ("water dependant industrial-fuel dispensing").
2. Pipeline continues south through about 2.6 miles of land zoned **Forest-80**. (F-80)	Issue conditional use permit per L3.554(5) ("new distribution lines" in F-80 Zone).
3. Pipeline turns to southeast near Wauna, passing through about 2.6 miles of land zoned **Heavy Industrial**. (HI)	Allow outright in HI Zone per L3.404(5) ("utilities"). Alternative: Issue conditional use permit per L3.405(2) ("distribution").
4. Pipeline passes under Driscoll Slough at mile 4.2 (zoned **Lakes and Wetlands**). (LW)	Allow outright in LW Zone per L3.613(4) ("submerged pipeline").
5. At mile 5.2, pipeline passes under Westport Slough for about 1,000 feet. Slough is zoned **Aquatic Development**. (AD)	Allow outright as "water-dependent use." Alternative: Issue permit for review use in AD Zone per L3.746(1) ("pipelines").
6. At mile 5.3, near River Ranch, pipeline passes through about 0.7 mile of land zoned **Open Space, Parks and Recreation**. (OPR)	Amend LWDUO text to add words *"15. cable, sewerline, waterline or other pipeline"* to L3.584 (list of outright uses in OPR Zone), and then allow pipeline outright.
7. At mile 6.0, pipeline passes through about 0.2 mile of land zoned **Exclusive Farm Use**. (EFU) At mile 6.2, pipeline crosses into Columbia County.	Allow outright in EFU Zone per L3.564(4) ("utility facilities necessary for public service").

The depth of the pipeline below the earth's surface will vary with topography: the narrative specifies a minimum depth of 3 feet under crop and range lands, 5 feet under roads, 7 to 7.5 feet under wetlands, and 10 feet under railroad embankments.[150]

[150] *Pipeline Narrative*, pages 26, 28, and 29.

Above-ground structures associated with the pipeline include a "pig launcher and meter station" in the terminal at Bradwood, a "delivery point" at the Wauna mill, and "main line block valves at various locations."[151] Outside the LNG terminal itself, other above-ground facilities associated with the pipeline are expected to occupy a total of 0.68 acres.[152]

Much greater detail about installation of the pipeline is presented in the applicant's February 2007 *Enhanced Impact Assessment and Resource Capability Determination*, Appendix 8, *Erosion and Sediment Control Plan for Oregon: Bradwood Landing Pipeline*. Text and diagrams in that document present detailed information on matters such as how the pipeline will be installed in wetlands.[153]

Right-of-Way

The pipeline is to be installed in a right-of-way ("ROW") that will, in most cases, be 100 feet wide. The applicant plans to "co-locate" pipe in existing pipeline ROW or run the pipeline parallel to existing ROW "to the extent feasible along its full route."[154] Trenching, materials lay-down, and other activities during construction may in some areas (as at road crossings) take an unspecified amount of "extra work space."[155] The pipeline narrative's Table 3 says that 93.48 acres will be affected during construction and 38.01 acres during operation.[156]

Construction outside the ROW is not an activity for which the applicant must obtain land use approvals beyond those sought here for the pipeline itself. The applicant seeks permits and approvals necessary to construct a natural gas pipeline in various zones. Our review is to determine whether such development is allowed in the zone. Where a pipeline is allowed, the zones generally place no limits on how large a pipeline may be installed or how wide its permanent right-of-way must be. Certain limitations are, however, set forth elsewhere in the land use regulations, usually in standards and requirements to protect wetlands and wildlife habitat. If those standards are met, the width of the pipeline right-of-way is immaterial.

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[151] *Pipeline Narrative*, page 1.

[152] *Pipeline Narrative*, page 22.

[153] *Enhanced Impact Assessment*, Appendix 8, Section 4.4.6, "Wetlands."

[154] *Pipeline Narrative*, page 2.

[155] *Pipeline Narrative*, page 28.

[156] We are unsure how the applicant calculated the area that will be affected during construction. If we multiply the length of the pipeline times the ROW width of 100 feet and convert that product to acres, we find that the pipeline ROW will occupy about 76 acres. The applicant estimates that 93.48 acres will be affected during construction, so we conclude that 17 to 18 acres outside the ROW will be used for construction activities.

This does not imply that the County's approval of land-use permits for the pipeline authorizes the applicant to ignore legal right-of-way provisions applicable to the property. Rather it reflects the County's noninvolvement in enforcing such provisions or agreements. They are private property matters between landowner and pipeline developer. We expressly incorporate the findings of compliance in the applicant's Pipeline Narrative, except to the extent they may be inconsistent with the pipeline findings in this document.

Pipeline as a "Utility"

The LWDUO defines two different types of utilities: smaller local utilities needed to serve a specific development, and larger "utilities necessary for public service." The ordinance (at 1.030) defines the former as "**local** sewer, water, gas, telephone and power distribution lines necessary for **local** utility service." (Emphasis added.) It defines the latter ("utility necessary for public services") to be a "**major** structure owned or operated by a public, private, or cooperative electric, fuel, communication, sewage or water company for the treatment, storage, transmission, **distribution** or processing of its products including sewage plants, solid waste disposal sites and transfer stations, dams and reservoirs for community water systems, water treatment plant, sanitary landfill or utility substation." (Emphasis added.)

We do not consider any segment of the proposed pipeline to be a "utility" as the term is defined in the LWDUO. That definition's emphasis on **local** service suggests that the term refers only to lesser pipes and lines needed to provide services in a neighborhood. We distinguish that type of local "utility" from the "utility necessary for public service," which involves major facilities with pipes or lines that serve an entire region. We do consider the proposed pipeline to be a "utility necessary for public service."

Pipeline as a "Water-Dependent Use"

The application asserts repeatedly that the entire pipeline is a "water-dependent use." For example, the *Pipeline Narrative*, at page 8, says, "The pipeline is water dependent because waterborne transportation is necessary for the liquefied natural gas to be delivered to the terminal site, where it is converted to natural gas and transported through the pipeline." We disagree.

The term "water-dependent" originated in the statewide planning goals, which define it to be, "A use or activity which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body for water-borne transportation, recreation, energy production, or source of water." The Comprehensive Plan and land use regulations use the same definition.

Over most of its length, the proposed pipeline will not be "on, in, or adjacent to water areas." Indeed, much of the pipeline will follow an overland route far from water. In this aspect, the pipeline is similar to other linear facilities such as roads and power lines: they may connect with various water-dependent uses along their routes, but they are not necessarily in themselves "water dependent." We thus conclude that the pipeline is not generally a water-dependent use though we find that the MI-zoned segment may be considered water-dependent at the point where it connects with the LNG terminal. See Section 19, pages 198-199 for details.

Pipeline as a "Water-Related Use"

Like "water-dependent," the term "water-related" originated in the statewide planning goals. The Standards Document, at S4.243(2), defines it this way:

"A use is water-related when it:

"(A) Provides goods and/or services that are directly associated with water-dependent uses, supplying materials to, or using products of water-dependent commercial and industrial uses; or offering services directly tied to the functions of water-dependent [sic]; and

"(B) If not located adjacent to water, would experience a public loss of quality in the goods and services offered (evaluation of public loss of quality in the goods and services offered (evaluation of public loss of quality will involve subjective consideration of economic, social and environmental value) [sic]."

One may plausibly argue that the pipeline provides a "good" (natural gas) that is "directly associated with" a water-dependent use (the LNG marine terminal at Bradwood). That alone, however, does not establish that the pipeline is water-related. The word "and" between paragraphs "A" and "B" means that to be water-related, the pipeline also must be something that "would experience a public loss of quality in goods and services offered" if it is not "adjacent to water." The natural gas will suffer no loss of quality by being far from water. The pipeline's basic purpose is to carry the natural gas to consumers over a broad geographic area that extends far from the Columbia River.

For these reasons, we find that the proposed pipeline is not a water-related use.

Flood Hazard Zone

Finally, we note that most of the pipeline route lies within the 100-year floodplain of the Columbia River and thus is subject to the County's Flood Hazard Overlay ("FHO") Zone (L4.000). That zone's general purpose is to "reduce flood damage or loss of life in those areas" subject to flooding. The zone accomplishes that purpose by regulating development or alteration of structures. The regulations generally aim to prevent damage to new structures; to minimize damage that newly developed structures might cause to other; and to restrict development that might increase the risk or extent of flooding.

A key provision is a requirement for most structures to have the elevation of their lowest floor at least one foot above the level of the hundred-year flood. For example, L4.030(1) says, "New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above the base flood elevation." Some provisions aim to reduce the possibility of structures such as manufactured homes from floating away. Other provisions require that drainage ways and water courses not be altered in such a way as to increase flooding.

Because these provisions focus on above-ground structures, a question arises: Does the FHO Zone apply to a natural gas pipeline, which will be underground? We conclude the answer

is "Yes." L4.000 applies to all "development" in the zone, and L4.011 defines "development" to be "any manmade change to improved or unimproved real property, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, **excavation or drilling operations** located within the area of special flood hazard." (*Emphasis added.*) The pipeline, even though it will for the most part not be an above-ground structure, will involve excavation or drilling. We therefore find that it is "development" as defined in L4.011.

But our finding that the pipeline is subject to the FHO Zone has little consequence. That is because almost all the zone's requirements apply only to "structures," which L4.011 defines as "a **walled and roofed building** including a gas or liquid storage tank that is **principally above ground**, as well as a manufactured home." (Emphasis added.) The pipeline is neither a "walled and roofed building" nor a building that will be "above ground." We therefore conclude that those requirements of the FHO Zone's that deal with "structures" do not apply to the natural gas pipeline.

One significant provision, however, does apply to all "development" in the floodplain rather than to structures. L4.030(4), "Protection of Floodplain Storage Capacity," states:

> "Whenever any portion of a floodplain is authorized for development, the volume of space occupied by the authorized fill below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood elevation. Any such excavations shall be constructed to drain freely to the watercourse. No area below the waterline of a pond or other body of water can be credited as a compensating excavation."

This provision speaks of all "development," not just "structures," so it applies to the natural gas pipeline. In plain English, it means that development of the pipeline must not displace floodwater and thereby increase the extent of flooding, and it must not hinder drainage of floodwaters. The applicant addresses this point in the Enhanced Impact Assessment and Resource Capability Determination, February 2007, Appendix 1, *Biological Assessment*, pages 23-25. There, the applicant says that after the pipe is installed in the trench, soils removed from the trench will be "backfilled," leaving a "small crown . . . to account for any future soil settling that might occur."

> "After a segment of the Pipeline has been installed, backfilled, and successfully tested, the construction ROW, temporary extra work spaces, and other disturbed areas would be finish graded, and the construction debris would be disposed of properly. Original land contours would be restored, except in those areas where permanent changes in the original contours would be necessary to control storm water runoff velocity to prevent erosion. Final contours would complement adjacent undisturbed areas."[157]

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[157] *Biological Assessment*, page 25.

We conclude that such restoration would comply with L4.040(4). We therefore find that the application for development of the pipeline is consistent with L4.000 and applicable provisions of the FHO Zone. We impose the following **condition of approval** for all segments of the pipeline in the County:

After installing the pipeline, the applicant shall backfill all trenches, grade the backfilled area to restore its original contours, and dispose of all construction debris. All excavated material not used for backfill must be removed from the site and taken to an appropriate upland disposal area outside the floodplain. All excavation and backfill must be done in a manner that will not increase displacement of flood waters, impede drainage ways or water courses, or otherwise increase the extent of or risks from flooding.

Riparian Vegetation

In the LWDUO and the Standards Document, we find no specialized standards intended for natural gas pipelines. Also, most of the general standards applicable to a broad range of land uses deal only with above-ground structures. They address matters such as building height and floor area and thus are not applicable to an underground pipeline. We do, however, find some standards for riparian protection that apply to all segments of the proposed pipeline.

The County's Standards Document contains two very similar sections dealing with riparian vegetation. Section S4.237, "Riparian Vegetation Protection," applies "to any development and activity affecting vegetation adjacent to and bordering Columbia River estuarine aquatic areas." Section S4.500, "Protection of Riparian Vegetation," applies to "lands not subject to the requirements of the Oregon Forest Practices Act." Much of the pipeline route is "adjacent to and bordering Columbia River estuarine aquatic areas." Much of it also is land "not subject to the Oregon Forest Practices Act."[158]

Applicant concludes that S4.237 applies to the pipeline and S4.500 does not.[159] We agree. In response to the S4.237 the applicant offers an explanation of how the application satisfies the requirement, thus implying that the applicant considers the standard to apply. In response to S4.500, the applicant says:

> "Measurements are taken horizontally and perpendicular but not vertically. Since the pipeline is below the ground the setback does not apply."

We agree that a setback requirement cannot be applied to an underground pipeline. We therefore find that S4.500 does not apply.

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[158] The Forest Practices Act is codified in ORS 527.610 to 527.770. It applies to "forestlands," which are defined broadly to include lands "used for the growing and harvesting of forest tree species, regardless of how the land is zoned or taxed."

[159] At page 82, however, the narrative says the standards in S4.500 will be met, which presumably means they are applicable. We conclude otherwise.

We conclude that S4.237 does apply for reasons explained below. S4.237, "Riparian Vegetation Protection," says:

> "The standards in this subsection apply to any development use and activity affecting vegetation adjacent to and bordering Columbia River estuarine aquatic areas.
>
> "(1) Riparian vegetation resources are described in the County's Comprehensive Plan and identified on Columbia River Estuary Resource Base Maps. These resources shall be maintained through the use of protective setbacks, except where direct water access is required for water-dependent and water-related uses. Development shall be setback 50 feet from all identified significant wetland and biological habitat and from the shoreline. Pasture land, land managed for agricultural crops, landscaped area or unvegetated areas which do not function as riparian vegetation may, in particular locations, be included as part of the 50 [sic] protection buffer. Upon request, the County may undertake a site investigation to establish the extent of riparian vegetation requiring protection in a particular location.
>
> "(2) Temporary removal of riparian vegetation due to construction or landscaping may be permitted subject to revegetation plan approved by the County specifying: (a) temporary stabilization measures and (b) methods and timing of restoration of riparian vegetation. Native plant species should be considered for revegetation; however, plant species and revegetation techniques approved by the Soil Conservation Service, the US Army Corps of Engineers, and other participating federal and state agencies are appropriate."

Much of the pipeline route will be "adjacent to and bordering Columbia River estuarine aquatic areas." Moreover, construction of the pipeline clearly is encompassed by the phrase "any development use and activity." The application also makes clear that construction of the pipeline may require "temporary removal of riparian vegetation." We therefore find that the proposed pipeline is subject to the standards set forth in S4.237.

The applicant responds to S4.237 with two sentences:

> "The pipeline will be vertically set back from the riparian vegetation and bored through sensitive wetlands. The right-of-way surface, where disturbed, will be allowed to revegetate with trees and deep-rooted plants excluded within a certain distance from the centerline of the pipe."[160]

We believe additional analysis is necessary.

We take vertical setback as used by applicant to mean the vertical distance between the underground pipe and the surface of the ground. Applicant then concludes that vertically, the

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[160] *Pipeline Narrative*, page 48.

pipeline will meet the requirement for a setback. We disagree. Neither the LWDUO nor the Standards Document defines "setback." We infer, however, from the everyday meaning of the word and from the manner in which it is used throughout those ordinances that it means the **horizontal** distance between a building and some line or point on the surface of the ground, such as a property line. But even if the pipeline's "setback" from riparian vegetation could be measured vertically, the distance still is insufficient to satisfy S4.237, which calls for a 50-foot setback: The pipeline will be less than 50 feet under the ground in most places.

We therefore conclude that the setback requirement does not apply to an underground pipeline. We do not agree that the application satisfies S4.237(1)'s setback requirement but rather, find it inapplicable.

Second, S4.237 is more than just a requirement for a setback. First and foremost, it is a directive to protect riparian vegetation. Section 1 focuses on setbacks as a way to achieve such protection. But Section 2 deals with matters other than setbacks, and on those, the application is silent. Section 2 says:

> "Temporary removal of riparian vegetation due to construction or landscaping may be permitted subject to revegetation plan approved by the County specifying: (a) temporary stabilization measures and (b) methods and timing of restoration of riparian vegetation. Native plant species should be considered for revegetation; however, plant species and revegetation techniques approved by the Soil Conservation Service, the US Army Corps of Engineers, and other participating federal and state agencies are appropriate."

We conclude that S4.237(2) applies here and that a revegetation plan, subject to County approval, is needed. To ensure compliance with S4.237, we therefore impose the following **condition of approval** for all segments of the pipeline in the County:

The applicant must prepare a riparian vegetation restoration plan for review and approval by the Department. The plan must show all areas where riparian vegetation will be temporarily removed during construction of the pipeline and specify how revegetation of those areas will be accomplished. Revegetation must be done in accordance with S4.237 and completed within one year following construction of the pipeline.

Much (or perhaps all) of the information necessary to prepare such a plan probably exists in the applicant's *Enhanced Impact Assessment*, Appendix 8. Applicant has also submitted into the record FERC's revegetation policies. We also note here that applicant has declared that riparian vegetation damaged or destroyed by the pipeline will be restored:

> "The pipeline route passes through some riparian areas. These riparian buffers will be revegetated if disturbed by pipeline construction."[161]

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[161] *Pipeline Narrative*, page 82.

Wetlands

Several parts of the pipeline, especially the HI-zoned segment, will pass under or through wetlands. In some cases, construction techniques such as drilling will minimize impacts. In other case, conditions of approval that we have imposed elsewhere (especially regarding riparian vegetation) will ameliorate impacts. Finally, the applicant has proposed extensive off-site mitigation to compensate for loss of or damages to wetlands.

We describe the wetlands that will be affected by the pipeline in the Sections 19.0 through 25.0 below. We describe the mitigation requirements and mitigation plan in Section 11.0.

19. Pipeline Segment in MI Zone

19.1 Proposed Development

The pipeline is to originate at the LNG terminal, on land zoned MI and designated "Development" by the Comprehensive Plan. This first segment of the pipeline will pass south from the terminal under MI-zoned land for a horizontal distance of a few hundred feet. This segment will be drilled and will have an outside diameter of 36 inches. The applicant requests that this segment of the pipeline be permitted outright, under the MI Zone's provisions for "utilities" and "fuel dispensing." A description and findings on this segment of the pipeline are presented in applicant's Pipeline Narrative at pages 3 and 7.

19.2 Action Requested and Criteria for Approval

As one might expect of an industrial zone, the MI Zone allows outright a wide variety of uses. For example, LWDUO 3.624's list of uses permitted outright includes the following:

"(10) Water-dependent industrial and port uses, including but not limited to:

"(A) port facilities and/or shipping activities

"(B) fuel storage and dispensing facilities

"(C) vessel construction, maintenance or repair facilities

"(D) marine railway facilities

"(E) seafood receiving processing and storage

"(F) ice making and sales establishment

"(G) integrated manufacturing and shipping facility where a significant portion of the operation is water-dependent

"(H) other water-dependent industrial, or port uses meeting the criteria in Section S4.243(1), Water-dependent Use Criteria."

The same section also lists "(13) Utilities, maximum utilization of existing easements and rights-of-way shall be made." The MI Zone provisions do not specifically mention "natural gas pipeline."

19.3 Analysis and Findings

As we have noted elsewhere in these Findings, the proposed LNG marine terminal is a water-dependent use allowed outright in the MI Zone. The pipeline generally is not, for reasons we already explained in Section 18.0.

But even though we conclude that the pipeline is not generally a water-dependent use, this first segment of it still may be considered a part or extension of the LNG marine terminal,

which is allowed outright in the MI Zone as a water dependent industrial and port use. In addition, we also understand this segment of the pipeline to fall within the scope of the phrase water-dependent "fuel storage and dispensing facilities." It would make little sense to allow such facilities in the MI Zone and then not allow the pipe necessary to distribute the fuel on grounds that the facility itself is water-dependent but the pipe is not. **We therefore find that this segment of the pipeline is a use allowed outright under L3.624(10).**

19.4 Development Standards

Uses in the MI Zone are subject to the development standards set forth in L6.634:

"**Section 3.634. Development Standards.**

"(1) All uses and activities shall satisfy applicable regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shorelands Element.

"(2) All uses and activities shall satisfy applicable Columbia River Estuary Shoreland and Aquatic Use and Activity standards contained in the Development and Use Standards Document.

"(3) All other applicable ordinance requirements shall be satisfied.

"(4) When a proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure.

"(5) Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S2.243(2).

"(6) Uses and activities that are not water-dependent shall not preclude or conflict with existing or probable future water-dependent use on the site or in the vicinity. If nonwater-dependent development is proposed in the MI zone under Section 3.626, Review Developments or under Section 3.628, Conditional Developments, the County shall provide mailed notice to state and federal agencies with statutory planning and permit issuance authority in aquatic areas, including the Oregon Division of State Lands, Oregon Department of Fish and Wildlife, US Fish and Wildlife Service, National Marine Fisheries Service, Army Corps of Engineers, and the Environmental Protection Agency.

"(7) Plan review and approval:

"(A) A building permit or other permit for construction or alteration of any structure or use in the MI zone will not be issued until plans have been reviewed and approved for conformity with the performance standards of this zone and the policies of the Comprehensive Plan, and for compatibility of the proposed structures or uses with surrounding uses considering factors such as transportation, access, signs,

lighting, building placement and design, noise, air quality, vibration, storage, landscaping, adjoining uses and location of public utilities including water and sewer facilities. Any activity or structures reviewed and approved by the Community Development Director will be considered a permitted development with review satisfying Section 3.626. The approved activity or structure must be completed within the time frame specified in the approval, and not to exceed five years. If the permitted use status is lost due to inactivity or lack of construction within the time specified, a new plan must be submitted for review and approval.

"(8) All uses must meet applicable state and federal air quality and noise laws or regulations.

"(9) Storage: All materials, including wastes, shall be stored and maintained in a manner that will not attract or aid the propagation of insects or rodents or other animals or birds, or otherwise create a health hazard or nuisance.

"(10) Fencing: Will be allowed inside a boundary planting screen and where it is necessary to protect property of the use concerned or to protect the public from a dangerous condition, with the following provisions:

"(A) No fence shall be constructed in the required setback from the public right-of-way unless otherwise specifically approved by the Community Development Director.

"(B) Fences shall be aesthetically compatible with the surrounding property.

"(11) Lighting: Exterior lighting shall be directed away from zones other than LI unless otherwise approved.

"(12) Density provisions:

"(A) The minimum lot area shall be one (1) acre.

"(B) The minimum lot width shall be 150 feet.

"(13) Setback requirements:

"(A) Where a lot abuts a zone other than LI, there shall be a front, side or rear yard setback of not less than 50 feet. Otherwise, the front, side, or rear yards may be reduced to zero.

"(B) Setbacks are not required where side, rear, or front properly lines abut a railroad right-of-way.

"(C) Uses that are not water-dependent or water-related shall be set back 50 feet from mean higher high water or the line of non-aquatic vegetation.

"(14) Buffer: Where the MI zone adjoins a zone other than LI, there shall be an area of depth adequate to provide for a dense evergreen landscaped area which attains a minimum height of 8-10 feet, or such other screening measures as may be prescribed by the Community Development Director. In no case shall the buffer area have less width than the required 50 foot setback of this zone.

"(15) Height: There is no height limitation except within 100 feet of a zone other than LI in which case the maximum height shall be the same height as the abutting zone.

"(16) Building size:

"(A) The maximum building size for all industrial uses shall not exceed 30,000 square feet of floor area, per use. Old mill sites are exempt from building size requirements, and would include the following: the portion of Bradwood zoned Marine Industrial.

"(B) The maximum building size for new industrial uses shall not exceed the floor area standards listed in Section 3.446 up to 30,000 square feet of floor area. New uses shall not exceed the 30,000 square feet of floor area industrial use outside of urban unincorporated communities and 40,000 square feet of floor area for industrial uses inside of unincorporated communities unless:

"1) The findings approving the use are included in an amendment to the comprehensive plan, processed under post acknowledgement procedures (ORS 197.610 through 197.625); and

"2) Is necessary for the intended use; and

"3) Can demonstrate the use will not exceed the carrying capacity of the land to provide adequate water and absorb waste

"(C) Expansion of commercial building or buildings, existing on (date of this ordinance) where the total floor area for the commercial use exceeds 3,000 square feet of floor area or is intended to exceed 3,000 square feet of floor area, provided:

"1) The total floor area of building or buildings does not exceed 10,000 square feet;

"2) Is necessary for the intended use, and

"3) Can demonstrate the use will not exceed the carrying capacity of the land to provide adequate water and absorb waste.

"(D) Expansion of industrial building or buildings, existing on (date of this ordinance) where the total floor area for the industrial use exceeds 30,000 square feet of floor area or is intended to exceed 30,000 square feet of floor area may be permitted, provided the area is necessary for the intended use and can demonstrate that the use will not exceed the carrying capacity of the land to provide adequate water and absorb waste."

Standards 9 through 16 above deal with buildings and structures that are above ground. They do not apply to the pipeline, which will be several feet underground. Standards 1 through 8 above are addressed in these Findings' analysis of the LNG terminal in Sections 10.0 and 26.0.

19.5 Board Action: APPROVE WITH CONDITIONS

We approve this segment of the natural gas pipeline in the MI Zone as a permitted development in accordance with L3.624(10) and subject to the generally applicable conditions of approval listed in Table 2 of these Findings for the Pipeline "Element of Review."

20. Pipeline Segment in F-80 Zone

20.1 Proposed Development

As it leaves Bradwood and the MI Zone, the pipeline is planned to go south, passing from the terminal through about 2.6 miles of land designated "Conservation Forest Land" in the Comprehensive Plan and zoned Forest-80.

Applicant's description of and findings on this segment of the pipeline are presented in pages 27 to 31 of the *Pipeline Narrative.*

20.2 Action Requested and Criteria for Approval

The applicant seeks a conditional use permit to construct this segment of the pipeline in accordance with L3.554(5). L3.554 says, "The following uses and activities and their accessory uses may be permitted under a Type II procedure and Section 5.000 to 5.030, subject to applicable criteria, development standards and site plan review." Among the items listed in that section is, "(5) New distribution lines (*e.g.* gas, oil, geothermal) with rights-of-way 50 feet or less in width subject to the standards in Section S3.509."

L5.015(2) lists seven criteria to be used in reviewing applications for a conditional use:

"(A) The proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan.

"(B) The proposed use meets the requirements and standards of the Clatsop County Land and Water Development and Use Ordinance (Ordinance 80-14).

"(C) The site under consideration is suitable for the proposed use considering:

"1) The size, design, and operating characteristics of the use, including but not limited to off-street parking, fencing/buffering, lighting, signage, and building location.

"2) The adequacy of transportation access to the site, including street capacity and ingress and egress to adjoining streets.

"3) The adequacy of public facilities and services necessary to serve the use.

"4) The natural and physical features of the site such as topography, natural hazards, natural resource values, and other features.

"(D) The proposed use is compatible with existing and projected uses on surrounding lands, considering the factors in (C) above.

"(E) The proposed use will not interfere with normal use of coastal shorelands.

"(F) The proposed use will cause no unreasonably adverse effects to aquatic or coastal shoreland areas, and

"(G) The use is consistent with the maintenance of peripheral and major big game habitat on lands identified in the Comprehensive Plan as Agricultural Lands or Conservation Forest Lands. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area on big game habitat."

20.3 Analysis and Findings

20.3.1 Pipeline in F-80 Zone (50' ROW)

In its June 23 staff report (at page 178), staff concluded

"that the F-80 segment of the proposed natural gas pipeline satisfies all seven approval criteria presented by L5.015(2). We therefore recommend that the planning commission **approve** that segment of the pipeline as a conditional use under L3.554(5), **subject to the following condition**: The pipeline right-of-way in the F-80 Zone must not exceed 50 feet. Construction and development activities outside the 50-foot ROW are not authorized by county's approval of a conditional use permit for the pipeline in the F-80 Zone."

Citing EFSC approval of a similar pipeline in a forest zone, the applicant argues that a more appropriate condition of approval would be this:

"Proposed condition of approval (proposed modification of Staff proposed condition of approval no. 32): Construction activity outside the permanent 50-foot pipeline right-of-way within the F-80 zone shall be allowed conditioned on restoration of the temporary construction area."

The applicant makes that recommendation based on two pages of findings in Michelle Rudd's letter of August 14, 2007, "Re: Applications for Bradwood Lending Terminal, Pipeline, and Associated Facilities," pages 66-67, incorporated herein by reference.

We understand the applicant to say that (a) the permanent right-of-way for the pipeline in the F-80 Zone will be 50 feet, (b) some construction activity may spill over into areas beyond the boundaries of the right-of-way, (c) such areas will be restored to their former condition once construction is complete, and (d) that combination would be consistent with the provisions of the F-80 Zone. We find the applicant's arguments on this point persuasive, incorporate them by reference as noted above, and impose the proposed condition of approval.

We turn, then, to the seven approval criteria presented by L5.015(2), starting with item "A":

> "(A) The proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan."

This unusual criterion suggests that an application for a conditional use permit must be reviewed against every policy in the Comprehensive Plan. We call this "unusual" because land-use regulations such as the LWDUO are intended to implement the Comprehensive Plan. Presumably, the ordinance would not allow a given land use in a zone where it would conflict with the Comprehensive Plan. And presumably, LCDC would not have acknowledged the Comprehensive Plan and regulations if they conflicted. But in spite of that, the applicant has presented findings to show compliance of the pipeline with the Comprehensive Plan.

These Findings are presented in Section 8.0 of the *Pipeline Narrative* – 108 pages, in all. Rather than add at least that many pages of analysis to these Findings, we observe that, as they pertain to construction of the pipeline in the F-80 Zone[162] we agree with applicant's findings in the *Pipeline Narrative* and conclude that they are adequate and incorporate them by reference. **We therefore find that the proposal satisfies L5.015(2)(A).**

We note that Fish and Wildlife Habitat Policy from the Goal 5 element of the Comprehensive Plan calls for the County to "submit proposed review and conditional use applications to the ODFW for their comments on consistency with Major Big Game habitat and recommendations on appropriate siting criteria to minimize any conflicts." We find that this requirement has been met, because the County submitted notice of Bradwood Landing's consolidated application to DLCD, which in turn notifies state agencies, including ODFW, about the proposal. The County's notice to DLCD included information about the proposal to site a natural gas pipeline in the F-80 Zone. ODFW has commented on the application and a subsequent Type IIa proceeding will be provided for in the conditions of approval for the Mitigation Plan.

> "(B) The proposed use meets the requirements and standards of the Clatsop County Land and Water Development and Use Ordinance (Ordinance 80-14)."

We understand compliance with the LWDUO to be a matter of consistency with the applicable zoning, approval criteria, and development standards. The chief question here is whether the proposed pipeline may be considered a "new distribution line" for gas, oil, or geothermal energy with a right-of-way 50 feet or less in width under L3.554(5). Clearly, the answer is "Yes." The pipeline is a "line" that will be used to distribute natural gas throughout

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[162] We emphasize this qualifying phrase. For reasons explained elsewhere in these findings, we do not agree with some of applicant's findings as they pertain to other pipeline segments. But with respect to this upland segment in the F-80 Zone, and except as stated otherwise in these findings, the findings satisfy L5.015(2)(A).

the Pacific northwest, and it will be placed within a 50-foot right-of-way (at least in the F-80 Zone). We therefore find that the proposal satisfies L5.015(2)(B).

> "(C) The site under consideration is suitable for the proposed use considering:
>
> > "1) The size, design, and operating characteristics of the use, including but not limited to off-street parking, fencing/buffering, lighting, signage, and building location.
> >
> > "2) The adequacy of transportation access to the site, including street capacity and ingress and egress to adjoining streets.
> >
> > "3) The adequacy of public facilities and services necessary to serve the use.
> >
> > "4) The natural and physical features of the site such as topography, natural hazards, natural resource values, and other features."

Because the pipeline will be underground, no off-street parking, fencing, lighting, signage, or buildings are involved. No "ingress" or "egress" to adjoining streets is needed. Indeed, there will be no "adjoining streets" over most of the pipeline's length. No public facilities or services will be needed. And the physical features mentioned in (C)(4) are largely irrelevant, in that they involve surface features that the pipeline will pass under. The one exception to that is in those areas where the pipeline will pass through a wetland or aquatic area. In such areas, the potential for construction of the pipeline to damage "natural resource values" must be considered. But this segment of the pipeline, in the F-80 Zone, does not pass through or under any wetlands or aquatic areas. **We therefore find that this segment of the pipeline is consistent with L5.015(2)(C).**

> "(D) The proposed use is compatible with existing and projected uses on surrounding lands, considering the factors in (C) above."

As we have stated above, the pipeline is an unusual land use, because its location underground isolates it from other land uses on surrounding properties. Its potential for incompatibility thus is greatly reduced. Some potential for conflict arises where other subsurface pipelines and utilities cross the Bradwood Landing Pipeline route. The applicant discusses measures to be taken with these "foreign pipelines," and notes that Bradwood's pipeline will "pass under most foreign pipelines and utilities."[163] The applicant concludes that the pipeline "is consistent with the F-80 and HI land and the surrounding land,"[164] and we agree. **We therefore find that the F-80 segment of the proposed pipeline meets the criterion set forth by L5.015(2)(D).**

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[163] *Pipeline Narrative*, page 28.

[164] *Pipeline Narrative*, page 27.

"(E) The proposed use will not interfere with normal use of coastal shorelands."

The Comprehensive Plan deals with coastal shorelands in the Goal 16 and 17 Element: Columbia River Estuary. The first sentence of that element says, "The Columbia River Estuary planning area includes aquatic areas and shorelands from the 3-mile limit offshore to the eastern boundary of Wahkiakum County in Washington (RM 53) and the eastern boundary of Clatsop County in Oregon (RM 45)."

That same element, at page 3, defines "aquatic areas" thus:

"Aquatic areas include the tidal waters, including subtidal areas and wetlands of the estuaries, and non-tidal sloughs, streams, and wetlands within the shorelands area boundary. The lands underlying these waters are also included. The upper limit of aquatic areas is the upper limit of aquatic vegetation or, where such a line cannot be accurately determined, Mean Higher High Water (MHHW) in tidal areas or Ordinary High Water (01IW) in non-tidal areas."

The *Goal 16 and 17 Element* then provides a lengthy definition of "coastal shorelands" (also on page 3). As it pertains to this reach of the Columbia River estuary, the definition uses three main criteria to define "shorelands":

- They include all lands within 50 feet of the estuary.
- They include areas with natural or man-made "riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of the fish habitat and spawning area."
- They include "areas of significant shoreland and wetland biological habitats whose habitat quality is primarily derived from or related to the association of coastal water areas."

The F-80-zoned segment of the proposed pipeline is shown on Figure 1, a map appended to the *Pipeline Narrative*. That map shows the entire 2.6-mile segment to be no closer than 300 feet to the estuary at any point. The map and Table 5 of the *Pipeline Narrative* both show the F-80 segment to pass under "ridge," "hillside," and "upland." None of the information suggests that the F-80 segment will pass through any aquatic areas, wetlands, or significant habitat areas.

From the above information, we conclude that the F-80 segment of the pipeline does not pass through or interfere with any aquatic areas or coastal shorelands. **We therefore find it to be consistent with L5.015(2)(E).**

"(F) The proposed use will cause no unreasonably adverse effects to aquatic or coastal shoreland areas."

For the same reasons described in our response to criterion "E" above, we conclude that the F-80 segment of the proposed pipeline will not pass through or cause adverse effects to any aquatic areas or coastal shoreland areas. **We therefore find the proposed segment to be consistent with L5.015(2)(F).**

"(G) The use is consistent with the maintenance of peripheral and major big game habitat on lands identified in the Comprehensive Plan as Agricultural Lands or Conservation Forest Lands. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area on big game habitat."

The pipeline will not be fenced and will not interfere with migration or other patterns of big game and disturbed areas will be revegetated. The use is consistent with the maintenance of peripheral and major big game habitat.

This, as well as the fact that most of the pipeline's F-80 segment will be drilled and be far underground, lead us to conclude that it will have little or no effect on big-game habitat. **We therefore find that the F-80 segment of the proposed pipeline satisfies LWDUO 5.015(2)(G).**

20.4 Development Standards

L3.554 says that conditional uses in the F-80 Zone are "subject to applicable criteria, development standards and site plan review." We addressed all the applicable criteria above, so we now turn to the question of which development standards apply to the F-80 segment of the pipeline.

L3.557 lists eight development standards for uses allowed in the F-80 Zone. All of them deal either with dimensional requirements for above-ground structures (*e.g.*, setbacks, minimum lot size) or with specialized uses such as mining. None deals with underground structures or with pipelines. We therefore find that no standards from L3.557 apply to the F-80 segment of the pipeline.

