



Salem North Downtown Riverfront Redevelopment Concept Plan

Fall 2010 • Planning, Public Policy, and Management

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Sustainable Cities Initiative

Acknowledgements

The authors wish to express their deep gratitude to the City of Salem staff, the city's elected officials, Salem's Mission Mill Museum, Oregon Historical Society, University of Oregon Knight Library, residents of Salem's North Downtown, and many others who supported and encouraged the student teams. We also gratefully acknowledge and appreciate the dedication and hard work of the student teams and the University of Oregon faculty. Their efforts have helped turn Sustainable City Year program vision into a reality.

About SCI

The Sustainable Cities Initiative (SCI) is a cross-disciplinary organization at the University of Oregon that seeks to promote education, service, public outreach, and research on the design and development of sustainable cities. We are redefining higher education for the public good and catalyzing community change toward sustainability. Our work addresses sustainability at multiple scales and emerges from the conviction that creating the sustainable city cannot happen within any single discipline. SCI is grounded in cross-disciplinary engagement as the key strategy for solving community sustainability issues. We serve as a catalyst for expanded research and teaching, and market this expertise to scholars, policymakers, community leaders, and project partners. Our work connects student energy, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

About SCY

The Sustainable City Year (SCY) program is a year-long partnership between SCI and one city in Oregon, in which students and faculty in courses from across the university collaborate with the partner city on sustainability and livability projects. SCY faculty and students work in collaboration with staff from the partner city through a variety of studio projects and service-learning courses to provide students with real-world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCY's primary value derives from collaborations resulting in on-the-ground impact and forward movement for a community ready to transition to a more sustainable and livable future. SCY 2010-11 includes courses in Architecture; Arts and Administration; Business Management; Interior Architecture; Journalism; Landscape Architecture; Law; Planning, Public Policy, and Management; Product Design; and Civil Engineering (at Portland State University).

About Salem, Oregon

Salem, the capital city of Oregon and its third largest city (population 157,000, with 383,000 residents in the metropolitan area), lies in the center of the lush Willamette River valley, 47 miles from Portland. Salem is located an hour from the Cascade mountains to the east and ocean beaches to the west. Thriving businesses abound in Salem and benefit from economic diversity. The downtown has been recognized as one of the region's most vital retail centers for a community of its size. Salem has retained its vital core and continues to be supported by strong and vibrant historic neighborhoods, the campus-like Capitol Mall, Salem Regional Hospital, and Willamette University. Salem offers a wide array of restaurants, hotels, and tourist attractions, ranging from historic sites and museums to events that appeal to a wide variety of interests. 1,869 acres of park land invite residents and visitors alike to enjoy the outdoors.



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This report represents original student work and recommendations prepared by students in the University of Oregon's Sustainable City Year program for the City of Salem, the Urban Renewal Agency of the City of Salem, or the Salem Housing Authority. Text and images contained in this report may not be used without permission from the University of Oregon.

Executive Summary

This concept plan mainly aims to restore the ecology along Mill Creek and the Willamette River and transform the North Downtown Riverfront into a mixed-use neighborhood with affordable housing, public transit, community amenities, retail, a neighborhood market, and community gathering places. All five student groups recommend the restoration of Mill Creek, establishing trails along the Creek, and offering housing of various densities for residents with different incomes. The concept plan also addresses issues such as lack of connectivity between east and west Salem, and transportation barriers from the project site to downtown Salem.

Overall, this concept plan envisions a transformation of North Downtown Salem into a vibrant neighborhood with residential housing, community space, and a viable market place. We envision the North Downtown Riverfront area becoming a place open and accessible to the public through an enhanced transportation network and equitable design principles.

The concept plan is made in consideration of the City of Salem's Vision 2020, Salem Comprehensive Plan 2009, the Urban Renewal Plan, local citizens' input and experts' opinions. In the concept plan, proposals from the five student groups are synthesized into five goals and recommendations.

The Appendices provide valuable information about Salem's history, such as its early human settlements and city growth during the 19th and 20th centuries. The History section informs us how Salem was developed and offers us the basis for our site analysis and proposals. The Salem Today section gives information about key socioeconomic indicators and characteristics in the Salem area.

Background

Regional Context

Salem is located in the center of the Willamette Valley along the Willamette River in the state of Oregon, United States. It is also the state capital of Oregon. With a population of 157,000, Salem is the third largest city in Oregon. To its south lies Eugene, and to the North is Portland, the largest city in the state.

History of the Salem Area

Every region has its own unique history of human settlement in a complex physical environment. To make a good plan, one has to realize the important role Salem's history played in its regional development. The following is a summary of Salem's history (A detailed summary of the history can be found in Appendix A):

- The Kalapuya Indians, the Willamette Valley's first inhabitants, wintered in the area later called Salem for more than 5,000 years before non-native settlers arrived.
- The first European-Americans arrived in the Salem area in 1812. They worked as trappers and food gatherers for the fur trading companies in Astoria, Oregon.
- Jason Lee, a Methodist missionary, originally settled in Salem in 1834 on the French Prairie, north of present-day Salem on the east bank of the river, and established the first "Oregon Mission."
- In 1841, Lee moved the mission farther south to an area that lies within the North Downtown Riverfront site in present-day Salem.
- By 1850, the Native American population in Oregon was reduced to 30,000 due to diseases brought by early settlers.



Figure 1: Salem in a Regional Context.
Source: www.oregonlink.com

- By the 1880s, Salem had become a hub for agriculture, logging, food processing, and wool milling; businesses exported these goods nationally and internationally.
- Mill Creek and the Willamette River have offered the power needed for industrial development in Salem since 1800.
- Beginning in the 1920s, Salem's economy was based on food processing, heavy commercial, timber logging, and equipment manufacturing.

Salem Today

- The median household income in Salem, \$42,035, is lower than that of Oregon; the poverty rate in Salem is 14%, the same as that of Oregon.
- Salem's largest employment sector is state government, accounting for about 25% of all jobs. Salem's location along the I-5 corridor and the city's high number of export commodities create significant employment in the trade and transportation sectors as well.
- The average age of individuals in North Downtown is younger than that of the city and the state. The average household size is significantly smaller, and there are considerably fewer households with children.
- The number of rental units occupied in Central Salem has been increasing over the last three years. Many of the units in the downtown area are cheaper and designed for students or low-income residents.
- Non-Hispanic Caucasians make up the highest percentage of people in Salem. There is an increasing Hispanic presence in the North Downtown Riverfront neighborhood, in part due to the large number of Hispanic employees working in food processing and manufacturing at Truitt Brothers Cannery, which is located in the North Downtown Riverfront area.
- Some industry clusters with further growth potential in Salem include processed food, retail clothing, and agricultural products.
- Educational attainment among Salem residents is similar to that of Oregon residents and United States residents at large.

Study Area

The project area is bounded by waterways on two sides, with Mill Creek to the north, and the Willamette River to the west, and by roads on two sides, with High Street on the east and Marion Street to the south. The project area contains 43 acres of land area and 84 tax lots.



■ ■ ■ Project Area Boundary
43 Acres

Project Area

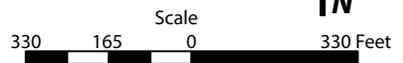


Figure 2: Project Area

Introduction

Project Development

During fall term 2010, graduate students in the Planning, Public Policy, and Management department at the University of Oregon (UO) researched the Salem North Downtown Riverfront area. They used an interdisciplinary approach and collaborated with UO Architecture students to develop concept plans for the area. Each group's research shared the following steps:

- In October 2010, all groups visited and toured the Salem North Downtown area, attended the City of Salem's presentation about the expectations for the project, and talked to city officials and planners.
- The students joined architecture students in a charrette to share their primary design ideas about the project area.
- The students returned to the project area a number of times, talked to local residents, and researched specific sites to learn more about Salem's history, early settlement, and social, demographic, and economic characteristics.
- The students analyzed the strengths and challenges of the site using demographic and economic data and land use information.
- The students reviewed and considered existing plans for the site, as well as local community input.
- The students presented their concept plans to the City of Salem in December, 2010.

The final step is to complete this report and present it to the City of Salem.

Report Development

The final report is produced based on the synthesis of all five groups' plans. The five groups based their plans on the following principles:

- To increase the connectivity between the North Downtown Riverfront area and the rest of Salem.
- To promote multi-modal transportation, especially public transit, biking, and walking.
- To transform the neighborhood into a viable place with necessary community amenities.
- To encourage healthy ways of life and restore the ecology of Mill Creek and the Willamette River.
- To ensure equity, openness, and accessibility of the site to other regions.

- To enhance a sense of community.

The five following goals emerged from the synthesis of these documents:

- Goal 1: Provide places for people to live downtown.
- Goal 2: Provide a vibrant destination with places for people to meet and gather.
- Goal 3: Promote sustainable transportation options within the site, city, and region.
- Goal 4: Improve hydrologic health and enhance ecosystem services.
- Goal 5: Encourage appropriate development with coordinated regulations and design standards.

Goals and Recommendations

Introduction

Based on our project site analysis and input from local citizens and experts, we came up with five different strategies to achieve various development goals in the Salem North Downtown Riverfront area. This report addresses the opportunities, barriers, and impacts of redevelopment. We approach redevelopment with the intention of establishing a long-term, mixed-income, transit-oriented, residential community. To evaluate the community's needs and desires for the district, we looked to the following documents:

- Downtown Strategic Action Plan (2010)
- Riverfront-Downtown Urban Renewal Plan (2009)
- Salem Area Comprehensive Plan (2009)
- Vision 2020 Action Plan (2008)
- Salem Transportation System Plan (2007)
- North Downtown Redevelopment Plan (1997)
- Salem Zoning Code



Figure 3: Concept Plan Map

Our recommendations are based on the assumptions that land in the downtown core will continue to be more valuable, the market will change to favor high-density residential development, and energy prices will become more volatile. We proposed projects that have the greatest potential to impact the entire community and the ability to achieve multiple objectives through a single action. The recommendations for the project site are divided into five sections based on the following goals:

Goal 1: Provide places for people to live downtown.

Goal 2: Provide a vibrant destination with places for people to meet and gather.

Goal 3: Promote sustainable transportation options within the site, city, and region.

Goal 4: Improve hydrologic health and enhance ecosystem services.

Goal 5: Encourage appropriate development with coordinated regulations and design standards.

Goal 1: Provide Places for People to Live Downtown

The lack of sufficient affordable housing options in Oregon is a serious problem. Current trends show that there is a need for affordable housing specifically within Salem city limits and in downtown Salem. Figure 4 shows that most of the people renting in Salem and Marion County are living in multi-family rental structures, not single family homes. The combination of low vacancy rates (see Figure 5) and high rental occupancy is a good indicator that there is a need for affordable and market value multifamily rentals inside the city. Additionally, the Salem Vision 2020 process reveals that developing new housing in the downtown area is one of the most strongly supported projects. In particular, Salem Vision 2020 participants saw the need for projects that emphasize the importance of housing, stimulate continued revitalization of the city center and maintain the health of the city overall. Participants also sought a range of housing options for a variety of income levels including more mixed-use housing and more of the amenities that support urban housing. Furthermore, the Riverfront/Downtown Core Area

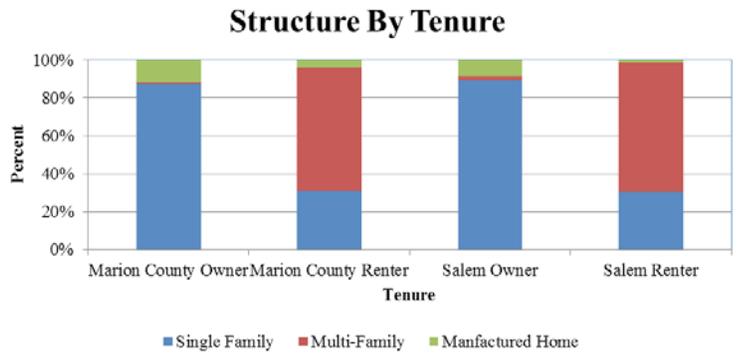


Figure 4: Family Housing Structure by Tenure. Source: American Community Survey 2009; US Census 2000

	United States		Oregon		Marion County		Salem	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Occupied	113,616,229	87%	1,485,919	91%	112,323	93%	57,667	92%
Vacant	16,333,731	13%	153,620	9%	8,609	7%	4,843	8%

* U.S. Census ACS 2009

Figure 5: Vacancy Rate 2009. Source: American Community Survey 2009

Affordable Housing in Eugene, Oregon

Collaboration in Eugene, Oregon between the City and St. Vincent de Paul demonstrates the possibilities when a city works closely with private or non-governmental entities dedicated to affordable housing. The Aurora Building in downtown Eugene is a result of collaboration between St. Vincent de Paul and the City of Eugene. The Aurora Building is a five-story, 54-unit mixed-use building, with 7,000 square feet of commercial space on the ground floor. In addition to providing affordable housing, the project promotes sustainable living by decreasing the impact on good soils, using existing infrastructure, encouraging alternate modes of transportation, and being a model for energy efficiency.

Master Plan identifies the North Downtown area as a place to develop a wide range of new housing and mixed-use projects that take full advantage of the benefits of being near downtown, the riverfront, and the Capitol Mall.

We suggest that the city provide housing for residents of various incomes in the North Downtown Riverfront area and disperse affordable housing throughout the site. Proponents of mixed-income neighborhoods assert that dispersal of affordable housing provides low-income populations access to amenities and social resources. A report by the Great Communities Collaborative states, “For low-income residents, living in a mixed-income neighborhood instead of a concentrated poverty area can mean less crime, higher quality education, and better health” (2007).

We also suggest that the city encourage developers to make affordable housing

look like market-rate housing with the only difference being in size. This technique provides a dignified presence on the street and avoids the stigma often associated with housing developments that are clearly “affordable.” Design that mixes lot and housing size adds physical variety to a neighborhood, increases density, and prevents the segregation of incomes. This “blending in” helps maintain overall property values and allows for a variety of uses and reuses over time.

The character of housing developed on the site will be transit-oriented, within 1/4 to 1/2 mile of the proposed Transportation Hub, which is described under Goal 3. Due to the transit-oriented nature of this site, housing will be required to be built out to the street. Parking requirements will be reduced due to the decreased need for car ownership.