As we explained in Section 18.0 of these Findings, neither the LWDUO nor the Standards Document sets any standards specific to natural gas pipelines. Likewise, most of the general standards applicable to a broad range of land uses deal only with above-ground structures. They address matters such as building height and floor area and thus are not applicable to an underground pipeline. One set of standards, however, does apply to all segments of the proposed pipeline, and that is S4.237, "Riparian Vegetation Protection." We require in Section 18.0 that all segments of the pipeline, including the F-80 segment, be subject to a condition of approval requiring compliance with S4.237.

As for the required site-plan review, the applicant has submitted dozens of pages of material mapping the pipeline route, evaluating impacts of the pipeline, and detailing how the pipeline will constructed and operated. We regard these materials as a site plan, and we consider

this review of Bradwood Landing's consolidated application to meet the ordinance's implied requirement for a "site plan review."

20.5 Board Action: APPROVE WITH CONDITION

We find that the F-80 segment of the proposed natural gas pipeline satisfies all seven approval criteria presented by L5.015(2). We therefore approve that segment of the pipeline as a conditional use under L3.554(5), subject to the following condition:

> Construction activity outside the permanent 50-foot pipeline right-of-way within the F-80 Zone shall be allowed conditioned on restoration of the temporary construction area and the generally applicable conditions of approval listed in Table 2 of these Findings for the Pipeline "Element of Review."

21. Pipeline Segment in HI Zone

21.1 Proposed Development

The proposed pipeline would turn southeast near Wauna, passing through about 2.6 miles of land zoned Heavy Industrial (HI), near a large pulp mill. The HI-zoned land is designated "Development" by the Comprehensive Plan.

A significant feature of this low-lying area adjoining the Columbia River is the extensive marshes and wetlands in the area southeast of the pulp mill. The Goal 5 element of the Comprehensive Plan (at page 53) lists "the Driscoll Slough marshes between Wauna Mill and Westport" as a "major non-coastal shorelands wetland": "Site 9 (EC35)" in the wetlands inventory. The marshes are described there as "tidal and non-tidal emergent marshes; blackberry swamp; spruce swamp; willow swamp," with an area of about 360 acres.

The Wauna/Westport Subarea Plan at page 127 says:

"The following aquatic areas are designated Development:

"1. The area fronting the Wauna Mill site, the development site southeast of Wauna and Westport Slough, extended to the north subarea boundary;

"2. Westport Slough;

"3. The main navigation channel and the flowlane disposal area on each side of the channel . . .

"**The following aquatic areas are designated Natural:**

"**1. Driscoll Slough**

"**2. The tidal wetland area designated as significant under Oregon Statewide Planning Goal 5.**

"All other aquatic areas are designated Conservation.

"The shorelands area north of Westport Slough is designated Rural. Shorelands south of the railroad track and east of Driscoll Slough are designated Conservation. All other shorelands are designated Natural." (Emphasis added.)

The Subarea Plan's description of designations is confusing, especially with regard to the area bounded by Driscoll Slough, the Columbia River, Westport Slough, and the railroad. The pipeline is proposed to pass through this area. County zoning maps show the entire area to be zoned HI, but the passage above about "all other shorelands" suggests it is designated "Natural."

Also, the Comprehensive Plan's text suggests that the significant "tidal wetland" lies within in this area, and that, too, is designated "Natural."[165]

Although the wetlands inventory labels the Driscoll slough marshes "Site 9," this almost certainly is an error, and the marshes are in fact Site 7. The Comprehensive Plan map lists only seven significant wetland sites in the entire County, the map clearly shows the label "Site 7" on the area between Wauna and Westport, and the text clearly identifies Site 7 as centering on the Driscoll Slough.

The Goal 5 element also identifies the area between Driscoll Slough and Westport Slough (also known as the "Dant & Russell site") as important habitat for the Columbia white-tailed deer, an endangered species:

> "The Oregon Department of Fish and Wildlife also considers the entire Dant & Russell site, Wauna Mill site and an area north of the Wauna Mill site as important habitat for the Wallace Island-Wesport [sic] subpopulation. Clatsop County will use the subpopulations identified by the Columbia White-tail Deer Recovery Plan and the expanded ODFW Wallace Island-Westport subpopulation habitat as its definition of Columbian White-tail deer habitat."[166]

Applicant's description of and findings on this segment of the pipeline are presented in pages 27 to 31 of the *Pipeline Narrative*. As stated in the application narrative, the pipeline will be buried, so the Project impacts will be temporary and confined to the construction period. Pipeline burial and best management practices employed during pipeline construction will protect identified significant wetlands from incompatible uses. This is consistent with Goal 5, Wetlands Policy 3. Goal 5, Wetlands Policy 3, requires that all industrial development be located north of the railroad right-of-way. The area between the railroad right-of-way and U.S. Hwy. 30 shall be designated for protection of its wetland characteristics. The pipeline is north of the railroad (see Pipeline Zoning Map 2), crossing to the north of the railroad between mile posts 3.9 and 4. Consistent with Goal 5, Wetlands Policy 3, development of land adjacent to Driscoll Slough shall be conducted via a bore so as to minimize the alteration of riparian vegetation, degradation of water quality, and stream sedimentation, and specific restoration will be developed in consultation with ODFW.

As stated in the application, original surface hydrology will be reestablished in wetlands by backfilling the pipe trench and grading the surface with backhoes or draglines operating from the temporary board road, or with low-ground-pressure tracked vehicles working in the spoil pile, depending on the ambient water level, degree of soil saturation, and bearing capacity of the soils. Segregated topsoil will be replaced in unsaturated wetlands. Roots and stumps will have

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[165] The Goal 16/17 element of the plan at page 5 describes the Natural designation as one that places "severe restrictions on the intensity and types of uses."

[166] The number of the page from which this quote was taken is not visible on the document posted on the county's website. The web browser counts it as page 27.

been removed only in the areas of the pipe trench, allowing preexisting vegetation to recover more rapidly in the remainder of the right-of-way once the board roads and spoil piles have been removed. Wetlands along the proposed pipeline may display a varying degree of saturation and water elevation, requiring a variety of plant species to be reestablished. In unsaturated wetlands, most vegetation will be replaced by seeding. Saturated wetlands will typically be revegetated by the transplantation of mature herbaceous specimens at preestablished spacing. Transplant specimens will be obtained from adjacent wetlands, collected over a relatively large area to minimize negative impacts to the donor site, or from local commercial nurseries. Adjacent donor sites are preferred over nurseries because the plants will be acclimated to the specific conditions of the site. Some specimens may also be collected from the right-of-way before construction, stored in temporary nurseries, and replanted after pipeline construction is complete.

Bradwood Landing will work with USFWS, the fish and wildlife departments of Oregon and Washington, other state and local agencies, and landowners to develop an acceptable site-specific revegetation plan before commencement of construction. Existing vegetative cover and potential impacts from construction are described in greater detail in the Enhanced Impact Assessment as well as Resource Report 3. Thus there will be no unreasonably adverse effects to aquatic or coastal shoreland areas.

Development will minimize or avoid removal of riparian vegetation along Westport Slough through the use of a bore at this location. Filling will not occur before approval of the Project.

21.2 Action Requested and Criteria for Approval

The applicant asks the County to allow this segment of the pipeline outright in the HI Zone under L3.404(5) ("utilities"). If the County rejects that request, the applicant proposes an alternative, namely, that the County allow this segment under the provisions of L3.405, "Conditional Development and Use." Among the conditional uses listed there is "(2) Storage, distribution services and fabrication facilities, including terminals, warehouses, storage buildings and yards, contractor's establishments, production mills or similar uses."

21.3 Analysis and Findings

As we already noted in Section 18.0 of these Findings, we do not consider any segment of the proposed pipeline to be a "utility" of the type defined in L1.030. We therefore find that this segment of the pipeline is not allowed outright in the HI Zone under L3.404(5). We turn then to the alternative proposed by the applicant, that the pipeline be allowed in the HI Zone as a conditional use, in accordance with L3.405(2).

The HI Zone does not specifically mention natural gas pipelines. Its purpose section,[167] however, declares the zone to be suitable for a wide range of uses, including "bulk handling" of materials. It also says, "In addition, it is the purpose of this classification to provide sites for

[167] L3.402, "Purpose."

industrial uses which are potentially incompatible with most other establishments and are typically appropriate to areas with extensive rail or shipping facilities."

L3.405 lists two conditional uses in the HI Zone that could include a pipeline of the type proposed by Bradwood Landing:

> "1. Any heavy or light fabrication, production, processing, assembling, packaging, or treatment of materials, goods, foodstuffs and other semi-finished or finished products from semi-finished or raw materials.
>
> "2. Storage, distribution services and fabrication facilities, including terminals, warehouses, storage buildings and yards, contractor's establishments, production mills or similar uses."

The application seeks authorization for the conditional use under the second item, as a "distribution service." The LWDUO does not define "distribution service." In the context of "warehouses" and "storage buildings," the term probably is intended to refer mainly to distribution by motor vehicles (*i.e.*, freight distribution or trucking services). But we find nothing in the LWDUO that limits the phrase "distribution service" to trucking. Moreover, the broad purpose of the zone and the use of the catch-all phrase "or similar uses" in L3.405(2) make clear that the pipeline may be considered under that provision.

We also note that it would make little sense to find that a natural gas pipeline may be allowed in the F-80 Zone, MI Zone, and other zones but not in the HI Zone. The HI Zone is intended to accommodate a wide range of intensive uses – arguably, a wider range than any other zone in the LWDUO. We therefore conclude that the broad phrasing of L3.405(1) and (2) encompasses the natural gas pipeline proposed by Bradwood Landing. We turn, then, to the seven approval criteria for conditional uses presented by L5.015(2), starting with item "A."

> "(A) The proposed use does not conflict with any provision, goal, or policy of the Comprehensive Plan."

As we noted in the preceding section, the applicant has submitted 108 pages of findings (Section 8.0 of the *Pipeline Narrative*) to show compliance of the pipeline with the Comprehensive Plan. Applicant states that these Findings demonstrate that the HI segment of the pipeline does not conflict with any provisions of the Comprehensive Plan. For the most part, we agree.[168] There are, however, several Comprehensive Plan policies that merit closer examination.

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[168] As mentioned previously throughout these findings, where applicant's submission or findings is cited with approval, that submission/finding is incorporated by reference in these findings.

Wetland Policy for "Site 7"

The most significant is a policy that applies specifically to the lands to be crossed by this section of the pipeline. The Comprehensive Plan's wetlands policies say this:[169]

> "The following requirements shall apply to Wetland Site 7 (which also contains white-tail deer habitat).
>
> "a. All industrial development shall be located north of the railroad right-of-way. The area between the railroad right-of-way and U.S. Hwy. 30 shall be designated for protection of its wetland characteristics.
>
> "b. Development of land adjacent to Driscoll Slough shall be carried out in a way that will minimize the alteration of riparian vegetation, degradation of water quality and stream sedimentation. Proposed development will be evaluated against the Department of Fish and Wildlife's management objectives of maintaining vegetative cover, particularly riparian vegetation, and the maintenance of corridors that provide for deer movement between habitat areas. Construction of a bridge or other transportation access across the slough shall be the minimum necessary to accomplish the project. Piling is preferred to filling for any access corridor across Driscoll Slough.
>
> "c. Industrial development on the eastern portion of the site shall be designed to minimize or avoid the removal of riparian vegetation along Westport Slough. Riparian vegetation removal shall be permitted where direct access to the water is required.
>
> "d. Filling of the site shall not be permitted until a specific development proposal has been reviewed and approved by the County."

Regarding "a" above, we first note that this segment of the pipeline will indeed pass north of the railroad right-of-way. It does not pass through "the area between the railroad right-of-way and U.S. Hwy. 30" that is to be protected. We therefore conclude that the proposal complies with section "a" of the policy.

Regarding "b," development of the pipeline will occur on land adjacent to Driscoll Slough and thus is subject to this requirement to "minimize" impacts on riparian vegetation, water quality, and stream quality. The applicant will have to obtain permits from several state agencies, such as DEQ and ODFW, and the purpose of those permits is to minimize such impacts. The applicant also will have to comply with several County development standards that have the same purpose. Finally, staff has recommended several conditions of approval regarding such impacts, most notably the condition stated in Section 18.0, calling for restoration of riparian vegetation. **We agree and conclude that this combination of provisions satisfies section "b."**

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[169] *County Comprehensive Plan Goals and Policies*, "Wetlands," page 20.

From reading the Comprehensive Plan's Goal 5 element, we understand the "industrial development" spoken of in section "c" to be something more extensive than an underground pipeline. The Goal 5 element refers to the lands north of the railroad as having a "high degree of industrial development potential" and mentions the site's "excellent access" to the main Columbia River channel, to the railroad, and to US Hwy. 30.[170] We doubt that an underground pipeline approaches the scale of industrial development contemplated in section "c." But even if it does, we conclude that the measures referred to in the preceding paragraph are sufficient to "minimize" removal of riparian vegetation along Westport Slough. **We therefore find the application to be consistent with section "c."**

Finally, we find section "d" inapplicable: no fill is being proposed here. Since the application meets the requirements of (a) through (d) as described above, we find that it complies with the Comprehensive Plan's policy for Wetland 7.

Fish and Wildlife Policy 4

Policy 4 says, "To protect riparian vegetation along stream and lakes not covered by the Forest Practices Act, the County shall require a setback for non-water dependent uses." The applicant asserts that this policy is "not applicable" because "the pipeline is water dependent." We disagree. As we explained in Section 18.0 of these Findings, the pipeline is not water-dependent in this location. We agree, however, that the policy is inapplicable here, because the bodies of water it crosses are sloughs, not "streams" or "lakes." **We therefore find that Fish and Wildlife Policy 4 does not apply to the HI-zoned segment of pipeline**.

Fish and Wildlife Policy 9

Under the provisions of Goal 5, the County treated the potential industrial development of the area between the Wauna mill and Westport slough as a "conflicting use" and went on to adopt policies that would allow industrial development but also protect the habitat.

> "[T]he County will allow the identified conflicting uses, but will seek to minimize their impact on Columbian White-tail deer habitat. This objective will be achieved in the following manner. First, proposals with a potential substantial impact on Columbian White-tail deer habitat (e.g., subdivisions, dredge material disposal, industrial development, and land clearing of more than one acre) will be forwarded to the Oregon Department of Fish & Wildlife and the U.S. Fish & Wildlife Service for their determination of potential conflicts and their recommendations for measures to remedy those conflicts. The County will implement recommendations received from the U.S. Fish & Wildlife Service and Oregon Department of Fish & Wildlife to the maximum extent feasible, consistent with other land use planning requirements. Second . . . [text omitted, as it deals with residential development at River Ranch]. Third, the County will regulate

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[170] *Clatsop County Comprehensive Plan Goals and Policies*, "Wetlands," page 54.

development along Driscoll Slough to protect wetland and riparian values. Such a policy will also protect habitat important to the Columbian White-tail deer."

Fish and Wildlife Policy 9 essentially repeats the County's commitment quoted above to notify state and federal fish and wildlife agencies of any development "with a potential for substantial impact on identified Columbian White-tailed deer habitat (*e.g.*, subdivisions, dredge material disposal, industrial development, and land clearing of more than one acre)" and to implement their recommendations "to the maximum extent feasible." This policy is met through the notification to state agencies addressed earlier and in the form of a mitigation plan to be adopted.

The policy itself defines "potential for substantial impact." It indicates that certain types of development – subdivisions, industrial development, land clearing of more than one acre – do have that potential, and when such development is proposed, the policy is triggered. This segment of the pipeline will involve more than half a mile of trenching and land clearing in the sensitive habitat area, in a right-of-way that is 100 feet wide. Multiplying 2,500 feet of pipeline times 100 feet equals 250,000 square feet, or 5.7 acres. We therefore conclude that more than one acre of land will be cleared in the Columbian white-tailed deer habitat, and we find that Fish and Wildlife Policy 9 applies to this segment of the pipeline.

"Significant Shoreland or Aquatic Resources"

The Goal 16/17 element of the Comprehensive Plan has three policies that apply to "Columbia River Estuary Significant Areas:"

> "1. Significant estuarine aquatic and shoreland resources shall be protected from degradation or destruction by conflicting uses and activities.
>
> "2. Major marshes, significant wildlife habitat, and aesthetic resources shall be protected.
>
> "3. Known or newly discovered archaeological sites shall be protected in compliance with existing state and federal laws."

The applicant declares that those three policies do not apply to the pipeline:

> "These policies are intended to protect certain Columbia River shoreland and aquatic resources with estuary-wide significance. Significant shoreland resources are identified as such in subarea plans. Significant aquatic resources are found in Natural Aquatic areas. This subsection [containing the three policies] applies only to activities and uses that potentially affect significant shoreland or aquatic resources. Other resources without estuary-wide significance are not covered by this subsection. The Northeast subarea plan policies do not identify any resources on the route as having estuary-wide significance. Therefore, we conclude that these policies do not apply to the pipeline."

We disagree with applicant's conclusion that the three policies do not apply to any part of the pipeline. Driscoll Slough and related wetlands are resources with estuary-wide significance.

As noted above, the Driscoll Slough marshes are designated as one of only seven "major non-coastal shoreland" wetlands in the County. Driscoll Slough itself is designated "Natural." And the entire area is significant as habitat for the Columbia white-tailed deer. We therefore find that Columbia River Estuary Water Quality Policies 1, 2, and 3 do apply to the Driscoll Slough and related marshes.

With respect to the first policy, we find that conditions of approval requiring restoration of riparian vegetation and of wetland areas will prevent "degradation or destruction" of the slough or marsh. Regarding the second policy, we find that the same conditions of approval, as well as the condition to coordinate habitat protection with state and federal fish and wildlife agencies, will protect Driscoll Slough marshes and the Columbia white-tailed deer habitat. Finally, we know of no archeological sites in this area, but we find that state "discovery" laws and procedures regarding such sites are adequate to ensure compliance with the third policy.

We concur with the rest of applicant's findings in Section 8 of the *Pipeline Narrative*, as they apply to the HI-zoned segment of pipeline. Regarding Fish and Wildlife Policy 9, we require that compliance with the policy will be made a condition of approval. **With that condition, we find that the application satisfies L5.015(2)(A).** We next consider L5.015(2)(B).

> "(B) The proposed use meets the requirements and standards of the Clatsop County Land and Water Development and Use Ordinance (Ordinance 80-14)."

We understand compliance with the LWDUO to be a matter of consistency with the applicable zoning, approval criteria, and development standards. In this case, the two main questions of compliance are whether the proposed segment of pipeline is a "distribution service" of the type contemplated by L3.405(2), and whether the application meets L5.015(2)'s seven criteria for conditional uses. We already have answered the first question in the affirmative above. This analysis of L5.015(2)'s criteria answers the second question, also in the affirmative. **We therefore find that, with suitable conditions of approval, the application is consistent with L5.015(2)(B).**

> **L5.015(2)(C)**: "The site under consideration is suitable for the proposed use considering:
>
> "1) The size, design, and operating characteristics of the use, including but not limited to off-street parking, fencing/buffering, lighting, signage, and building location.
>
> "2) The adequacy of transportation access to the site, including street capacity and ingress and egress to adjoining streets.
>
> "3) The adequacy of public facilities and services necessary to serve the use.
>
> "4) The natural and physical features of the site such as topography, natural hazards, natural resource values, and other features."

Because the pipeline will be underground, no off-street parking, fencing, lighting, signage, or buildings are involved. No "ingress" or "egress" to adjoining streets is needed. Indeed, there will be no "adjoining streets" over most of the pipeline's length. No public facilities or services will be needed. And the physical features mentioned in (C)(4) are largely irrelevant, in that they involve surface features that the pipeline will pass under.

The one exception to that is in those areas where the pipeline will pass through a wetland or aquatic area. In such areas, the potential for construction of the pipeline to damage "natural resource values" must be considered. We already have addressed this elsewhere and recommended conditions of approval to protect the deer habitat and riparian vegetation in the HI-zoned area. **We therefore find that, with suitable conditions of approval, the application complies with L5.015(2)(C).**

> **L5.015(2)(D)**: "The proposed use is compatible with existing and projected uses on surrounding lands, considering the factors in (C) above."

We note again that the pipeline is an unusual land use, because its location underground isolates it from other land uses on surrounding properties. Its potential for incompatibility thus is greatly reduced. Some potential for conflict arises where other subsurface pipelines and utilities cross the Bradwood Landing Pipeline route. The applicant discusses measures to be taken with these "foreign pipelines," and notes that Bradwood's pipeline will "pass under most foreign pipelines and utilities."[171] We conclude that this pipeline segment will be compatible with nearby uses in the F-80 Zone. **We therefore find that the F-80 segment of the proposed pipeline meets the criterion set forth by L5.015(2)(D).**

> **L5.015(2)(E)**: "The proposed use will not interfere with normal use of coastal shorelands."

Unlike the F-80-zoned segment of the pipeline, this segment of the pipeline clearly is proposed for an area of "coastal shoreland."

The *Goal 16 and 17 Element* of the Comprehensive Plan presents a lengthy definition of "coastal shorelands" on page 3. As it pertains to this reach of the Columbia River estuary, the definition uses three main criteria to define "shorelands":

- They include all lands within 50 feet of the estuary.
- They include areas with natural or man-made "riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of the fish habitat and spawning area."
- They include "areas of significant shoreland and wetland biological habitats whose habitat quality is primarily derived from or related to the association of coastal water areas."

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[171] *Pipeline Narrative*, page 28.

As we described above, the Driscoll Slough wetlands are both "riparian resources" and "areas of significant habitats." We therefore conclude that the policy applies. The applicant responds to this policy on page 29 of the *Pipeline Narrative*, presenting three reasons why the pipeline will "not interfere with normal use of coastal shorelands":

- It is a water dependent use and thus will not interfere with other water-dependent uses in the HI Zone.
- Its construction and placement will minimize the potential for such interference.
- Measures will be taken to restore the site so that it will continue to be suitable for other uses.

We disagree with applicant's conclusion that the pipeline is a water-dependent use in this zone. Even if it were, that fact alone would not eliminate all potential for it to interfere with "normal use" of shorelands. **We are, however, persuaded that applicant's other two reasons for why the pipeline will not interfere with normal use of coastal shorelands are sufficient. We therefore find that the application complies with L5.015(2)(E).**

> **L5.015(2)(F)**: "The proposed use will cause no unreasonably adverse effects to aquatic or coastal shoreland areas."

We have explained in some detail why this segment of the proposed pipeline is likely to have significant effects on wetlands and riparian vegetation. However, with suitable construction practices, mitigation, and conditions of approval we already have imposed, the pipeline would not cause "unreasonably adverse effects." **We therefore find the proposed segment to be consistent with L5.015(2)(F).**

> **L5.015(2)(G)**: "The use is consistent with the maintenance of peripheral and major big game habitat on lands identified in the Comprehensive Plan as Agricultural Lands or Conservation Forest Lands. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area on big game habitat."

The HI-zoned segment of the pipeline contains no lands designated in the Comprehensive Plan as "Agricultural" or "Conservation Forest." **We therefore find that L5.015(2)(G) does not apply.**

21.4 Development Standards

L3.046 lists eleven development standards for uses in the HI Zone:

> "(1) The following standards are applicable to permitted and conditional developments in this zone: All standards as set forth in the Clatsop County Development Standards Document 80-14, as amended.
>
> "(2) Plan review and approval:

"(A) No building permit or other permit for construction or alteration of any building structure or use in the HI zone shall be issued until plans have been reviewed and approved by the Community Development Director in order to evaluate the conformity with the performance standards of this zone and the Comprehensive Plan and compatibility of vehicular access, signs, lighting, building placement and designs, landscaping, adjoining uses and location of water and sewage facilities.

"(3) Standards:

"(A) Air quality: The air quality standards set by the Department of Environmental Quality shall be the building standards in this zone, except that open burning is prohibited in any case.

"(B) Noise: As may be permitted under all laws and regulations.

"(C) Storage: Materials shall be enclosed within a structure or concealed behind sight obscuring screening.

"(D) Fencing: Will be allowed inside a boundary planting screen and where it is necessary to protect property of the use concerned or to protect the public from a dangerous condition. The proposed fence locations and design will be subject to Community Development Director review and approval.

"(E) Buffer: Where the HI zone adjoins a zone other than LI or AA there shall be a buffer area of depth adequate to provide for a dense evergreen landscape buffer which attains a minimum height of 8-10 feet, or such other screening measures as may be prescribed by the Community Development Director in the event differences in elevation or other circumstances should defeat the purpose of this requirement. In no case shall the buffer area have less width than the required 50 foot setback of this zone.

"(F) Vibration: No vibration other than that caused by highway vehicles, trains and aircraft shall be permitted which is discernible without instruments at the property line of the use concerned.

"(G) Heat and glare: Except for exterior lighting, operations producing heat and glare shall be constructed entirely within an enclosed building.

"(H) Lighting: Exterior lighting shall be directed away from adjacent property.

"(4) Density provisions:

"(A) The minimum lot area shall be one (1) acre.

"(B) The minimum lot width shall be 100 feet.

"(5) Setback requirements:

"(A) The front, side and rear yard setbacks shall be 10 feet except when abutting or across the street from a zone other than LI or MI, it shall be 50 feet. (Grandfathered) Lots of record created prior to September 30, 1980 that are less than minimum lot size shall have a 5 foot side yard setback.

"(B) Setbacks are required where side or rear property lines abut a railroad right-of-way.

"(C) All structures shall be a minimum of 50 feet from adjacent resource zones outside RSA designations.

"(6) Building height:

"(A) There shall be no height limitation except within 100 feet of a zone other than LI or ML in which case the maximum building height shall be the same height as the abutting district.

"(7) Off-street parking requirements: Off-street parking shall be subject to Section 52.200 of the Development and Use Standards Document.

"(8) An accessory structure separated from the main building may be located in the required rear and side yard except in the required street side of a corner lot provided that it is no closer than five (5) feet to a property line.

"(9) Building size:

"(A) The maximum building size for new commercial uses shall not exceed the floor area standards listed in Section 3.405. New commercial uses shall not exceed the 3,000 square foot limit unless:

"1) The findings approving the use are included in an amendment to the comprehensive plan, processed under post acknowledgement procedures (ORS 197.610 through 197.625);

"2) The use is limited pursuant to Section 5.025 to a size of building or buildings that is intended to serve the rural community, surrounding rural area of the travel needs of people passing through the area; and c. The total floor area of building or buildings does not exceed 10,000 square feet.

"(10) The maximum building size for all industrial uses shall not exceed 30,000 square feet of floor area.

"(A) Expansion of commercial building or buildings, existing on (date of this ordinance) where the total floor area for the commercial use exceeds 3,000 square feet provided the commercial use, intended to occupy more than 3,000 square feet of floor area, is intended to serve the surrounding rural area, or the traveling needs of people passing through the area

"(11) Expansion of industrial building or buildings, existing on September 10, 2003 where the total floor area for the industrial use exceeds 30,000 square feet or is intended to occupy more than 30,000 square feet of floor area, provided the size is necessary for the intended use and can demonstrate the use will not exceed the carrying capacity of the land to provide adequate water and absorb waste."

Many of these standards apply only to buildings and other above-ground structures. For example, building-height requirements have no meaning for a structure that is neither a building nor above ground. We therefore conclude that the following standards do not apply to the HI-zoned segment of pipeline:

- L3.046(3)(E), buffers;
- L3.046(4), density;
- L3.046(5), setbacks;
- L3.046(6), building heights;
- L3.046(7), off-street parking;
- L3.046(8), accessory structures;
- L3.046(9), size of commercial buildings;
- L3.046(10), size of industrial buildings; and
- L3.046(11), expansion of industrial buildings.

The remaining development standards from L3.046 - that is, items 1, 2, and 3 (excepting 3(E)) — do apply to this segment of the pipeline and must be met during construction of that facility.

21.5 Board Action: APPROVE WITH CONDITION

We find that the HI-zoned segment of the proposed natural gas pipeline satisfies all seven approval criteria presented by L5.015(2). The Board thus approves this segment of the pipeline as a conditional use under L3.405(2), subject to the following condition:

In accordance with County Fish and Wildlife Policy 9, the County will (a) notify state and federal fish and wildlife agencies of the proposed pipeline's potential for substantial impact on identified Columbian White-tailed deer habitat and (b) will, to the maximum extent feasible, implement recommendations made by those agencies. The applicant may not begin construction of this segment of the

pipeline until the County has completed such notification, considered recommendations from the fish and wildlife agencies, and implemented those recommendations to the maximum extent feasible through a Type IIa review procedure reviewing the Mitigation Plan and the generally applicable conditions of approval listed in Table 2 of these Findings for the Pipeline "Element of Review."

22. Pipeline Segment in LW Zone

22.1 Proposed Development

A short segment of the proposed pipeline would pass under Driscoll Slough for a distance of about 100 feet at mile 4.2. This segment would be installed using horizontal directional drilling rather than trenching, thus minimizing disturbance of the waterway.

22.2 Action Requested and Criteria for Approval

The applicant requests that the County allow this segment of the pipeline outright in accordance with the LW Zone's provisions at L3.613, which reads:

> "The following developments are permitted under a Type I procedure subject to the applicable development standards." Among the uses listed in that section is item (4), "Submerged cable, sewerline, waterline or other pipeline."

22.3 Analysis and Findings

The proposed pipeline is encompassed by the phrase "**submerged** cable, sewerline, waterline **or other pipeline**." (Emphasis added.) It is "submerged" in the sense that it will pass beneath the waterway, and it is a pipeline that will carry natural gas. **We conclude therefore that this segment of the pipeline is a use permitted outright in the LW Zone by L3.613(4).**

The application says that this area is zoned Lakes and Wetlands and designated "Conservation Other Resources" by the Comprehensive Plan.[172] This is based on Table 3.010, Comprehensive Plan Zoning Designations in the LWDUO. For the reasons described in Section 21.0 above, we conclude the Driscoll Slough is designated "Natural."

Table 3.010, "Comprehensive Plan Zoning Designations," lists various zones that are to be used in implementing each plan designation. According to that table, aquatic areas designated "Natural" are supposed to be zoned "Aquatic Natural." The table specifies that the LW Zone is one of several zones suitable for areas designated "Conservation Other Resources." Given this conflict, it may be argued that the Driscoll Slough is improperly zoned — that it should be zoned AN rather than LW. That issue, however, cannot be settled in a quasi-judicial review such as this, and we decline to address it here. We note, however, that even if the Driscoll Slough were zoned Aquatic Natural, it probably would not affect the outcome of this application: the AN Zone allows "pipelines, cables and utility crossings" as a conditional use (L3.808(2)).

A question remains, however, as to whether the Comprehensive Plan allows a pipeline under Driscoll Slough. The Comprehensive Plan designates the slough "Natural," the most restrictive of several designations that can be applied to aquatic areas. We examined the Comprehensive Plan's text to see whether it might prohibit such development but found no such restriction. We note that the Goal 16/17 element's "Use and Activity Table – Aquatic Areas"

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[172] *Pipeline Narrative*, page 98.

(page 8) says that "pipelines, cables and utility crossings" are allowed in Aquatic Natural areas as conditional uses. The table is silent on what may be allowed in the LW Zone.

We conclude that there is no Comprehensive Plan -to-zone conflict here. The Comprehensive Plan is ambiguous about what uses are allowed in areas designated Natural. It says that pipelines may be allowed in the Aquatic Natural Zone. And the LW Zone clearly authorizes pipelines outright. **We therefore find that this segment of the pipeline is a use permitted outright by both the Comprehensive Plan and the LW Zone**.

22.4 Development Standards

Section 3.616, "Development and Conditional Development and Use Standards," lists these two standards:

> "(1) All standards as set forth in the Clatsop County Development Standards Document 80-14, as amended.
>
> "(2) Uses that are not water-dependent or water-related shall be set back to the extent of riparian vegetation identified in the Comprehensive Plan. Riparian vegetation shall be protected in accordance with Section S4.500. At such time that a development is proposed in the vicinity of the wetlands area, the county may require a site investigation to determine the exact location or the boundary. The site investigation shall be performed by a qualified expert, such as a biologist from the U.S. Army Corps of Engineers, Oregon Division of State Lands, or the Oregon Department of Fish and Wildlife. Nothing in this provision shall allow for a redefinition or major alteration of the wetlands boundary. In order to maintain consistency, the site investigation shall employ the same criteria originally used to identify freshwater wetlands in the County. (The study performed by Dr. Duncan Thomas of CREST, entitled Significant Shoreland and Wetland Habitats in the Clatsop Plains)."

We understand Section 3.616(1) to mean "all **applicable** standards." The provisions in the *Standards Document* are of two main types: general site-development standards such as setbacks and building height requirements, and specialized standards that apply only to certain land uses or in certain zones. Most general site-development standards are intended for surface structures: setbacks, building height requirements, lot coverage standards, and the like cannot be applied in any meaningful way to a subsurface pipeline. Likewise, we find no specialized standards directed toward pipelines.

As for the extended setback requirement set forth in S3.616(2), we first consider the question of whether it applies to this segment of the pipeline. We conclude that it does: for reasons explained above, the pipeline is neither "water dependent" nor "water-related" in this zone, so it is not excused from S3.612(2).

Next, we turn the question of how the pipeline may be "set back to the extent of riparian vegetation." We conclude that the requirement has no effect. As we explained elsewhere, setback requirements are intended for buildings and other above-ground structures. We do not find them applicable to the pipeline, which is neither a building nor above ground.

We then consider the second sentence of S3.612(2), requiring that "Riparian vegetation shall be protected in accordance with Section S4.500." The topic of protecting riparian vegetation already was addressed in Section 18.0. There, we required that the entire pipeline be subject to a condition of approval requiring maintenance and restoration of riparian vegetation in accordance with the provisions of S4.237. We believe this achieves a higher level of protection than can be achieved with S4.500. **We therefore conclude that the LW-zoned segment of the pipeline, subject to that condition of approval, satisfies S3.612(2).**

22.5 Board Action: APPROVE WITH CONDITIONS

We approve this segment of pipeline segment as a permitted use in the LW Zone in accordance with L3.613(4) and the generally applicable conditions of approval listed in Table 2 of these Findings for the Pipeline "Element of Review."

23. Pipeline Segment in AD Zone

23.1 Proposed Development

At mile 5.2, the proposed pipeline would pass under Westport Slough for about 1,000 feet.[173] This segment of the pipeline would be installed using horizontal directional drilling and thus would not involve trenching or other disturbance of the slough. The slough is zoned Aquatic Development and designated "Development" in the Comprehensive Plan.

23.2 Action Requested and Criteria for Approval

The applicant seeks approval of this pipeline segment as a use permitted outright by L3.744's provisions for "water dependent industrial uses." For reasons explained in Section 18.0 of these Findings, we do not agree that the pipeline is a water-dependent use.

Recognizing that the pipeline might not be authorized by L3.744, the applicant suggests an alternative—that this segment be authorized as a review use in the AD Zone in accordance with L3.746, "Review Developments":

> "The following uses and activities, and their accessory uses and activities, may be permitted as Review Uses in the AD zone under a Type II procedure, Section 2.020, when authorized in accordance with Sections 5.040-5.051 Development and Use Permitted with Review, and subject to the provisions of Section 3.754, Development Standards:
>
> *"(1)* ***Pipelines****, cables and utility crossings . . ."* (Emphasis added.)

We agree that the proposed use is a pipeline and find that it may be allowed as a review use in accordance with L3.746(1).

23.3 Analysis and Findings

About "review uses," L5.042 says:

> "If a development and use is listed as a development and use permitted with review, it is subject to approval under Section 5.045 and 5.050. An applicant for a proposed development and use permitted with review shall provide **facts and evidence and a site plan** in compliance with Section 5.300 sufficient to enable the Community Development Director or hearing body to make a determination." (Emphasis added.)

The applicant has submitted facts and evidence about this segment of the pipeline in the *Pipeline Narrative*, pages 31-32. The narrative and other documents in the application also

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[173] Page 24 of the *Pipeline Narrative* says the Westport Slough is 300 meters wide where the pipe would pass under it.

provide maps, diagrams, and details about the pipeline and its construction. Together, this material constitutes "facts and evidence and a site plan" adequate to satisfy L5.042.

The main criterion for approval of review uses is L5.050:

> "**Section 5.050. Requirements for Development and Use Permitted with Review.** Proposed developments must be consistent with the Clatsop County Comprehensive Plan and must satisfy applicable development standards in the Development and Use Standards Document. Developments in the AF zone must be found to be consistent with the maintenance of big game habitat. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area on big game habitat. Developments requiring a state or federal permit are subject to the Consistency Review Procedure set forth in Section 5.120. In permitting a development, the Director may impose any of the conditions listed in Section 5.025 to ensure that the development is consistent with the resource capabilities of the particular areas and the purpose of the zoning and special district classifications."

To satisfy the requirements of L5.050, we first must determine whether the proposal is "consistent with the Clatsop County Comprehensive Plan." The applicant's findings of compliance with the Comprehensive Plan are presented in Section 8.0 of the *Pipeline Narrative*. As we have stated above, we disagree with applicant's finding that the pipeline is a water-dependent use in this zone. We also find that conditions of approval are needed if the application is to comply with County policies regarding natural resource values relating to riparian vegetation and wildlife habitat. With those important exceptions, we otherwise agree with applicant's findings in the *Pipeline Narrative*, as they pertain to this segment of the pipeline. We thus find they are adequate to support the proposal.

As we explain in Section 26.0 below, the application is consistent with the Standards Document. No part of the pipeline passes through an AF Zone, so the second and third sentences of L5.050 do not apply here. The entire application is subject to the provisions of L5.120, "Coastal Zone Consistency Review": such consistency will be accomplished through conditions of approval requiring submittal of all applicable state and federal permits to the County before any County permits are issued as discussed in a prior section of these Findings. Finally, we have imposed several conditions of approval in keeping with the last sentence of L5.050. **We therefore find that, as it pertains to the AD-zoned segment of the pipeline, this application complies with L5.050**.

23.4 Development Standards

L3.754 lists eight sets of development standards applicable to uses in the AD Zone. We quote each set and respond to it below.

> "(1) All uses and activities shall satisfy regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shorelands element."

The applicant addresses the pipeline's compliance with the Goal 16/17 element of the Comprehensive Plan at pages 111-130 of the pipeline narrative. As we have noted elsewhere,

we disagree with those findings on two points. First, we do not share applicant's conclusion that the pipeline is a water-dependent use in this zone. Second, we find (in Section 21.0 above) that the pipeline is subject to Columbia River Estuary Significant Area policies 1 through 3. These differences, however, do not affect the AD-zoned pipeline segment. **We therefore find that the application, as it pertains to this segment, complies with L3.754(1).**

> "(2) All uses and activities shall satisfy applicable Columbia River Estuary Shoreland and Aquatic Use and Activity Standards contained in the Development and Use Standards Document."

We address these standards in Section 26.0. **With respect to the AD-zoned segment of the pipeline, we find that the application meets those standards and therefore complies with L3.754(2).**

> "(3) All other applicable ordinance requirements shall be satisfied."

Based on our analysis of AD Zone provisions here and on our review of other applicable ordinance provisions in Section 18.0 and elsewhere in these Findings, **we find that all ordinance provisions applicable to the AD-zoned segment of the pipeline have been satisfied.**

> "(4) A proposal which requires new dredging fill, in-water structures, riprap, new log storage areas, water intake or withdrawal and effluent discharge, in-water disposal of dredged material, beach nourishment, application of pesticides and herbicides, or other activities which could affect the estuary's physical processes or biological resources is subject to an Impact Assessment, Sections 5.810-5.840."

This segment of the proposed pipeline does not involve any of the uses or activities listed above. We therefore find that L3.754(4) is not applicable.

> "(5) When a development proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure."

We review this segment of the pipeline as part of a consolidated application that includes several uses, and we are doing so under a Type IV review procedure, the most stringent of the five types of review specified by the LWDUO. **We therefore conclude that this application is consistent with L3.754(5).**

> "(6) Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S4.243(2)."

As we explained above, the pipeline is neither water-dependent nor water-related. In any case, S4.243(1) and (2) are definitions: they do not contain "criteria" of a type that can be met by a permit applicant. **We therefore find this application to be consistent with L3.754(6).**

"(7) Uses that are water-dependent shall not preclude or conflict with existing or probable future water dependent uses on the site or in the vicinity."

The pipeline is not water-dependent at this location. L3.754(7) therefore does not apply. Some sections of the code have similar language but provide that uses that are not water dependent shall not preclude or conflict with existing or probable future water dependent uses on the site or in the vicinity. It is noted that even if the pipeline were not water dependent, it would not conflict with existing or probable future water dependent uses because it is subsurface.

"(8) Piling dredging, filling or other estuarine alteration permitted under Section 3.744 of this zone, Permitted Developments, are subject to the public notice provisions of Sections 2.115, if an impact assessment is required pursuant to Sections 5.810 through 5.840; or if a determination of consistency with the purpose of the AD zone is require pursuant to Section 5.880; or if the Community Development Director determines that the permit decision will require interpretation or the exercise of factual, policy, or legal judgment."

This segment of the pipeline does not involve any pilings, dredging, filling or other estuarine alteration permitted under L3.744. We therefore find that L3.754(8) does not apply.

23.5 Board Action: APPROVE WITH CONDITIONS

We approve the applicant's request to allow the AD-zoned segment of pipeline as a review use in accordance with L3.746(1) and the generally applicable conditions of approval listed in Table 2 of these Findings for the Pipeline "Element of Review."

24. Pipeline Segment in OPR Zone

24.1 Proposed Development

At pipeline mile 5.3, near River Ranch, the pipeline is proposed to pass through about 0.7 of a mile of land zoned Open Space, Parks and Recreation.[174] The Comprehensive Plan designates this land "Conservation Other Resources."

24.2 Action Requested and Criteria for Approval

The requirements of the OPR Zone are set forth in L3.580. The zone contains no provisions for a natural gas pipeline. The applicant therefore proposes an amendment that would add such a provision to the zone. The amendment would add the following words to the list of uses permitted outright in Section 3.584: *"15. cable, sewerline, waterline or other pipeline."*

With that amendment, the applicant then asks that the County allow this segment of the pipeline outright, as provided by the amended text.

24.3 Analysis and Findings

L2.035(1) specifies that amendments to the text of the LWDUO must be done in a Type IV review procedure. This proposal complies with that requirement because we are reviewing Bradwood Landing's entire consolidated application in a Type IV review.

L5.400 sets forth criteria for "amending the boundaries of any base zone or overlay district." It contains no provisions regarding amendments to the text of the zoning ordinance. We therefore conclude that it does not apply to the change being proposed here. L2.330 describes procedures to be used by the Planning Commission in recommending text changes to the zoning ordinance:

> "**Section 2.330 Planning Commission Recommendation.**
>
> "In preparing its recommendation the Planning Commission shall do the following:
>
> "(1) Identify the provisions of the Comprehensive Plan that govern the decision and prepare findings describing how the proposal complies or fails to comply with these Plan provisions.
>
> "(2) Review the nature of the proposal and describe whether the proposal warrants processing as a legislative matter.

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[174] See Pipeline Map 2.

"(3) State reasons for the recommendations and make the recommendations. Recommendations may include policy advice of the Planning Commission in addition to determinations described in (1) and (2) above."

The applicant presents findings in support of the proposed text amendment in Section 9.0 of the *Pipeline Narrative* (pages 159 through 166). In a table on page 159, applicant lists eight of the nine zones that implement the "Conservation Other Resources" Comprehensive Plan designation.[175] The table shows that six of the eight zones allow pipelines. From that evidence, the applicant concludes that amending the text of the OPR Zone to allow pipelines is consistent with the Comprehensive Plan's "Conservation Other Resources" designation and with the other zones that implement it.

Because a zoning text amendment such as this also must be reviewed against applicable statewide planning goals, Bradwood Landing presents findings purporting to show compliance with all such goals.[176] For the most part, we agree with those findings. We disagree only to the extent that they occasionally refer to the pipeline as a "utility." As we noted in Section 18.0 of these Findings, this large natural gas distribution pipeline is not a "utility" as that term is defined in the LWDUO.

Next, we examine the purpose of the OPR Zone determine whether the proposed amendment is consistent with that. We find that it is. The zone's purpose statement, at L3.582, says:

"The OPR zone is intended to provide for the conservation of open space; the protection and development of areas uniquely suited for outdoor recreation and the protection of designated scenic, natural and cultural resource areas."

We see nothing in that broad language that would bar cables, sewer lines, waterlines or other pipeline. We note also that such uses seem comparable to or less intrusive than other types of development allowed in the OPR Zone, such as RV parks, driving ranges, public parks, and farm uses. In fact, many of those uses might require cables, sewer lines, water lines, or other pipelines.

24.3.1 OPR Zoning

In Section 24.0 of the June 28 staff report, Staff recommended that the County amend its Open Space, Parks and Recreation (OPR) Zone to allow pipelines outright. CRK argues against such an amendment.[177] CRK's chief concern appears to be that such an amendment would open

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[175] We are unsure why the ninth zone, the Quarry and Mining Zone, was omitted from the table, but the omission is immaterial here.

[176] *Pipeline Narrative*, pages 160 through 166.

[177] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 44.

the door to other pipelines. CRK says, "The amendment is not narrowly tailored to Bradwood, but would apply to all Open Space, Parks and Recreation, including every neighborhood playground, wildlife refuge, and public parks [sic] in Clatsop County."[178]

CRK is correct that the amendment would allow pipelines in all areas zoned OPR, but that zone is in fact applied to very few lands in the County. Department staff prepared a map of all such lands and presented it to the Planning Commission at the July 10 public hearing. The map shows that few areas are zoned OPR and that most areas zoned OPR lie in the western part of the County, near the coastal beaches. The map shows no OPR-zoned lands along the purported route of the Palomar pipeline. The amendment thus is highly unlikely to facilitate the development of natural gas pipelines in the County. Rather, it will make the OPR comparable to most other zones in the County, which already allow such pipelines outright or as conditional uses.

Finally, we conclude that the applicant has submitted ample material to justify the text amendment, thereby satisfying L2.330(3)'s requirement for "reasons." We conclude, however, that in some OPR locations, a pipeline may not be appropriate or may require a higher level of review than provided if the use is allowed outright. We conclude that the use should be conditional in the OPR zone.

The addition of pipeline to the uses permitted in the OPR zone is consistent with the statewide Land Use Goals. The pipeline is consistent with the statewide goals because they are implemented in Clatsop County through the comprehensive plan and, as discussed earlier in this narrative, the pipeline is consistent with these policies. The text amendment to conditionally allow pipelines in the OPR zone is also consistent with the goals as set forth below.

- **Goal 1 – Citizen Involvement**

  To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

Clatsop County's Comprehensive Plan and implementing ordinances complied with Goal 1 when they were acknowledged. Applicant's proposed text amendment does not alter any of the Goal 1-related provisions of the County's plan or ordinances. Clatsop County complied with Goal 1 by following applicable procedures in its ordinance when reviewing the proposed amendment.

- **Goal 2 – Land Use Planning**

  To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.

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[178] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 44.

Clatsop County's Comprehensive Plan and implementing ordinances complied with Goal 2 when they were acknowledged. Applicant's proposed post-acknowledgment plan text amendment does not change any of the Goal 2-related provisions of the County's plan or ordinances; nor do they change the basic Goal 2 policy framework or its use as a basis for all land use decisions and actions. We find that there is substantial evidence in the record to support the proposed change and that proper notice of the proposed addition of pipelines as a use permitted in the OPR zone has been given to state agencies and the community at large. Goal 2 is met.

- **Goal 3 – Agricultural Lands**

  To preserve and maintain agricultural lands. Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.

The OPR zone is not a rural agricultural zone and does not apply to Goal 3 lands. Goal 3 is not implicated.

- **Goal 4 – Forest Lands**

  To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting afforest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

The proposed text amendment does not involve forest land subject to Goal 4 as the OPR zone is not a forest zone. Goal 4 is not implicated by the amendment.

- **Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources**

  To protect natural resources and conserve scenic and historic areas and open spaces.

The following resources are addressed under Goal 5:

- Riparian corridors, including water and riparian areas and fish habitat
- Wetlands
- Wildlife Habitat
- Federal Wild and Scenic Rivers

- State Scenic Waterways
- Groundwater Resources
- Approved Oregon Recreation Trails
- Natural Areas
- Wilderness Areas
- Mineral and Aggregate Resources
- Energy sources
- Cultural areas

Two sets of administrative rules in OAR chapter 660 address Goal 5: divisions 016 and 023.

The proposed text amendment does not require any changes to the County's existing Goal 5 inventory or protection measures so OAR 600-16 through OAR 660-23 do not apply (there is no plan amendment). Goal 5 resources, and the measures adopted by the County to protect them, are briefly described in the following paragraphs.

Open space is a Goal 5 resource. The Comprehensive Plan identifies three kinds of open space: general open space (farms, forests, estuaries, the ocean and ocean beaches); site-specific open space (parks, wildlife refuges, wetlands, and specific scenic areas); and areas provided in conjunction with a specific development (dedicated open space in a subdivision). No changes to the site-specific open space inventory or protection measures are needed for the amendments.

Mineral and aggregate deposits are Goal 5 resources. The OPR zone is not applied to mineral and aggregate resources.

Wildlife habitat is a Goal 5 resource. The OPR zone may be applied to areas with wildlife habitats. One of the permitted uses in the OPR zone is "wildlife refuge or management area." LWDUO § 3.584.

Fish habitat is a Goal 5 resource. Both proposed amendment areas contain fish habitat. The amendments, and the actions that will follow, are consistent with the maintenance of fish habitat for the following reasons:

- Construction practices and measures designed to reduce impacts on aquatic resources are incorporated into the Project design. These measures are discussed in the Biological Assessment.
- The Project is configured to occupy the smallest possible aquatic area given operational needs. This is described in sections 3.3.5 and 3.3.10 of this narrative.

- Compensatory mitigation measures include a significant fisheries enhancement component including all impacts to OPR zone areas. This is detailed in the Biological Assessment and in sections 3.4 and 3.5 of this narrative.

Ecologically and scientifically significant natural areas are Goal 5 resources.

Outstanding scenic views and sites are Goal 5 resources. Below grade pipelines do not adversely affect scenic views and sites.

Water areas, watersheds, and groundwater are Goal 5 resources. Watersheds are permitted uses in the OPR zone. LWDUO § 3.584 (8)(11).

Wetlands are a Goal 5 resource. Water areas and wetlands are protected by the requirement in the OPR zone that all utility services be installed underground where physical conditions permit.

Wilderness areas, historic sites, cultural areas and Oregon recreation trails and wild and scenic waterways are Goal 5 resources.

- **Goal 6 – Air, Water, and Land Resources Quality**

  To maintain and improve the quality of the air, water and land resources of the state.

Pipelines may be constructed so as to preserve the quality of air, water and land resources. In the case of the proposed natural gas pipeline, there will not be air or water emissions. The OPR zone also requires all utility services be installed underground where physical conditions permit. This protects land resources. Goal 6 is met.

- **Goal 7 – Areas Subject to Natural Disasters and Hazards**

  To protect life and property from natural disasters and hazards.

The specific hazards addressed by Goal 7 are:

- areas subject to stream flooding
- ocean flooding
- ground water
- erosion and deposition
- landslides
- earthquakes
- weak foundation soils
- other hazards

The proposed text amendment does not alter any of the Goal 7 protections in Clatsop County's Comprehensive Plan or implementing ordinances, and the proposed amendment is consistent with Goal 7.

- **Goal 8 – Recreational Needs**

  To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

OAR 660-034-000 is related to Goal 8 and addresses state and local park planning:

"OAR 660-034-000 Purpose

"(1) The purpose of this rule is to establish policies and procedures for the planning and zoning of state and local parks in order to address the recreational needs of the citizens of the state. This division is intended to interpret and carry out requirements of Statewide Planning Goal 8 and ORS 195.120 through 195.125.

"(2) In general, this division directs local government planning and zoning activities regarding state park master plans. OAR Chapter 736, Division 018, directs the Oregon Parks and Recreation Department (OPRD) with respect to state park master planning, and does not apply to local governments except where specified by this division."

Conditionally allowing pipelines within the OPR zone is consistent with Goal 8. The pipeline is a below grade use with minimal surface evidence of the use. The land above ground remains open and available for recreational use.

- **Goal 9 – Economy of the State**

  To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

The purpose of the Goal 9 administrative rule, OAR 660-009, is:

"The purpose of this division is to aid in achieving the requirements of Goal 9, Economy of the State (OAR 660-015-0000(9)), by implementing the requirements of ORS 197.7 I 2(2)(a) - (d). The rule responds to legislative direction to assure that comprehensive plans and land use regulations are updated to provide adequate opportunities for a variety of economic activities throughout the state (ORS 197.712(1)) and to assure that plans are based on available information about state and national economic trends."

Goal 9 is concerned with commercial and industrial land uses. Allowance of pipeline in the OPR zone supports commercial and industrial uses by allowing a fuel transportation corridor to be established on lands where it will not interfere with resource use of the property.

- **Goal 10 – Housing**

  To provide for the housing needs of citizens of the state.

The purpose of the Goal 10 administrative rule, from OAR 660-008-0000(1), is stated as follows:

> "The purpose of this rule is to assure opportunity for the provision of adequate numbers of needed housing units, the efficient use of buildable land within urban growth boundaries, and to provide greater certainty in the development process so as to reduce housing costs. This rule is intended to define standards for compliance with Goal 10 "Housing" and to implement ORS 197.303 through 197.307."

The proposed text amendment does not add to or subtract from the inventory of buildable land in Clatsop County that can be used to meet housing needs. The proposed amendments do not by themselves, or in combination with planned development at Bradwood Landing, increase the projected demand for housing beyond the existing inventory of buildable land in the County. The proposed amendment is consistent with Goal 10.

- **Goal 11 – Public Facilities and Services**

  To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The purpose of the Goal 11 administrative rule, OAR 660-011-000(1), is:

> "The purpose of this division is to aid in achieving the requirements of Goal 11, Public Facilities and Services, OAR 660-015-0000(11), interpret Goal 11 requirements regarding public facilities and services on rural lands, and implement ORS 197.712(2)(e), which requires that a city or county shall develop and adopt a public facility plan for areas within an urban growth boundary containing a population greater than 2,500 persons. The purpose of the plan is to help assure that urban development in such urban growth boundaries is guided and supported by types and levels of urban facilities and services appropriate for the needs and requirements of the urban areas to be serviced, and that those facilities and services are provided in a timely, orderly and efficient arrangement, as required by Goal 11. The division contains definitions relating to a public facility plan, procedures and standards for developing, adopting, and amending such a plan, the date for submittal of the plan to the Commission and standards for Department review of the plan."

The allowance of a pipeline as a conditional use in the OPR zone allows the pipeline to traverse the area to connect the source of liquid natural gas with its recipients. The approval does not provide for specific connections and the conditional use process will assure compliance with county ordinances and plan policies.

- **Goal 12 – Transportation**

  To provide and encourage a safe, convenient and economic transportation system.

Clatsop County's Comprehensive Plan contains a Goal 12 element. The County also adopted a transportation system plan (TSP) in 2003, but the TSP is not integrated into the Goal 12 element.

The proposed text amendment allows the development of pipeline transportation systems in the OPR zone. Increasing the number of zones in which a pipeline may be located increases the ability of route designers to locate pipelines in safer, convenient and economic corridors and is consistent with Goal 12.

- **Goal 13 – Energy Conservation**

  To conserve energy.

  Statewide Planning Goal 13 also includes the following language:

  "Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles."

The proposed amendment furthers energy conservation and is consistent with Goal 13 by allowing the flexibility to site pipelines in a manner which reduces pipeline length, reducing line losses.

- **Goal 14 – Urbanization**

  To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

The pipeline does not generate the need for urban levels of service and does not represent the urbanization of land. Goal 14 does not apply.

- **Goal 15 – Willamette River Greenway**

Statewide Planning Goal 15 does not apply because it applies only to the Willamette River Greenway.

- **Goal 16 – Estuarine Resources**

  To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and

  To protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.

- **Goal 17 – Coastal Shorelands**

  To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and

  To reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.

- **Goal 18 – Beaches and Dunes**

  To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas; and

  To reduce the hazard to human life and property from natural or man-induced actions associated with these areas.

Addition of pipelines to the uses conditionally permitted in the OPR zone is consistent with Goals 16, 17 and 18 because the pipeline, as a utility service, must be installed underground where physical conditions permit. The estuary, coastal shorelands and beaches and dunes can be protected by requiring the pipelines to be below ground where physical conditions permit.

- **Goal 19 – Ocean Resources**

  To conserve marine resources and ecological functions for the purpose of providing long term ecological, economic, and social value and benefits to future generations.

The proposed text amendment is not subject to the Ocean Resources Goal, and Goal 19 does not apply.

We therefore conclude that the text of the OPR Zone should be revised to state that pipelines will be conditionally allowed, and we conclude that this amendment to the text of

the OPR Zone is consistent with the County's plan, with all applicable statewide planning goals, with the purpose of the OPR Zone, and with L2.330.

24.4 Board Action: APPROVE TEXT AMENDMENT AS A CONDITIONAL, RATHER THAN PERMITTED, USE AND PROJECT SUBJECT TO CONDITION THAT A CONDITIONAL USE PERMIT IS OBTAINED.

We approve the proposed text amendment adding the words "*10. cable, sewerline, waterline or other pipeline*" to L3.586, conditional uses in the OPR Zone and make the current L3.586(10), L3.586(11).

The applicant shall be required to obtain a conditional use permit prior to constructing the pipeline in the OPR Zone.

25. Pipeline Segment in EFU Zone

25.1 Proposed Development

At mile 6.0, the pipeline will pass through about 0.2 miles of land zoned Exclusive Farm Use and designated "Rural Agricultural Lands" by the Comprehensive Plan. Beyond that, the pipeline continues into Columbia County and is no longer within the County's jurisdiction.

25.2 Action Requested and Criteria for Approval

The applicant seeks approval of this pipeline segment as a use allowed outright in the EFU Zone by L3.564(4) ("utility facilities").

L3.564 lists uses that are "permitted [in the EFU Zone] under a Type I procedure subject to applicable development standards." Item 4 among the uses listed there is this:

> "Utility facilities necessary for public service including Communication Facilities subject to the standards in Section S4.700, except commercial facilities for the purpose of generating power for public use by sale and transmission towers over 200 feet in height. The facility is necessary if it must be situated in the EFU zone in order for the service to be provided."

25.3 Analysis and Findings

L1.030 ("Definitions") defines "utilities necessary for public service" as:

> "Major structure owned or operated by a public, private, or cooperative electric, **fuel**, communication, sewage or water company for the treatment, storage, **transmission**, **distribution** or processing of its products including sewage plants, solid waste disposal sites and transfer stations, dams and reservoirs for community water systems, water treatment plant, sanitary landfill or utility substation." (Emphasis added.)

The pipeline proposed by Bradwood Landing is a major structure in that it will extend over a distance of some 36 miles and be 30 to 36 inches in diameter. It will be owned and operated by a private company. It will be used for the transmission and distribution of natural gas, a fuel. **We therefore find that the segment of pipeline proposed in the EFU Zone is consistent with L1.030's definition of "utility necessary for public service."**

L3.564 adds an additional criterion regarding utility facilities in EFU zones: it says, "The facility is necessary if it must be situated in the EFU zone in order for the service to be provided." This raises the question of whether the pipeline could be constructed elsewhere, along some route not in an EFU Zone. Bradwood Landing has addressed this question at some length in the *Pipeline Narrative*, pages 4 through 6. There, the applicant describes four different routes considered for the pipeline and various factors such as wetlands, soils, and topography that led to selection of this route as the "preferred alternative." The applicant concludes:

"The pipeline must be located in the EFU Zone because it is locationally dependent. It is necessary to cross the EFU land in order to achieve the needed alignment."[179]

We agree. We understand the applicant's analysis of routes to mean that placing the pipeline along some route that does not traverse EFU land is not feasible. **We therefore conclude that the facility "must be situated in the EFU zone in order for the service to be provided" and is therefore consistent with L3.564(4).**

25.4 Development Standards

The standards referred to in L3.564(4)—Section 4.700 of the standards document—deal only with communication facilities. They do not apply to other large utilities, such as a natural gas pipeline.

L3.572 lists various "development and conditional development and use standards" for uses in the EFU Zone. Some of the standards are traditional dimensional requirements for building height, setbacks, and lot area. Others are special conditions that apply only to one category of use, such as campgrounds or golf courses. None of the standards set forth in L3.572 applies to utility facilities such as this pipeline.

25.5 Board Action: APPROVE WITH CONDITIONS

We approve construction of this pipeline segment as a use allowed outright in the EFU Zone under the provisions of L3.564(4), "utility facilities necessary for public service" and the generally applicable conditions of approval listed in Table 2 of these Findings for the Pipeline "Element of Review."

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[179] *Pipeline Narrative*, page 5.

26. Development Standards

L3.634 sets forth a long list of development standards applicable to the proposed LNG marine terminal in the MI Zone. Development standards deal largely with **how** a project is to be built if the proposal satisfies approval criteria for **whether** it should be built. In the applicant's *Terminal Narrative*, pages 52-59, the applicant presents the following description of the standards from L3.634 and states how the project will satisfy them. Standards quoted from the LWDUO are in italics; each is followed by the applicant's response in roman type, and then the findings of the Board in bold.

> *"**Section 3.634(1):** All uses and activities shall satisfy applicable regional policies contained in the Comprehensive Plan, Estuarine Resources and Coastal Shorelands Element."*
>
> **Applicant's Response:** The Project meets the applicable requirements in the Comprehensive Plan, including but not limited to the Northeast County subarea plan, the Estuarine Resources plan element, and the Coastal Shorelands plan element. Specific policies are addressed in Section 5.3 of this narrative.

We already have considered the project described in the applicant's narrative and the issue of compliance with the Comprehensive Plan through the conditions imposed and, for reasons described above and to the extent it is consistent with these Findings in the applicant's narrative, we find that the proposed use satisfies all applicable plan policies and hence satisfies L3.634(1) as well.

> *"**Section 3.634(2):** All uses and activities shall satisfy applicable Columbia River Estuary Shoreland and Aquatic Use and Activity standards contained in the Development and Use Standards Document."*
>
> **Applicant's Response:** The Project meets applicable requirements in Clatsop County's shoreland and aquatic use and activity standards for the Columbia River in sections S4.200 through S4.243 of the County's development standards document. Findings addressing these standards are in Section 5.2.5 of this narrative.

The applicant presents extensive findings to show compliance with applicable Columbia River Estuary Shoreland and Aquatic Use and Activity standards. These findings are presented on pages 66 through 97 of the *Terminal Narrative*. For certain elements of the Project we already have analyzed these estuary standards above and recommended conditions of approval related to them. Except as noted in these other sections, we agree with the applicant's findings on pages 66-97 and consider them adequate. We therefore find that the application satisfies L3.634(2).

*"**Section 3.634 (3):** All other applicable ordinance requirements shall be satisfied."*

Applicant's Response: All applicable ordinance requirements are met.

As we have noted elsewhere in these Findings, the application satisfies certain approval criteria in the LWDUO. We therefore agree with applicant's conclusion that "all applicable ordinance requirements have been met." We therefore find that the application does satisfy Section 3.634(3).

*"**Section 3.634(4):** When a proposal includes several uses, the uses shall be reviewed in aggregate under the more stringent procedure."*

The requirement has been satisfied for the simple reason that the multiple requests for land use approvals associated with this Project have been submitted in a consolidated application and reviewed under a Type IV procedure, which is the most stringent of the County's five levels of review. We therefore find that the application satisfies Section 3.634(4).

*"**Section 3.634(5):** Uses that are water-dependent must meet the criteria in Section S4.243(1). Uses that are water-related must meet the criteria in Section S2.243(2)."*

Applicant's Response: The Project is water-dependent, as discussed in the preceding sections as part of the marine industrial use. To the extent the concrete batch plants are deemed severable, they meet the standards for water-related use as set forth in the preceding section.

We agree with the applicant's conclusion. As we describe them in Section 10.0 and 12.0 of these Findings, we find that the LNG marine terminal and railroad are water-dependent uses, consistent with the standards of S4.243(1). In Section 3.0, we establish that the concrete batch plants are water-related as that term is defined in S2.243(2). That provision is simply a definition. It does not contain a development standard that can be met by the applicant. We therefore find that the application satisfies Section 3.634 (5).

*"**Section 3.634 (6):** Uses and activities that are not water-dependent shall not preclude or conflict with existing or probable future water-dependent use on the site or in the vicinity. If non-water-dependent development is proposed in the MI zone under Section 3.626, Review Developments or under Section 3.628, Conditional Developments, the County shall provide mailed notice to state and federal agencies with statutory planning and permit issuance authority in aquatic areas, including the Oregon Division of State Lands, Oregon Department of Fish and Wildlife, US Fish and Wildlife Service, National Marine Fisheries Service, Army Corps of Engineers, and the Environmental Protection Agency."*

Applicant's Response: Section 3.634(6) is applicable to uses that are not water-dependent. The Project is water dependent. If concrete batch plants are deemed not water-dependent in this context, their temporary nature ensures that it will not preclude water-dependent development. If the concrete batch plants are deemed water-related, County is able to issue the required notices. This does not establish an approval criterion.

We agree with the applicant's conclusion. As we describe in Sections 10.0 and 12.0 of these Findings, we find that the LNG marine terminal and railroad are water-dependent uses. In Section 3.0, we find that the concrete batch plants are water-related. The County and DLCD have provided notice to the specified agencies as required by provisions of the MI Zone provisions. We therefore find that the application complies with Section 3.634(6).

*"**Section 3.634 (7):** Plan review and approval.*

"(A) A building permit or other permit for construction or alteration of any structure or use in the MI zone will not be issued until plans have been reviewed and approved for conformity with the performance standards of this zone and the policies of the Comprehensive Plan, and for compatibility of the proposed structures or uses with surrounding uses considering factors such as transportation, access, signs, lighting, building placement and design, noise, air quality, vibration, storage, landscaping, adjoining uses and location of public utilities including water and sewer facilities. Any activity or structures reviewed and approved by the Community Development Director will be considered a permitted development with review satisfying Section 3.626. The approved activity or structure must be completed within the time frame specified in the approval, and not to exceed five years. If the permitted use status is lost due to inactivity or lack of construction within the time specified, a new plan must be submitted for review and approval."

Applicant's Response: The Project meets the requirements in Section 3.634(7)(A) for the following reasons, among others discussed in this narrative:

- The Project conforms to the performance standards of the County's MI zone, as demonstrated by these findings.

We agree with applicant's conclusion on this point.

- The Project complies with the applicable policies of the Comprehensive Plan, as demonstrated elsewhere in these findings.

We agree with applicant's finding on this point.

- The Project is consistent in terms of building size as the MI site is expressly excepted from the general MI limitation on building size. L3.634(16).

Further, the Project is adequately buffered and screened from adjoining land uses by the undeveloped remainder of the Bradwood site. L3.634(14).

We agree with the applicant that the proposed LNG facility is exempt from the MI Zone's limit on building size. We also agree with the applicant's conclusion that the undeveloped remainder of this large property will provide an adequate buffer. We note that the applicant has, in other parts of the application, committed to provide fencing and screening. For example, Bradwood Landing states that it will "landscape the shore between the terminal and the river to visually screen the terminal."[180]

- The Project is compatible with surrounding uses with respect to transportation. Regarding marine transportation on the Columbia River, the Project is compatible with commercial and recreational vessel traffic on the river and consistent with U.S. Coast Guard requirements for vessel safety. See Bradwood Landing Terminal, Resource Report 11, Reliability and Safety § 11.3.3 (June 2006). Regarding vehicle traffic over Bradwood Road, Clifton Road and U.S. Hwy. 30, the Project, with the improvements and measures described in the findings, will be compatible with the capacity of the road system and nearby land uses. The Project includes a slight rerouting of the existing railroad through the property to ensure that the terminal and railroad do not interfere with each other. Currently, there is no freight or passenger traffic on the railroad at Bradwood because of lack of business and the poor state of the tracks adjacent to and west of Bradwood, and no traffic is expected prior to construction of the terminal. Therefore, the rerouting of the tracks and construction of the terminal will not interfere with rail traffic.

As we have noted elsewhere in these Findings, as conditioned, the additional traffic put on Clifton Road by this Project, including during the initial three years of construction, will be compatible with nearby land uses. With the improvements to that road discussed in Section 13.0 of these Findings, Clifton Road will be in substantial conformance with County collector standards. Public safety will be protected, as explained in Section 17.0. We therefore conclude that the proposed LNG facility will be compatible "with surrounding uses considering factors such as transportation [and] access . . . ."

- The Project is compatible with surrounding uses with respect to access. The Bradwood site may be accessed via water, rail, and road. Water access to surrounding lands and uses is not diminished or harmed as a result of the proposal. The Project will also have no effect on rail access to surrounding properties. The railway will be slightly relocated and upgraded. As discussed above, the terminal would not interfere with rail traffic through the site and would not interfere with existing or future rail access to nearby properties. Road access to the terminal is via Clifton Road, Bradwood Road, and U.S. Hwy. 30. Clifton Road provides surface access to surrounding lands

[180] *Terminal Narrative*, page 68.

immediately adjacent to the site, and Hwy. 30 provides road access to other surrounding lands. Proposed marine terminal facilities are compatible with road access because road traffic associated with the proposed use will not restrict or degrade road access to surrounding lands below target level-of-service standards, as discussed in the Updated Traffic Impact Analysis.

For the same reasons stated immediately above, we agree that proposed marine terminal facilities are compatible with road access because road traffic associated with the proposed use will not restrict or degrade road access to surrounding lands below target level-of-service standards, as discussed in the July 2007 traffic analysis.

- The Project will be compatible with surrounding land uses with respect to signs. The Project will not block or otherwise harm any signs on surrounding lands. Moreover, because the public will not have access to the facility, the facility's signage requirements will be minimal and will comply with applicable signage standards in the County's development standards document at section S2.300.

We agree with applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(7) with regard to signs.

- The Project will be compatible with surrounding lands and land uses with respect to exterior lighting. Lighting is required for the safety of employees, navigation safety, and security. Lighting will comply with the applicable Marine Industrial zone standards in § 3.634(11) by using down-cast lighting fixtures, lighting shields, and landscaped buffer areas. Proposed onshore terminal facilities will be compatible with surrounding land uses with respect to building placement and design. The Bradwood Landing site is not visible from nearby residential property in the Clifton area, to the west. Another waterfront industrial use, the pulp and paper mill at Wauna, is located three miles upstream from the Bradwood Landing site. The Wauna mill operates around the clock and is fully illuminated. The mill is much larger than the proposed terminal facilities at Bradwood Landing. The terminal facilities will be designed and configured in a manner that maximizes operational safety, while at the same time avoids or minimizes conflicts with adjoining and nearby land uses. This can be accomplished within the parameters of the MI setback (zone section 3.634(13)) and MI building height (zone section 3.634(15)) requirements.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(7) with regard to lighting.

- The Project will be compatible with surrounding uses with respect to noise. Bradwood Landing Terminal, Resource Report 9, Air and Noise Quality (June 2006) provides a detailed description of noise associated with the construction and operation of the terminal. Ambient noise sources in the vicinity include ships, barges, motor vehicles, quarry operations, industrial

operations at Wauna, and agricultural activities on Puget Island. Pile driving, earthwork, and other construction activities will generate noise over a 36-month construction period. Bradwood Landing proposes to develop a construction noise control program in cooperation with construction contractors. The goal of this program will be to address specific noise control measures required to reduce or eliminate excessive noise from specific equipment and/or processes. This plan will include a proposed target of 10 dBA of overall noise source attenuation for selected construction equipment. Such attenuation might be accomplished through the use of sufficient engine exhaust mufflers, acoustically absorptive engine enclosures, the application of temporary noise barriers, and other proven noise reduction methods. Bradwood Landing will work with the construction contractor(s) and a qualified professional noise control engineer to develop an effective construction noise control program that will identify and achieve the required level of noise reduction required to address most noise impacts. An example of this noise control approach, reducing the reference noise level of selected construction equipment by 10 dBA in the model would result in lower aggregate sound levels. While noise from dredging activities could be reduced with targeted noise control, noise impacts would persist for the approximately 30-day dredging period. During non-dredging periods, noise impacts would still occasionally exist even with selected noise control (primarily during pile driving activity), but the average noise levels would generally remain below 55 dBA Ldn. Activities that could generate noise at the terminal during typical operations would include ship mooring and unloading, and the operation of a number of pumps, compressors, submerged combustion vaporizers, fans, and blowers. Equipment performance criteria were collected from equipment manufacturers, and the FERC Resource Reports for similar facilities. Some associated noise source levels were estimated using industry-standard sound power level estimation equations. With the estimated noise levels from typical LNG facilities, equipment noise data, manufacturer data, and calculated equipment noise levels, a noise impact analysis was performed by URS to estimate the contribution of the proposed facilities to sound levels. The results of the analysis are presented in a detailed noise impact analysis report, included in Appendix 9-C of Resource Report 9. Table 9.2-9 in Appendix 9-C shows the future predicted noise levels at five measurement locations along with the operating facility's contribution to those levels. The modeled noise levels do not exceed FERC's 55 dBA Ldn guideline or the Washington or Oregon regulatory thresholds. Therefore, no noise mitigation is needed during the operation of the terminal.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(7) with regard to noise.