The transit-oriented development will provide an

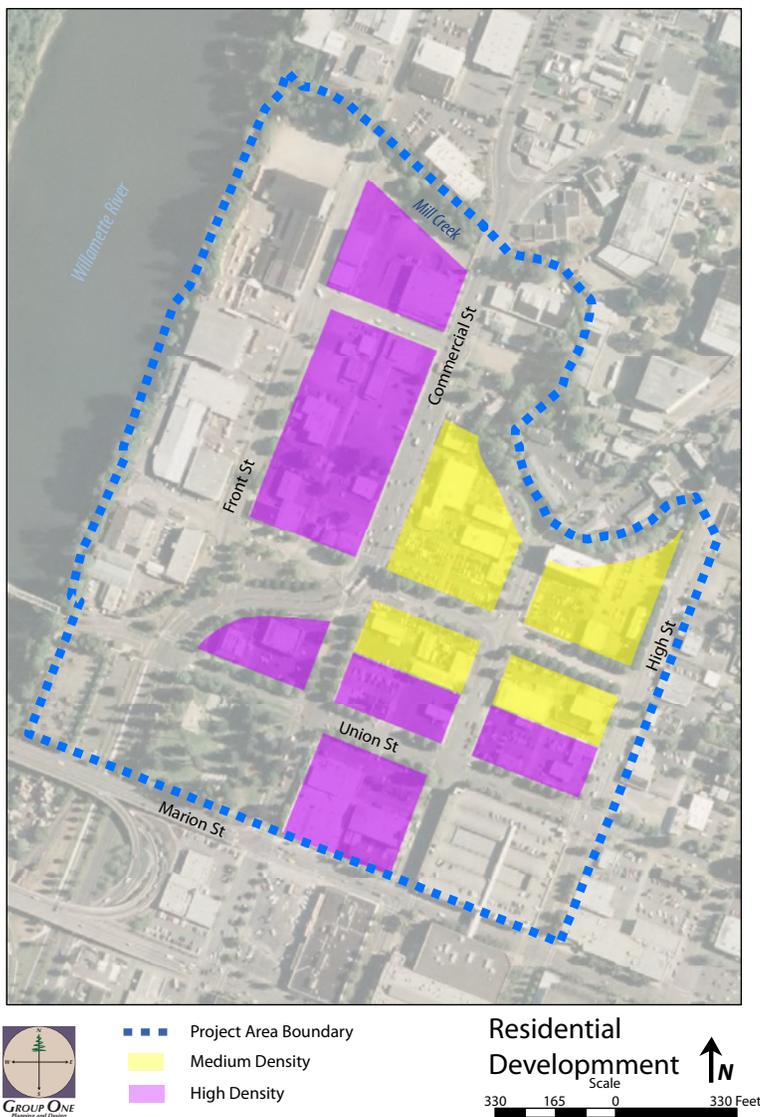


Figure 6: Residential Concept Plan

incentive for Salem residents to live in the downtown core. Salem residents will be able to access Willamette University, state government offices, and downtown from this site via a rubber-wheel trolley, and residents along the Portland-to-Salem corridor will be able to more easily access employment and recreation opportunities upon the completion of the commuter rail extension (see Goal 3, below). Access to affordable housing near public transit will also serve Salem's aging baby boomer population. (For a detailed analysis of age group trends in Salem, see Appendix B.)

The parks and green spaces proposed on the project site, which are described under both Goal 2 and Goal 4, will increase housing values and provide incentive for developers to begin projects. Open space was cited as an asset by focus group participants in the Core Area Housing Market Study (ECONorthwest 2002). This proposal will enhance open space adjacent to the Willamette River and will create a riparian corridor and off-street path adjacent to Mill Creek. These developments will increase land values and the desirability of the North Downtown area as a place to live.

Within the North Downtown Riverfront site, 23.33 acres should be dedicated to residential use (more than half of the 43 acres of the project area). The following concepts offer a variety of housing types for a range of income levels.

Dwelling Unit Type	Acres	Units Per Acre	Total New Dwelling Units
Marion Square Apartments	1.64	50	82
Union Street Apartments	5.17	50	259
Waterfront Residences	7.97	50	398
Mill Creek Village	6.03	12	72
Mill Creek Garden Apartments	2.52	16	40
Total	23.33		852

Note: Assumes maximum number of units per acre according to type

Figure 7: New dwelling units by type, for proposed development

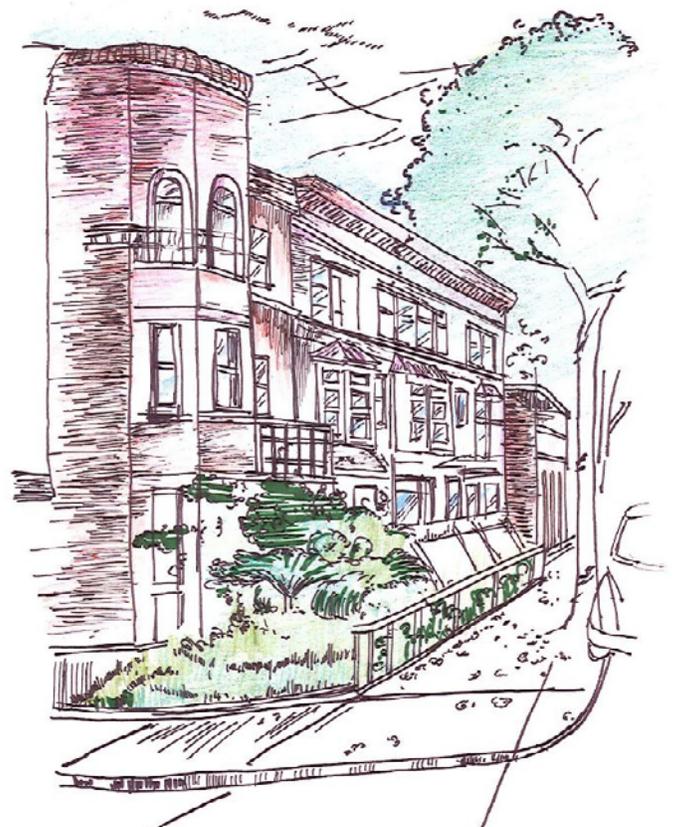


Figure 8: An Illustration of a Townhouse. Source: Nan Zhao

Marion Square and Union Street Apartments

Mixed residential and retail use that provides a place for people to live and gather.

In an effort to restore the prominence of one of Salem's oldest parks, Marion Square Park, this plan proposes a return of the residential development around Marion Square. The Marion Square Apartments will overlook the Marion Square Park adjacent to Union and Commercial Streets. At the turn of the century, residential development surrounded the park and extended along Front Street. While the Marion Street Bridge and the growth of Salem changed the character of the park and the surrounding streets, the park continues to serve as an important addition to downtown culture.

We recommend that the city allow and encourage the construction of four-story, mixed-use buildings (ground floor retail and three stories of housing above) north and east of the park along Union Street. In addition to on-street parking, Marion Parkade, an existing, underutilized parking structure, can meet residents' parking needs.

Both the Marion Square and Union Street Apartments contribute to our vision for the neighborhood, providing a place for people to live and gather. With 50 dwelling units per acre, the Marion Square Apartments will accommodate 82 new dwelling units and the Union Street Apartments will accommodate approximately 259 new units. The Marion Square Apartments and businesses located below create "eyes on the street," making the park and surrounding streets safer at all hours. The first-floor retail activity will extend along Union Street. This concentration of retail uses will help to create a critical mass of customer activity, which will also serve the goal of creating a vibrant destination. Furthermore, traffic calming on Union Street, which is described under Goal 3, will minimize the traffic impact on the area and make both retail and residential uses more enjoyable.

Waterfront Residences

Intensive, high-density housing concentrated along Front Street that provides a mix of housing affordability.

The proposed Waterfront Residences would contribute to making the North Downtown area a place for a variety of income levels to live and gather. These residences are intended to fill the significant gap in availability of affordable housing. These four-story buildings will be adjacent to the Market District, which is described under Goal 2. Adding 50 new units per acre on nearly eight acres creates over 390 additional units with a partially below-grade parking garage. This higher-density housing will provide a large population base to support the Market District. Additionally, the four-story apartment complex will serve as a buffer between the commercial uses of the Market District and the lower-density residences to the east of the project site.



Figure 9: An Illustration of Riverfront Housing. Source: Nan Zhao

Mill Creek Village

This area will act as a buffer between retail and high-density housing along Commercial and the existing single family homes in the Grant Neighborhood.

The proposed Mill Creek Village would provide a mixture of housing. The area encompasses just over six acres and will accommodate 72 new dwelling units at 12 units per acre. This medium density mixture of owned and rented housing on small lots (1,500-4,000 square feet) will provide an attractive place that allows families to live and work near the city center. Additionally, shared parking opportunities have the potential to reduce the impact on the surrounding neighborhood.



Figure 10: An Illustration of Mill Creek Garden Apartments. Source: Nan Zhao

Mill Creek Garden Apartments

The area between the Union Street Apartments and Mill Creek Village will act as a buffer between higher and lower density uses.

Moderate density multi-family residential provides a transition from the row houses in Mill Creek Village to the higher-density apartments along Union Street. These two-story apartments will support the goal of providing places for people to live downtown. The 2.5 acres committed to moderate density residential development should accommodate 40 new units at 16 units per acre.

Recommended Implementation Strategies

A) To promote affordable housing options, initiate land acquisition and a request for proposals (RFP):

- Purchase the land with tax increment money
- Form a housing land trust through a partnership with the Northwest Community Land Trust Coalition
- Announce an RFP for developers interested in building subsidized housing.