- The Project will be compatible with surrounding uses with respect to air quality. Resource Report 9 provides a detailed description and analysis of air emissions associated with the proposed facility. Sources of air emissions in the vicinity of Bradwood include passing ships and tug boats; motor vehicles

on nearby roads and highways; the pulp and paper mill at Wauna, about three miles upstream from the site; and railroad locomotives. Bradwood Landing has applied for an air contaminant discharge permit ("ACDP") from DEQ. The conditions of the ACDP will ensure that the proposed facility will comply with applicable air emission standards and requirements. *See* Section 6.2.1 of the CZMA Certification. The Project will also be compatible with surrounding land uses with respect to vibration. The operation of the facility would not cause vibrations detectable beyond the site boundaries.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(7) with regard to air quality and vibrations.

- The Project will be compatible with surrounding lands and land uses with respect to storage. Proposed on-site storage facilities include three outdoor LNG storage tanks, each with a capacity of 160,000 cubic meters. Similar tanks are not found on surrounding lands, but they would not be incompatible with surrounding land uses because they do not require that uses or activities be curtailed or significantly modified. Although the terminal and storage tanks will be visible from the river and the Portland & Western Railroad, they will not be visible from U.S. Hwy. 30, the residences in Clifton, or other neighboring properties in Oregon. The nearby pulp and paper mill at Wauna is visible from U.S. Hwy. 30, the Columbia River, and Bradley State Scenic Wayside. Vegetation along the shore will help maintain compatibility with respect to views of the terminal from the river and points in Washington including Puget Island. Further, the storage tanks will be painted to blend with the background hills when viewed from the river.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(7) with regard to the visibility of the LNG storage tanks for a two-tank development.

- The Project will be compatible with surrounding land uses. Most adjoining lands are managed for forest uses. Activities associated with the management of commercial forest lands will not be negatively affected by onshore terminal facility operations. A railroad passes through the site, and can be considered an adjoining land use. Proposed terminal facilities do not conflict with the railroad. The Columbia River adjoins the proposed Bradwood site. As explained in section 11.3.3 of Resource Report 11, LNG tanker docking and unloading will not have any substantial effect on navigation via the main navigation channel or Clifton Channel.

Consistency with navigation is also established in the work done by the Coast Guard on waterway suitability.

The property's rural location and large size greatly reduce the likelihood of compatibility issues: there are not many neighboring uses with which the proposed development might be

incompatible. There are some, most notably the dwellings on Puget Island, about a half-mile away, and the dwellings in Clifton, about three-fourths of a mile away. The Puget Island residences will have a direct view of the LNG terminal and may experience some noise, vibration, unsightliness, or bright lights from the terminal. The dwellings at Clifton will not have direct views but may experience some impacts from the terminal, such as additional traffic on Clifton Road.

But it must be recalled that Bradwood long was used as a mill site and still is planned and zoned for industrial uses. Industrial uses often are noisy, smelly, and unsightly: **Any** industrial use at Bradwood thus might cause some disturbance or inconvenience to dwellings in the area. We assume that County policy makers took that into account when they zoned Bradwood for industrial use. And we assume that a "performance standard" like L3.634(7)(A), should not be used to say "no industrial uses may be allowed at Bradwood" when the Comprehensive Plan and relevant zoning district already specify that such uses **are** allowed there.

Much depends here on what is meant by "incompatibility," a term the LWDUO neglects to define. The ordinary meaning of the word is "incapable of associating or blending or of being associated or blended because of disharmony, incongruity, or antagonism."[181] "Incapable" is a strong word: smells or noise from an industrial use seem unlikely be so bad as to make one "incapable" of living in a house half a mile away.

We therefore conclude that whatever noise, smells, or unsightliness residents of the area may experience from an LNG marine terminal at Bradwood, those side effects from the development do not render it "incompatible" with nearby dwellings, at least in the context of L3.634(7).

- The Project is compatible with surrounding lands with respect to public utilities. There are no public sewers or water lines on the site or in the immediate vicinity, and Bradwood Landing will supply its own water, sanitary sewer, and electric power needs.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(7) with regard to public utilities.

- The use of on-site batch plants will eliminate some heavy truck traffic from Clifton Road and U.S. Hwy. 30 during construction. Batch plants will be located near the center of the terminal, away from adjoining non-industrial areas. The MI zone has no performance standards for power poles or lines. The proposed power line route has no impact on transportation facilities because it does not cross any transportation facilities. The poles are not lighted. No managed landscaping is proposed or required in the right-of-way beneath the power line. This corridor will be kept clear of large trees, but herbs and shrubs will grow in the corridor beneath the power lines. Water and

[181] *American Heritage Dictionary of the English Language*, Third Edition, 1992, page 914.

sewer services are not needed for the power lines. The proposed power lines and poles do not generate noise or vibrations, nor do they result in air or water discharges.

We agree with the applicant's conclusion concerning development standards as they pertain to the batch plants and power lines.

For the reasons stated above, we find that the application satisfies the development standards set forth in L3.634(7)(A).[182]

*"**Section 3.634 (8):** All uses must meet applicable state and federal air quality and noise laws or regulations."*

Applicant's Response: The Project will meet applicable state and federal air quality and noise regulations and permit requirements, as discussed in sections 6.2.1 and 6.2.3 of the CZMA Certification and in Resource Report 9.

We agree with applicant's statement in the paragraph above and find that the application therefore meets the standard set by L3.634(8) regarding air quality and noise regulations.

*"**Section 3.634 (9):** Storage. All materials, including wastes, shall be stored and maintained in a manner that will not attract or aid the propagation of insects or rodents or other animals or birds, or otherwise create a health hazard or nuisance."*

Applicant's Response: The Project will comply with this requirement. The transport and processing of LNG will not, by its nature, attract or aid in the propagation of insects, rodents, or other animals. In addition, elaborate safety precautions will be taken with the storage of LNG, as discussed in Resource Reports 11 and 13.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(9) for storage.

*"**Section 3.634 (10): Fencing:** Will be allowed inside a boundary planting screen and where it is necessary to protect property of the use concerned or to protect the public from a dangerous condition, with the following provisions: (A) No fence shall be constructed in the required setback from the public right-of-way unless otherwise specifically approved by the Community Development*

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[182] We are unsure why the ordinance uses the letter "(A)" in "L3.634(7)(A)." There is no section (B).

Director. (B) Fences shall be aesthetically compatible with the surrounding property."

Applicant's Response: The Project will be fenced in order to ensure public safety by excluding unauthorized persons. Because the terminal will be located well within the much larger 411-acre parcel, the fence will not need to be installed within a setback from a public right-of-way and will generally not be visible from surrounding properties. The marine berth and landscaping along the shore will largely obscure the fence from the sight of persons along the river.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(10) for fencing.

*"**Section 3.634 (11): Lighting:** Exterior lighting shall be directed away from zones other than LI unless otherwise approved."*

Applicant's Response: The Project does not include exterior lighting directed at other zones, including the Light Industrial ("LI") zone, other than lighting needed to meet public safety requirements. Parking lot lighting will be directed toward the ground and screened to avoid shining into off-site areas.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(11) for lighting.

*"**Section 3.634 (12): Density provisions:***

"(A) The minimum lot area shall be one (1) acre.

"(B) The minimum lot width shall be 150 feet."

Applicant's Response: No changes in lot sizes or new lots are proposed, and the Project will occupy an approximately 40-acre area within a 411-acre property. The property has several thousand feet of river frontage.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(12) for density.

*"**Section 3.634(13): Setback requirements:***

"(A) Where a lot abuts a zone other than LI there shall be a front, side or rear yard setback of not less than 50 feet. Otherwise, the front, side, or rear yards may be reduced to zero.

"(B) Setbacks are not required where side, rear, or front property lines abut a railroad right-of-way.

"(C) Uses that are not water-dependent or water-related shall be set back 50 feet from mean higher high water or the line of non-aquatic vegetation."

Applicant's Response: The Project substantially exceeds the setbacks for abutting lots. The Project is water dependent, but, with the exception of the wharf, dolphins, and connecting roadway and pipes, the terminal will be set back 50 feet or more from the Columbia River.

We understand L3.634(13)(C) to mean that uses that are water-dependent or water-related may be set closer than 50 feet from mean higher high water or the line of non-aquatic vegetation. The proposed LNG marine terminal is water-dependent, so it need not meet that setback requirement. We therefore agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(13) for setbacks. Water-dependent uses are not required to meet the 50-foot setback.

*"**Section 3.634(14): Buffer:** Where the MI zone adjoins a zone other than LI, there shall be an area of depth adequate to provide for a dense evergreen landscaped area which attains a minimum height of 8-10 feet, or such other screening measures as may be prescribed by the Community Development Director. In no case shall the buffer area have less width than the required 50 foot setback of this zone."*

Applicant's Response: The proposed terminal will be more than 50 feet from an adjoining zone and substantially more than 50 feet from an abutting property boundary. Landscaping will be provided along the river shore but is unnecessary to buffer the terminal from abutting properties because of the substantial distance to those properties and because the terminal generally will be out of their sight.

We agree with the applicant's statement in the paragraph above. We note also that the required fifty foot setback referenced is set forth a in 3.634(13) and as we note above, applies to uses not water dependent or water related. We find that the application meets the standard set by L3.634(14) for buffers.

*"**Section 3.634(15): Height:** There is no height limitation except within 100 feet of a zone other than LI in which case the maximum height shall be the same height as the abutting zone.*

"Height is measured as follows:

"HEIGHT, BUILDING -- The vertical distance measured from the average grade to the highest point on the building or structure excluding chimneys, utility vents, and antennas, except dish antennas. (L1.030)"

Applicant's Response: The AD and AN zones do not have a height limit. The F-80 zone has a 45-foot building height limit, L3.557(4), but no terminal buildings or structures are within 100 feet of the F-80 zone. The power line poles

will be between 50 and 100 feet tall, but the height limit described in section 3.634(15) applies to buildings, not power poles.

We agree with the applicant's statement in the paragraph above and find that the application meets the standard set by L3.634(15) for height of buildings.

*"**Section 3.634(16): Building size:** (A) The maximum building size for all industrial uses shall not exceed 30,000 square feet of floor area, per use. Old mill sites are exempt from building size requirements, and would include the following: the portion of Bradwood zoned Marine Industrial."*

Applicant's Response: The proposed terminal is exempt from the building size limit because it is located on the portion of Bradwood zoned MI. The Project does not include any buildings outside the MI zone.

We agree with the applicant's statement in the paragraph above and find that this application is exempt from L3.634(16) limit on building size.

Standards for Erosion Control

The Standards Document, Section S2.500 requires permits applicants to prepare an erosion control plan when the proposed development involves "land disturbing activities." Such activities are defined to be "[a]ny development activity which removes, disturbs or covers existing vegetative ground cover by physical means including, but not limited to, clearing, grading, stripping, excavation, or fill." The purpose of such a plan is "to manage development activities including clearing, grading, excavation and filling of the land, which can lead to soil erosion and the sedimentation of watercourses, wetlands, riparian areas, public and private roadways."

The application addresses the matter of erosion in Resource Report 7, Soils. The report says (on page 5):

"The draft Resource Report 7 submitted to FERC in September 2005 stated that an erosion control plan would be developed and submitted to FERC once the site development plans have been finalized. At this time, BL is in the process of developing a stormwater pollution prevention plan (SWPPP), which is a requirement of the National Pollutant Discharge Elimination System (NPDES) 1200C permit application for facility construction. The SWPPP will be prepared based on state and local erosion control regulations, NPDES and the U.S. Environmental Protection Agency (EPA) Clean Water Act requirements, and the applicable measures of FERC' s Upland Erosion Control, Revegetation and Maintenance Plan (Plan)."

Further, more detailed information has subsequently been submitted by applicant in the form of an erosion control plan which, with the condition of approval requiring submittal and review of an erosion control plan, we find would establish compliance with the applicable

standards, is feasible, and reasonably likely to occur. Full compliance with the County standards in S2.500-.504 is essential, for the following reasons.

First, the proposed development will involve "land disturbing activities" as defined at S2.502. We consider the proposed construction of the terminal, power line, and pipeline, as well as the improvements to Clifton and Bradwood Roads, relocation of the railroad, bridge replacement, soil disposal, and creation of the temporary parking area all to be activities for which an erosion control plan is required.

Second, Resource Report 7 notes that some soils on the subject property have "severe water erosion potential." Generally, soils at the terminal site are the less erosive Udipsamments, while soils on the upland sites where several other land disturbing activities will occur have higher water erosion potential.[183]

Third, any erosion from the subject property is likely to have significant effects on Columbia River fisheries and water quality, on Hunt Creek, and on the Hunt Creek Marsh, all of which are significant natural resources protected by many provisions in the County's Comprehensive Plan and land use regulations.

We therefore find that this application is subject to S2.500-.504 and that the applicant must prepare a suitable erosion control plan consistent with those provisions. In the words of that section,

> "An Erosion Control Plan shall be submitted by the property owner or their agent with the development permit application to the Clatsop County Department of Community Development. This Erosion Control Plan shall be approved by the Community Development Director prior to any development activity on the site. The Erosion Control Plan shall be prepared in accordance with the requirements of this section and the "Erosion Control Guidance" published by the Columbia River Estuary Study Taskforce (CREST)."[184]

We read the above passage to mean that the County may give conceptual approval to the proposed use here, with the understanding that a development permit will be issued only after a satisfactory erosion control plan is submitted to and approved by the County. **We therefore require the following condition of approval:**

> The applicant must prepare an erosion control plan that satisfies all applicable requirements of Standards Document S2.500-2.504. The erosion control plan must be submitted to Clatsop County's Community Development Department for

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[183] *See* Table 7 1 in Resource Report 7, *Soils*, for a precise summary of acreages of the various soil types, types of construction planned there, and their potential for erosion. Note that all the information pertaining to the employee parking area has been rendered invalid by applicant's changing the site proposed for employee parking.

[184] *Standards Document* 2.503(2).

its review and approval through a Type IIa review procedure. The department will not issue development permits for the proposed use until the erosion control plan has been reviewed and approved.

We also find that, in order to ensure that the County's conditions will be complied with irrespective of actions by other permitting authorities:

Applicant must execute the Bradwood Landing Conditions of Approval Implementation Agreement set forth in Attachment 10.

27. Consistency with Statewide Planning Goals

Under Oregon's planning laws, applications for land-use permits such as conditional uses are not reviewed against the statewide planning goals. The acknowledged local Comprehensive Plan and land-use regulations are the controlling documents for such land use decisions, and the state goals need not be considered. But when an application for land-use approvals includes a request to amend the local Comprehensive Plan or land-use regulations, then the goals (and related administrative rules) must be considered.[185]

This application from Bradwood Landing proposes certain amendments to the local plan and zoning regulations. Those amendments therefore must be reviewed against Oregon's statewide planning goals and related rules.[186]

There are 19 such goals, but some do not apply to this proposal, and others are not affected by it. For example, Goal 1, on citizen involvement, is applicable here, but none of the actions proposed by the applicant would amend any provisions in the County's Comprehensive Plan or land-use regulations that deal with citizen involvement. The County was in compliance with Goal 1 before the proposal, and it remains in compliance because nothing in Bradwood's proposal changes the County's acknowledged comprehensive plan provisions implementing Goal 1.

Also, the Comprehensive Plan uses wording identical or similar to the goals in many places. In such cases, compliance with the local plan amounts to compliance with the state goals. This is especially true of the County's provisions for estuarine resources and shorelands, which to a large extent just merely repeat Statewide Planning Goals 16 and 17.

The Comprehensive Plan and implementing ordinances complied with Goal 2 when they were acknowledged. Amendment to those documents complies with the Goals either when not appealed within 21 days or being affirmed on appeal. Bradwood Landing's proposed post-acknowledgment plan amendment does not change any of the Goal 2-related provisions of the County's plan or ordinances; nor does it change the basic Goal 2 policy framework or its use as a basis for all land use decisions and actions. The County has complied with its code provisions

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[185] "An amendment to an acknowledged comprehensive plan must be consistent with the statewide planning goals. *Ludwick v. Yamhill County*, 72 Or App 224, 231, 696 P2d 536 *rev den* 298 Or 943 (1985); ORS 197.175(2)(a).

[186] The issue of goal compliance was significant in a recent LUBA case involving a proposed LNG facility in Warrenton: "At least where adequate information is reasonably available to determine whether uses allowed by the amendment are consistent with applicable goal requirements, a local government cannot defer findings of goal compliance to subsequent permit decisions to which the goals do not apply. *Friends of Yamhill County v. Yamhill County*, 47 Or LUBA 160, 171 (2004)." (*People for Responsible Prosperity, et al.*, v. *City of Warrenton*, and *Skipanon Natural Gas, LLC, Intervenor-Respondent*, 52 Or LUBA 181 (2006), LUBA No. 2006-016, June 29, 2006).

related to land use process, community participation and coordination with affected agencies by applying the Type IV review process to the application and providing appropriate notification of the proceedings to interested parties.

Goal 2 is intended "to establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions." A plan amendment as proposed here also implicates Goal 2 and requires coordination of government entities in planning, the need for public hearings and an opportunity for comment and review. Goal 2, Part 2, with its associated Administrative Rule, details the requirements for taking a Statewide Planning Goal exception. No exception is required in these consolidated applications.

Coordination and Consistency

Goal 2 requires coordination among affected state and local agencies when preparing plans as well as internal consistency among implementing regulations.

The notice of a proposed post-acknowledgment plan and land use regulation amendment required by ORS 197.610(1) was submitted to DLCD on May 16, 2007. Oregon Water Resources learned of the project through a ground water and surface water use permit request filed on February 21, 2007. The Department of State Lands and the Army Corps of Engineers issued consent to proceed with the plan amendment applications on February 2, 2007. ODOT was provided a copy of the applicant's Transportation Impact Study and had an opportunity to comment on the same. PBS&J, the applicant's safety consultant participated in meetings held in Clatsop County, during October 2007, and assisted Clatsop County with setting up a process for response resource negotiations amongst Bradwood Landing LLC, and Clatsop County officials, local emergency responders (i.e., Clatsop County Sheriffs Department, Knappa Fire District; and Astoria, Warrenton, and Clatskanie Fire Departments), the Department of Energy (DOE), and the Oregon Office of the State Fire Marshal. All of these parties were given an opportunity to participate in the hearing process. The applicant continues to work with through the Federal Energy Regulatory Commission process of reviewing the applicant's Draft Environmental Impact Statement. This process includes comments from affected state agencies which are also part of the record for these proceedings. For these reasons, the County has coordinated with affected local and state agencies, including LCDC, ODOT, DSL, and others. This policy is met.

As evidenced by these Findings, the plan amendment is fully coordinated with all other portions of the County's Comprehensive Plan and its implementing ordinances.

Public Hearings/Opportunities for Comment and Review

At all times since notice was submitted to DLCD on May 16, 2007, copies of the notice and supporting documents have been available for review at the County Planning Office and at the DLCD offices in Salem. Notice was provided to property owners within 250 feet of the subject property, as well as in the Daily Astorian. The Planning Commission held two public hearings on October 19, 2007 and on November 26, 2007, and two more public hearings occurred where all parties were allowed to testify orally before this Board. Further, written testimony was accepted into the record during the period from May 16, 2007 until the record was

closed on November 26, 2007, with final rebuttal material from the applicant submitted December 3, 2007.

Adequate Factual Base

These Findings demonstrate that the proposed amendments are consistent with the County's comprehensive plan and, based on the analysis set forth below, will not take the plan and zoning ordinance out of compliance with the statewide planning goals. The County has established a record of its decision and its decision is supported by findings. The proposed amendment has been adopted in a manner that is consistent with Goal 2.

Applicant's findings on compliance with the statewide planning goals and rules are presented in the *Terminal Narrative*, pages 203 through 213. The applicant concludes that three of the statewide planning goals are not applicable to the Bradwood Landing proposal:

- Goal 15, Willamette River Greenway
- Goal 18, Beaches and Dunes
- Goal 19, Ocean Resources

We agree that these goals are not applicable here. No part of the Willamette River is in the County, Bradwood is at least 20 miles from the nearest coastal beach or dune, and Goal 19 deals with Oregon's offshore ocean waters, which also are at least 20 miles from Bradwood.

The applicant considers the relationship of Goals 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16 and 17 at pages 203-213 of the *Terminal Narrative* pages 159 through 166 of the Pipeline Narrative, and in subsequent submittals.

The proposed amendment of the OPR zone to allow pipelines is consistent with the Statewide Goals.

> "Conservation Other Resources areas provide important resource or ecosystem support functions such as lakes and wetlands and federal, state and local parks. Other areas designated Conservation Other Resources include lands for low intensity uses which do not disrupt the resource and recreational value of the land. Most of the Columbia River Estuary is in this designation." Clatsop County Goal 2 Background Document p. 8.

A pipeline is consistent with the Conservation Other Resources designation because it is consistent with low intensity surface uses and does not disrupt the resource and recreational value of the land. The surface of the land may still be used for the other uses allowed in the zone, though large trees may not be grown within part of the pipeline easements itself for safety and maintenance reasons.

27.1 Economic Impacts; Compliance with Goal 9, Economic Development

In its June 28 staff report (at page 219), Staff described Goal 9 as one of several statewide planning goals it concluded are "unaffected by and hence immaterial to the Bradwood proposal." Staff explained in greater detail why it reached that conclusion in the August 23, 2007 Staff

Report. We find, however, that Goal 9 is material to the Bradwood Landing proposal. In fact, Bradwood is specifically identified in the County's Goal 9 Industrial Lands Inventory as a potential industrial, deep draft site.

Proponents for the LNG project and opponents to it both have presented voluminous testimony regarding economic impacts from the Project. Proponents argue that it will help the local economy. Opponents argue that it will harm the local economy and therefore fails to comply with Goal 9. Opponents also argue that for reasons of economic harm, the Project fails to comply with L5.412(8)'s criterion for a zone change: "The proposed change will not be detrimental to the health, safety and general welfare of Clatsop County."

For example, CRK states,

> "Surprisingly, the Staff Report did not assess the economic consequences of LNG. *** The Planning Commission must fully consider and make findings on the following impacts: . . ." [*Paragraph then presents long list of economic impacts.*][187]

CRK does not explain, however, what requires the County to "fully consider and make findings" on economic impacts. We find no such requirement in Statewide Planning Goal 9 or in the Comprehensive Plan and implementing ordinances.

Goal 9 and its administrative rules (OAR Chapter 660, Division 9) do not require this type of economic impact analysis. Rather, they offer broad direction to local governments on how to plan for economic development. Their emphasis is almost entirely on planning and zoning adequate supplies of vacant land for commercial and industrial use. Moreover, the rules focus on lands inside urban growth boundaries. Goal 9 specifically says "Comprehensive plans **for urban areas** shall . . .," and then goes on to list various requirements. OAR 660-009-0010(1) says:

> "This division applies to comprehensive plans for areas **within urban growth boundaries**. This division does not require or restrict planning for industrial and other employment uses outside urban growth boundaries." (Emphasis added.)

Bradwood is not within or near any urban growth boundary. We therefore conclude that the analysis called for by CRK is not required.

Further, Bradwood Landing submitted detailed economic analyses showing that the Project will be an economic benefit to the region. Economic information from opponents was general and speculative. A report criticizing one of Bradwood Landing's reports (the Romero report) failed to understand the scope of the report. An analysis related to a study done in Passamaquody was not related to or substantial evidence of the likely impacts in Clatsop County, particularly given the existence of site-specific studies.

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[187] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 6.

In its broadest statements, Goal 9 is "[t]o provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare and prosperity of Oregon's citizens." OAR 660-015-0000(9). To the extent Goal 9 is applicable, the amendments are consistent with Goal 9. The Bradwood site has been specifically identified for marine industrial use. The amendments sought facilitate the development of the site with a marine industrial use. The proposed amendments do not remove any lands from the County's inventory of buildable commercial or industrial lands and do not diminish the level of service at any commercial or industrial site. In fact, these amendments carry out previously stated and acknowledged County policies.

As for L5.412(8)'s requirement that the zone change not be "detrimental to the health, safety and general welfare of Clatsop County," we reject the idea that this somehow requires a countywide analysis of economic impacts. "Welfare" is admittedly a broad word. To the extent that it means "good fortune" or "prosperity," it may have some economic implications. But the word must be considered in the context of L5.412. That section lists eight criteria for granting a zone change. The word "economic" does not appear anywhere in the entire section. Criterion 8 clearly is linked to health, safety, and matters that would bring harm ("detriment") to the entire County. We see nothing in that criterion about economic impacts and nothing in L5.412 that would lead us to construe Criterion 8 so broadly.

Conclusion

For the reasons described above, we find that neither Goal 9 nor L5.412(8) requires an assessment of the economic impacts of this proposal and to the extent one may be required, it is met by the analyses submitted by applicant and adopted by this Board.

With respect to Goal 5, *Open Spaces, Scenic and Historic Areas and Natural Resources*, the application presents findings at pages 204-206 of the *Terminal Narrative*. Consistency of the pipeline with Goal 5 in the OPR zone is discussed in the Pipeline Narrative and these Findings. The applicant concludes that no significant Goal 5 resource and no Goal 5 policies are adversely affected by the Bradwood proposal. Applicant also observes that most of the natural resources, such as wetlands, that would be affected by the proposal are not "Goal 5 resources." Rather, they are resources subject to the statewide goals for estuarine and shoreland resources and therefore must be reviewed against those goals, not Goal 5. We agree with applicant on both points.

27.2 Goal 5 and Its Relationship to Goals 16 and 17

CRK argues that the staff report is deficient in failing to apply Statewide Planning Goal 5 (on natural resources) and its administrative rules (OAR Chapter 660, Division 23) to various resources at Bradwood. CRK says:

> "The Coalition disagrees with the Staff Report's conclusion that Goal 5 is not applicable to the NorthernStar application. The proposed amendments to the

Comprehensive Plan implicate Goal 5 because the site contains Goal 5 resources."[188]

CRK argues that six types of Goal 5 resources – riparian corridors, wildlife habitat, groundwater resources, open space, wetlands, and aggregate resources – are present "on or near" Bradwood, and that Goal 5 must be applied to them. The June 28 Staff Report did not assert that Goal 5 is "not applicable" to the Bradwood Landing application. Rather, it observed that the Goal 5 resources present at Bradwood are "subject to the statewide goals for estuarine and shoreland resources and therefore must be reviewed against those goals, not Goal 5."[189] But the staff report failed to explain how it reached that conclusion. That explanation was provided in the supplemental staff report.

The County's Goal 5 element, at pages 2-3, in a section titled "Relationship of Goal #5 to the Estuarine Resource Goal #16, and the Coastal [Shorelands] Goal #17," says this:

> "Goal #5 lists twelve types of resources that are subject to inventory and possible protection. A number of these resources are also addressed by the Estuarine Resource Goal and the Coastal Shoreland Goal. Thus, when one of the twelve Goal 5 resources is located in either an estuarine or coastal shoreland area, the appropriate resource inventory and protection requirements of the Estuarine Resources Goal or the Coastal Shorelands Goal are applied. Therefore, these resources are not covered by this element of the Comprehensive Plan."

That section goes on to specify that the resources covered by Goals 16 and 17 in lieu of Goal 5 are (a) fish and wildlife habitat; (b) ecologically significant natural areas; (c) outstanding scenic views; and (d) wetlands. Bradwood lies in the coastal zone, and thus is subject to Goals 16 and 17.

OAR 660-023-0240(2) provides that

> "[t]he requirements of Goals 15, 16, 17, and 19 shall supersede requirements of this division for natural resources that are also subject to and regulated under one or more of those goals. However, local governments may rely on a Goal 5 inventory produced under OAR 660-023-0030 and other applicable inventory requirements of this division to satisfy the inventory requirements under Goal 17 for resource sites subject to Goal 17."

OAR 660-023-0240 is applicable to the Goal 16 and 17 resources involved in this case. OAR 660-023-0250 provides:

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[188] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 54.

[189] County Staff Report on Bradwood Landing Application, June 28, 2007, page 219.

"(1) This division replaces OAR 660, Division 16, except with regard to cultural resources, and certain PAPAs and periodic review work tasks described in sections (2) and (4) of this rule. Local governments shall follow the procedures and requirements of this division or OAR 660, Division 16, whichever is applicable, in the adoption or amendment of all plan or land use regulations pertaining to Goal 5 resources. The requirements of Goal 5 do not apply to land use decisions made pursuant to acknowledged comprehensive plans and land use regulations.

"(2) The requirements of this division are applicable to PAPAs initiated on or after September 1, 1996. OAR 660, Division 16 applies to PAPAs initiated prior to September 1, 1996. For purposes of this section 'initiated' means that the local government has deemed the PAPA application to be complete.

". . . .

"(4) Consideration of a PAPA regarding a specific resource site, or regarding a specific provision of a Goal 5 implementing measure, does not require a local government to revise acknowledged inventories or other implementing measures, for the resource site or for other Goal 5 sites, that are not affected by the PAPA, regardless of whether such inventories or provisions were acknowledged under this rule or under OAR 660, Division 16."

As such, the mill pond filling, approved as part of a prior exception to Goal 16, does not require a Goal 5 exception.[190]

The consistency of the pipeline along its route with Goal 5 is addressed on pages 60-75 of the previously submitted narrative.

In conclusion, we did not apply Goal 5 to fish and wildlife habitat, natural areas, scenic views, or wetlands. We found no evidence of natural areas or scenic views designated "significant" under Goal 5 at Bradwood. For fish and wildlife habitats and wetlands, which do exist at Bradwood, we applied Goals 16 and 17, not Goal 5, as directed by the Comprehensive Plan. We therefore find that CRK's argument to apply Goal 5 to those resources is unfounded.

Conclusion

For the reasons stated above, we decline CRK's request to apply Goal 5 to (a) fish and wildlife habitat; (b) ecologically significant natural areas; (c) outstanding scenic views; and (d) wetlands at Bradwood.

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[190] No identified cultural resources are affected by the Project.

27.3 Goal 5 with Respect to Quarries

CRK also raises a concern about Goal 5 as it pertains to mineral and aggregate resources. CRK says:

> "Pursuant to Goal 5, the County identified a quarry on a portion of the Bradwood property, the 'Clifton Rock Pit,' and designated the quarry as 'significant.' In 1995, the County adopted Ordinance 95-2, 'The Clifton Rock Pit QMO Comprehensive Plan and Zoning Map and Text Amendment,' which established the pit as 'priority site.'"[191]

Everything CRK says in that paragraph is accurate except for one important detail: the Clifton Rock Pit is not "on a portion of the Bradwood property." Rather, the Clifton Rock Pit is a 20-acre parcel owned by the County. CRK confuses the Clifton Rock Pit with a smaller quarry at Bradwood.

The Clifton Rock Pit adjoins the north side of Clifton Road roughly midway between Hwy. 30 and Bradwood. The smaller Bradwood quarry is located on land zoned F-80, a few hundred feet south of the proposed terminal site. The two quarries are more than a mile apart.

Goal 5 and The Bradwood Quarry

In its application narrative, Bradwood Landing devoted six pages[192] to explaining how the proposed LNG terminal complies with the County's Goal 5 policies as they pertain to the on-site quarry at Bradwood. Later, the applicant's narrative devotes another paragraph describing similar compliance with Statewide Planning Goal 5.

> "The County's inventory of mineral and aggregate resources includes an aggregate resource site in the F-80 zone adjacent to the Bradwood Landing terminal site. The proposed amendments do not include this aggregate resource site. The quarry site may be used during Project construction activities but will be idle during operation of the Project."[193]

The applicant concludes that the proposed LNG terminal is consistent with Goal 5 as it pertains to the Bradwood quarry. We agree. In general terms, Goal 5 and the related rules deal with plan amendments "involving an aggregate site determined to be significant."[194] But the plan amendment proposed here does not involve the Bradwood quarry. The quarry property is

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[191] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 55.

[192] *Terminal Narrative*, pages 103-109.

[193] *Terminal Narrative*, page 205.

[194] OAR 660-023-0180(5).

zoned F-80 and would remain so. Furthermore, the goal and rules deal primarily with "conflicting use," which is "a use or activity that is subject to land use regulations and that would interfere with, or be adversely affected by, mining or processing activities at a significant mineral or aggregate resource site."[195] But the proposed the terminal is not a "conflicting use" as that term is defined in the Goal 5 administrative rule. In the ESEE analysis for the ordinance applying the QMO overlay to the quarry on the Bradwood Landing site, it was specifically noted that the quarry was consistent with development of the marine industrial site given that the properties were under common ownership and their use and development could be coordinated.

Goal 5 and The Clifton Rock Pit

Clifton Rock Pit is not in operation currently, and Bradwood Landing apparently was unaware of the existence of the Clifton Rock Pit when it filed its application with the County. When County Staff learned of the quarry's existence, it turned to Goal 5 and related administrative rules to determine whether they might apply to the Clifton Rock Pit in this application. They concluded that they do not. We agree.

Goal 5 and its rules concentrate on conflicts that might occur between mining operations and other nearby land uses. That raises the question of what is meant by "nearby." To evaluate potential conflicts with significant mining sites, OAR 660-023-0180(5)(a) and (8)(d) specify a standard "impact area" of 1,500 feet. The Clifton Rock Pit is roughly 7,000 feet from the Bradwood terminal site. It thus lies well outside the area for which any conflicts between surface mining at the rock pit and activities at the terminal would have to be evaluated. We therefore conclude that the proposed LNG marine terminal is not within the "impact area" of uses that might conflict with quarrying at the Clifton Rock Pit. County staff discussed this conclusion in. several telephone conversations with staff at DLCD. DLCD agreed with it.

"The impact area is the area in which identified conflicting uses may adversely affect the resource." County Ordinance 95-2 at 4. Bradwood is not within the impact area for the Clifton Rock Pit and development of the facility does not infringe on a significant aggregate resource.

Ordinance 95-2 designating the Clifton Rock Pit as significant states that the impact area includes Tax Lots 702 and 703, parcels owned by Hanson Resources and zoned F-80. These are not the Bradwood parcels and the terminal and pipeline are not in the impact area for the Clifton Rock pit. "At the present time, there are no conflicting use [*sic*] in the 1,000 foot impact area of the quarry. However, the purpose of the designation of the overlay zone is to anticipate future rezoning or other incompatible use of the property." *Id.* The County noted that both the rock pit and the future industrial site at Bradwood, a prime deepwater port site on the Columbia River took access off Clifton Road, but noted that increased quarry traffic was not expected to impact other users of the road.

A 9.37-acre parcel with a small residential use was identified as outside the resource zone "in order to allow full and unrestricted use of the property within the constraints of the zone."

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[195] OAR 660-023-0010(1).

Ordinance 95-2. It is reasonable to conclude that because Bradwood, located even farther from the rock pit than this residential parcel, was excluded from the impact area, the intent was to allow development of this "prime deepwater port site" within the constraints of the MI zone.

Conclusion

For the reasons stated above, we decline CRK's request to apply Goal 5 to the Bradwood Quarry and the Clifton Rock Pit in the manner it requests.

27.4 Public Access

CRK says that "NorthernStar incorrectly asserts that no existing public access will be restricted because the Bradwood area is privately owned and has been in private ownership for many years."[196] CRK goes on to argue that the application therefore fails to comply with County policy that "new development shall not restrict existing public access to rivers, streams, or lakes."[197] CRK says, "NorthernStar completely overlooks how the Project will restrict existing public boating access to the river."

CRK's argument is not persuasive. Despite CRK's allegation to the contrary, we regard applicant's assertion as accurate. We find no evidence of any existing public access to rivers, streams, or lakes at Bradwood, for boaters or anyone else. The property is private, the road to it is gated, and no public access points are designated there. We therefore conclude that no "existing public access" will be restricted by development of an LNG terminal at Bradwood.

We note that the "public access" described in County policy refers specifically to access from or across land to a waterway. It does not deal with the public's right to travel by boat from one part of the Columbia River to another. We base that conclusion on several factors. First, the LWDUO's general definition of "access" clearly focuses on ingress and egress to property: "The way or means by which pedestrians and vehicles enter and leave property." We understand "property" in this instance to mean real property (as in "real estate"), not public waterways.

Second, the LWDUO's definition of "public access" in L1.030 carries on that same idea:

> "PUBLIC ACCESS – Public access to shoreline and aquatic areas either may be achieved through:
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> "(1) direct physical access to shoreland and aquatic areas (i.e., boat ramps);
>
> "(2) aesthetic access (i.e., viewing opportunities); and

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[196] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 58.

[197] Fish and Wildlife Policy 8, Goal 5 Element of the County Comprehensive Plan.

"(3) other facilities providing some degree of access to shorelands and aquatic areas. "

Public access and direct physical access or viewing locations are not present on the Bradwood site, which is privately held property, so existing public access will not be curtailed. Requiring public access in the future would be inconsistent with the need to maintain a secure, private industrial site and therefore is not appropriate in this case.

Third, the Standards Document echoes that in S4.240, "Public Access to the Estuary and its Shoreline":

> "Standards in this subsection apply to all uses and activities in Columbia River Estuary shoreland and aquatic areas which directly or indirectly affect public access. "Public access" is used broadly here to include director [sic] physical access to estuary aquatic areas (boat ramps, for example), aesthetic access (viewing opportunities, for example), and other facilities that provide some degree of public access to shorelands and aquatic areas.
>
> "(1) Projects to improve public access shall be designed to assure that adjacent privately owned shoreland is protected from public encroachment.
>
> "(2) Clatsop County will implement its Public Access Plan.
>
> "(3) Clatsop County shall review under the provisions of ORS 271.300-271.360, proposals for the sale, exchange or transfer of public ownership which provides public access to estuarine waters."

We understand "physical access," "boat ramps" and "other facilities" all to be land-based structures, walkways, or roadways that enable the public to reach the water from the shore. That conclusion is reinforced by recurring use of the preposition "to" in the phrase "access to shoreline and aquatic areas." We see nothing in those definitions that can be construed to mean "access by boat from one aquatic area to another." We therefore find that the application from Bradwood Landing does not limit access to the river and thus does not contravene Fish and Wildlife Policy 8 on public access.

We note that the issue of boat travel through the Clifton Channel is addressed in the June 28 staff report and in the Planning Commission's recommendations. We conclude in Section 22 that the proposed LNG terminal will not preclude sport fishers, commercial fishers, and other boaters from entering or using Clifton Channel. We also impose a condition of approval to ensure that Clifton Channel remains open to the public.

Conclusion

For the reasons stated above, we decline CRK's request to find the Project inconsistent with Fish and Wildlife Policy 8 on public access.

27.5 Compliance with Goals 11 and 12

Goal 11 is "to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development." The goal goes on to define a "timely, orderly, and efficient arrangement" as one that "coordinates the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses." We understand that to mean that Goal 11 requires adequate public services to be available to serve a proposed use and the uses already present in the area where the new use is proposed.

The applicant concludes that "[t]he proposed amendments do not undermine Clatsop County's continued compliance with Goal 11, or require amendments to the County's Goal 11 element or any of its Goal 11 implementation measures."[198] The proposed amendments are consistent with Goal 11. As we have noted in other sections of these Findings, we believe it has been demonstrated that, as conditioned, adequate public services for fire protection, police, emergency medical services, and roads will be available, especially during the three years when the LNG terminal is being built.

Regarding Goal 12, *Transportation*, and the "Transportation Planning Rule" ("TPR") (OAR Chapter 660, Division 12) the applicant states:

> "The Project's effects on the road system are addressed in the Traffic Impact Analysis prepared for the Project. The Analysis identifies road improvements that will ensure that the Project complies with Goal 12, the Transportation Planning Rule (TPR), and with Clatsop County's Goal 12 implementing measures. With the identified improvements, the proposed amendments are consistent with Goal 12 requirements and the TPR as they relate to streets and highways."

As noted in Sections 13 and 15 of these Findings, applicant has provided supplemental information and traffic/transportation analyses.

Conclusion

For the reasons discussed above and throughout these Findings, we conclude Goal 11 is met.

For reasons we discussed at length in Section 15.0, we conclude that the proposed development and amendments do comply with the TPR and Goal 12.

27.6 Compliance with Goal 16/17 and Cumulative Effects (Policy P15)

Goal 16 is to recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate

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[198] *Terminal Narrative*, page 210.

develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.

Goal 17 is to conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and to reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.

Regarding goals 16 and 17 (*Estuarine Resources* and *Coastal Shorelands*), the Goal 16/17 element of the County's Comprehensive Plan echoes those state goals. We have already written at considerable length in other sections of these Findings about the Bradwood proposal's compliance with that element of the Comprehensive Plan. We need not repeat that analysis here, except to say that **we find in Section 4.0, in Attachment 6 and here that the proposal does comply with Statewide Planning Goal 16 and 17.**

The remainder of the Project is also consistent with the Statewide Goals.

Goal 1 – Citizen Involvement

> *To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.*

Clatsop County's Comprehensive Plan and implementing ordinances complied with Goal 1 when they were acknowledged. Bradwood Landing's proposed post-acknowledgment plan amendments and zone changes do not alter any of the Goal 1-related provisions of the County's plan or ordinances. Goal 1 has been met through compliance with the applicable procedures in the LWDUO when reviewing the proposed amendments.

Goal 2 – Land Use Planning

> *To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.*

Clatsop County's Comprehensive Plan and implementing ordinances complied with Goal 2 when they were acknowledged. Bradwood Landing's proposed post-acknowledgment plan amendments do not change any of the Goal 2-related provisions of the County's plan or ordinances; nor do they change the basic Goal 2 policy framework or its use as a basis for all land use decisions and actions. (*See* Supplemental Goal 2 Findings.) Goal 2 has been met.

Goal 3 – Agricultural Lands, and OAR 660-033

> *To preserve and maintain agricultural lands. Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs*

for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.

Clatsop County adopted an exception to Goal 3 and 4 for Bradwood in 1982. This exception is mapped as exception area No. 46 in Clatsop County's Goal 2 element. The proposed plan amendments do not conflict with Goal 3 because they do not involve agricultural lands.

Goal 4 – Forest Lands, and OAR 660-006

To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

As noted above an exception to Goal 4 was taken for Bradwood in 1982. The proposed amendments do not involve forest land subject to Goal 4. Some Project facilities and activities will be in Clatsop County's F-80 zone, but these do not conflict with Goal 4 and are not addressed by the proposed amendments.

Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources; OAR 660-016; and OAR 660-023

To protect natural resources and conserve scenic and historic areas and open spaces.

The following resources are addressed under Goal 5:

- Riparian corridors, including water and riparian areas and fish habitat
- Wetlands
- Wildlife Habitat
- Federal Wild and Scenic Rivers
- State Scenic Waterways
- Groundwater Resources
- Approved Oregon Recreation Trails
- Natural Areas
- Wilderness Areas
- Mineral and Aggregate Resources
- Energy sources
- Cultural areas

Two sets of administrative rules in OAR chapter 660 address Goal 5: divisions 016 and 023.

Clatsop County's Comprehensive Plan identifies several Goal 5 resources in the Northeast Planning Area. The proposed plan amendments do not require any changes to the County's existing Goal 5 inventory or protection measures. These resources, and the measures adopted by the County to protect them, are briefly described in the following paragraphs.

Open space is a Goal 5 resource. The Comprehensive Plan identifies three kinds of open space: general open space (farms, forests, estuaries, the ocean and ocean beaches); site-specific open space (parks, wildlife refuges, wetlands, and specific scenic areas); and areas provided in conjunction with a specific development (dedicated open space in a subdivision). General open space (the Columbia River Estuary) adjoins the Project site. The proposed turning basin dredging amendment is in the estuary; the proposed terminal amendment is in an estuarine marsh. No changes to the general open space inventory or protection measures are needed for the amendments. There is no site-specific open space or any open space provided in conjunction with a specific development on the subject property. The areas within which the Project will be developed are not inventoried as open space in the County's Goal 5 inventory.

Mineral and aggregate deposits are Goal 5 resources. The County's inventory of mineral and aggregate resources includes an aggregate resource site in the F-80 zone adjacent to the Bradwood Landing terminal site. The proposed amendments do not include this aggregate resource site. The quarry site may be used during Project construction activities but will be idle during operation of the Project.

Wildlife habitat is a Goal 5 resource. Bradwood is included in the County's inventory of Goal 5 wildlife habitat and is identified as a "Major Big Game" area in the County's Comprehensive Plan Goal 5 element). The proposed turning basin dredging amendment area is entirely outside of this designated Goal 5 resource. The proposed terminal amendment area is also entirely outside of the designated big game area because it consists of intertidal wetlands.

Fish habitat is a Goal 5 resource. Both proposed amendment areas contain fish habitat. The amendments, and the actions that will follow, are consistent with the maintenance of fish habitat for the following reasons:

- Construction practices and measures designed to reduce impacts on aquatic resources are incorporated into the Project design. These measures are discussed in the Biological Assessment.
- The Project is configured to occupy the smallest possible aquatic area given operational needs. This is described in sections 3.3.5 and 3.3.10 of the *Terminal Narrative*.
- Compensatory mitigation measures include a significant fisheries enhancement component. This is detailed in the *Biological Assessment* and in sections 3.4 and 3.5 of the *Terminal Narrative*.

Ecologically and scientifically significant natural areas are Goal 5 resources. None of the 23 sites listed in the County's inventory is on or near Bradwood.

Outstanding scenic views and sites are Goal 5 resources. Twelve sites are listed in the County's final inventory. None of these final inventory sites are affected by the proposed amendments.

Water areas, watersheds, and groundwater are Goal 5 resources. Water areas included in the proposed amendments are Goal 16 areas, not Goal 5 areas. The Project is partially within the Hunt Creek watershed. Clatsop County's Goal 5 element does not include any watershed protection measures affecting the Hunt Creek watershed. The County has not identified any groundwater resources in the vicinity of the proposed amendments that merit Goal 5 protection.

Wetlands are a Goal 5 resource. The proposed amendments affect Goal 16 wetlands, not Goal 5 wetlands.

Wilderness areas are Goal 5 resources. The Oregon Islands Wilderness Area, which does not include this property and is not affected by the proposed amendments, is identified in the County's Goal 5 wilderness area inventory.

Historic sites are Goal 5 resources. The proposed amendments do not include or affect an inventoried historic site. *See* Resource Report 4.

Cultural areas are Goal 5 resources. The proposed amendments, and the activities that follow, will not harm any cultural resources. *See* Resource Report 4.

Oregon recreation trails and wild and scenic waterways are Goal 5 resources. Clatsop County addresses these resources under Goal 8. No identified recreational trails or wild or scenic waterways are present in the proposed amendment areas. Goal 5 has been met.

Goal 6 – Air, Water, and Land Resources Quality

To maintain and improve the quality of the air, water and land resources of the state.

Clatsop County relies on a number of plan policies and ordinance requirements to meet this goal. The County also relies on the programs of various state and federal agencies, especially the U.S. Environmental Protection Agency and DEQ, to meet the goal.

The proposed amendments will have only negligible effects on air emissions, and neither the amendments nor the Project will result in air emissions that are inconsistent with Goal 6. *See Bradwood Landing Terminal, Resource Report 9, Air and Noise Quality* (June 2006).

The Project, including the proposed amendments, will meet all applicable water quality standards and other regulations and will otherwise be consistent with Goal 6. Discharges of water to the surface and the ground during the construction and operation of the Project, including storm water discharges, are discussed in sections 3.2.4.7, 3.3.11, and 6.1.10, above, and in *Bradwood Landing Terminal, Resource Report 2, Water Use and Quality* (June 2006). Bradwood Landing will comply with all applicable wastewater discharge regulations and will apply for and comply with all applicable DEQ discharge permits and DEQ discharge conditions.

During construction, return water from the placement of dredged material will be captured and directed to a settling pond before being discharged to the Columbia River. Although, as discussed in section 3.3.5, above, the dredged material would be suitable for unconfined in-water disposal, Bradwood Landing will comply with all applicable return water conditions contained in the section 404 permit from the U.S. Army Corps of Engineers, including the conditions of DEQ's section 401 certification for these discharges. Most storm water associated with construction will infiltrate into the permeable soil at the terminal site, but Bradwood Landing will register under DEQ's 1200-C general construction NPDES storm water discharge permit and will develop and implement the erosion and sediment control plan required by the permit to protect water quality in the river, Hunt Creek, and adjacent wetlands. Similarly, excess water from rinsing construction vehicle and truck wheels will be directed to settling ponds and infiltrated into the ground. Water from the hydrostatic testing of pipes and the LNG storage tanks will be obtained from and returned to the Columbia River essentially unchanged, although Bradwood Landing will dechlorinate the water before discharge if chlorination is necessary to prevent corrosion of the pipes and tanks. The hydrostatic test water will be discharged pursuant to an NPDES permit from DEQ.

During operation of the terminal, wastewater discharges will consist of SCV condensate, fire suppression system test water, storm water, and sanitary wastewater. The SCVs will produce up to 160 gpm of condensate, which will be cool (60° F), slightly acidic, and have a total dissolved solids (TDS) concentration about 10 times that of the Columbia River. The acidity will be neutralized, and the condensate will be discharged to the river from a diffuser outfall mounted on the wharf. The discharge will be cooler than the maximum temperature criterion for the river (68° F.), and the TDS will be rapidly diluted by the river to a concentration that is indistinguishable from the river's concentration within a few feet of the outfall. The fire suppression system will be tested weekly using 4400 gpm of river water for approximately one hour. The water will be returned immediately to the river essentially unchanged. Bradwood Landing will apply to DEQ for an NPDES permit to discharge the SCV condensate and the fire suppression system test water and will comply with the conditions of the permit.

Storm water within the bermed terminal area, as well as storm water in the administration building area outside the berm, will either directly infiltrate into the ground or will be directed to vegetated swales for treatment and infiltration. Bradwood Landing will use best management practices to control storm water from the access road, wharf, and other areas outside the administration building area and the bermed terminal area. These management measures will ensure that the water quality of Hunt Creek, adjacent wetlands, and the Columbia River is protected.

Sanitary wastewater will be discharged to the ground through an appropriately sized on-site septic system. The system will be designed, constructed, and operated in accordance with all applicable DEQ regulations in OAR chapter 340, division 071, to ensure that groundwater quality is protected.

Bradwood Landing's proposal to supply screened ballast and cooling water to LNG carriers berthed at the facility will eliminate or nearly eliminate the need for the carriers to discharge cooling water while berthed at the terminal. A carrier will first use the water that it receives from the terminal in its cooling system and then will discharge the water to its ballast

tanks. If the ballast tanks fill before the carrier leaves the berth, the water in the ballast tanks will be recirculated through the cooling system to avoid the need to discharge cooling water to the river.

The Project will not generate hazardous waste and will dispose of all solid waste at DEQ-permitted disposal sites or otherwise in a manner that will not adversely affect land quality. Goal 6 has been met.

Goal 7 – Areas Subject to Natural Disasters and Hazards

To protect life and property from natural disasters and hazards.

The specific hazards addressed by Goal 7 are:

- areas subject to stream flooding
- ocean flooding
- ground water
- erosion and deposition
- landslides
- earthquakes
- weak foundation soils
- other hazards

The proposed amendments do not alter any of the Goal 7 protections in Clatsop County's Comprehensive Plan or implementing ordinances. Proposed structures in the proposed terminal amendment area can comply with all applicable flood hazard reduction and mitigation requirements. Potential geologic hazards are addressed in *Bradwood Landing Terminal, Resource Report 6, Geologic Resources* (June 2006). The proposed amendments and the development that they allow do not require any amendments to the County's geologic hazard requirements.

Bradwood, like all land on the western edge of North America, is subject to earthquake hazards. Bradwood, however, is not identified in Clatsop County's Goal 7 element as requiring any special measures to mitigate possible earthquake damage. Design and construction measures intended to mitigate earthquake hazards are summarized in *Resource Report 6*.

Hazards associated with soils on the Bradwood landing site can be addressed during construction. The proposed amendments and the development they allow do not require any amendments or variances to Clatsop County's engineering and construction standards. Measures taken to address this issue are in *Bradwood Landing, Resource Report 7, Soils* (June 2006). Goal 7 has been met.

Goal 8 – Recreational Needs, and OAR 660-034

To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

OAR 660-034-000 is related to Goal 8 and addresses state and local park planning:

"OAR 660-034-000 Purpose

"(1) The purpose of this rule is to establish policies and procedures for the planning and zoning of state and local parks in order to address the recreational needs of the citizens of the state. This division is intended to interpret and carry out requirements of Statewide Planning Goal 8 and ORS 195.120 through 195.125.

"(2) In general, this division directs local government planning and zoning activities regarding state park master plans. OAR Chapter 736, Division 018, directs the Oregon Parks and Recreation Department (OPRD) with respect to state park master planning, and does not apply to local governments except where specified by this division."

Neither Bradwood generally nor the proposed amendment areas specifically are included in Clatsop County's inventory of park or recreation lands. Bradwood is also not inventoried as a potential destination resort site. Bradwood Landing does not propose to build a destination resort.

Neither dredging for the proposed turning basin nor the turning basin itself will substantially conflict with recreational boating. Recreational and commercial navigation have coexisted on the Columbia River for many years by following standard navigation rules and communication protocols. The proposed dredging area is also not in an area designated for the exclusive use of recreational watercraft. Bradwood Landing's proposed amendments do not change the County's Goal 8 inventory or affect in any way the County's ability to meet its Goal 8 obligations. Goal 8 has been met.

Goal 9 – Economy of the State, and OAR 660-009

To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

The purpose of the Goal 9 administrative rule, OAR 660-009, is:

"* * * to aid in achieving the requirements of Goal 9, Economy of the State (OAR 660-015-0000(9)), by implementing the requirements of ORS 197.712(2)(a) - (d). The rule responds to legislative direction to assure that comprehensive plans and land use regulations are updated to provide adequate opportunities for a variety of economic activities throughout the state (ORS 197.712(1)) and to assure that plans are based on available information about state and national economic trends."

Goal 9 is concerned with commercial and industrial land uses. The proposed amendments are needed to facilitate waterfront industrial development at an industrially zoned site. The proposals do not remove any lands from Clatsop County's inventory of buildable

commercial or industrial lands, nor do they diminish the level of service at any commercial or industrial site. Goal 9 has been met.

Goal 10 – Housing, and OAR 660-008

To provide for the housing needs of citizens of the state.

The purpose of the Goal 10 administrative rule, from OAR 660-008-0000(1), is stated as follows:

> "The purpose of this rule is to assure opportunity for the provision of adequate numbers of needed housing units, the efficient use of buildable land within urban growth boundaries, and to provide greater certainty in the development process so as to reduce housing costs. This rule is intended to define standards for compliance with Goal 10 'Housing' and to implement ORS 197.303 through 197.307."

The proposed amendments do not add to or subtract from the inventory of buildable land in Clatsop County that can be used to meet housing needs. The proposed amendments do not by themselves, or in combination with planned development at Bradwood Landing, increase the projected demand for housing beyond the existing inventory of buildable land in the County. Bradwood Landing will employ approximately 65 people full-time during Project operations. Construction will generate an average of about 330 positions for approximately three years. As discussed in *Bradwood Landing Terminal, Resource Report 5, Socioeconomics*, these increases in employment will not have a substantial effect on housing demand. Goal 10 has been met.

Goal 11 – Public Facilities and Services, and OAR 660-011

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The purpose of the Goal 11 administrative rule, OAR 660-011-000(1), is:

> "The purpose of this division is to aid in achieving the requirements of Goal 11, Public Facilities and Services, OAR 660-015-0000(11), interpret Goal 11 requirements regarding public facilities and services on rural lands, and implement ORS 197.712(2)(e), which requires that a city or county shall develop and adopt a public facility plan for areas within an urban growth boundary containing a population greater than 2,500 persons. The purpose of the plan is to help assure that urban development in such urban growth boundaries is guided and supported by types and levels of urban facilities and services appropriate for the needs and requirements of the urban areas to be serviced, and that those facilities and services are provided in a timely, orderly and efficient arrangement, as required by Goal 11. The division contains definitions relating to a public facility plan, procedures and standards for developing, adopting, and amending such a plan, the date for submittal of the plan to the Commission and standards for Department review of the plan."

Bradwood is a remote area with limited service availability. The Project will provide most of its own public services through dedicated systems that will not be available to other properties in the area or encourage inappropriate levels of development on those properties. The Project will bring electrical power to the site through a dedicated power line extension. Water will be obtained from wells, from the Columbia River, and from bottled water delivery services. Sewer service is not available in this area, nor is it appropriate for a rural use. Sewage will be disposed of on-site in a DEQ-approved subsurface sewage disposal system. Portable toilets will be used during construction. Solid waste will be removed from the site by a commercial collection service. The Project will provide its own security force and fire suppression systems, although it may to some extent rely on local law enforcement and fire protection agencies. Because no residential development is proposed as part of the Project, the Project's increase in employment should not have a substantial effect on the demand for schools and medical services. The proposed amendments do not undermine Clatsop County's continued compliance with Goal 11, or require amendments to the County's Goal 11 element or any of its Goal 11 implementation measures.

Goal 12 – Transportation

To provide and encourage a safe, convenient and economic transportation system.

Clatsop County's Comprehensive Plan contains a Goal 12 element. The County also adopted a transportation system plan (TSP) in 2003, but the TSP is not integrated into the Goal 12 element.

The proposed amendments have no direct impact on Clatsop County's street system; however, the Project as a whole uses Clifton Road (a county road) and U.S. Hwy. 30. The Project's effects on the road system are addressed in the July 2007 *Traffic Impact Analysis* prepared for the Project. The *Analysis* identifies road improvements that will ensure that the Project complies with Goal 12, the Transportation Planning Rule (TPR), and with Clatsop County's Goal 12 implementing measures. With the identified improvements, the proposed amendments are consistent with Goal 12 requirements and the TPR as they relate to streets and highways.

The Project relies on water transportation, and one of the proposed amendments is to allow dredging for a turning basin to accommodate LNG carriers that will serve the Project. The proposed turning basin is intended to link the existing Columbia River navigation channel with Bradwood Landing. The *Waterway Suitability Assessment (WAS)* demonstrates that the proposed turning basin can accommodate LNG carriers without disrupting other maritime commerce on the Columbia River. The proposed amendments, and the development that would follow, do not require amendment of the water transportation sections of Clatsop County's Goal 12 element and related documents. The proposed turning basin is consistent with Goal 12 and the TPR because it facilitates water transportation to an existing site zoned for water-dependent industrial development and because it does not interfere with other waterfront development sites or with water transportation on the Columbia River.

The Portland & Western Railroad passes through Bradwood, and a portion of the realigned railway will pass through the proposed terminal amendment area. Clatsop County's TSP mentions the rail line. The proposed realignment and the amendment that supports it are consistent with the TPR and Goal 12 because they maintain the capacity and functionality of (and in fact improve) this rail line. No amendment of the TSP is required to accommodate the proposed realignment.

Goal 13 – Energy Conservation

To conserve energy.

Statewide Planning Goal 12 also includes the following language:

Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

The Project does not require any amendment to the County's Goal 13 element, nor does it undermine compliance with Goal 13. The proposed terminal and turning basin amendments and zone changes do not conflict with the goal of conserving energy. The terminal will promote the efficient transportation of an efficient energy source, natural gas. In addition, the proposed railroad realignment, which is part of the Project and will pass through the amendment area, maintains the Portland & Western Railroad's access to destinations west of Bradwood Landing, although there are no rail customers west of Bradwood at this time. Railroads are also an energy-efficient mode for moving freight. The proposed turning basin amendment is consistent with Goal 13 because it is an essential component of the LNG terminal.

Goal 14 – Urbanization

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

Bradwood is not within or adjacent to an Urban Growth Boundary (UGB). The nearest UGBs are Astoria, about 20 miles to the west, and Clatskanie, about 13 miles to the southeast.

Neither the Project nor the proposed amendments will result in the extension of urban services into rural areas. Water will be obtained on-site, except for drinking water which will be delivered in bottles. Sanitary wastewater and other wastewater will be disposed of at the terminal via DEQ-approved subsurface disposal facilities or surface discharges to the Columbia River. Electricity will be provided via a new, 1.6-mile extension line to connect with an existing electric power transmission line, but the line will be dedicated to the terminal and will not serve other properties in the area.

Goal 15 – Willamette River Greenway

Statewide Planning Goal 15 does not apply because it applies only to the Willamette River Greenway.

Goal 16 – Estuarine Resources

> *To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and*
>
> *To protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.*

The proposed amendments are consistent with Clatsop County's adopted Goal 16 implementation measures. The proposed amendments are consistent with Goal 16 because they do not affect any Goal 16 resources other than those at the Project site and because unavoidable adverse effects on estuarine resources that may result from the proposed dredging and filling will be addressed through compensatory mitigation and other actions that applicant states will provide a net benefit to estuarine resources.

Goal 17 – Coastal Shorelands

> *To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and*
>
> *To reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.*

The proposed amendment areas are presently designated as Goal 16 resources. Goal 17 covers lands within 1,000 feet of estuaries. The subjects of the proposed amendments are estuary waters and wetlands, not the adjoining lands. A portion of one of the proposed amendment areas is within the area that should have been inventoried as a coastal shoreland; instead, however, it was mistakenly inventoried as an estuarine area. The proposed amendment corrects this mistake and places it in a coastal shoreland planning designation, namely, the MI zone. The proposed amendment increases slightly the area within coastal shorelands in Clatsop County, facilitates the protection of habitat of rarer value and facilitates efficient use of the site, consistent with Goal 17.

CRK argues that, "Unlike the Staff Report's narrow focus on the site-specific impacts of the LNG terminal, the Comprehensive Plan requires that County to (*sic*) consider the cumulative impacts of the LNG terminal on a wide range of values, including marine commerce and tourism."[199] In support of that argument, CRK cites Statewide Planning Goal 16 ("Estuarine Resources") and Policy P15 ("Cumulative Impacts") from the Goal 16/17 element of the County's Comprehensive Plan. To the extent a cumulative effect analysis is required, we incorporate that submitted by applicant into the record on November 17, 2007, and attached hereto as Attachment 6.

We also note that we do not share CRK's understanding of Goal 16 or Policy P15 on this point.

Goal 16 says:

> "Based upon inventories, the limits imposed by the overall Oregon Estuary Classification and needs identified in the planning process, comprehensive plans for coastal areas shall:
>
> ". . . .
>
> "5. Consider and describe in the plan the potential cumulative impacts of the alterations and development activities envisioned. Such a description may be general but shall be based on the best available information and projections."

This is a requirement is for local plans to contain a description of the likely cumulative impacts from certain activities. It is not a requirement for local governments to review each development application for cumulative effects.

Policy P15 is the County's response to that provision of Goal 16. The policy is a long description of cumulative impacts that may occur in the estuary from various "development activities." Its eleven pages contain no approval criteria to be used in reviewing individual applications for land use permits or approvals. They also contain no enforceable provisions or directives requiring the County to consider cumulative impacts when reviewing such applications. The first few sentences of Policy P15 make clear that it is not intended for use in the review of individual permit applications:

> "This Section addresses the potential combined effects of certain activities on the estuary. The primary reason for addressing cumulative impacts is that **they cannot be adequately considered during most permit reviews**, yet under certain conditions can become significant planning issues. The Columbia River Estuary Regional Management Plan recognizes that development activities

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[199] VandenHeuvel, Brett (for Columbia Riverkeeper) to Planning Commission, letter of July 19, 2007, "Re: Clatsop County's duty to consider the impacts of the Bradwood Landing zone changes on safety, maritime commerce and other values in the estuary."

generate cumulative impacts that **cannot be readily addressed on a permit-by-permit basis.**"[200] (Emphasis added.)

See related discussion about cumulative effects on air quality in Section 27.1.8 below.

Compliance with other Goal 16/17 policies is addressed elsewhere in these Findings. Through compliance with local policies implementing the statewide goals, compliance with the statewide goals is met. For the reasons which follow, we reject the argument of opponents that the use is not properly allowed because land is available for the use in Warrenton.

Estuary Wetlands, Coastal Shorelands and Water Bodies General Policies discuss Shoreland Development.

> "(1) Recognizing the contribution of shallow water area, fresh water marshes, and wetlands to the biological productivity of the Columbia River Estuary, the indiscriminate filling of such areas is discouraged. *It is also recognized that to develop areas adjacent to the river, some dredging and filling will be necessary. Therefore, potential water oriented sites that require the least amount of fill shall be preferred for development.*" (Emphasis added.)

The Project recognizes the contribution of shallow water area freshwater marshes and wetlands to the biological productivity of the estuary. Dredging of the turning basin will take the present average depth of about 35 feet to 43 feet in depth. "In other words, the action will deepen areas that are already classed as 'deep' habitats. Dredging will not affect the shallow water areas used by subyearling salmon, while the further deepening of deep water areas is unlikely to be discernable for yearling salmon using the upper water column." (Jones and Stokes letter of October 16, 2007)

The proposed site proposes less than 20 acres of fill. The Bradwood Subarea Plan states that uses of the area should not require more than 20 acres of fill.

> "(2) Fishing is a traditional industry and lifestyle of the Northeast County. The fishing industry shall be preserved and promoted:
>
> "a. through strict enforcement of the Forest Practices Act,
>
> "b. through encouragement of alternatives to water storage of logs,
>
> "c. through discouragement of oil tanker traffic on the Columbia River,
>
> "d. through the allowance of boat houses, net floats and associated fisheries-related facilities in appropriate waterways,
>
> "e. through production of fish by both hatchery and natural means, and

[200] Goal 16/17 Element of the Comprehensive Plan, page 12.

"f. *through close evaluation of industrial development and other activities to ensure compatibility and maintenance of water quality.*" (Emphasis added.)

In an earlier staff report, the concern was raised that the Project did not protect traditional fishing areas and habitat as required by other policies. This policy suggests that traditional fishing areas, like habitat, may be protected through steps taken to ensure compatibility of uses and maintenance of water quality. This compatibility is achieved here through avoidance and mitigation measures. Further, while the LNG Carrier (LNGC) is in transit in the navigation channel, its impact on fishers will be like the impact of any other deep draft vessel navigating the river. Traditional fishing areas such as Clifton Channel will remain open and accessible to fisherman, even when the LNGC is berthed.

"(3) Natural areas in the estuary that are necessary to maintain a healthy balance with development and to maintain the existing quality of life in this area should be given full protection to ensure their preservation."

The science, as reflected in the materials submitted, including the dEIS, show that as mitigated, this Project is consistent with the integrity of the estuary as a whole. It has been stated as to the navigation channel deepening project, the "project provides a positive balance of environmental benefits to the region and nation by avoiding environmental impacts where possible, mitigating for unavoidable impacts, and including ecosystem restoration measures that will leave the river better than it was before the project." www.channeldeepening.com. As conditioned, the ecosystem is protected here.

"(4) As provided by state and federal laws, dredged material from adjoining wetlands may be used for emergency dike maintenance when immediate action is required to prevent a hazard or loss of property.

"(5) Coastal shorelands in areas outside of urban or urbanizable areas shall only be used as appropriate for the following uses:

"***

"*e. Water-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the County that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas.*"

The October 2007 staff report states that this policy is not met because an urban site, the Oregon LNG/East Skipanon site in Warrenton, is an option.

The first issue is what is the need which cannot be accommodated on shoreland in urban and urbanizable use. The land already zoned MI has already been determined to be appropriate for the use and the County discusses in the plan its reasoning for determining that some industrial land should be located outside urban and urbanizable areas because they serve a development market not met by land within the UGB.

Clatsop County has identified in its Comprehensive Plan a need for viable industrial sites less than 100 acres in size and a need for some industrial sites outside the UGB.

"Economic activity or other non-farm activity which could be sited in rural areas, outside of urban or urbanizable areas, includes activities which:

"***-depend on a unique site specific resource which is located outside of planned urbanizable land***

"***-do not need or desire an urban level of services or facilities***

"-cannot budget the costs of unneeded urban services and maintain the comparative advantage necessary to market their product

"***-are compatible with the accepted farm or timber management practices of adjacent activities***

"-have necessary facilities already in place

"-existed prior to adoption of Comprehensive Plan or LCDC goals

"***-are not labor intensive and do not require a large number of employees to travel from urban areas over rural roads.***" Clatsop County Comp Plan Goal 9, page 21. (Emphasis added.)

The County Comprehensive Plan states in Goal 9 that the characteristics that make siting an industrial use outside the UGB appropriate include unique site specific resources located outside the urbanizable land. Bradwood is adjacent to a unique resource adjacent to naturally deep water in a relatively remote area.

The area to be dredged for the turning basin is outside the area juvenile salmonids frequent, and adverse impact on them is avoided. The need cannot be accommodated on identified urban or urbanizable land without increasing environmental impacts.

The most basic need here is to facilitate the environmentally sensitive use of an existing, identified marine industrial site. The need for the use of the AN zoned coastal shorelands is locationally dependent. This site cannot be made more suitable for development by adding or using land somewhere else.

LNG facilities are permitted by the Federal Energy Regulatory Commission (FERC). Congress has instructed FERC to work with local communities to encourage the siting of LNG facilities in remote areas. The need to promote consistency with this policy direction cannot be fully met within the UGB.

The need served by the Project is to provide an additional source of natural gas to the region but also to serve specific markets such as Wauna, the Mist Storage Field and the PGE Beaver Plant. It has not been established that these needs can be served in an economical

manner by the Oregon LNG project proposed in Warrenton and environmental impacts would increase with the additional pipeline length required.

Bradwood Landing has also noted that there may be a risk of contaminated dredge materials at Warrenton as has been the case with dredging at the Port of Astoria.

Another need that cannot be accommodated by water dependent development in the urban or urbanizable area is the need to provide funding for infrastructure facilities outside the urban or urbanizable area. Allowing this development facilitates the substantial improvement of a county road to meet the majority of the standards the County has stated apply to development of the site. The need to identify funding sources for improvement of a county road to compliance with the majority of county standards cannot be met by distant development in Warrenton. There is no nexus. Physical improvement of a section of the railroad will also occur at this location and would not occur based on development at Warrenton.

In its earlier staff report, staff concluded certain other policies were not met by the Project. Staff's analysis did not use the framework for interpretation set out in LWDUO § 1.035.

Definition of a word or phrase not listed in chapter 1 shall be defined from one of the following sources, which are consulted in the order listed:

1. Clatsop County Comprehensive Plan
2. Any other Clatsop County resolution, ordinance, code or regulation
3. Any Oregon statute or regulation (including the UBC and LCDC Goals and Guidelines)
4. Legal definition from case law or law dictionary

Clatsop County Policy 20.2

- Traditional fishing areas shall be protected when dredging, filling, pile driving or other potentially disruptive in-water activities occur.

Clatsop County Policy 20.8

- Endangered or threatened species habitat shall be protected from incompatible development.

Clatsop County Policy 20.5

- Dredging shall be allowed only:

  (a) If required for navigation or other water-dependent uses that require an estuarine location or if specifically allowed by the applicable management unit requirements;

(b) If a need (i.e., substantial pubic benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights;

(c) If no feasible alternative upland location exists; and

(d) If adverse impacts are minimized.

BRADWOOD LANDING RESPONSE TO STAFF CONCERNS

Staff Concern	Bradwood Landing Response
• Protects traditional fishing areas and species habitat: staff said it is a close question whether to mitigate is to protect. Staff looked at definition in a standard dictionary as "to keep from being damaged, attacked, stolen or injured; guard" and concluded that fish, fish habitat and commercial and sport fishing would suffer some damage and the criteria is not met.	• LCDC Goals and Guidelines define "protect" as "to save or shield from loss, destruction or injury or for future intended use." • Through avoidance and mitigation actions the Project saves from loss and preserves the opportunity for future intended use. With regard to the fishing areas specifically, as previously mentioned, they will remain open even when the LNGC is berthed. • This is consistent with the policy to preserve fishing through close evaluation of industrial development.
• Staff said "minimize" is to reduce to the smallest possible extent based on standard dictionary definition. It is unclear how this standard could ever be met.	• The definition of mitigation in the code contains a definition of minimize. Mitigation is defined as any action that, to some degree, softens the impact of development on wetlands and aquatic areas and include minimizing impacts "by limiting the degree or magnitude of an action and its implementation." This is achieved through the aggressive mitigation program.

We agree with Bradwood Landing and conclude as discussed here as well as in Attachment 6, the proposed amendments are consistent with Goals 16 and 17.

Conclusion

For the reasons stated above, we adopt the cumulative effects statement in Attachment 6 to the effect that Policy P15 and Goal 16's provisions regarding "cumulative effects" apply to this review in the manner asserted by CRK. We also conclude that, contrary to the arguments by

CRK, Policy P15 and Goal 16, properly interpreted, are not inconsistent with the proposal now before us. Goals 16 and 17 are met.

Goal 18 – Beaches and Dunes

> *To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas, and*
>
> *To reduce the hazard to human life and property from natural or man-induced actions associated with these areas.*

Bradwood is not in an inventoried beach and dune area. Goal 18 does not apply to the proposed amendments; the proposed amendments do not change Clatsop County's Goal 18 implementation measures.

Goal 19 – Ocean Resources

The proposed amendment is not subject to the Ocean Resources goal, nor does it require any changes to the Oregon Ocean Resources Management Plan.

27.7 Palomar Pipeline

During the Planning Commission hearings, several people expressed concern about recent news reports describing a natural gas pipeline that might extend from Bradwood to the south and east, to a hub on the west coast mainline at Molalla.[201] Known as the "Palomar Pipeline," the line is, at this point, something that is being considered for possible permitting and development by two energy companies, TransCanada Corp and NW Natural. No permit applications for the Palomar line have been filed, and the line is not part of the facilities being proposed by Bradwood Landing in its application to the County for land use permits and approvals. The Bradwood Landing application does include a proposal to develop a natural gas pipeline, but County approval of the Bradwood Landing application would not approve the Palomar line. Any proposal for the Palomar line would have to undergo a separate review and permitting process.