B) Provide incentives for developers of affordable housing through state and local programs and entities such as:

- Oregon Housing and Community Services
- Oregon Affordable Housing Tax Credit
- Low Income Housing Tax Credit Program
- Housing Development Grant Program
- Housing Plus Program
- General Housing Account Program
- Salem Housing Authority

C) Explore federal funding opportunities for affordable housing:

- The Federal Low-Income Housing Tax Credit Program finances a portion of costs for affordable housing
- HOPE VI distributes funds to public housing agencies (PHAs) to finance public affordable housing.

Goal 2: Provide a Vibrant Destination with Places for People to Meet and Gather

The original name given to Salem by the Kalapuya Indians was “Chemeketa” which means “meeting or gathering place.” (For a description of Salem’s early settlers, see Appendix A.) In order to restore the North Downtown Riverfront area as a vibrant destination with places for people to meet and gather, we suggest that Salem develop a Willamette River Market District. The proposed Market District is roughly nine acres bordering the Willamette River between Union Street and Mill Creek.

The Market District will consist of an indoor Public Market, a Community Garden and Cannery and a Salmon Celebration Park. The current industrial uses between the Willamette River and Front Street cut off public access to the river. (See Appendix B for a detailed description of current land uses on the site.) A Riverfront Promenade, which is described in detail under Goal 3, will establish connections between parks and provide residents and visitors easy access to the natural beauty of the Willamette River, Mill Creek, and amenities of the Market District. (See Appendix C for a detailed description of Mill Creek and the Willamette River.) In addition to the community facilities, the Market District will create an environment for local businesses, such as restaurants that serve locally-produced foods.

Agriculture is a key part of Salem's history and economy (See Appendix A for the geological processes that have established Salem as one of the most fertile and agriculturally productive regions in the United States.) Salem had its beginnings as an agricultural center and is still a large agricultural producer, processor, and exporter. The Public Market and adjacent restaurants will give the residents of Salem a taste of their history as well as a modern connection to locally grown products.

Public Market

The Public Market provides a new, permanent, year-round facility for Salem's Saturday Market and Wednesday Farmers' Market. Currently, these markets are only open from April to October. On Saturday and Wednesday about 300 vendors sell products at the farmers' markets. We propose a Public Market adjacent to the Union Street Railroad Bridge that provides local products year-round in a building large enough to support the 300 vendors and allow room for growth. Moving the existing Farmers' Market to the Public Market, near the proposed residential development, provides the vendors with a solid customer base. The regional rail line and the local trolley route, which are discussed in greater detail under Goal 3, provide residents and non-residents easy access to the Market District.

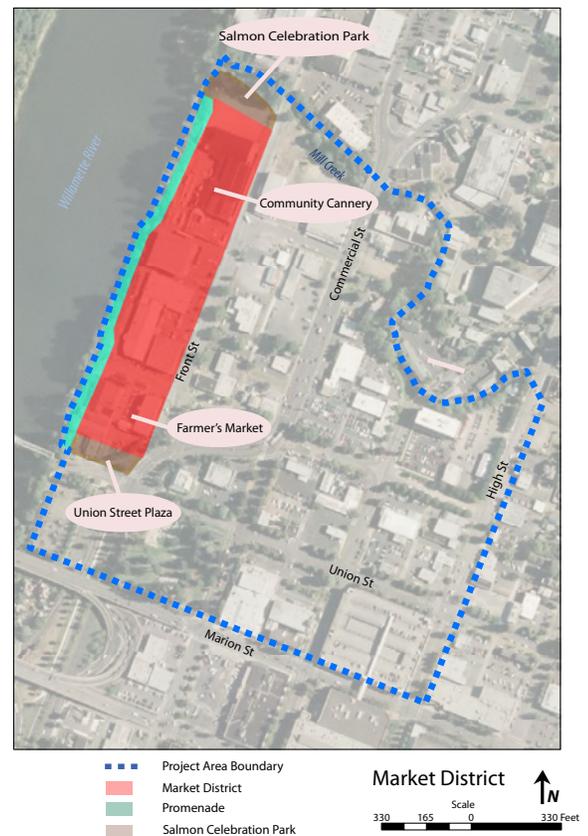


Figure 11: Market District Concept Plan

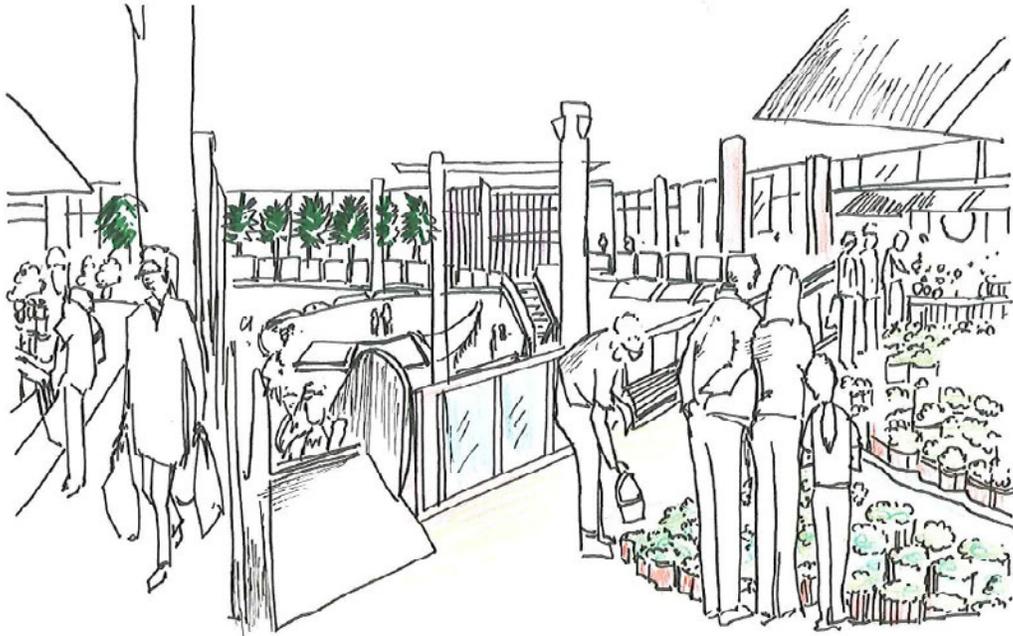


Figure 12: An Illustration of a farmers' market. Source: Nan Zhao



Figure 13: An Illustration of the proposed Public Market District. Source: Nan Zhao

Market Districts in Seattle, Washington and Columbus, Ohio

The most well-known public market is the Pike Place Market in Seattle, Washington. The Pike Place Market is in a historic building that draws over 10 million visitors every year. The surrounding area is anchored by the market and has developed into a lively district. The surrounding district is filled with vendors, restaurants and entertainment.

Another example of a public market spurring development of a lively district is the North Market in Columbus, Ohio. The North Market was constructed in an historic building, just outside of downtown Columbus. The success of the North Market brought many businesses to the area, creating a restaurant and nightlife district. Some of the restaurants around the North Market incorporate the local food sold at the market into their menus. This allows Columbus residents a chance to taste seasonal, locally grown produce at local restaurants.

Community Garden and Cannery

A community garden and cannery will promote neighborhood cohesion and provide a place for people to meet and gather. The community garden could be part of the Marion-Polk Food Share community garden program. The current



Figure 14: Illustration of proposed Community Garden and Cannery. Source: Rena Schlacter

program includes over 30 sustainable garden projects with neighborhoods, schools, and churches, and hosts regular garden workshops and events. The cannery could serve as a multipurpose building for activities such as canning, cooking classes, and community dinners. The proposed location is on the corner of D and Front Streets. The building that is currently at this location could be adapted for reuse as the community cannery.

The canning industry is an important part of Salem's history. (See Appendix A for the role of food processing in Salem's history.) At one time, Salem was the cannery capital of the world. The historic Truitt Brothers Cannery, which is still in operation today, is located just north of the proposed Market District. A community cannery will allow residents to carry on the tradition of preserving locally grown food and increase Salem's food security.



Figure 15: A View of the Willamette River. Source: Ron Cooper

Salmon Celebration Park

The focal point of the project site lies at the confluence of the Willamette River and Mill Creek. The creek was once a vibrant place for spawning salmon and trout. There is evidence that Native Americans were drawn to this site because of the rich resources. Salmon have been used for food in the Pacific Northwest for more than 9,000 years.

Currently, there is land at the mouth of the Mill Creek that can be revegetated with native plants. The Salmon Celebration Park will allow visitors to enjoy both the Willamette River and Mill Creek from an observation deck surrounded by low growing riparian shrubs. Native Maple, Cottonwood, Oak, and Ash trees will provide shade. Visitors will have the opportunity to observe and celebrate the ecological history of this site. A promenade along the Willamette River will connect Riverfront Park to the Salmon Celebration Park and an off-street path along Mill Creek will provide an east-west connection to Olinger Pool Park.

Recommended Implementation Strategies

- A) Explore opportunities for tax incentives for adaptive reuse of industrial buildings that could be converted into an indoor Public Market and a community cannery.
- B) Create a Business Relocation Assistance Program that will provide support and incentives to existing businesses that need to relocate. This will create redevelopment opportunities within the Market District.
- C) Use city funds to construct the Public Market.
- D) Explore partnerships with the City of Salem Parks Division, Marion-Polk County Food Share, Truitt Brothers, The Union Gospel Mission, Wilco Farm Stores, Marion

Ag Service, NORPAC Foods growers, and Farmers Ending Hunger to develop the community garden and cannery.

E) Explore partnerships with the City of Salem Parks Division and Historic Preservation Department, the Salem-Keizer Urban Watershed Council, Confederated Tribes of the Grand Ronde, and the Marion County Historical Society to help create the Salmon Celebration Park. These key partners can serve as a taskforce or committee that could identify other partners and funding sources.

Goal 3: Promote Sustainable Transportation Options within the Site, City, and Region

Currently, private automobile traffic takes priority on Salem’s streets. Two major arterials, Commercial and Liberty Streets, run through the project site. These streets serve as regional connectors for the local portion of State Route 99 and account for the majority of automotive traffic in the project area. The Commercial/Liberty couplet and Front Street have both evolved into thoroughfares prioritizing car throughput over pedestrian access and cutting off the area from the downtown core.

Access to transit within the North Downtown Riverfront area is limited due to the relatively large block sizes and limited availability of bus stops. Currently, just three stops are within close walking distance to the site. The train tracks that run down the center of Front Street limit future street crossings and traffic capacity, and can be imposing to motorists driving next to a fully-loaded freight train. However, this perceived obstacle is potentially the district’s greatest strength. The tracks offer an opportunity to extend a commuter rail line along Front Street. A Transportation Hub at Union Street will connect the North Downtown Riverfront area and the City of Salem to the region.

Last mile connections, or transportation to destinations within close proximity to the Transportation Hub, will be made by a rubber-wheeled trolley. An active transportation network will radiate outward from the Union Street Bridge, further connecting the rail station to the surrounding neighborhoods. We define active transportation as human-powered forms of transportation, the most common of which are walking and bicycling. The system

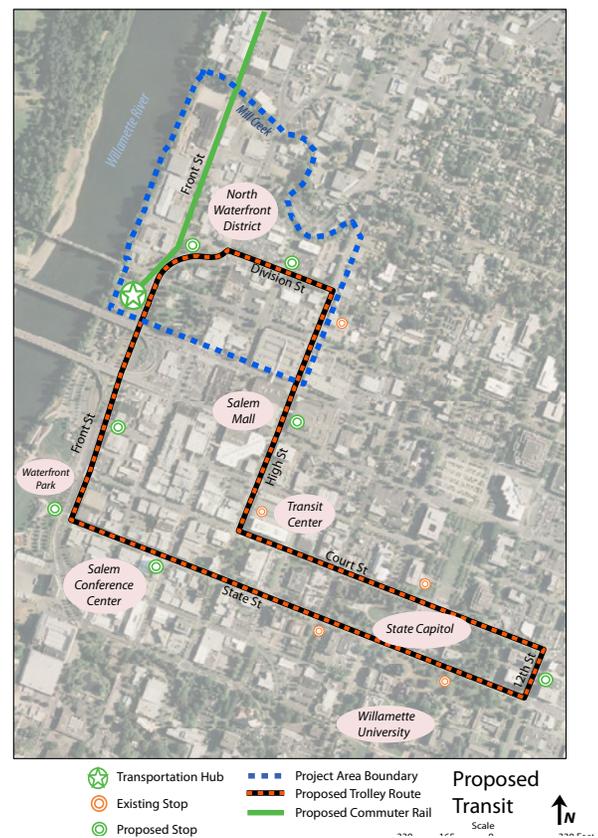


Figure 16: Transportation Concept Map



Figure 17: Proposed WES Extension. Source: Oregon Department of Transportation

of street improvements and off-street paths will provide connections between residential development, parks, the downtown core, and a regional rail line. Increasing mass transit options and making the North Downtown Riverfront area safer and more attractive for pedestrians and cyclists will fulfill the goal of promoting sustainable transportation options within the site, city, and region.

Improve Mass Transit Options

We propose a multi-modal transit center, or Transportation Hub, at the corner of Union and Front Streets. We identified this site for its proximity to the downtown core, historical ties with the repurposed Union Street Railroad Bridge, and configuration within the existing track right of way. (See Appendix A for the history of rail in Salem.) The high levels of employment concentration in the downtown core and expected increase in residential densities present an opportunity for a commuter rail station in downtown Salem.

The proposed rail service would extend the Westside Express Service (WES) commuter rail south from Wilsonville to Salem, with stations in Woodburn, Keizer, North



Figure 18: An Operating TriMet Light Rail Train in Portland. Source: www.railpictures.net

Westside Express Service

In 2009, TriMet opened the Westside Express Service (WES) commuter rail line on the northern section of the OE line (the eastern alignment), operated by Pacific Northwest Rail Corridor (PNWR). The commuter rail service connects TriMet's light rail, serving Beaverton Transit Center and the cities of Tigard, Tualatin, and Wilsonville. WES operates on 14.7 miles of tracks, has five stations, and cost \$161 million to build. WES connects TriMet with other transit agencies at the Wilsonville station, including Canby Area Transit (CAT), Salem-Keizer Transit (Cherriots), and South Metro Area Regional Transit (SMART).

Current WES service is operated using self-propelled diesel locomotives, in which an engine car allows passenger seating rather than the traditional locomotive configuration where an engine car tows passenger cars. Engine cars are able to seat 74 passengers, while the trailer cars can seat up to 80 passengers. The train sets are run in a variety of configurations, with a minimum service of one car seating 74 and a maximum of two engine cars and one trailer, seating 228 passengers. Service frequency is highest at the peak commute times in the morning and late afternoon, with a 30-minute service frequency.

Salem, and Central Salem. The alignment could extend south from Wilsonville using the right-of-way on the former Oregon Electric (OE) line on which WES currently operates. Service could use the existing train sets, with additional sets purchased of comparable design. Existing levels of service running every 30 minutes during peak commute times could be extended as well.

The existing tracks on the site are in poor condition and in need of an upgrade. Upgrades are essential for both freight and commuter transit uses of the tracks. They also provide the opportunity to incorporate the needed pedestrian enhancements along Front Street, which are described in detail in the active transportation section below. The tracks should be separated from both vehicle and pedestrian traffic with landscaped medians.

By utilizing vacant land below the Marion Street overpass, Salem can construct a Transportation Hub. The commuter rail station will be a simple covered platform consistent in size and structure with existing WES platforms. The Transportation Hub will also include a bike station and platform for connecting trips to the rubber-wheeled trolley.

Consistent with our principle of supporting alternative modes of transportation, the station will not include on-site parking. Instead a bike station will provide room for bicycle parking, a bike-share program, storage lockers, changing rooms, and showers. Creating a transit center that rethinks the traditional automotive-based "park-and-ride" will capitalize on the strategic investments the city has made in the Union Street Bridge.