Regarding the Palomar line, CRK says, "It is critical that the [County] consider the significant impacts that would result from a massive new gas pipeline across the County before deciding on NorthernStar's permit and Comprehensive Plan change requests."[202] But CRK cites no authority for that conclusion, and we are unable to find any. We understand the Palomar line to be merely an idea that is being considered: it may or may not be proposed, approved, and

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[201] For example, the July 15, 2007, McMinnville News Register carried an AP article titled "Natural gas line proposed from Columbia River to Molalla."

[202] Foster, Brent (for Columbia Riverkeeper) to Planning Commission, letter of July 15, 2007, "RE: NorthernStar Natural Gas Liquefied Natural Gas project request," page 4.

built. We therefore disagree with CRK's argument that the County must consider the impacts of the Palomar line, if proposed and developed, in deciding on Bradwood Landing's application.

Conclusion

We conclude that impacts of the Palomar line are not properly considered as part of this Project application review.

27.8 Air Pollution and Greenhouse Gasses

Several commenters raised concerns about air pollution from the proposed LNG marine terminal. For example, in a July 21, 2007, email message to the County's Community Development Department, Carolyn Eady cites House Bill 3543 (enacted by Oregon's 2007 legislative assembly) and the California Coastal Commission's objection to the Billiton LNG terminal proposed in waters off the shore of southern California. We find nothing in House Bill 3543, however, that directs local governments to consider greenhouse gas emissions when making land use decisions. Likewise, we find nothing in the lengthy memo from the California Coastal Commission applicable to this review by an Oregon county.

The Comprehensive Plan addresses air pollution in its Goal 6 element, *Air, Water and Land Resources Quality*. That element deals with air pollution mainly by requiring the County to work with DEQ to monitor and protect air quality. Air pollution generally is regulated by state and federal agencies. The County reinforces their programs by withholding local development permits until an applicant has obtained all necessary state and federal permits. Thus, as recommended in the June 28 Staff Report, we impose the following condition of approval on the Bradwood proposal: *The Clatsop County Planning Department will issue development permits for the requested development only after the applicant submits to the department copies of all state and federal permits required for this development.*[203]

We believe the combination of state and federal regulation of air quality plus the County's requirement for all state and federal permits to be obtained before the County will issue development permits is sufficient to address concerns raised by commenters.

One policy in the County's Goal 6 element, however, does merit further attention here. Air, Water and Land Quality policy 3 says:

> "The cumulative effect of development on the County's environment should be monitored and where appropriate, regulated. When evaluating proposals that would affect the quality of the air, water or land in the County, consideration should be given to the impact on other resources important to the County's economy such as marine resource habitat and recreational and aesthetic resources important to the tourist industry."

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[203] June 28, 2007, staff report on the Bradwood Landing proposal, page 15.

The policy is noteworthy for two reasons. First, it appears to be discretionary, in that it speaks of actions that "should" be taken rather than using the mandatory verb forms "must" or "shall." Of the 12 policies listed in the Goal 6 element, only this one uses the discretionary verb "should."

Second, the policy offers little direction to decision makers. It says "when evaluating proposals that would affect the quality of the air, water or land in the County, consideration should be given to the impact on other resources important to the County's economy." The combination of the vague word "consideration" and the discretionary verb "should" leaves considerable doubt about (a) whether the policy is intended to be used as an approval criterion for quasi-judicial land use decisions such as this, and, if so, (b) how it is to be used. For example, a proposed use likely to have major adverse impacts on air, water, and land quality could be approved and be entirely consistent with the policy if decision makers had "considered" those impacts.

Bradwood Landing addresses the policy with these Findings:

> "Air and water emissions from the terminal will be regulated through permits issued by DEQ. These permits will ensure that emissions from the facility, when combined with emissions from other sources, do not cause or contribute to violations of ambient air and water quality standards. In addition, the Project will not generate hazardous waste, and it will dispose of all solid waste in an authorized offsite facility. Aesthetic impacts and mitigation measures are described in *Bradwood Landing Terminal, Resource Report 8, Land Use, Recreation, and Aesthetics*. Potential impacts on resource-based elements of the local economy are discussed in *Bradwood Landing Terminal, Resource Report 5, Socioeconomics*."[204]

We agree. This policy sets the bar low: the applicant satisfies the policy merely by demonstrating that the cumulative effects have been "considered" in various documents, and this approval is conditioned upon the two-tank scenario presumed to underlie the Resource Reports.

Conclusion

For the reasons stated above, we find that the application complies with Air, Water and Land Quality Policy 3.

27.9 Bald Eagle Habitat at Bradwood

Testimony from CRK and others declares that Bradwood is used by bald eagles for various activities and thus constitutes habitat that should be protected. For example, CRK says:

> "The Bradwood terminal site is utilized by bald eagles as roosting and foraging habitat. Bald Eagle Survey, Bradwood Oregon, *Cascades Avian Consulting*, July

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[204] *Terminal Narrative*, pages 119-120.

7, 2007. The terminal will adversely affect the eagle's current use of the Bradwood site. Further, the terminal's impact on bald eagles violates P20.8, which states, 'Measures should be taken to protect nesting, roosting, feeding, and resting areas used by resident and migratory bird populations.'"[205]

Bradwood Landing responds to such testimony with an August 2, 2007, memo from Bridget Canty and Dave Every of URS Corporation, "Bald eagle use of Bradwood Landing Terminal site."

The URS memo considers both the Biological Assessment and the Cascades Avian Consulting evidence and concludes, "While bald eagles occur near the Terminal and may use the adjacent Columbia River as a foraging site, there is no evidence that they presently have an active nest or roost near the Terminal."

We agree with that conclusion. We find no evidence in the record of a bald eagle nest on or near the terminal site, and no evidence that Bradwood is a significant nesting, roosting, feeding, or resting area. The eagles may, in CRK's words, occasionally "use the site," but such use does not mean that Bradwood is significant habitat, and it is not designated as such in the Comprehensive Plan.

We do not agree with CRK's conclusion that the Bradwood proposal "violates Policy P20.8." The policy is not an approval criterion for land use decisions. Rather, it is a discretionary statement that "measures should be taken" and measures have been taken, by the County and other agencies, to protect eagle habitat.

Conclusion

In conclusion, we find that the Bradwood proposal is consistent with statewide planning goals 1-17, including Goals 5, 6, 9, 11, 12, and 16 which were specifically challenged.

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[205] CRK to Planning Commission, memo of July 10, 2007, "Re: Bradwood Landing LLC's application for zone and plan amendments for Bradwood Landing LLC terminal," page 13.

28. Land Use Compatibility Statement

As part of its consolidated action, Bradwood Landing requested that the County instruct staff to sign land use compatibility statements for the project. Land use compatibility statements are forms prepared by state agencies which include a place for local governments to sign off, indicating whether the proposed action requiring a state permit or other authorization, is consistent with local land use provisions. If the local government has determined that local land use provisions are met, staff checks the affirmative box and attaches a copy of the underlying decision. Based upon the findings herein, we find the consolidated application to be consistent with the applicable Clatsop County land use provisions and instruct County staff to, upon receipt of LUCs forms from Bradwood Landing for the Project, indicate on the form that the "Project is compatible as set forth in the attached findings" and attach thereto a copy of this County decision and stating "This LUCs is completed in this manner at the direction of the Board of Commissioners in Ordinance 08-05 and Resolution and Order attached hereto as Attachment 9. No discretionary judgment has been exercised by staff in making this determination."

ATTACHMENTS

TABLE OF ATTACHMENTS

Attachment 1 – Documents Submitted to Clatsop County by Bradwood Landing LLC in Consolidated Application for Land Use Permits and Approvals

Attachment 2 – 5/29/07 Memorandum to Mitch Rohse from E. Andrew Jordan

Attachment 3 – Legal Description of Terminal Site

Attachment 4 – Zoning Map of Terminal Site

Attachment 5 – Pipeline Survey Map

Attachment 6 – Text of Comprehensive Plan Amendment (including Exhibit 1)

Attachment 7 – Table of Ordinances

Attachment 8 – Photo of Historical Use at Bradwood

Attachment 9 – Resolution and Order

Attachment 10 – Bradwood Landing Conditions of Approval Implementation Agreement

INDEX OF DOCUMENTS SUBMITTED TO CLATSOP COUNTY BY BRADWOOD LANDING LLC IN CONSOLIDATED APPLICATION FOR LAND USE PERMITS AND APPROVALS

Attachment 1

DOCUMENTS SUBMITTED TO CLATSOP COUNTY BY BRADWOOD LANDING LLC IN CONSOLIDATED APPLICATION FOR LAND USE PERMITS AND APPROVALS

Section I – Land Use Applications and Related Narratives

1) Bradwood Landing Narrative in Support of Application for Local Approval of the Bradwood Landing LNG Terminal and Associated Facilities (December 12, 2006)

2) Figure 12, updated May 2007

3) Supplemental Information provided in Response to the County's letter of January 11, 2007 (Submitted February 9, 2007)

4) Narrative in Support of Realignment of Railroad Track in F-80 Zone by Bradwood Landing (May 25, 2007)

5) Narrative in Support of Bradwood Landing Application for a Conditional Use Permit for Bus Station / Park and Ride in the General Commercial (GC) Zone, June 2007. Appendix 5 is the June 2007 Traffic Impact Report, updated traffic study submitted July 5, 2007

6) NorthernStar Energy Narrative in Support of Application for Local Approval of Natural Gas Pipeline, February 2007

7) Bradwood Landing Finding Relating to Flood Hazard Overlay District, February 12, 2007

8) Property Owner List for Pipeline and Associated Facilities / Workspaces and Electric Power Distribution Line

9) Conditional Use Permit Application: Soil Disposal/relocation area (February 9, 2007)

10) Development Permit: Pipeline (February 8, 2007)

11) Application for Conditional Use: Underground natural gas pipeline on certain F-80 zoned land (February 8, 2007)

12) Application for Review Use: Natural Gas Pipeline (February 8, 2007)

13) Comprehensive Plan / Zoning Text Amendment: Add to LWDUO a provision 3584(15) – cable, sewer line, waterline, or other pipeline

14) Development Permit Application: Request for Land Use Compatibility Certification for Bradwood Landing Terminal, Pipeline, and Associated Facilities in the County

15) Application for Goal Exception

16) Development Permit Application: Water dependent marine industrial use – Liquefied Natural Gas Terminal

17) Application for Agency Sign-Off / Determination of Compatibility – Development of a liquefied natural gas facility and associated water facilities and turning basin

18) Comprehensive Plan / Zoning Map Amendment: Rezone mill pond from AD to Ma to facilitate construction of LNG facility, rezone certain land zoned AN to AD, rezone AC-2 land AD

19) Application for Conditional Use Permit: LNG terminal and associated facilities

20) Lighting Plan for Bradwood Landing LNG Terminal (December 14, 2007)

21) Enhanced Impact Assessment and Resource Capability Determination, Volume I, Appendices 1-5, February 2007

22) Enhanced Impact Assessment and Resource Capability Determination, Volume II, Appendices 6-9, February 2007

23) Application for Conditional Use Permit: Park and Ride Facility for Construction Workers (June 4, 2007) (Traffic Study update dated July 5, 2007).

24) Application for Review Use: Bridge over Hunt Creek

25) Application for Conditional Use: Dredging in AC-2

26) Agency Sign-Offs: Oregon Department of Water Resources Applications for Permits to Use Ground Water, Receipt #20070109, and Surface Water, Receipt #20070110

27) Owners' Statements authorizing land use permit applications

Section II — Resource Reports Submitted by Bradwood Landing in Support of Consolidated Land Use Application

1) General Project Description

2) Water Quality

3) Fish, Wildlife & Vegetation

4) Cultural Resources

5) SocioEconomic

6) Geologic Resources

7) Soils

8) Land Use, Recreation & Aesthetics

9) Air & Noise Quality

10) Alternatives

11) Reliability & Safety

12) PCB Contamination

13) Engineering and Design Material

05/29/07 MEMORANDUM TO MITCH ROHSE FROM E. ANDREW JORDAN

Attachment 2

MEMORANDUM

TO: Mitch Rohse
FROM: E. Andrew Jordan
DATE: May 29, 2007
RE: Bradwood Landing LNG Terminal Decommissioning
File No. 44548-35140

QUESTION PRESENTED

1. In lieu of state or federal assurances that the Bradwood Landing LNG Terminal will be properly decommissioned at the end of its useful life, what authority does Clatsop County have to require a bond or cash deposit for the purposes of securing the proper decommissioning of the facility?

SHORT ANSWER

Clatsop County Land and Water Development and Use Ordinance Section 6.110 ("Section 6.110") provides Clatsop County with broad authority when issuing a development permit to require the applicant to provide Clatsop County with an acknowledgement of obligation that contains "a surety bond or cash or negotiable security deposit sufficient to cover the cost of the work as estimated by the County Engineer for the year fulfillment of the obligation is anticipated." That authority extends to "any development and use that the Community Development Director, Planning Commission or Board of Commissioners deem necessary." In the present case, the obligation to properly decommission the facility must be deemed necessary in order to trigger this authority.

ANALYSIS:

1. APPROVAL OF THE LAND USE APPLICATION FOR THE BRADWOOD LANDING LNG TERMINAL SHOULD BE CONDITIONED ON THE APPLICANT PROVIDING THE COUNTY WITH A SURETY BOND OR OTHER SUFFICIENT ASSURANCES THAT THE FACILITY WILL BE PROPERLY DECOMMISSIONED AT THE END OF ITS USEFUL LIFE.

Section 311 of the Energy Policy Act of 2005 ("EP Act of 2005"), which amended the Natural Gas Act ("NGA"), included a grant to FERC of "exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal." 15 U.S.C. § 717b(e)(1). Because Congress granted sole jurisdiction to FERC, the Oregon Energy Facilities Siting Council ("EFSC") has taken the position that it does not have jurisdiction to impose its decommissioning and retirement obligations on the applicant. Clatsop County, however, has retained jurisdiction over certain aspects of the project because the EP Act of 2005 conditioned the broad grant of authority to FERC by expressly stating that nothing in the NGA affects the rights of states under the Coastal Zone Management Act of 1972 (CZMA), the Clean Air Act (CAA), and the Federal Water Pollution Control Act (CWA).

These exceptions to FERC's jurisdiction, as well as arguments previously made by Clatsop County and the State regarding the requirement that the applicant obtain a Land Use Compatibility Statement ("LUCS") from Clatsop County, have resulted in the applicant submitting formal land use applications to the County. While the applicant may argue that

certain elements of local land use regulations do not apply, no argument has been made that Section 6.110 is not applicable. Rather, Section 6.110 could be argued to support the protections inherent in the LUCS process and the express requirement that the applicant adhere to the federally-approved state implementation of the CZMA, CAA, and CWA.

2. FERC JURISDICTION OVER ABANDONMENT OF NATURAL GAS SUPPLY FACILITIES.

FERC does retain jurisdiction over the abandonment of gas supply facilities. *See* 15 U.S.C. § 717f; 18 C.F.R. 157.216. However, nothing in the FERC statutes or regulations appears to contemplate the removal of a facility or the reclamation of land occupied by such a facility. Nor do the FERC statutes or regulations provide for any bond or other assurances that facility sites will be returned to their pre-development state. Rather, FERC appears to focus only on the availability of natural gas supply and whether the present or future public convenience or necessity permit the abandonment. In other words, FERC is concerned with natural gas supply and meeting the energy needs of those serviced by a given facility. In order to properly assess these criteria, FERC requires that a certificate holder seek FERC permission and approval in order to abandon a facility.

3. LACK OF GUIDANCE FOR ABANDONMENT OF FACILITIES AND SUGGESTED COURSE OF ACTION.

The lack of state and federal authority over assuring the proper decommissioning of the Bradwood Landing LNG Terminal dictates that the County should take the position that Section 6.110 applies to the applicant's land use applications and condition their approval accordingly. In the absence of the EP Act of 2005, EFSC would have presumably required such assurances from the applicant. In lieu of action by EFSC, Clatsop County should use the methodology employed by EFSC for determining the amount of the bond or letter of credit required to assure that the site is returned to a "useful and non-hazardous condition," the standard used by EFSC. *See* OAR 345-22-0050 and OAR 345-27-0020.

If the applicant is successful in arguing that Code Section 6.110 does not apply, Clatsop County can move FERC to incorporate such assurances into any order issued granting the applicant's certificate. However, because FERC traditionally relies on state facility siting entities to address such issues, it might decline to condition its order in such a manner. As with the land use process, this situation once again illustrates the jurisdictional problems associated with LNG development under the EP Act of 2005.

cc: Scott Derickson
Ed Wegner

LEGAL DESCRIPTION OF TERMINAL SITE

(NOTE: Diagram on page 3 shows approximately a third of the Bradwood Property and is the Bradwood LNG Terminal Site and surrounding wetlands.)

Legal Description of the Property

That certain real property in the County of Clatsop and State of Oregon more particularly described as follows:

Parcel I: Beginning at a 5/8 inch x 36 inch rebar that bears South 55°05'20" East 2,883.89 feet from the South witness corner to the Section Corner common to Sections 4, 5, 8 and 9, Township 8 North, Range 6 West, Willamette Meridian, said witness corner being monumented with an Oregon State Board of Forestry brass cap, and recorded on Clatsop County Survey No. B-6592; thence South 53°West 75.00 feet; thence North 50°08'30" West 31.86 feet to a 5/8 inch x 36 inch rebar; thence North 81°21' West 101.38 feet to a 5/8 inch x 36 inch rebar; thence North 87°37' West 32.00 feet; thence North 68°29' West 62.21 feet to a 5/8 inch x 36 inch rebar; thence North 65°51' West 48.87 feet; thence North 46°09' West 50.90 feet to a 5/8 inch x 36 inch rebar; thence North 30°04' West 34.00 feet; thence North 56°35'40" West 42.46 feet to a 5/8 inch x 36 inch rebar; thence North 56°53'30" West 107.77 feet to a 5/8 inch x 36 inch rebar; thence North 76°11'50" West 127.16 feet to a 5/8 inch x 36 inch rebar; thence North 41°48'15" West 86.02 feet to a 5/8 inch x 36 inch rebar; thence North 24°23' West 55.50 feet; thence North 08°07'40" West 51.85 feet to a 5/8 inch x 36 inch rebar; thence North 20°54' West 29.00 feet; thence North 68°11' West 42.30 feet; thence South 87°42' West 42.00 feet; thence North 63°45' West 60.46 feet to a 5/8 inch x 36 inch rebar; thence North 77°07' West 59.70 feet; thence South 72°14'30" West 23.6 feet to a 5/8 inch x 36 inch rebar; thence South 70°30' West 60.00 feet; thence South 83°29' West 30.72 feet to a 5/8 inch x 36 inch rebar; thence South 83°29' West 33.26 feet to a 5/8 inch x 36 inch rebar; thence South 24°52' West 28.21 feet; thence South 05°05' East 56.32 feet to 5/8 inch x 36 inch rebar; thence South 16°06' West 32.00 feet; thence South 30°18'25" West 60.11 feet to 5/8 inch x 36 inch rebar; thence South 71°26' West 54.00 feet; thence North 77°25'30" West 47.21 feet; thence South 86°19'44" West 113.12 feet to a 5/8 inch x 36 inch rebar; thence South 68°20' West 57.00 feet; thence South 76°29'30" West 42.98 feet to a 5/8 inch x 36 inch rebar; thence South 16°40' West 54.00 feet; thence South 30°20'40" West 28.50 feet to a 5/8 inch x 36 inch rebar; thence South 45°41' West 36.00 feet; thence South 22°23'40" West 93.00 feet; thence South 56°21'10" West 59.75 feet to a 5/8 inch x 36 inch rebar; thence South 74°02' West 83.1 feet to a 5/8 inch x 36 inch rebar; thence South 04°07' West 39.60 feet; thence South 86°48' West 9.00 feet; thence North 66°31' West 97.50 feet to a 5/8 inch x 36 inch rebar; thence South 88°56' West 72.05 feet to a 5/8 inch x 36 inch rebar in the apparent center line of that road known as County Road No. 199; thence along said center line as follows: Northwesterly along the arc of a nontangent curve to the left, having a radius of 600 feet and a long chord that bears North 30°02'45" West 441.83 feet, for an arc distance of 452.48 feet; thence North 51°39' West 136.00 feet; thence along the arc of a 950 foot radius curve right 395.54 feet to a 5/8 inch x 36 inch rebar on the section line common to Section 8 and 9, Township 8 North, Range 6 West, Willamette Meridian; thence North 00°10'23" West along said Section line 870.88 feet to the heretofore described South Witness corner to the Section

Corner common to Sections 4, 5, 8 and 9; thence North 00°02' West 41.58 feet to said Section corner; thence South 87°41'49" West along the South boundary of Section 5 for a distance of 379.90 feet to a 5/8 inch x 36 inch rebar in the apparent center line of said County Road 199; thence along said center line as follows: North 32°06' West 18.86 feet; thence Northwesterly along the arc of a 950 foot radius curve right 435.52 feet to a point of reverse curve; thence along the arc of a 1,650 foot radius curve left 424.77 feet; thence North 21°05' West 130.00 feet; thence along the arc of a 580 foot radius curve left 102.58 feet; thence North 31°13' West 119.12 feet; thence North 26°26' West 463.06 feet; thence along the arc of a 240 foot radius curve right 82.31 feet to a point of reverse curve; thence along the arc of a 500 foot radius curve left 187.48 feet to a 5/8 inch x 36 inch rebar; thence North 29°19' West 750.50 feet to a 5/8 inch x 36 inch rebar; thence along the arc of a 145 foot radius curve left 269.31 feet; thence South 44°16' West 130.00 feet; thence along the arc of a 700 foot radius curve right 149.87 feet; thence along the arc of a 130 foot radius curve right 275.60 feet to a point of reverse curve; thence along the arc of a 600 foot radius curve left 253.42 feet; thence North 26°12' West 144.00 feet; thence along the arc of a 300 foot radius curve left 32.50 feet to a 5/8 inch x 36 inch rebar located on the Southerly projection of the West boundary of that tract of land described in Book 295, Page 331, Deed Records, Clatsop County, Oregon; thence North 00°48'10" East (deed bearing is North) 336.31 feet to a 5/8 inch x 36 inch rebar on the North right of way line of the S.P.& S. Railroad Company; thence North 28°39'10" East 130 feet, more or less, (deed call is North 27°52' East 300 feet, more or less) to the ordinary Low Water line on the left bank of the Columbia River; thence Southeasterly along said water line to a point that bears North 53° East from the point of beginning; thence South 53° West 240 feet, more or less, to the point of beginning.

Parcel II: All that portion of Government Lots 3, 4, 5 and 6 of Section 5, Township 8 North, Range 6 West, Willamette Meridian lying South and West of Clifton Road 199.

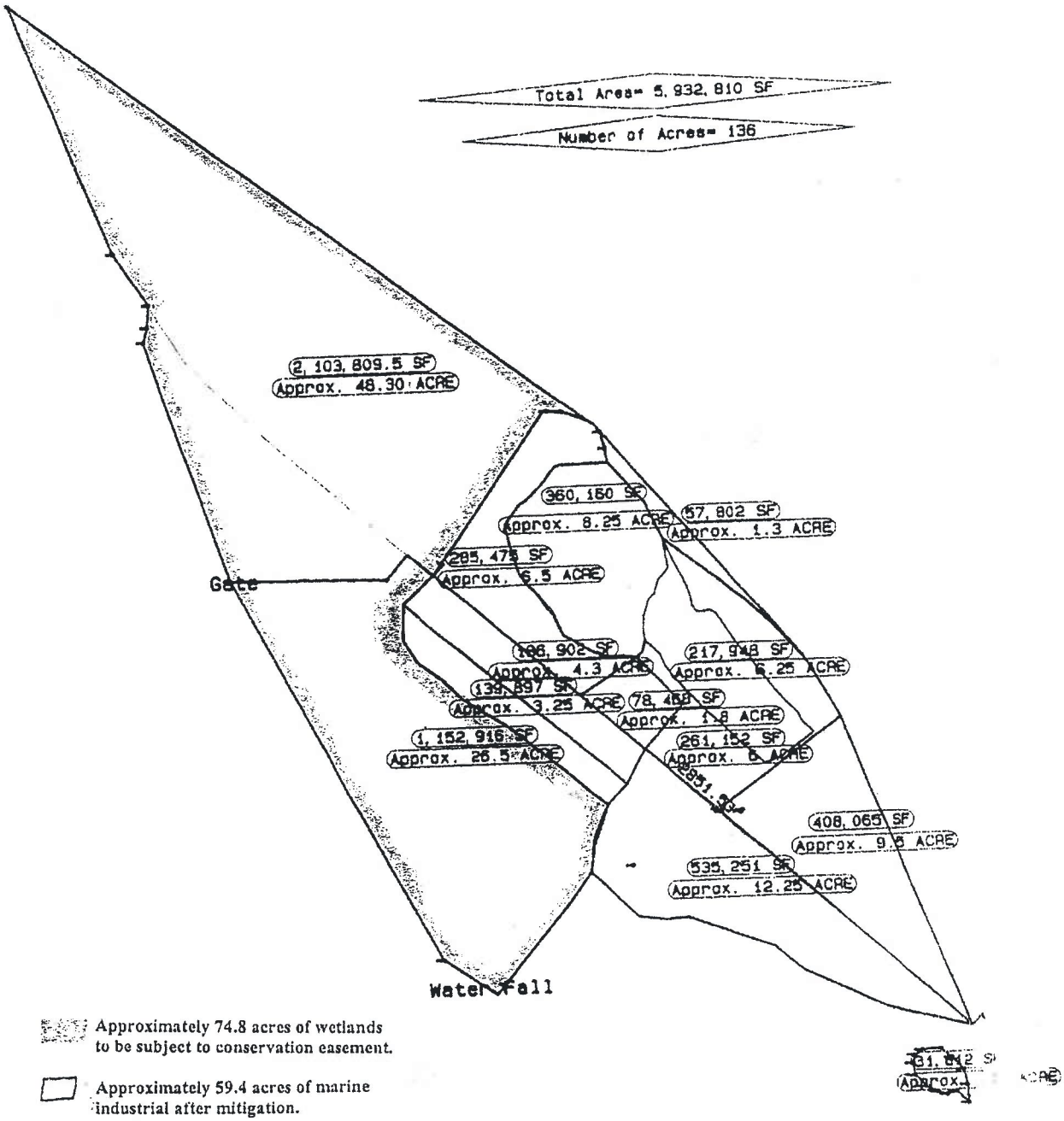
Parcel III: The East half of the East half of the Northeast quarter of the Southeast quarter of Section 8, Township 8 North, Range 6 West, Willamette Meridian and Government Lots 1 and 2 and the Southwest quarter of the Northwest quarter and the West half of the Southwest quarter of Section 9, Township 8 North, Range 6 West, Willamette Meridian, in the County of Clatsop, State of Oregon. EXCEPTING THEREFROM the following described tract:

Beginning at a 5/8 inch by 36 inch rebar that bears South 55°05'20" East 2,883.89 feet from the South witness corner common to Sections 4, 5, 8 and 9, Township 8 North, Range 6 West, Willamette Meridian, said witness corner being monumented with an Oregon State Board of Forestry brass cap and recorded on Clatsop County Survey No. B-6592; thence South 53° West 75.00 feet; thence North 50°08'30" West 31.86 feet to a 5/8 inch by 36 inch rebar; thence North 81°21' West 101.38 feet to a 5/8 inch by 36 inch rebar; thence North 87°37' West 32.00 feet; thence North 68°29' West 62.21 feet to a 5/8 inch by 36 inch rebar; thence North 65°51' West 48.87 feet; thence North 46°09' West 50.90 feet to a 5/8 inch by 36 inch rebar; thence North 30°04' West 34.00 feet; thence North 56°35'40" West 42.46 feet to a 5/8 inch by 36 inch rebar; thence North 56°53'30" West 107.77 feet to a 5/8 inch by 36 inch rebar; thence North 76°11'50" West 127.16 feet to a 5/8 inch by 36 inch rebar; thence North 41°48'15" West 86.02 feet to a 5/8 inch by 36 inch rebar; thence North 24°23' West 55.50 feet; thence North 08°07'40" West 51.85 feet to a 5/8 inch x 36 inch rebar; thence North 20°54' West 29.00 feet; thence North 68°11' West 42.30 feet; thence South 87°42' West 42.00 feet; thence North 63°45' West 60.46 feet to a 5/8 inch by 36 inch rebar; thence North 77°07' West 59.70 feet; thence South 72°14'30" West

23.6 feet to a 5/8 inch by 36 inch rebar; thence South 70°30' West 60.00 feet; thence South 83°29' West 30.72 feet to a 5/8 inch by 36 inch rebar; thence South 83°29' West 33.26 feet to a 5/8 inch by 36 inch rebar; thence South 24°52' West 28.21 feet; thence South 05°05' East 56.32 feet to a 5/8 inch by 36 inch rebar; thence South 16°06' West 32.00 feet; thence South 30°18'25" West 60.11 feet to a 5/8 inch by 36 inch rebar; thence South 71°26' West 54.00 feet; thence North 77°25'30" West 47.21 feet; thence South 86°19'44" West 113.12 feet to a 5/8 inch by 36 inch rebar; thence South 68°20' West 57.00 feet; thence South 76°29'30" West 42.98 feet to a 5/8 inch by 36 inch rebar; thence South 16°40' West 54.00 feet; thence South 30°20'40" West 28.50 feet to a 5/8 inch by 36 inch rebar; thence South 45°41' West 36.00 feet; thence South 22°23'40" West 93.00 feet; thence South 56°21'10" West 59.75 feet to a 5/8 inch by 36 inch rebar; thence South 74°02' West 83.10 feet to a 5/8 inch x 36 inch rebar; thence South 04°07' West 39.60 feet; thence South 86°48' West 9.00 feet; thence North 66°31' West 97.50 feet to a 5/8 inch by 36 inch rebar; thence South 88°56' West 72.05 feet to a 5/8 inch by 36 inch rebar in the apparent center line of that road known as County Road No. 199; thence along said center line as follows: Northwesterly along the arc of a nontangent curve to the left having a radius of 600 feet and a long chord that bears North 30°02'45" West 441.83 feet for an arc distance of 452.48 feet; thence North 51°39' West 136.00 feet; thence along the arc of a 950 foot radius curve right 395.54 feet to a 5/8 inch by 36 inch rebar on the section line common to Sections 8 and 9, Township 8 North, Range 6 West, Willamette Meridian; thence North 00°10'23" West along said section line 870.88 feet to the heretofore described South witness corner to the section corner common to Sections 4, 5, 8 and 9; thence East along the North line of said Section 9, a distance of 1800 feet more or less to the ordinary low water line on the left bank of the Columbia River; thence Southeasterly along said water line to a point that bears North 58° East from the point of beginning; thence South 53° West 240 feet more or less to the point of beginning.

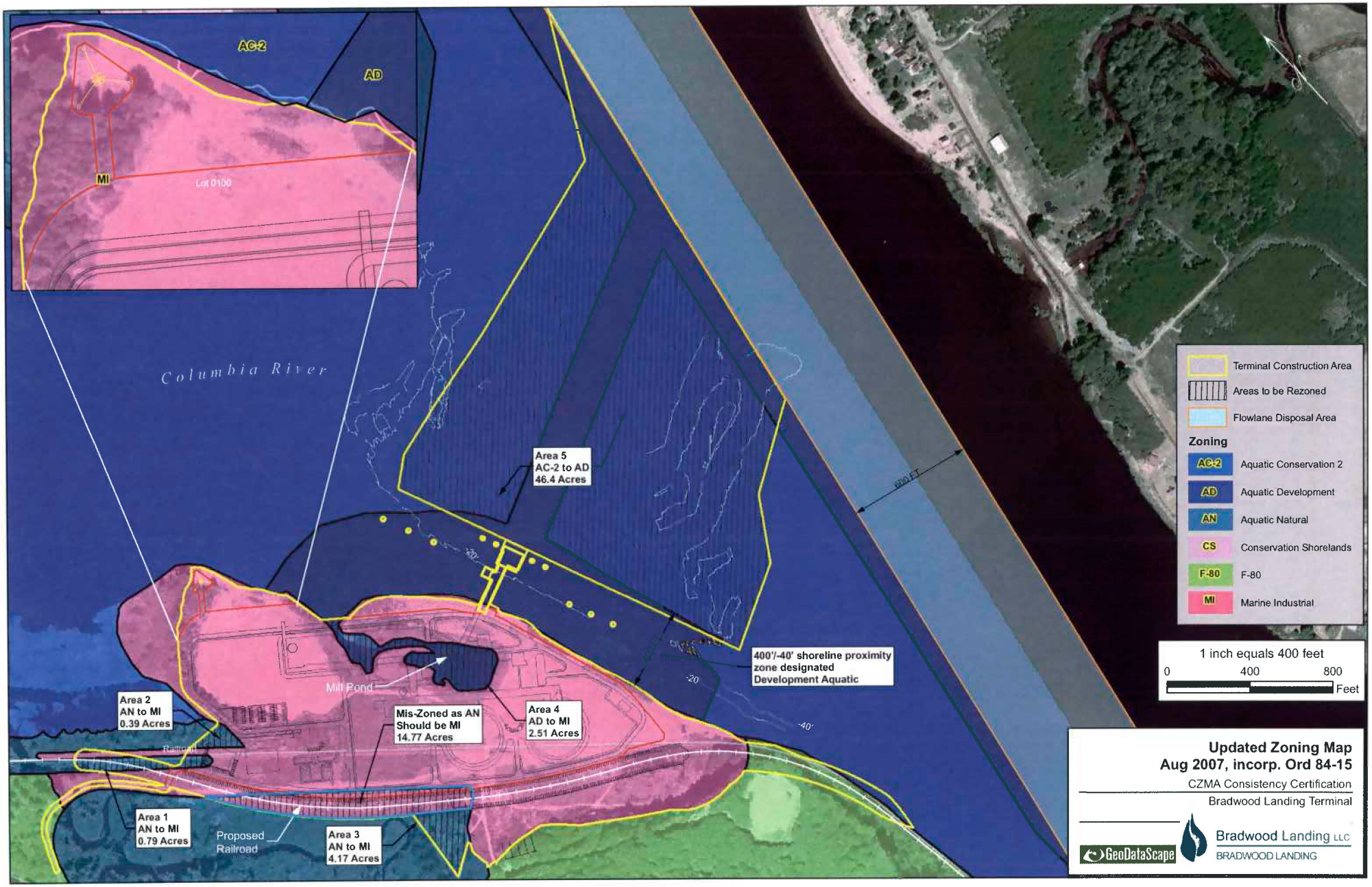
Parcel IV. Government Lot 3, Section 9, Township 8 North, Range 6 West, Willamette Meridian, Clatsop County, Oregon. EXCEPTING THEREFROM that portion of Government Lot 3 as contained in Parcel No. 1 above.