Bus stops already exist at Union and Front Streets. Additional accommodations

may need to be considered to facilitate connections between commuter rail and buses. To increase local mass transit connections to the community, a rubber-wheeled trolley will run from the Transportation Hub around the city center and the Downtown Transit Mall. Service frequency will be coordinated with train arrivals to run trips at a minimum of every half hour. The trolley will serve the State Capitol, Willamette University, public and private sector employers, and the Transit Mall on its 2.5-mile route.

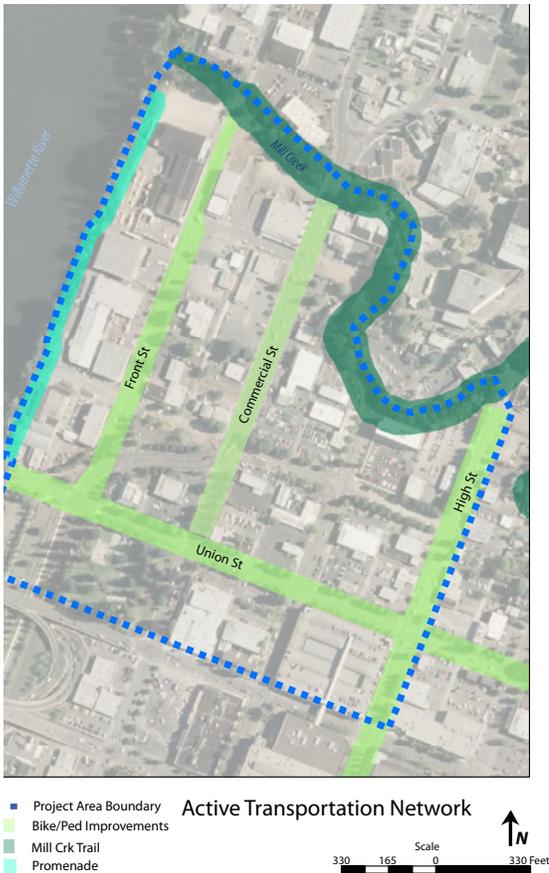


Figure 19: Bike and Pedestrian Improvement Map

Improve the Active Transportation Network

To meet the goal of promoting sustainable transportation options within the site and city, we encourage the city to implement changes to the current street system that will facilitate the use of active modes of transportation. Although the suggestions below focus on improvements within the project site, we suggest that Salem consider how these routes will connect with bicycle and pedestrian facilities in the city as a whole to provide connections to major employers such as Willamette University, state government offices, Salem Hospital, and downtown. The proposed changes address the barriers to active transportation detailed in the site analysis, including large block sizes, lack of options for traveling east-west, high traffic volumes and speeds, challenging crossings at major intersections, and lack of separation between motorized and non-motorized forms of transportation.

Grid System

The large, rectangular block sizes in the project area deviate from the surrounding grid of small, square blocks, inhibiting all modes of transportation within the site. We suggest that Salem reestablish the historical grid system to break up the large blocks on the site. (See Appendix A for the historical and geographic factors that influenced Salem’s transportation network.)

The city can reestablish First Street NE as a multi-modal street that intersects Commercial Street NE and runs east to intersect with High Street NE. The city can re-establish Belmont Street through Front Street NE to terminate at the edge of Water Street NE. D Street NE once continued from Commercial

Street to Mill Creek. This segment can be reestablished as an off-street path for bicyclists and pedestrians. The city could provide a bicycle/pedestrian crossing at D-Street NE across Commercial Street NE.

ODOT's Handbook for Making Jurisdictional Transfers

Transferring Roads. "A Handbook for Jurisdictional Transfers" (2003), provides helpful criteria and guidelines for the process of transferring a State Highway to control of a local jurisdiction. ODOT or a local government can initiate the process of a jurisdictional transfer.

"The trigger for a jurisdictional transfer may be a highway project or the desire of ODOT or a local government for a change. A transfer requires the agreement of the state and all affected local governments. Both the state and local governments want the transfer to be a "win-win" for all parties. There are many ways of achieving this, and each transfer is unique because of the ownership of the right of way, condition of the highway and related features, need for improvements, and possible compensation or trade issues."

(Transferring Roads, 2003, ODOT)

Commercial Street

Commercial Street, or Highway 99E/Salem Parkway NE, is a heavily used inter-regional traffic corridor owned by the state. Oregon Department of Transportation (ODOT) requirements and regulations regarding state highways may prevent the changes that are necessary to make the street friendly to active transportation. Therefore, we suggest that Salem study the feasibility of transferring the jurisdiction of the section of Commercial Street NE that runs through the project site from the state to the city. This would give the city more flexibility in creating innovative approaches to traffic flow. ODOT has a handbook for facilitating such transfers.

We recommend that Salem consider changing the Transportation System Plan (TSP) recommendations that discourage additional intersections along Salem Parkway NE. Intersection density may be the most important built environment variable influencing an individual's decision to walk. Additional pedestrian crossings will diminish the obstacle of long blocks.



Figure 20: An example of a bold painted and buffered bicycle lane. Source: Joe Shlabotnik

The section of Commercial Street that runs through the project site has a striped bicycle lane, but people who are uncomfortable riding in mixed traffic might find this route intimidating. We suggest painting the bicycle lane with a bold color and adding in a two-foot buffer zone between the automobile and bicycle travel lanes. This will increase awareness and separation between bicyclists and automobile drivers.



Union Street

The Union Street Railroad Bridge provides a connection between West Salem and our project site. Union Street has the potential to provide a safe, user-friendly route for bicyclists and pedestrians to access the bridge or continue traveling east through the site.

A major barrier to active transportation on Union Street is crossing at major intersections. We suggest installing a High-intensity Activated Crosswalk (HAWK) signal at the intersection of Union Street and Commercial Street. Push buttons should be provided for both cyclists and pedestrians. The signal lights would stay dark and allow a free flow of traffic on Commercial Street until a pedestrian or cyclist activates the signal. For other busy intersections, such as Union Street and Front Street, we suggest raised crosswalks. By raising the crosswalk three to four inches above the roadway, pedestrian crossing locations become more visible to drivers. Raised medians provide the additional benefit of slowing the speed of automobiles.

Figure 21: Union Street viewshed, with proposed changes. Source: Rena Schlacter

We propose that Union Street include colored bike lanes, a landscaped median and curb extensions. The colored bicycle lane will highlight the presence of cyclists. The landscaped median will provide a refuge for pedestrians who are unable to cross the street in one stage. The curb extensions will reduce the distance that pedestrians must travel to cross the street. These features will work together to visually narrow the roadway, reducing automobile speeds.

Front Street

The Pedestrian Element of the Salem Transportation Plan identifies Front Street as the only street lacking sidewalks in the North Downtown area. The city should complete the sidewalk network along Front Street using sustainable materials if possible. Options include recycled or locally-sourced paving materials and permeable or porous pavement. The sidewalks should include buffers of drought-tolerant native plants. To facilitate pedestrian crossings, we suggest installing raised crosswalks on Front Street at the intersections of Division Street and D Street and at mid-block locations that provide access to the major amenities in the proposed Market District, which is described in detail under Goal 2.

We suggest installing landscaped barriers on Front Street between the railroad tracks and travel lanes to provide separation between trains and automobiles. We also propose landscaped curb extensions on Front Street. These traffic-calming features are intended to visually narrow the roadway and prevent automobiles from speeding through the project site. Rather, Front Street would provide access to the Market District.

High Street

High Street provides a north-south link between Union Street and the Mill Creek Path. Traffic calming along this route will improve bicycle and pedestrian access to the proposed Mill Creek Village residential development, which is described in detail under Goal 1. As with Union Street, we suggest that the city use colored bicycle lanes, raised crosswalks, and landscaped curb extensions along High Street.

Off-street Paths

The Union Street Railroad Bridge is an asset for pedestrians and bicyclists coming to the North Downtown Riverfront area. The city's Riverfront Park provides a pleasant path for travel to the south; however, there are not good options for traveling north or east of the bridge. There is a bike lane on Commercial Street, and bike lanes are proposed on Marion and Center Street, but inexperienced cyclists are often unwilling to use bike lanes on heavily-trafficked streets. Research conducted by Jennifer Dill and John Gliebe indicates that women and infrequent cyclists will often go out of their way to utilize bicycle facilities on low traffic streets and off-street paths (2008).



Figure 22: Bike path in Salem's Riverfront Park. Source: Travel Salem

We propose off-street paths along the Willamette River and Mill Creek Path. The Willamette River Promenade will provide an off-street path for travel north of the Union Street Bridge. It will allow pedestrians and bicyclists to enjoy the riverfront and access the Market District. Businesses in the Market District should provide entrances facing the river to ensure accessibility from the path.

The Willamette River Promenade would connect to the Mill Creek Path at the proposed Salmon Celebration Park. The current multi-use path along Mill Creek is a beautiful amenity for the Grant Neighborhood just east of the site. The existing trail does not connect

to any amenities east or west of the immediate neighborhood. The trail should extend east to Olinger Pool Park and west to the confluence of the Willamette River and the Salmon Celebration Park. This trail would require the addition of a pedestrian tunnel where Mill Creek passes under Commercial Street.

Multi-use Paths in Chattanooga, Tennessee and Eugene, Oregon

When the Tennessee Department of Transportation gave Chattanooga control of the Riverfront Parkway, a state highway that ran along the Tennessee River, it allowed the city to reconnect with the river. Through public-private partnerships, the city funded the three-year 21st Century Waterfront Plan. The project was completed in only 35 months without any City of Chattanooga general funding. The initiative helped Chattanooga become one of the major tourist destinations in the Southeast. The Chattanooga Riverwalk was a key factor in the revitalization of Chattanooga's downtown. The ten-foot shared use path stretches ten and a half miles from downtown to the Chickamauga Dam through a series of riverfront green spaces ("Chattanooga" 2010).

Eugene, Oregon is a good example of a city that has created a network of off-street paths along rivers and creeks. In addition to the Ruth Bascom Riverfront Trail System, the city built a separated path for pedestrians and bicyclists along the Amazon Creek. The Amazon Creek has undergone a major restoration project. In the 1950's the creek was straightened and deepened to reduce flooding which diminished the water quality and habitat for wildlife. Efforts have been made to reestablish native vegetation, stabilize the bank and improve the water quality. In addition to the environmental benefits, bicyclists and pedestrians now have an aesthetically pleasing route separated from traffic (Amazon Creek, 2010, p. 1-2).

Wayfinding

Wayfinding signage can advertise the best routes for active transportation within the project site. The signs should provide directional indicators and mileage to cultural and historical destinations within walking and biking distance. The signs also serve to distinguish one district from the next within a city. We propose that Salem include signs such as those designed by the BAM advertisement agency in the North Downtown Riverfront area.



Figure 23: An Example of Wayfinding Signage. Source: BAM Agency

Impacts

Our proposal attempts to reestablish the balance of the road for all modes of travel; however, unintended consequences may emerge. The implementation of traffic calming measures can shift traffic to neighborhood streets or I-5 and could potentially cause people to avoid downtown altogether. These are consequences that the city should consider when implementing traffic calming measures in the area.

Although it is difficult to predict whether or not people will be willing to change modes of transportation, we assume that by 2030 energy prices will be considerably higher than they are today. If Salem provides more attractive facilities for pedestrians and bicyclists, and housing within proximity to daily needs, people may be able to make more trips by active transportation, thereby reducing the amount of motor vehicle traffic altogether.

Recommended Implementation Strategies

A) To facilitate development of a Transportation Hub that rethinks the traditional automotive-based park and ride, relax parking requirements in the North Downtown Riverfront area by extending the Central Salem Development Program (CSDP).

B) Add recommended projects to the Salem Transportation System Plan:

- Rubber-wheeled trolley that will serve the State Capitol, Willamette University, Salem Hospital, public and private sector employers, and the Transit Mall on its 2.5-mile route.
- Union Street: bicycle and pedestrian-activated signals, raised crosswalks,

curb extensions, landscaped median, and colored bicycle lanes.

- Front Street: complete sidewalk system with landscaped buffers, raised crosswalks, curb extensions, and landscaped barriers for railroad tracks.
- High Street: raised crosswalks, curb extensions, colored bicycle lanes.

C) Explore feasibility of land assembly and business relocation in order to reestablish historical grid, including:

- First Street NE between Commercial Street NE and High Street NE.
- Belmont Street between Front Street NE and Water Street NE.
- D Street NE from Commercial Street to Mill Creek as an off-street path for bicyclists and pedestrians.

D) Initiate the process of jurisdictional transfer of Highway 99E/Salem Parkway NE from the state to the city to allow the flexibility to implement improvements to the active transportation network, including additional pedestrian crossings and a buffered, colored bicycle lane.

E) Explore opportunities for land assemblies or easements for off-street paths along Mill Creek and the Willamette River.

F) Set aside land to be developed as the Transportation Hub.

G) Work with the State of Oregon, the federal government, regional bodies, and other agencies to implement the extension of the Westside Express passenger rail line from Wilsonville to Salem.

Goal 4: Improve Hydrologic Health and Enhance Ecosystem Services

The best way to reduce the amount of pollutants in a stream is to prevent pollutants in stormwater from entering the stream in the first place. Reducing stormwater runoff can improve the quality of Mill Creek and the Willamette River. Small pockets of green space exist on the site, but for the most part, the site is covered by impervious surfaces, resulting in a highly-stressed conventional stormwater system.

To fulfill the goal of preserving and improving hydrologic health and renewing ecosystem services, we propose that the city preserve and expand green spaces and employ additional stormwater management techniques. In addition to improving the functionality of the Willamette River and Mill Creek waterways by mitigating the impacts of stormwater runoff naturally, this concept provides connections to other green spaces in Salem.

Expand Green Spaces

In the North Downtown, access to the Willamette River is obstructed by vacant

industrial buildings, empty lots, and the few remaining active businesses. We propose that Salem extend Riverfront Park as far north as Mill Creek. We suggest that the city amend SRC 137 to limit impervious surface area of the subwatershed to between 10 and 25 percent. The city should recover right-of-way along the river from the Union Street Bridge to the confluence with Mill Creek to create a riverfront promenade. This off-street path running through the green space will provide pedestrians and cyclists access to the Willamette River.

Considering that Mill Creek is identified as a priority rehabilitation environment and a significant wetland, it is essential to improve the environmental quality of Mill Creek. (See Appendix A for a description of how Mill Creek has been altered to serve industrial purposes.) We propose that the city establish an enforceable document, potentially as an amendment to the Willamette Greenway Overlay Zone (SRC Chapter 141), highlighting Mill Creek as a natural and cultural asset that must be preserved. The document should limit development possibilities within the floodplain. We suggest a 50-foot riparian corridor from the center of the creek maintaining native vegetation along the stream. The multi-use path should diverge from the creekside due to hydrological sensitivity of areas and security of path users. Impervious surface area within the Mill Creek subwatershed should be limited to less than ten percent.

The Willamette River and Mill Creek green spaces will connect at the Salmon Celebration Park. This site will look out over the river, connecting people with the Willamette River and reminding visitors of the river's significance to Salem. Access and proximity to green space has social utility in addition to ecological function. Green space is a source of equity, providing an egalitarian amenity to a community. For the sake of the emerging North Downtown neighborhood, parks and open spaces can provide social capital to cohesively bind housing development of varying price ranges and commercial ventures of various scales to a shared identity. Our objective is to strike a balance between public access to green space and sustainable stormwater mitigation.

Impacts

Efforts to improve natural habitat along Mill Creek and the Willamette River will impact property owners along the riparian area. Through the designation of a Habitat Preservation Zone, certain development and construction will be prohibited. In discussions between the city and private property owners about property conflicts within a preserved habitat area, challenges and disagreements will most likely emerge; however, the benefits of ecological improvement should outweigh these incongruities.