Diagram of Bradwood Property



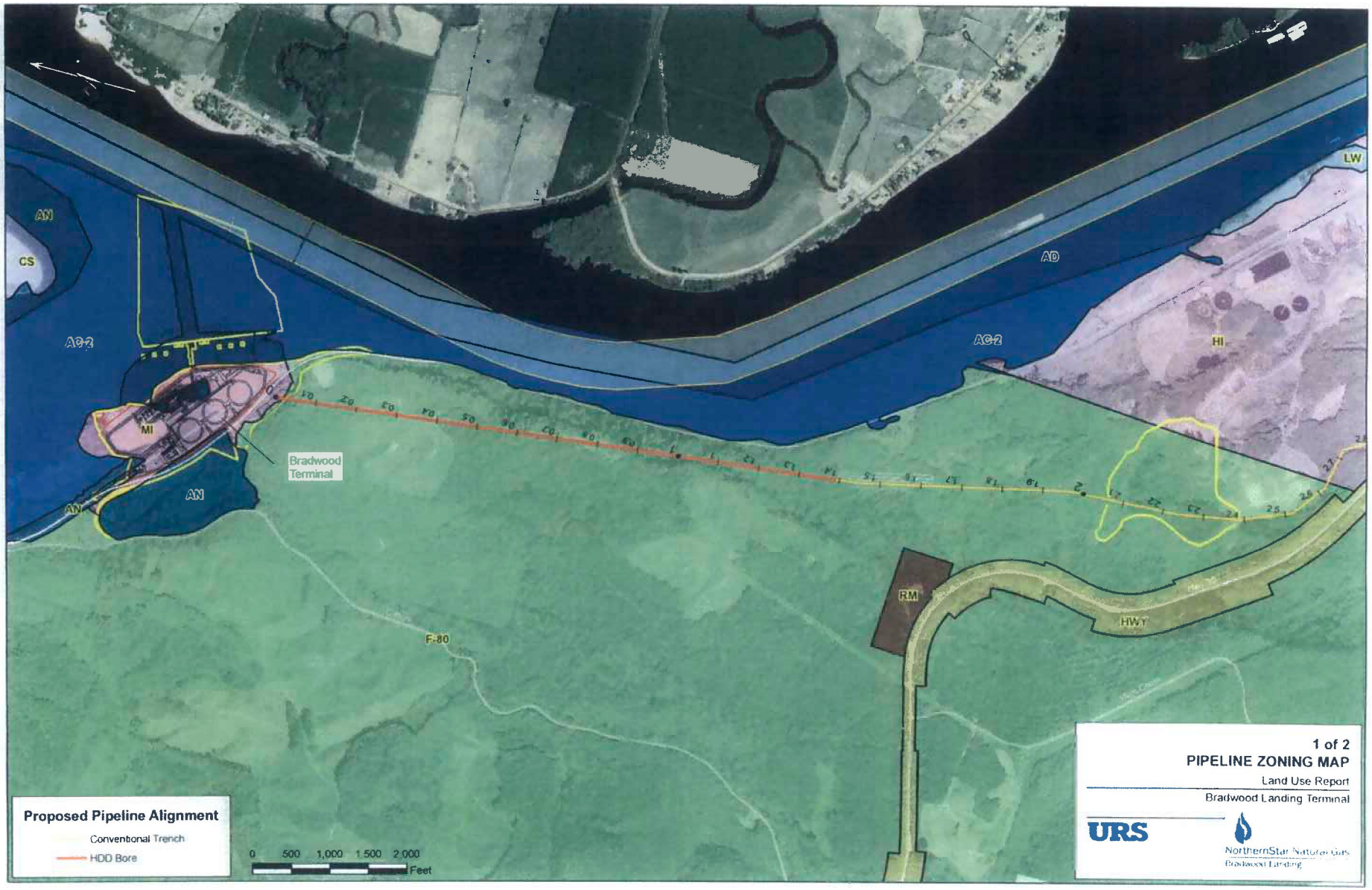
Attachment 4

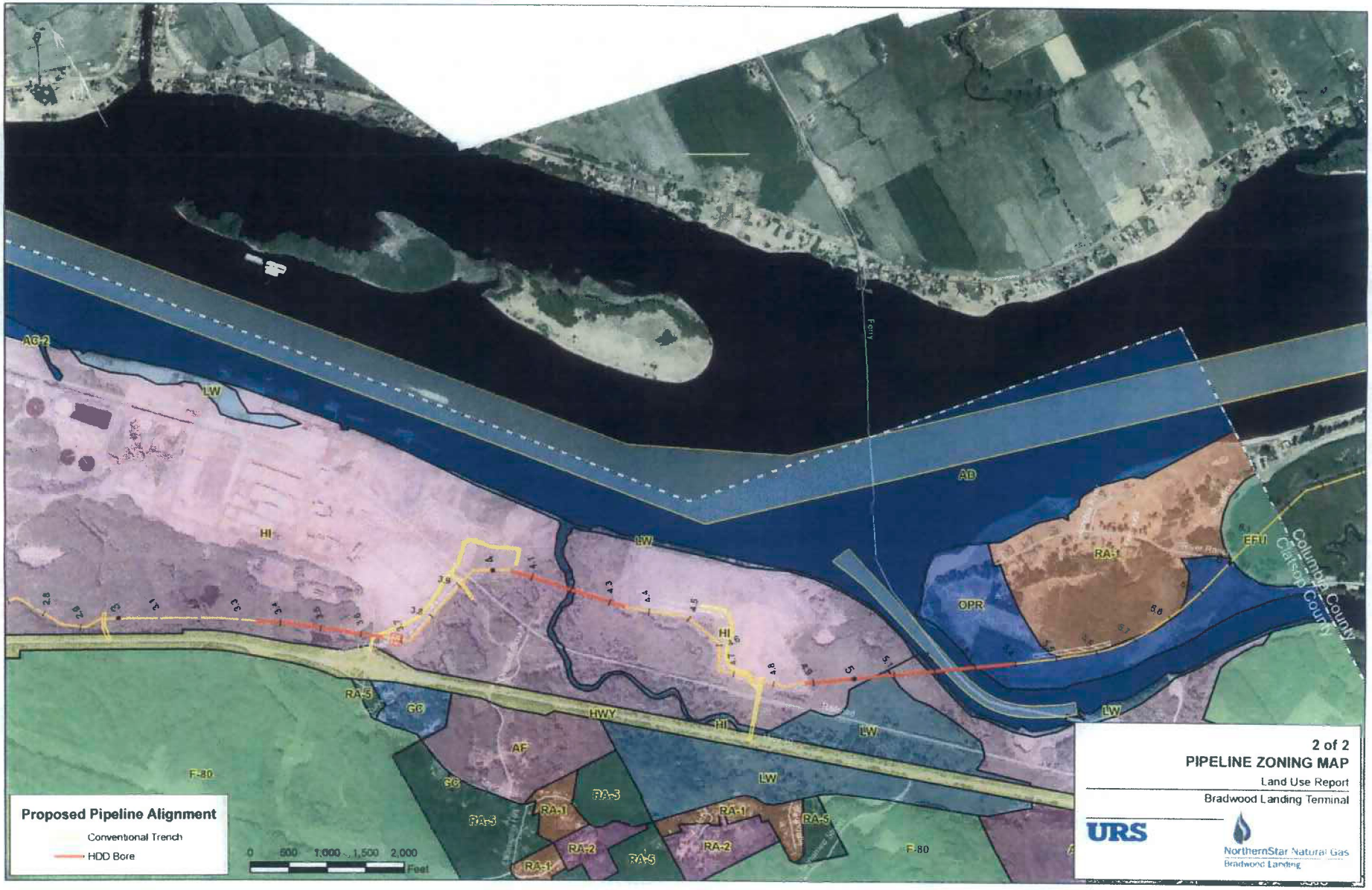
ZONING MAP OF TERMINAL SITE


AC-2
AD
MI
Lot 0100
Columbia River
Area 5
AC-2 to AD
46.4 Acres
400'/-40' shoreline proximity zone designated Development Aquatic
Mill Pond
Area 2
AN to MI
0.39 Acres
Mis-Zoned as AN
Should be MI
14.77 Acres
Area 4
AD to MI
2.51 Acres
Area 1
AN to MI
0.79 Acres
Proposed Railroad
Area 3
AN to MI
4.17 Acres
Terminal Construction Area
Areas to be Rezoned
Flowlane Disposal Area
Zoning
AC-2 Aquatic Conservation 2
AD Aquatic Development
AN Aquatic Natural
CS Conservation Shorelands
F-80 F-80
MI Marine Industrial
1 inch equals 400 feet
0 400 800
Feet
Updated Zoning Map
Aug 2007, incorp. Ord 84-15
CZMA Consistency Certification
Bradwood Landing Terminal
GeoDataScape
Bradwood Landing LLC
BRADWOOD LANDING

Attachment 5

PIPELINE SURVEY MAP


AN
CS
AG-2
AD
AG-2
LW
HI
MI
AN
AN
Bradwood Terminal
RM
HWY
F-80
Proposed Pipeline Alignment
Conventional Trench
HDD Bore
0 500 1,000 1,500 2,000
Feet
1 of 2
PIPELINE ZONING MAP
Land Use Report
Bradwood Landing Terminal
URS
NorthernStar Natural Gas
Bradwood Landing


AG-2
LW
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EFU
OPR
RA-5
GG
HWY
AF
F-80
RA-3
RA-2
Columbia County
Clatsop County
Proposed Pipeline Alignment
Conventional Trench
HDD Bore
0 500 1,000 1,500 2,000
Feet
2 of 2
PIPELINE ZONING MAP
Land Use Report
Bradwood Landing Terminal
URS
NorthernStar Natural Gas
Bradwood Landing

TEXT OF COMPREHENSIVE PLAN AMENDMENT
(including Exhibit 1)

Comprehensive Plan Amendment to Designate Certain Areas At And Adjacent To Bradwood Development

This amendment designates 46.4 additional acres in the Columbia River adjacent to Bradwood and shown on the map attached as Exhibit 1 Aquatic Development (AD) in order to facilitate the development of a turning basin at this location. The amendment also provides for the reconfiguration of the Marine Industrial (MI) site at Bradwood to include 5.35 acres currently zoned Aquatic Natural (AN). After discussions with County staff, an applicant, Bradwood Landing, a wholly owned subsidiary of NorthernStar Natural Gas, requested a comprehensive plan amendment to authorize these designations. The County has approved these changes in designations and in this plan amendment and the remainder of Ordinance 08-05 finds that the changes are consistent with the Statewide Planning Goals.

Goal 16 is:

> *To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and*
>
> *To protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.*

An exception to Goal 16 is not required because the water dependent industrial use of the Bradwood site is appropriate given its unique characteristics, including

- **Location at River Mile 39**
- **Within 1,000 Feet of the Columbia River channel**
- **Self scouring water depths of 30 to 40 feet close to shore**
- **Direct rail access**
- **Approx. 50 acres of backup lands**
- **Single Ownership**
- **Dredged Material Disposal and Mitigation Areas on Site**
- **Relatively Isolated Location**
- **Existing Dock Structure**
- **Rock Source On Site for Development Needs that Also Has Commercial Development**

and the amendments will not adversely affect the estuarine ecosystem. The dredging of the turning basin, as well as the changing of the MI site configuration, will, as discussed below, support the efficient and appropriate use of the existing upland MI site.

Bradwood has historically been used for industrial and industrial support facilities. In 1843, the first commercial saw mill in what would later become Oregon was established at Bradwood at the base of Hunt Creek Falls. The site was considered ideal because most commerce was by water and Bradwood boasted a natural deep water port. Rail service to the site was serving the area and transporting product by 1898. In 1930, Fred Bradley and Walter Woodard built their new mill and support town on the site, building up the land by contracting

with the Army Corps of Engineers to dredge the Columbia River and place the dredge material on the site. The Bradley and Woodward company, named Bradwood, rebuilt and extended the railroad in the area and brought it up to Hunt Creek and into the mill site. Supporting uses such as a post office, meeting hall, cafeteria and worker housing were also constructed during the mill operations, including in areas currently zoned AN. In 1983 the County recognized the nature of the site as irrevocably committed to water dependent industrial use and zoned much of the site formerly occupied by the mill use Marine Industrial. In 1990, the County recognized the need for Aquatic Development zoning at the site and designated an AD band along the shore and a 200 foot wide AD access channel between the site and the Columbia River navigation channel. The County also noted the appropriateness of filling the mill pond and rezoning the mill pond to MI to create a cohesive industrial site. The County has now determined that, continuing to recognize the commitment of the area to water dependent industrial use and the need to minimize physical disruptions to a cohesive industrial site, additional changes to the zoning and plan are appropriate.

The area to be rezoned to AD is authorized to allow development of a turning basin capable of accommodating modern ships. The 1975 Lower Columbia River Ports Study conducted by Oregon Department of Transportation recognized Bradwood as a valuable deep water port location. The Columbia River access via the navigation channel is being deepened by the channel deepening project to accommodate ships of the size that will serve Bradwood. The depth of the river in this area, like the channel, requires some dredging to support access by the new generation of deep-draft vessels. The Columbia River navigation channel was deepened by the federal government because:

> "The lower Columbia River navigation channel has been dredged to insure the safe passage of cargo ships for more than 100 years. The existing channel, however, [was] not deep enough to handle the new generation of larger, deep-draft vessels when they are fully loaded. ***As these larger ships enter the trade in greater numbers, the channel depth limitation threatens the region's ability to gain efficient access to world markets."
> http://www.channeldeepening.com/channel_projoverview.asp

Further, efficient development of the site requires reconfiguration of the MI site to allow the construction of some support facilities and realignment of the railroad into an area currently zoned AN. This reconfiguration of the site allows the avoidance of approximately three acres of wetland of the most rare habitat type to the north of the site and recognizes the areas were previously used as backup or support land for the mill use. The rezoning also facilitates a compact development layout.

Goal 16 calls for maintenance of important and unique environmental, economic and social features within the estuary. To the extent Goal 16 requires a consideration and description of cumulative impacts on the estuary of the alterations and development activities, the County considers and describes them below.

Clatsop County's land use ordinance sets forth in LWDUO Section 5.800 "an assessment process for development alterations which could potentially alter the estuarine ecosystem." LWDUO 5.810.

> **"Section 5.830. Information to be Provided in the Impact Assessment.**
>
> "Information needed to complete the Impact Assessment should be obtained from sources other than the permit application (i.e., environmental impact statements, Columbia River Estuary Data Development Program data, other reports or data applicable to the Columbia River Estuary). An assessment of impacts of aquatic area pesticide and herbicide application may be provided by the Oregon Department of Agriculture and the Oregon Department of Environmental Quality. An assessment of the impacts of new point-source waste water discharges into the Columbia River Estuary may be provided through the National Pollution Discharge Elimination System (NPDES) permit program.
>
> "A complete Impact Assessment includes the following information:
>
> "(1) Aquatic life forms and habitat, including information on both the extent of and impacts on: habitat type and use, species present (including threatened or endangered species), seasonal abundance, sediments, and vegetation.
>
> "(2) Shoreland life forms and habitat, including information on both the extent of and impacts on: habitat type and use, species present (including threatened or endangered species), seasonal abundance, soil types and characteristics, and vegetation present.
>
> "(3) Water quality, including information on: sedimentation and turbidity, dissolved oxygen, biochemical oxygen demand, contaminated sediments, salinity, water temperatures, and expected changes due to the proposed use or activity.
>
> "(4) Hydraulic characteristics, including information on: water circulation, shoaling patterns, potential for erosion or accretion in adjacent areas, changes in flood levels, flushing capacity, and water flow rates.
>
> "(5) Air quality, including information on quantities of particulates and expected airborne pollutants.
>
> "(6) Public access to the estuary and shoreline, including information on: proximity to publicly-owned shorelands and

public street ends; effect of public boat launches, marinas and docks; and impact on inventoried public access opportunities.

"(7) Navigation, including information on: distance from navigation channels, turning basins and anchorages; proximity to range markers.

"(8) Demonstration that proposed structures or devices are properly engineered.

"(9) Demonstration that the project's potential public benefits will equal or exceed expected adverse impacts.

"(10) Demonstration that non-water dependent uses will not preempt existing of future water-dependent utilization of the area.

"(11) Determination of methods for mitigation and accommodation of the proposed development, based on items (1) through (10) above, in order to avoid or minimize preventable adverse impacts."

The County finds in Ordinance 08-05 that "the proposed uses and activities represent a potential degradation or reduction of estuarine resources. The Impact Assessment identifies regional alterations or conditions that will eliminate or minimize to an acceptable level expected adverse impacts." LWDUO 5.840(2).

The Board concludes that the plan amendment is consistent with maintaining the diversity of important features within the estuary and that important environmental, economic and social features of the estuary will be maintained.

No dredging may occur without numerous environmental impact avoidance, minimization and mitigation requirements under federal, state and local permitting processes. Projects within the estuary must undergo extensive environmental review. The Bradwood Landing project is undergoing rigorous and multiple environmental reviews by regulatory staff. This review began with repeated consultation and iterative data collection and design revisions over nearly two years to discuss the Bradwood Landing proposal and solicit input at all levels of government including but not limited to the following state, federal and local agencies:

- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers
- Oregon Dept. of Fish and Wildlife
- Washington Dept. of Fish and Wildlife
- Oregon Dept. of State Lands
- Oregon Dept. of Environmental Quality
- Washington Dept. of Ecology
- Washington Department of Natural Resources
- Washington Department of Transportation

- Washington State Historic Preservation Office
- Oregon State Historic Preservation Office
- Tribes and representative organizations
- Clatsop County
- Cowlitz County
- Columbia County

LWDUO 5.830 notes that information considered when completing the impact assessment "should be obtained from sources other than the permit applicant (i.e., environmental impact assessments, Columbia River Estuary Data Development Program data, other reports or data applicable to the Columbia River Estuary)." The record in the application includes the draft Environmental Impact Statement. The dEIS at pg. 450-453 notes that:

> "The Columbia River is currently considered marginally healthy by the COE, and is water quality limited for temperature, mercury, and arsenic. These water quality conditions reflect both historic and modem activities within and along the river. In the foreseeable future, there will likely be a number of projects or activities that result in additional stresses on water quality and the aquatic resources of the Columbia River; including several of the waterfront projects * * * (e.g., Tri-County Truss/Lyman Lumber, Beaver Power Plant, Port Westward Power Plant, Cascade Grains Ethanol Plant, Columbia Tidal Energy Hydroelectric Project, Mint Farm Energy Center, and ongoing maintenance dredging) as well as the proposed project.
>
> "Construction of the Bradwood Landing Project would adversely affect surface water quality and biological resources associated with the Columbia River (* * *). Specific project activities such as dredging, dredge disposal, pipeline installation, and upland clearing/grading could result in a variety of impacts related to aquatic resources that include:
>
> "• increased water turbidity and resuspension of sediments;
> • increased water temperature;
> • surface runoff/erosion;
> • loss of wetland or upland vegetation; and
> • potential spills of hazardous substances.
>
> "Potential construction impacts on aquatic resources would be minimized by NorthernStar's compliance with (FERC's) Plan and Procedures, as well as its SWPPP, ESC Plans, and HDD Plan. Nevertheless, the Bradwood Landing Project could contribute to cumulative impacts on water quality and aquatic organisms when considered in relation to past, present, and reasonably foreseeable impacts on the Columbia River. Impacts from dredging could be compounded if other significant dredging projects were conducted concurrently at a nearby location (e.g., the Columbia River Channel Improvement Project). However, the COE is expected to complete its deepening of the navigation channel in the area of the Bradwood Landing site before construction on the proposed LNG terminal would begin. No other dredging projects are anticipated

in a location that would cause cumulative impacts together with the Bradwood Landing Project.

"During operation of the proposed LNG terminal, prop wash from LNG ships and tugs could temporarily increase suspended sediments and turbidity in the mainstem of the Columbia River and in the ship berth and maneuvering area. Many past, current, and planned activities in the Columbia River involve ships that temporarily disturb bottom sediments, including ship traffic to the existing Port Westward Industrial Area and Port of Longview as well as future traffic to the Tri-County Truss/Lyman Lumber facilities. However, as with LNG ships delivering cargo to the proposed LNG terminal, sediments suspended by other ships would be expected to resettle shortly after ship passage. Additionally, even with the existing and proposed facilities operating simultaneously, disturbance associated with prop wash would not be expected to occur at intervals that would prevent resettling after each ship. Some of the suspended sediments could settle out in adjacent shallow water areas, including channels, which could ultimately result in increased sedimentation in these areas.

"In conclusion, while construction and operation of the Bradwood Landing Project could contribute cumulatively to impacts on water quality in the Columbia River, we believe these impacts would not be significant. Additionally, NorthernStar has committed to providing an overall significant net benefit to the environment of the lower Columbia River ecosystem by implementation of their Mitigation Plan and SEI (see sections 4.5, and 4.6 of the dEIS). Therefore, even when considered in light of past or present activities in the lower Columbia River, water quality would not be adversely affected by the proposed project activities.

"There would be a permanent loss of some existing wetlands as a result of construction and operation the proposed Bradwood Landing Project, the Oregon LNG Project, and the other reasonably foreseeable future projects located within the Port Westward Industrial Area and Mint Farm Industrial Park. However, these projects (including the Bradwood Landing Project) would require, by the terms and conditions of their respective COE, ODSL, and WDE permits, compensatory mitigation for temporary and permanent wetland impacts. NorthernStar has committed to implementing robust compensatory mitigation for impacts on wetlands with the goal of restoring tidal influence to areas currently isolated from tidal influence. The resulting increase in wetland quality and quantity would offset project impacts. Therefore, although construction and operation of the Bradwood Landing Project along with the other potential projects and activities would result in a reduction in the amount of existing wetlands in the area, the creation of new wetlands and the enhancement of existing wetlands as required by the COE, ODSL, and the WDE permits would be expected to result in a net increase in the regional wetland resources.

"* * *

"When projects are constructed at or close to the same time, they have a cumulative impact on vegetation and wildlife occurring in the area where the projects are built. Vegetative clearing and grading and other construction activities associated with the Bradwood Landing Project, along with other construction projects, would result in the removal of vegetation; alteration of wildlife habitat; displacement of wildlife; and other secondary effects such as increased population stress, predation, and establishment of invasive plant species. These effects would be greatest if the other projects were to be constructed within the same timeframe and area as the Bradwood Landing Project.

"* * *

"The majority of the areas within the Port Westward Industrial Area, Mint Farm Industrial Park, and Port of Longview have previously been cleared for industrial development. Because native vegetative communities have been substantially altered, the cumulative impact of the proposed project on vegetation in the area is expected to be minor. In addition, any impacts on vegetative communities would be further minimized because all of the projects would implement mitigation measures designed to minimize the potential for long-term erosion, increase the stability of site conditions, and control the spread of noxious weeds, thereby minimizing the degree and duration of the cumulative impacts associated with these projects.

"Construction of the Bradwood Landing Project at the same time as other projects * * * that would affect waterbodies could cause cumulative impacts on aquatic resources within the project area including coldwater anadromous fisheries, designated EFH, and areas with tribal usual and accustomed uses. The geographic extent and duration of disturbances caused by construction of the Bradwood Landing Project would be minimal and further minimized by the implementation of NorthernStar's project-specific ESC Plans and SWPPP. Additionally, the Bradwood Landing Project * * * would be required to obtain permits from the COE, ODFW, ODE, WDFW, and WDE and to consult with the NMFS and FWS. These agencies would require measures to mitigate impacts on aquatic resources.

"Animal and plant species and their critical habitat that are listed as threatened or endangered federally and/or by the States of Oregon and Washington would be affected by the Bradwood Landing Project. Cumulative impacts on these species could result if other foreseeable future projects would also affect the same species or their habitats. NorthernStar has committed to implement its Mitigation Plan, which has been designed to exceed existing mitigation standards and would result in substantially larger areas being restored and/or protected than would be lost to permanent impacts and would be restored to a higher level of ecosystem function. Although the Mitigation Plan would benefit a variety of aquatic and terrestrial species, it was designed with additional emphasis on protection and restoration of habitat for federally listed salmonids

and the Columbian white-tailed deer. Further, NorthernStar's SEI would be separate from its avoidance and mitigation measures and would provide a substantial monetary commitment throughout the life of the project to ensure that the proposed project contributes to the recovery of salmon and the lower Columbia River ecosystem. Therefore, although construction and operation of the Bradwood Landing Project along with the other potential projects and activities would result in impacts on aquatic and terrestrial resources in and along the lower Columbia River, cumulative impacts on federally or state-listed species and their designated critical habitat would be minimized through consultations with the NMFS and FWS as required under the ESA. These agencies would require measures to mitigate impacts on listed species and their designated critical habitat.

"* * *

"The proposed project could result in cumulative impacts on recreational or special interest areas if these projects would affect the same area or feature (e.g., trails) at the same time. * * * high levels of recreational fishing and boating occur during the summer months along the Columbia River (averaging about 300 private fishing boats in the waters of the Columbia River estuary per day between June and August). Accurate information on the number of recreational boaters is unavailable. Therefore, it is not possible to estimate the current level of recreational boat traffic. Because recreational users of the Columbia River have always had to account for industrial and commercial ship traffic, no significant additional cumulative impacts on these activities are likely."

Dredging impacts on estuarine resources at Bradwood were evaluated in the October 16, 2007 memo from Willis E. McConnaha of Jones & Stokes, which explained that while Bradwood Landing's analysis has focused on juvenile Chinook salmon, including subyearling and yearling varieties, the results should extend to other salmonids. Dr. McConnaha noted:

"Yearling migrants (most spring Chinook, steelhead and many coho) use the estuary primarily as a migrational corridor linking upriver production areas and the ocean. These fish move rapidly through the lower Columbia River and are most frequently found in the upper water column in the deeper, main channel areas. Subyearling migrants (most fall Chinook and some coho) rear and grow in the estuary prior to moving into marine waters. These fish are usually found in shallow water areas; we demarcate shallow and deep water areas at around 20 feet in depth.

"Dredging of the turning basin at Bradwood Landing is projected to encompass about 57 acres off-shore of Bradwood Landing. The action will take the present depth of about 35 feet to a minimum of 43 feet in depth. In other words, the action will deepen areas that are already classed as "deep" habitats. Dredging will not affect the shallow water areas used by subyearling salmon, while the further

> deepening of deep-water areas is unlikely to be discernable for yearling salmon using the upper water column.
>
> "I would anticipate that other ecological effects of the dredging to be minimal as well. Certainly the dredging itself will have a direct effect on the benthic community. However, the estuarine river-bed is constantly shifting due to currents and sediment transport and communities are well adapted to this. I would expect the benthic community to rapidly recover following dredging."

Comments from the public concerning the potential for adverse impact of dredging was also addressed in the August 2, 2007 memo from Anne MacDonald of URS, in which Ms. MacDonald noted:

> "The evaluation of bank erosion from historical photographs presented in WEST's *Hydrodynamic and Sediment Transport Assessment* does not corroborate a claim of substantial bank erosion. WEST attributes this to cohesive bank sediments. However, additional river information suggests that there have been negligible changes in the bed as well. *The Columbia River Sedimentation Impacts Analysis (Revised; January 2003)*[206] performed for the Corps' channel deepening project generally confirms this observation, but presents no data specific to Clifton Channel. The Corp notes in this document that, "past dredging and channel modifications upstream of RM 40 have not measurably altered the available sand supply or sand transport in the river" (pg. 2). The entrance to Clifton Channel, at RM 38.5, would be expected to respond similarly. Comparative bathymetry data in Clifton Channel were reviewed for the 1935-1982 time period (*Lower Columbia River Estuary Partnership Bathymetric Atlas*)[207] and suggest that there has been no substantive bed elevation change within Clifton Channel over that time period. The slight shoaling of Clifton Channel between 1958 and 1982 depicted in this document may be related to the influx of sediment from the eruption of Mt. St. Helens, or could be related simply to the dynamic nature of the Lower Columbia River estuary.
>
> "Dredging of the proposed turning basin displaces the entrance to Clifton Channel less than 1500 feet to the northwest, but does not fundamentally change the capacity (i.e., flow rate-limiting

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[206] Https://www.nwp.usace.army.mil/issues/crcip/docs/final/vol2/exhibitj.pdf

[207] http://www.lcrep.org/pdfs4%20BATHYMETRIC%20OF%20THE%20COLUMBIA%20RIVER%20ESTUARY%20A20COLLECTI.PDF

dimensions) of Clifton Channel. This dredging could slightly decrease the sand transport into the channel, but given that a substantial portion of the sand load moves in suspension, would not "starve the channel" of sand. In fact, given the "sediment trapping" configuration of the navigation channel, with the maintenance dredging needed to sustain it, influx to the Clifton Channel is presently likely to be dominated by sand in suspension that is deposited in the relatively low energy environment of Clifton Channel. The presence of the turning basin alone would not change this pattern. Finally, the reduced flow velocity and shear stress in Clifton Channel following dredging of the turning basin, as predicted by the WEST hydrodynamic model, would support a more depositional environment than now occurs there, further mitigating the effect of the dredging.

"It is highly unlikely that the river would change course (by a process termed "avulsion") such that Clifton Channel would become the primary channel. Avulsion happens when, at a minimum, a new channel course presents a more efficient gradient than the existing channel course. This efficiency results from a steeper energy grade line — itself a combination of both a steeper water surface slope (i.e., shorter distance to the same downstream point) and generally comparable hydraulic roughness. The existing wide and deep Columbia River channel, formed during lower sea level stands at the Pleistocene glacial maximum, is much less hydraulically rough than the shallower and (particularly on the downstream end) narrower Clifton Channel. This means that the current main channel of the Columbia more than overcomes any advantage of Clifton Channel in water surface slope arising from a slightly shorter distance to the downstream end of Tenasillahe Island. As noted by WEST, "The small changes in the hydraulic characteristics associated with the Proposed Project are not expected to alter the form of the Clifton Channel. The reduction in flow through the Clifton Channel as a result of the Proposed Project also makes it is unlikely that the Clifton Channel will become the primary flow channel in the future."

"Two other lines of evidence support the likelihood that Clifton Channel will remain in equilibrium and will not become the dominant channel. The first of these is related to the likely configuration of bedrock underneath the Columbia River. While detailed bedrock topography under the river near the site is not available, the presence of bedrock highlands at the southern margin of the channel (such as occurs both upstream and downstream of the Bradwood site) suggests that bedrock is relatively shallower in Clifton Channel than in the main channel. Bedrock would limit the absolute scour depth in Clifton Channel. Second, the erosional

mechanics of high water channels (termed crevasses in the Mississippi River) was recently modeled by Slingerland and Smith (1998).[208] Their work suggests that the bed slope of the avulsion channel must be nearly 4 times that of the main channel to cause sufficient erosion in the avulsion channel to result in a permanent change in channel course. It is this property, for instance, that allows the highly sinuous meanders of rivers like the Mississippi to remain even after floods that inundate the entire floodplain. The gradient advantage of Clifton Channel is <1.2 (i.e., the mainstem thalweg is only 20% longer than the Clifton Channel thalweg).

"The reliability of the WEST *Hydrodynamic and Sediment Transport Assessment* is not subject to challenge because it predicts that discharge through Clifton Channel will be reduced following dredging of the turning basin. Changes between Baseline and Proposed Conditions within Clifton Channel are shown below. While this result appears to be counter-intuitive, it is related to the hydraulics of both river discharge and propagation of the tidal bore upriver. In both cases, more water will be carried in the deeper channel.

"Clifton Channel Modeled Discharge, Baseline and Proposed Conditions

Beaver Army Terminal Discharge (cfs)	Tidal Flow	Baseline Discharge (cfs)[a]	Proposed Conditions (without ship) Discharge (cfs)[a]	Percent Clifton Channel Discharge Decrease, Baseline to Proposed Conditions
125,000	Ebb	.65,217	62,594	4.2%
125,000	Flood	-34,279	-32,602	5.1%
210.000	Ebb	61,197	58,416	4.8%
210,000	Flood	-40,197	-39,231	2.5%
545,000	Ebb	97,378		6.6%
545,000	Flood	28,138	20,038	40.4%
864,000	Ebb	143,621	134,142	7.1%
864,000	Flood	102,487	92,482	10.8%

Source: *WEST Hydrodynamic and Sediment Transport Assessment*

[a] Positive discharge indicates flow n the downstream direction, negative discharge indicates flow in the upstream direction."

[208] Slingerland, R. and Smith, N.D. 1998. Necessary conditions for a meandering river avulsion. Geology 26:435-438.

Quoting in full from the WEST report,

> **"Concern 1. Will dredging change the channel morphology of the Clifton Channel?** A review of historic aerial photographs from 1939 to 2001 shows no significant changes have occurred to the morphology of the Clifton Channel near the project site over this 62 year period, despite significant changes in hydraulics and sediment load caused by flow regulation and dredging activities. The Clifton Channel has not changed significantly because the shoreline of the channel is comprised of material that is resistive to bank erosion. Based on field reconnaissance observations, the shoreline of the Clifton Channel consists of: (1) sand and gravel beach; (2) heavily vegetated banks of silt, sand, and gravel material; (3) tidal flats, which consist of flat sand beach that is vegetated with grasses and shrubs and occasionally has large woody debris; (4) gravel and cobble beach (boulders were observed at some of the locations); or (5) riprap.
>
> "The Proposed Project will cause a reduction in the flow through the Clifton Channel, resulting in a reduction of the water surface profile, shear stresses, and flow velocities through the channel. The changes in hydraulic conditions will occur over a short period of time, 1.5 hour period at the peak of flood and ebb tides, for low to average flows and over the entire tidal cycle for high flows. A review of the SED2D-WES results shown in Appendix E indicates that minor deposition may occur for the 50 percent exceedance flow along the Clifton Channel. However, the results do not show significant changes to the overall bed conditions in the Clifton Channel for the range of flows modeled. The small changes in the hydraulic characteristics associated with the Proposed Project are not expected to alter the form of the Clifton Channel."

The reduction in flow through the Clifton Channel as a result of the Proposed Project also makes it is unlikely that the Clifton Channel will become the primary flow channel in the future. It is also noted that the Columbia River Navigation Channel is a major public works project and the USACE is committed to maintaining it."

Bradwood Landing submitted the study by West Consultants. This study has been reviewed by multiple regulatory agencies and concludes that there are negligible impacts from the dredging and operations of the proposed facility on Clifton Channel and the lower Columbia estuary. Also included is a summary of the conclusions of this report and a report titled *Sediment Characterization Report* that confirms the dredge material is uncontaminated.

Sediment for the dredging was characterized in the May 24, 2006 Sediment Characterization Report (May 24, 2006).

- All samples in the dredge area were composed of at least 93.6 percent sand or gravel and had under 0.8 percent total organic carbon (TOC) and under 1.6 percent total volatile solids (TVS) at all sampled locations and depths.

- Metals results were all either non-detects or well below DMEF, SEF, and NOAA Squirt screening and threshold effects levels and were generally evenly dispersed horizontally and vertically throughout the dredge prism.

- No volatile organic compounds were detected.

- With the exception of detections of fluoranthene and pyrene in one DMMU, no semi-volatile organic compounds were detected. The detected concentrations of these two compounds were relatively low compared to screening and threshold effects levels and may be the result of accidental contamination by sampling vessel diesel exhaust.

- No pesticides were detected.

- No PCBs were detected.

- Toxicity equivalency factor totals for dioxins and furans were well below the NOAA Squird card upper effects threshold.

- Guaiacols, resin acid, and phytosterol detections were variable. There are no sediment screening levels or threshold effects levels for these compounds in current versions of the DMEF, SEF, or NOAA Squirt cards.

Questions were raised during the public process concerning potential impact on bald eagles. As noted in the August 2, 2007 memo from Bridged Canty and Dave Every of URS:

> "The Columbia River in the vicinity of the Bradwood Landing Terminal site ('Terminal') is suitable habitat for bald eagles and is actively used by bald eagles for foraging. This fact was established in the FERC-prepared Biological Assessment ('BA') of the project filed in March 2007. The BA stated, 'During field visits to the proposed Terminal site and Pipeline route, eagles were observed flying over the area near the proposed Terminal site. ... The nearest bald eagle next site to the proposed Terminal site is located approximately 2.3 miles away to the northwest in Clatsop County, Oregon and well outside of the USFWS's recommended buffer distance for high noise producing activities including pile-driving. The Terminal site is considered marginally suitable bald eagle roosting habitat due to the small patch size as well as the abundance of suitable habitat for this species within the general vicinity. Displacement of aquatic prey [during construction] could indirectly affect bald eagles that may utilize these species as a portion of their diet.'

> "A June 18, 2007 survey conducted by Cascades Avian Consulting, on behalf of The Columbia Riverkeepers, noted foraging eagles using the vicinity (the survey covered a 0.5-mile radius of the proposed Terminal). The Cascades Avian Consulting report stated "Given that the date of observation (June 18th) would typically fall within the latter one-third of the nesting period for Bald Eagles, and that nesting adults are quite vocal and territorial near their nests, it is unlikely that an active nest was within one or two miles of the area surveyed near the proposed LNG site. Use of the area for foraging by eagles was confirmed by both active hunting (from fixed perch, visually hunting, and soaring, low patrols over water) and successful kill (unknown fish spp.) by an adult. The presence of several individuals, both adults and immature eagles of various age, would indicate a lack of territorial 'claim' by any pair, but certainly indicates relative value of the site as a food resource."

In conclusion, the original account of eagle use in the FERC BA is consistent with the June 2007 habitat survey conducted by Cascades Avian Consulting. While bald eagles occur near the Terminal and may use the adjacent Columbia River as a foraging site, there is no evidence that they presently have an active nest or roost near the Terminal.

The dEIS states at page 450:

> "Shoreline erosion along the Columbia River is caused by river currents, wind waves, and ship wakes. River currents can erode banks and carry sediment away from the shoreline. Wind waves and ship wakes can also erode banks but they only move sediment locally within the shallow water zone near the shore. The amount of erosion that occurs at a particular location depends on the interaction between the eroding forces of river currents and waves and the resisting forces of the river bank (COE, 1999). As discussed in section 4.1.2.3, the size of waves produced by a vessel passing through a channel depends on the characteristics and speed of the vessel and the characteristics of the channel. However, speed is the most important factor influencing the size of waves produced by a vessel. Large waves contain more energy than small waves and thus, have a greater ability to erode river banks. NorthernStar commissioned a study of wave generation by LNG ships compared to other large ships along the Columbia River, which indicated that waves generated by LNG ships for the Bradwood Landing Project would be only slightly larger than those generated by other large ships along the Columbia River operating at the same speed."

Shoreline monitoring will be required as a condition of development. Such monitoring is feasible as generally discussed in the October 19, 2007 memo from David Weatherby of URS,

which sets out a possible protocol for selecting monitoring sites. As stated in the Weatherby memo:

> "Monitoring shoreline erosion rates to assess whether a new project would result in an increase in erosion over existing rates (referred herein as "background conditions") can present challenges, particularly in an aquatic environment such as the Columbia River, where shorelines have been historically affected by a number of human-induced hydraulic changes. Examples of such changes include existing ship traffic, hydraulic modifications from hydropower operations including dramatic changes in timing of peak and low flows, periodic dredging of the navigation channel, disconnection of flood plain and estuarine areas by diking, and placement of fill in areas historically flooded by the river. As such, the rationale for development of the shoreline monitoring plan must consider the cumulative affects of these historical changes in order to discern erosion rates induced by a new project from erosion rates that are associated with the background conditions. Without such consideration, there is the potential for observed shoreline erosion rates to be falsely attributed to a new project.
>
> "This shoreline monitoring plan addresses the cumulative affect of the background conditions and the challenges of discerning background conditions from Project affects by proposing monitoring sites that fall into the following two categories:
>
> "1. 'Potentially Affected Sites'. These monitoring sites would be located along the shore of Clifton Channel with the express purpose of monitoring potential erosion associated with the Project.
>
> "2. 'Control Sites'. These sites would be located elsewhere within the Columbia River, at locations unlikely to be affected by the Project, but likely to be affected by background condition.
>
> "In order for monitoring of the control sites to provide results that would be comparable to potentially affected site monitoring results, the control sites would require placement at locations analogous to the potentially affected sites."

Through monitoring and remediation if necessary, the potential for an adverse cumulative impact will be avoided.

Cumulative impacts on air quality are not anticipated because the development must adhere to federal, state and local regulations for the protection of ambient air quality. (dEIS at pg. 457).

Potential cumulative impact is also discussed in the Waterway Sustainability Report. The USCG declared that to make the Columbia River suitable for transit of LNG carriers, additional measures would be necessary that Bradwood and others agree to provide. Columbia River Bar pilots, the Columbia River pilots, Capt. James Townley of the Columbia River Steamship Operators and a member of the Area Maritime Security Committee and Mr. Paul Dombrowski of the Regional Maritime Security Committee for the Columbia River testified that LNG carriers can be moved safely on the river.

There was much discussion about the safety and security zones that will be in place for the LNG Carrier's transit to Bradwood. The County notes the following:

- There is no "Exclusion Zone" – there are no vessels or activities that are summarily excluded because of the LNG Carrier's Safety/Security Zone;
- The Coast Guard fully anticipates, and so states in the WSR, that all vessels will "routinely... transit the Safety Zone;" and
- Deep draft vessels are permitted to meet the LNG Carrier in routine transit under much the same terms and conditions as other deep draft vessels now meet on the River.

The safety/security zone is described as an area within a 500 yard radius around the LNG carrier, including the water surface and below and ending at the shoreline. In addition, the safety/security zone does not extend vertically – such a restriction, if there were one, would be defined in a Temporary Flight Restriction under Title 14 Part 91. There is no Temporary Flight Restriction associated with the Bradwood Landing operations or LNG Carrier movements on the Columbia River.

In the WSR, the U.S. Coast Guard recommends key improvements to Columbia River navigation and safety:

- These improvements will benefit all Columbia River traffic
- The public will benefit indirectly from increased public safety resources.

The river traffic is under the jurisdiction of the Coast Guard and will be managed by it. Clatsop County Land Use Ordinance also requires that all required state and federal permits be submitted to the County. The County finds that the permitting requirements identified above, coupled with this development ordinance requirement will ensure that there are not significant cumulative impacts as a result of this amendment and associated development.

Bradwood hired seismic and geotechnical engineers to perform the terminal design. Dr. C. B. Crouse provided the seismic design and it was peer reviewed by Dr. Robert E. Bachman of FERC. Soil borings were taken to determine the soil layers, their thickness, material

properties, cohesion, stiffness, etc. Deep foundations or soil treatment (stone columns or vibroflotation) were designed which will be utilized for all Category I and Category II structures, i.e., those structures that contain LNG or are required for the safe containment of LNG. This design is approved by FERC. The Bradwood Terminal will be built to survive a Subduction Zone earthquake with no release of LNG.

The cumulative impact of the development will not have an adverse impact on flooding. Bradwood Landing stated that the 500-year flood elevation is 10.6 NGVD or 13.83 NAVD per the FIS ("flood insurance study") Report Table 3. Final grade elevation at the site varies from 20 to 25 NAVD. Since final elevation following deposit of the dredge material is at least 20 NAVD, it is above the 500-year flood plain level of 13.83 NAVD. Flood plain storage is protected. Applicant plans to deposit at least 350,000 cubic yards of dredge material on the site. This will elevate the site to 20 feet. The 100-year flood level is 13.3 feet. Assuming conservatively that 350,000 cubic yards of flood water will be displaced, with a river flow of 540,000 cubic yards per second at 100-year flood levels, the 340,000 cubic yards would be filled by river flow in less than 18 seconds. Considering this, as well as the tidal nature of the river, the Project will not affect flood plain storage capacity in any appreciable amount. Further, as shown in the memorandum provided in [Attachment 1 *included in the applicant's FHO findings*], the proposed mitigation at Svenson (*sic*) Island provides about seven times more water storage capacity than the volume being filled by the dredge material placement.

The proposed Bradwood Landing LNG terminal and other aboveground facilities would result in permanent impacts on near-surface geology and soils, and the proposed pipeline would have temporary, but direct, impacts on near-surface geology and soils. These impacts will be minimized through implementation of erosion control and stormwater permit plans.

The dEIS notes that:

> "Because the direct effects would be highly localized, cumulative impacts on near-surface geology and soils would only occur if other projects are constructed in the immediate vicinity of the proposed Bradwood Landing Project. The Port Westward Industrial Area is about 12 miles from the proposed LNG terminal site and crossed by the proposed pipeline between MPs 18.0 and 19.0. Construction of the projects within the Port Westward Industrial Area, such as the Port Westward Power Plant, Summit/Westward Cogeneration Project, and the Cascade Grains Ethanol Plant, would require significant excavation or grading and would thus have impacts on near-surface geology and soils. However, construction of these three projects is currently scheduled to be completed before general construction of the pipeline. While there would be potential for cumulative impacts on geological resources and soils if these projects were constructed concurrently with the pipeline, any cumulative impact on geology and soils would be minimized by the implementation of erosion control and restoration measures during construction and

restoration of the projects. Consequently, any potential cumulative impacts on geological resources and soils would be minor.

"Another potential cumulative impact on geology and soils could result from increased ship traffic and vessel size, which may lead to increased shoreline erosion. Operation of the Bradwood Landing Project and other projects (i.e., Tri-County Truss/Lyman Lumber) would result in increased ship transit up and down the Columbia River. Also, the Oregon LNG Project would, if approved, add an estimated 150 LNG ships per year transiting to CRM 11.5 beginning as early as 2012. The overall increase in ship traffic would be offset at least in part by the general decreasing trend in ship traffic volume in recent years. The Columbia River Channel Improvement Project will allow larger, deeper draft ships to travel the river." dEIS at 447.

Public sewers and water lines are not needed as the site can be developed to be self sustaining. Power will be provided by PGE over distribution lines located on MI land at the terminal site and F80 land on the portion of the line located above Bradwood. Other utility service is not required. Access is provided to the MI zoned terminal site via railroad, Clifton Road and the river. The S6.005(3) criteria for the design, construction and maintenance of the access road are met by the proposed improvements. The Applicant's July 2007 traffic report sets forth how, with the proposed mitigations, Clifton Road will provide unrestricted access to and from Bradwood. The traffic report explains why the proposed access, with mitigations, provides adequate, safe, and legal access, adding improvements such as vehicle detection devices and guardrails. Further, a variance will be required as a condition of approval for any deviation from Table 1 collector road standards. Clifton Road will be designed for two way traffic. The developer will bear the full burden of the improvements proposed to Clifton Road. Improved vehicle access will be provided. The developer will shift a drainage ditch outbound a few feet as required in some cases. No new utilities will be needed, nor existing utilities affected, by the road improvements. The improvements to the road will benefit the adjoining land uses, and residents of the area will have priority access during construction. No new roads are proposed. Further, by minimizing the expansion of the road to that needed for safety purposes, interference with forest management or harvesting practices will be minimized. Absent a variance, the proposed improvements minimize incursion onto forest land by limiting work to the existing right-of-way and avoiding adjacent sensitive lands. Absent a variance, the proposed work is limited to work within the existing right-of-way, limiting impact on sensitive natural features. Pedestrian and bicycle trips are not the type of trips taken or needed in this area.

We find that the social benefit of the estuary will be maintained. Clatsop County's Comprehensive Plan policies require protection of traditional fishing areas, and the social value of the estuary shall be preserved through conditions of specific project approval requiring that Clifton Channel be kept open. Claims of an exclusive zone that would impede river traffic have been responded to by Bradwood Landing and the Coast Guard.

Similarly, letters, newspaper articles and other documents submitted into the record generally arguing that the estuary, tourism or other local businesses and river commerce

generally will be harmed by the dredging and associated terminal development are speculative and not persuasive. There is substantial evidence in the record that the development will provide economic benefit to the region.

The economic benefit anticipated from the proposed development is evaluated in the June 2007 report by Dr. Phil Romero on the economic impact of the terminal on the region (Romero report) and Resource Report 5 (submitted to the County on July 17, 2007). We find that general testimony during the public hearings expressing a concern of negative economic impact is speculative. We find that the June 2007 Romero report, Resource Report 5 and the River User Impact Analysis submitted July 31, 2007 are specific to Clatsop County, and persuasive.

Resource Report 5 states at p. 6:

> "The Columbia River borders Clatsop County to the north. Five Select Area Fisheries Evaluation (SAFE) net-pen rearing and fishing sites exist in the lower Columbia River (LCR) between river miles 10.0 and 35.0" Id.
>
> "The largest concentration of commercial and recreational fishing activities on the Columbia River is at Young's Bay, at the mouth of the Columbia River just west of Astoria, because of the Bay's proximity to the SAFE net-pen fisheries and the City of Astoria (DOE 2004). In 2003, returning select area fish provided $3,290,642 to the region's fisheries. (CEDC 2005). Clifton Channel, just downriver from the site, is used by both commercial and sports fishermen and boasts several different salmon runs as well as sturgeon fishing throughout the year (Wahkiakum County Commission, 2005)." Id.
>
> "Due to the importance of the river on the local economy, additional activities and the impact Bradwood Landing might have on them are discussed in greater detail in "The River User Impact Analysis" included (in Reserve Report 5) as Appendix A."
>
> "Construction expenditures by NSNG would generate increases in economic activity within the counties affected by the project and have a multiplier effect on the local economy." Id. at 22.

No impact to cruise ships is anticipated. Cruise ships have priority over LNG ships in crossing the bar and transiting the river, and will not have to transit past the Bradwood site.

- Similar to LNG carriers, the Coast Guard enforces a 100 yard safety/security zone around cruise ships when they are docked at Astoria.
- Cruise ships and LNG carriers have coexisted without incident in the Mystic River and Boston Harbor for more than 30 years.

The transit management plan for LNG carriers (which must be approved by the Coast Guard) will be designed to avoid impacting fishing vessels. In addition, NSNG has an agreement with the drift fishermen with rights in the Columbia at Bradwood. Bradwood Landing is avoiding the Buoy 10 fishery and development will have no more impact on recreational fishing than any other deep-draft vessel.

The Romero report examined changes in property values since the construction of the Cove Point LNG terminal on the Chesapeake Bay in Calvert County, Maryland. He found no detrimental effects; in the three years since Cove Point went into operation, property values statewide and in Calvert County increased more than 15%

There is no empirical evidence an LNG terminal will harm tourism. Dr. Romero also examined the effects of the Cove Point LNG on tourism in Calvert County – a popular recreation area for Washington, D.C. residents. In the three years since Cove Point terminal has been operational, visitor spending in the State of Maryland rose by 5.7% and rose by 12.2% in Calvert County where the facility is located.

Bradwood Landing estimates it will pay $7,692,000 annually in property taxes. This represents a 114% increase in the county's property tax base.

Assertions made during the public hearings that local governments would incur costs each time an LNG carrier docked at Bradwood are unfounded because:

1. The development will not be in an enterprise zone that would lower its taxes.

2. In addition to paying its full share of local taxes, the developer will be paying for the additional safety and navigation measures called for by the Coast Guard on the river.

Lastly, there will be no impacts to the Astoria-Megler Bridge. The Coast Guard did not include restrictions on bridge use during LNG carrier transits in its WSR.

General criticisms of the economic impact of the change in management unit and related development are not persuasive. Factual allegations or critiques of its submittals have also been made regarding the Bradwood Landing proposal, by the general public and by some professionals. One such report is a document prepared for the community of Passamaquoddy. The Passamaquoddy document provides no useful information. The document points out that LNG projects have local and regional impacts that must be addressed and that the region's small population would require a thorough gap analysis to be completed as part if preparing an ERP. The report notes that cost-sharing agreements would need to be developed, and it is likely that any applicant would have to self-provide for most, if not all of the necessary resources, since it is expected that existing infrastructure and staffing are insufficient to meet project safety requirements and applicable standards. The document contains unsupported requirements that would require the LNG applicant to relocate schools and fire stations along the LNG carrier path. The supposed staffing requirements in the Passamaquoddy report are not supported by any evidence and constitute speculation. The document mentions previous LNG cost studies, but provides not references or citations to these reports.

Another example is "The Peer Review of "Liquefied Natural Gas and the Pacific Northwest: affordable energy as the engine for economic growth" was submitted by Julie Ann Gustanski, PhD, President and Sr. Resource Economist at Resource Dimensions, LLC, Gig Harbor, Washington. The review acknowledges that the Romero report is generally well organized and well written. However, the critiques offered by Dr. Gustanski focus on alleged deficiencies in determining specific local economic impacts and a desire for an alternative methodology, rather than the input-output model employed by Dr. Romero. The Romero report is, however, a regional economic impact analysis. It does not, nor was it intended to, provide a model of localized impacts of the proposed LNG facility. The very title of the Romero report makes clear it is regional in nature (LNG and the Pacific Northwest). Instead, Resource Report #5, submitted to the County in July 2007 application, is the report which addressed the local socioeconomic impacts of the proposed project. The County also found in its determination of consistency with Goals 10 and 11 that impacts on housing a public service from development and operation of the LNG marine terminal would be consistent with Goals 10 and 11.

Given that the Gustanski report author neglected to note this fundamental difference in the report's objectives, the conclusions put forth in the peer review are without merit.

The County therefore concludes that the Comprehensive Plan Amendment and the envisioned alternatives and development activities, as conditioned, will not have adverse cumulative impacts on the estuary and that the amendment is consistent with Goal 16's charge to

> "recognize and protect the unique environmental, economic and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop and where appropriate restore the long-term environmental, economic and social values, diversity and benefits of Oregon's estuaries." (OAR 660-015-0010(1)).

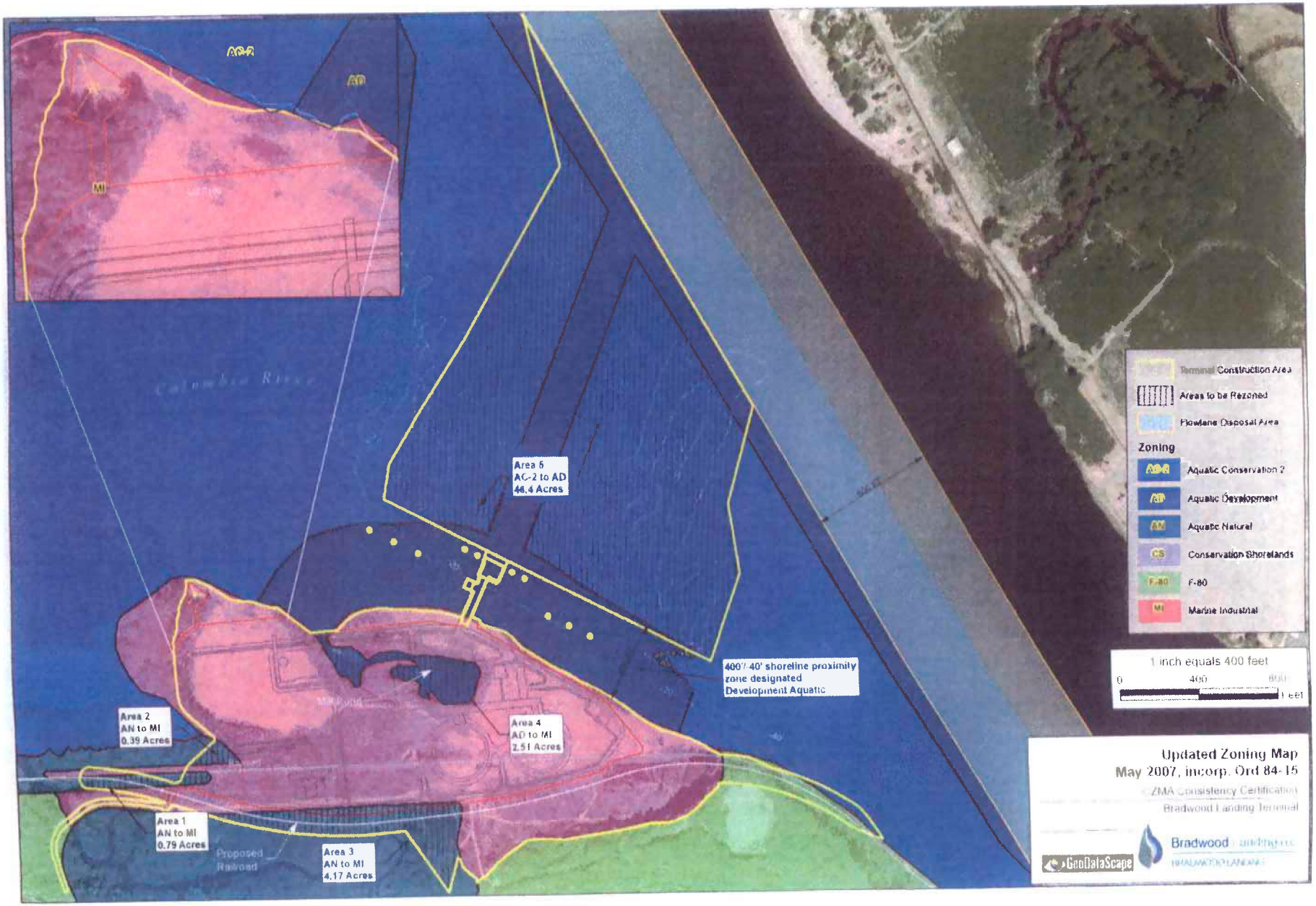
Area 5
AC-2 to AD
46.4 Acres
400'/ 40' shoreline proximity zone designated Development Aquatic
Area 2
AN to MI
0.39 Acres
Area 4
AD to MI
2.51 Acres
Area 1
AN to MI
0.79 Acres
Proposed Railroad
Area 3
AN to MI
4.17 Acres
Columbia River
Terminal Construction Area
Areas to be Rezoned
Flowlane Disposal Area
Zoning
Aquatic Conservation 2
Aquatic Development
Aquatic Natural
Conservation Shorelands
F-80
Marine Industrial
1 inch equals 400 feet
0
400
800
Feet
Updated Zoning Map
May 2007, incorp. Ord 84-15
ZMA Consistency Certification
Bradwood Landing Terminal
GeoDataScape
Bradwood

EXHIBIT 1

TABLE OF ORDINANCES

ORDINANCE NOS. 08-05 ARE HEREBY INCORPORATED BY REFERENCE.

BEFORE THE BOARD OF COMMISSIONERS

FOR CLATSOP COUNTY, OREGON

AN ORDINANCE RELATING TO THE BRADWOOD LANDING LNG PROPOSAL AND AMENDING THE CLATSOP COUNTY COMBINED COMPREHENSIVE PLAN AND ZONING MAP, THE TEXT OF THE CLATSOP COUNTY COMPREHENSIVE PLAN AND THE TEXT OF THE CLATSOP COUNTY LAND AND WATER DEVELOPMENT AND USE ORDINANCE (ORDINANCE 80-14)	ORDINANCE NO. 08-05

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the combined Clatsop County Comprehensive Plan Map and Zoning Map to change the current zoning of .79 acres identified as Area 1, .39 acres identified as Area 2, and 4.17 acres identified as Area 3 of a property in Clatsop County (the "Property") described generally in Attachment 3 of Exhibit A and shown specifically on Attachment 4 of Exhibit A, attached hereto, from a zoning designation of AN (Aquatic Natural) to a zoning designation of MI (Marine Industrial) and the current plan designation from Natural to Development; and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the combined Clatsop County Comprehensive Plan Map and Zoning Map to change the current zoning of a portion of a property in Clatsop County described generally in Attachment 3 of Exhibit A and shown specifically as the 2.51 acre mill-pond identified as Area 4 on Attachment 4 of Exhibit A (the "Property"), attached hereto, from a zoning designation of AD (Aquatic Development) to a zoning designation of MI (Marine Industrial); and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the combined Clatsop County Comprehensive Plan Map and Zoning Map to change the current zoning of 46.4 acres of the Columbia River designated Area 5 on Attachment 4 of Exhibit A, attached hereto, from a zoning designation of AC2 (Aquatic Conservation 2) to a zoning designation of AD (Aquatic Development) and the current plan designation from Conservation – Other Resources to Development in order to accommodate the turning basin as well as to accommodate the liquified natural gas terminal use; and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application for a Clatsop County Comprehensive Plan amendment adopting an exception to authorize dredging in Area 5 (46.4 acres) shown in Attachment 4 of Exhibit A and uses allowed in the Marine Industrial zone on areas designated Area 1 (.79 acres), Area 2 (.39 acres) and Area 3 (4.17 acres) in Attachment 4 of Exhibit A; and

WHEREAS, on December 12, 2006, Bradwood Landing filed an application to amend the Clatsop County Comprehensive Plan to delete language from the Plan relating to small to medium scale development; and

WHEREAS, on February 9, 2007, Bradwood Landing filed an application for an amendment to the Clatsop County Land Development and Water Use Ordinance to add "cable, sewerline, waterline or other pipeline" as permitted uses in the Open Space, Parks, and Recreation (OPR) zone; and

WHEREAS, the applications were considered by the Planning Commission at public hearings on July 10, 2007 and July 17, 2007 and following public deliberations on August 29, 2007 and September 28, 2007 the Planning Commission recommended addition of "cable, sewerline, waterline or other pipeline" as a conditional use in the OPR zone pursuant to the

requirements of ORS 215.050 and 215.060, the Planning Commission recommended approval of the rezonings of Areas 1, 2 and 3 from AN to MI and the rezoning of Area 4 from AD to MI and the approval of exceptions to authorize the uses along with the identified Plan designations and the Planning Commission recommended approval of a conditional use permit for the proposed turning basin and therefore concluded that the proposed rezoning and plan amendment from AC2 to AD and Conservation-Other Resources to Development would not be necessary and the Planning Commission concluded that the deletion of scale language from the Plan was not necessary; and

WHEREAS, consideration for this ordinance complies with ORS 197.610–ORS 197.625 and related Oregon Administrative Rules on post-acknowledgement plan amendments, the County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060, and the Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on October 22, 2007 and November 19, 2007 and deliberated on December 13, 2007; and

WHEREAS, all notices to interested property owners and interested parties have been provided pursuant to law; now therefore,

THE BOARD OF COMMISSIONERS OF CLATSOP COUNTY ORDAINS AS FOLLOWS:

SECTION 1. The portion of the property described above and shown in Attachment 4 of Exhibit A (attached) as Area 1 (.79 acres), Area 2 (.39 acres) and Area 3 (4.17 acres) is hereby rezoned from AN (Aquatic Natural) to MI (Marine Industrial) and the Comprehensive Plan designation is changed from Natural to Development.

SECTION 2. The portion of the property described above and shown in Attachment 4 of Exhibit A (attached) as Area 4 (2.51 acres) is hereby rezoned from AD (Aquatic Development) to MI (Marine Industrial). The Comprehensive Plan designation remains Development.

SECTION 3. The portion of the property described above and shown in Attachment 4 of Exhibit A (attached) as Area 5 (46.4 acres) is hereby rezoned from AC2 (Aquatic Conservation) to AD (Aquatic Development). The Comprehensive Plan designation is changed from Conservation – Other Resource to Development and the request for a conditional use permit to allow the proposed dredging in the AC2 zone is denied.

SECTION 4. The amendment to the Comprehensive Plan provided in Attachment 6 to Exhibit A attached hereto is adopted and the Board concludes that goal exceptions requested are not required. Language related to scale of development as small to medium is not deleted from the Comprehensive Plan.

SECTION 5. Provisions of the LWDUO are amended to list "cable, sewerline, waterline, or other pipeline" as a conditional use in the OPR zone, as described in Section 6.

SECTION 6. LWDUO § 3.586(10) is amended to state "10. cable, sewerline, waterline or other pipeline" and the current LWDUO § 3.586(10) is made LWDUO § 3.586(11).

SECTION 7. In support of this ordinance, the Board adopts the March 5, 2008 Findings of Fact and Conclusions of Law as indicated in Exhibit A (attached).

Approved this 20th day of March, 2008.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By Patricia G. Kleczek
, Chair

By Valerie Crafard
Recording Secretary

PHOTO OF HISTORICAL USE AT BRADWOOD

RESOLUTION AND ORDER

BEFORE THE BOARD OF COUNTY COMMISSIONERS

FOR CLATSOP COUNTY, OREGON

In the matter of the Land Use Permit Applications of Bradwood Landing LLC	RESOLUTION AND ORDER NO. 2008-_____

A. On December 12, 2006, Bradwood Landing LLC ("Applicant") filed permit applications to develop a liquified natural gas terminal and associated facilities, at the property described in Attachment 3 to Exhibit A.

B. Applicant later submitted applications to permit a natural gas pipeline and terminal construction worker park and ride facility.

C. These applications were consolidated for the purpose of County review. The Planning Commission held public hearings on the requested actions on July 10 and July 17, 2007 and recommended approval of the applications subject to conditions of approval following public deliberations on August 29, 2007 and adoption of findings on September 28, 2007.

D. The Board of Commissioners held public hearings on the requested actions on October 22, 2007 and November 19, 2007, and deliberated on December 13, 2007 and made tentative decisions to approve the same, with such tentative approval to be finalized upon the presentation of findings.

NOW THEREFORE, the Board of Commissions hereby approves the land use applications submitted by Bradwood Landing as set forth below,

IT IS HEREBY ORDERED:

1. The applicant is granted the approvals described in Exhibit A, subject to conditions of approval described therein for the following activities:

a. Hunt Creek Bridge Replacement

b. Concrete Batch Plants

c. Dredging

d. Dredged Material Disposal

e. Electrical Power Line

f. Construction Worker Park and Ride Lot

g. In Water Structures

h. Lay Down (Storage and Staging) Areas

i. Two LNG Storage Tanks and the Gassification Plant

j. Railroad Relocation

k. Road Improvements to Clifton and Bradwood Roads

l. Pipeline Segment in MI Zone.

m. Pipeline Segment in F80 Zone.

n. Pipeline Segment in HI Zone.

o. Pipeline Segment in LW Zone.

p. Pipeline Segment in AD Zone.

q. Pipeline Segment in EFU Zone.

r. Land Use Compatibility Statements

2. The effective date of this Resolution and Order is the effective date of Ordinance No. 08-05.

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3. The Findings and Conclusions of Law in Exhibit A are adopted by reference in support of this Resolution and Order.

DATED this 20th day of March, 2008.

ON BEHALF OF THE
THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

Patricia J. Roberts
_____, Board Chair

Attachment 10

BRADWOOD LANDING CONDITIONS OF APPROVAL IMPLEMENTATION AGREEMENT

BRADWOOD LANDING CONDITIONS OF APPROVAL IMPLEMENTATION AGREEMENT

March _____, 2008

This Bradwood Landing Conditions of Approval Implementation Agreement (this "Agreement") is between Clatsop County, a political subdivision of the State of Oregon ("County"), and Bradwood Landing LLC, a Delaware limited liability company and NorthernStar Energy LLC, a Nevada limited liability company (collectively, "Bradwood Landing").

RECITALS

A. Bradwood Landing proposed to construct and operate a liquefied natural gas facility, pipeline, and associated facilities (the "Project") as described in Clatsop County Ordinance 08-05, its supporting findings and the related resolution and order. On June 5, 2006, Bradwood Landing applied to the Federal Energy Regulatory Commission ("FERC") for a certificate ("FERC Certificate") authorizing it to site, construct and operate the Project.

B. On December 12, 2006, and thereafter, Bradwood Landing applied to County for land use approvals related to the Project.

C. Based on Bradwood Landing's County application and other relevant information, and the findings adopted by County in support of its approval of the Project, County is assured that the Project, as proposed, is consistent with the applicable County land use regulations, provided the conditions of approval set forth in that approval (the "Conditions" or individually, a "Condition") are followed.

D. The purpose of this Agreement is to provide further assurances that the Conditions of the County approval will be appropriately implemented.

AGREEMENT

1. Effectiveness. This Agreement shall be effective upon its full execution by the parties hereto and the attachment hereto (as Attachment 1) of a copy of the final Conditions initialed by an authorized representative of Bradwood ("Effective Date").

2. Commitment of Bradwood. From and after the Effective Date and so long as this Agreement remains in effect:

a. Bradwood Landing will comply with the all of the Conditions; and

b. Bradwood Landing will not request that FERC review, modify, abrogate or cancel any or all of the Conditions.

3. General Stipulations and Reservations.

a. The terms of this Agreement are enforceable by County and Bradwood Landing under applicable federal and state law. This Agreement does not create any right or benefit for third parties and is enforceable only by County and Bradwood Landing.

b. The terms of this Agreement are binding only on Bradwood Landing and County and no other state or federal agency or person.

c. This Agreement is binding on County and any successor agency, Bradwood Landing and its successor(s) and assigns, and any other entity or person assuming ownership or operation of the Project.

d. Bradwood Landing does not waive any right to oppose modifications to the Conditions by County or to seek administrative or judicial review of County modifications in any applicable forum.

e. Bradwood Landing's agreement not to challenge the conditions at FERC is specific and exclusive to the conditions appended to this Agreement.

f. If the conditions of this Agreement would require Bradwood Landing to violate (1) an applicable federal or state environmental or safety law or regulation, or (2) a condition of a Project license or permit that implements an applicable federal or state environmental or safety law or regulation, County will, upon Bradwood Landing's request, consult with the relevant federal or state agency to resolve the inconsistency. If the inconsistency cannot be resolved, County will act so as to eliminate the inconsistency unless County determines that the relevant provision of this Agreement is necessary for compliance with local law.

4. Remedies.

a. This Agreement may be terminated at either party's election, upon seven (7) days' written notice to the other party, if:

(1) An administrative or judicial appeal of County approval of the Project by a third party results in revocation or denial of the local

approval or modification of or imposition of conditions that are inconsistent with the approvals in Ord 08-05 and the related Resolution and Order and findings, or

(2) If Bradwood withdraws its application for a FERC certificate or a final and nonappealable order is issued denying the application.

b. The specification of remedies and stipulations in Section 3 of this Agreement does not create any rights for persons or entities not a party to this Agreement or constitute a waiver of any defense or right of Bradwood Landing in relation to persons or entities not a party to this Agreement.

c. The specification of remedies in Section 3 of this Agreement is not intended to waive any other right or remedy County might have to enforce this Agreement or the local approval. Bradwood Landing does not waive any right or argument it might have to oppose County's effort to assert or obtain such other right or remedy.

5. Attorney Fees. In the event of any legal action to enforce or interpret this Agreement, or otherwise related to this Agreement, or in the event a petition in bankruptcy is filed by or on behalf of a party, the prevailing party, in addition to all other amounts that the other party may be required to pay, shall be entitled to recover such additional sum for the prevailing party's reasonable attorney fees and costs, as the applicable court determines to be reasonable in the action, including any proceeding at trial, on appeal, or on petition for review, and in any bankruptcy proceeding.

6. Entire Agreement. This Agreement and the Conditions included herewith contain all the terms and conditions agreed upon by the parties.

7. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Oregon. Each party to this Agreement hereby irrevocably agrees that any legal action or proceeding arising out of or relating to this Agreement or any agreements or transactions contemplated hereby shall be brought in the federal district court for the District of Oregon and hereby expressly submits to the jurisdiction and venue of such courts for the purposes thereof and expressly waives any claim of improper venue and any claim that such courts are an inconvenient forum.

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/////

8. **Recording.** Notice of this Agreement will be recorded in the Clatsop County Recorder's office and runs with the land described in Attachment 2 attached hereto.

COUNTY:

CLATSOP COUNTY

By:_____

Print Name:_____

Title:_____

Date:_____

BRADWOOD:

BRADWOOD LANDING LLC

By:_____

Print Name:_____

Title:_____

Date:_____

NORTHERNSTAR ENERGY LLC

By:_____

Print Name:_____

Title:_____

Date:_____

STATE OF OREGON)
) ss.
County of Clatsop)

This instrument was acknowledged before me on _____, 2008 by _____ as _____ of Clatsop County.

_____
Notary Public for Oregon
My Commission Expires:_____

* * * *

/////
/////
/////

STATE OF TEXAS)
) ss.
County of Harris)

This instrument was acknowledged before me on _____, 2008 by _____ as _____ of Bradwood Landing, LLC.

_____
Notary Public for Texas
My Commission Expires:_____

* * * *

STATE OF TEXAS)
) ss.
County of Harris)

This instrument was acknowledged before me on _____, 2008 by _____ as _____ of NorthernStar Energy LLC.

_____
Notary Public for Texas
My Commission Expires:_____

ATTACHMENT 1

ORDINANCE, RESOLUTION AND SUPPORTING FINDINGS

ATTACHMENT 2

LEGAL DESCRIPTION

6 LBS

1 OF 1

WILLIAM E OR CLYDENE PAUL
(503) 325-0381
SUNSET PRESORT
397 MARINE DR
ASTORIA OR 97103-4327

SHIP TO:
PLAN AMEND.
DEPT. OF LAND CONS. DEV.
SUITE 150
635 CAPITOL ST. N.E.
SALEM OR 97301-2540

715

OR 973 0-02

UPS GROUND

TRACKING #: 1Z 786 877 03 4658 6676

BILLING: P/P

REF 1:CC PLAN # 715
REF 2:03/27 # 12

$11.50

WS 10.0 41

LP2442 75 0A 01/2008

International Shipping Notice - Carriage hereunder may be subject to the rules relating to liability and other terms and/or conditions established by the Convention for the Unification of Certain Rules Relating to International Carriage by Air (the "Warsaw Convention") and/or the Convention on the Contract for the International Carriage of Goods by Road (the "CMR Convention"). These commodities, technology or software were exported from the U.S. in accordance with the Export Administration Regulations. Diversion contrary to U.S. law prohibited. United Parcel Service, Louisville, KY
For shipping in Iran, call 1-800-782-7892

CLATSOP COUNTY
Transportation and Development Services
Land Use Planning
800 Exchange Street, Suite 100
Astoria, Oregon 97103
(503) 325-8611 • Fax (503) 338-3666

ATTN: PLAN AMENDMENT SPEC.
DEPT. OF LAND CONS. + DEV.
635 CAPITOL ST. NE, SUITE 150
SALEM, OR 97301-2540

FIRST CLASS MAIL

Close Window

Tracking Detail

Your package has been delivered.

Tracking Number:	1Z 786 877 03 4658 667 6
Type:	Package
Status:	**Delivered**
Delivered On:	03/28/2008 9:20 A.M.
Signed By:	GRAYBEAL
Location:	RECEPTION
Delivered To:	SALEM, OR, US
Shipped/Billed On:	03/27/2008
Service:	GROUND
Weight:	5.20 Lbs

Package Progress

Location	Date	Local Time	Description
SALEM, OR, US	03/28/2008	9:20 A.M.	DELIVERY
	03/28/2008	5:50 A.M.	OUT FOR DELIVERY
	03/28/2008	5:05 A.M.	ARRIVAL SCAN
PORTLAND, OR, US	03/28/2008	4:04 A.M.	DEPARTURE SCAN
PORTLAND, OR, US	03/27/2008	9:53 P.M.	ARRIVAL SCAN
WARRENTON, OR, US	03/27/2008	7:16 P.M.	DEPARTURE SCAN
	03/27/2008	6:38 P.M.	ORIGIN SCAN
US	03/27/2008	7:19 P.M.	BILLING INFORMATION RECEIVED

Tracking results provided by UPS: 04/04/2008 7:47 P.M. ET

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