Green Streets

We suggest the use of bioswales as an additional technique to reduce stormwater runoff and pollutants. A bioswale is a low impact landscaping method that filters pollutants out of stormwater from parking lots and streets. A



Figure 24: An example of a landscaped curb extension. Source: Wikimedia Commons



Figure 25: An example of a green alley in Vancouver, BC. Source: Greatcity.org

bioswale is planted with native vegetation from the region, so it requires minimal maintenance. Rather than stormwater flowing directly into storm drains, a bioswale allows stormwater to soak into soil and filters out toxic pollutants. These pollutants are then prevented from entering waterways.

We plan to incorporate bioswales within our traffic calming features. For example, bioswales with native vegetation will be implemented on Union Street within the median and in roadside curb extensions. The barriers between train tracks and travel lanes on Front Street will also include bioswales. This technique can be used on sidewalks as a buffer between the street and pedestrians. Bioswales reduce stormwater runoff, create natural landscaping, and can be implemented amid traffic calming measures.

We also suggest that Salem create green alleys by removing impervious surfaces from all alleyways in the project site. In addition to the benefit of increased infiltration, the alleys can be adapted for use by bicyclists and pedestrians. This facilitates connectivity by breaking up long blocks. Reclaiming alleys will put “more eyes” on these spaces to discourage illicit activities.

Green Alleys in Vancouver, British Columbia

Vancouver’s green alley program removes impervious surface area to facilitate infiltration. The beautification of alleyways will encourage more bike and pedestrian use, facilitate connectivity between large blocks, and will provide green space to break up contiguous pavement. Alleys should be well-lit, and may provide communal space in addition to, or in transitional phases, in lieu of, proper local park space for community activities. They could also offer amenities for businesses such as outdoor restaurant seating, or public art space. Reclaiming these spaces will put “more eyes” on these spaces to discourage illicit activities (“Green Design” 2010).



Figure 26: An illustration of a green roof. Source: Brooklynfeed.com

Green Roofs and Rain Gardens

Green roofs are another stormwater management practice that reduces the prevalence of impermeable surfaces. A living roof absorbs and filters water and returns it to the watershed. Green roofs are capable of removing 50% of rainfall volume through retention and evapotranspiration. In a heavy rainfall, the rain not retained by the living roof is detained, delaying peak flows in the watershed. The Environmental Protection Agency (EPA) recommends that when a green roof is incorporated for stormwater management practices, the roof discharge should be routed to a rain garden or other stormwater collection system for further treatment. Rain gardens are designed to capture stormwater and filter out pollutants. We suggest that the city encourage green roofs and rain gardens through the use of Form Based Codes, which are described in detail under Goal 5.

Stormwater Mitigation in Portland, Oregon

Portland has been a trendsetter in testing alternative stormwater mitigation strategies. The “Tabor to the River” project created a partnership of sewer, green stormwater, and watershed improvements to aid their failing combined sewer/stormwater system. Portland has implemented strategies such as green roofs, vegetated curb extensions, and streetside planters. The city has taken advantage of Community Watershed Stewardship grants to provide funding for retrofitting and maintenance.

Tree Canopy

Tree canopies also play a pivotal role in stormwater management. Trees and soil retain water and subsequently reduce runoff. Communities that increase tree canopies reduce the cost of constructing additional stormwater infrastructure. Increasing tree cover is an environmentally friendly and cost-effective method for reducing stormwater impacts. The City of Salem's tree canopy cover within the urban growth boundary is only 18%, which is well below the recommended 40% tree cover (American Forests, 2004).

We propose to increase tree canopy cover throughout the North Downtown. Target areas for native street trees are the medians and roadsides of Union and Front Street, along the Commercial and Liberty couplet, and along streets that are reestablished to bring back the historical grid system. Additional trees should also be planted along the Willamette River and Mill Creek within the expanded North Downtown green space. The city can dramatically increase tree canopy by amending and enforcing SRC 86.115 per the Master Street Tree Plan. The National Urban and Community Forestry Advisory Council offers suggestions to improve shade cover, restore stream health and increase bioretention.

Recommended Implementation Strategies

- A) Improve hydrologic health of the Willamette River and Mill Creek by amending SRC 137 to limit impervious surface area of the subwatershed to between 10 and 25 percent.
- B) Establish an enforceable document, potentially as an amendment to SRC 141, limiting development possibilities within the Mill Creek floodplain to enhance the ecosystem services of Mill Creek.
- C) Require green space on both residential and commercial lots, pursuant to SRC 132, based on uninterrupted impervious surface area.
- D) Require naturally vegetated bioswales within traffic calming features, and convert alleys to green alleys to manage stormwater while improving the pedestrian environment.
- E) Establish incentives for developers to include green roofs and rain gardens as a stormwater management technique.
- F) Amend and enforce SRC 86.115 per the Master Street Tree Plan to add street trees and require planting of trees per two feet on private sites. Implement suggestions from National Urban and Community Forestry Advisory Council (NUCFAC) to improve shade cover, restore stream health, and increase bioretention.
- G) Begin land assembly for Mill Creek and Willamette River riparian corridors to expand green space.

Goal 5: Encourage Appropriate Development with Coordinated Regulations and Design Standards

One barrier to the revitalization of the North Downtown Riverfront area is un-coordinated regulations and the lack of design standards. There are thirty-five relevant city plans, regulations and studies that influence the subject site. They are uncoordinated and confusing to developers and property owners. Two of the major documents that affect redevelopment in Salem and the North Downtown area are the Comprehensive Plan and the Salem Revised Code. These two documents are un-coordinated in that, in certain areas they prescribe different land uses that apply to one or more parcels of land. Since the adoption of the 1997 North Downtown Plan, the city has revised the zoning and comprehensive plan designations in key areas on the project site to encourage redevelopment of the area. Despite the historic changes, there are discrepancies between designations in the Zoning Map and the Comprehensive Plan that may inhibit redevelopment in the area. (See Appendix B for current land uses on the site.)

One solution to this lack of coordination is Form Based Code (FBC). FBCs have been adopted across the nation and are most often applied to neighborhoods where new development and/or transit-oriented development is desired, which makes the concept a perfect fit for the North Downtown Riverfront area. We believe the coordination of the documents, through the implementation of FBC, would be a good strategy to encourage redevelopment and transit-oriented development in the area. Furthermore, beyond the Zoning Code and Comprehensive Plan, we encourage the city to include all relevant regulations for the area in one combined, consistent document to clearly communicate the vision of the North Downtown area to residents, property owners and potential developers.

Form Based Code is one of many terms that are used to discuss this concept. Other comparable terms include Design Code, Smart Code, Transect Code, and Form Code. For the purpose of this report, the terms will be synonymous; all included under the term “Form Based Code”. There are several definitions of FBC; the following definition encompasses the basic principles: “Form based codes foster predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. These codes are adopted into city or county law as regulations, not mere guidelines. Form based codes are an alternative to conventional zoning.” (“Definitions” 2009).

The concept of FBC is established as different from traditional Euclidian zoning codes in that it focuses on urban form rather than uses. However, the largest noticeable difference is the coordination, readability and addition of visual aids into adopted FBCs. The FBC shown in Figure 27 is an example of an urban neighborhood in Albuquerque, New Mexico. It is a good illustration of coordinated regulations including visual aids (“Codes in the West” 2007).



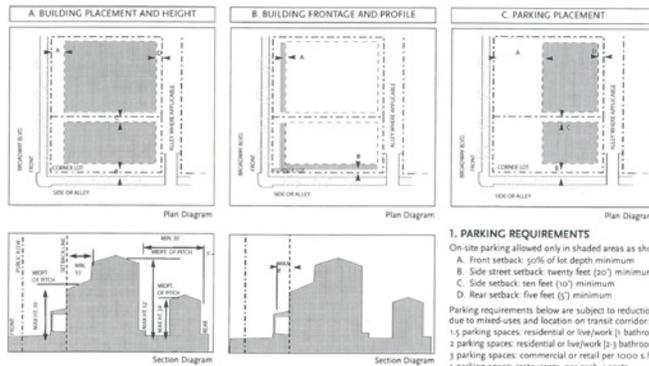
The CORRIDOR PRESERVATION category protects existing properties that are considered significant or contributing within the Huning Highland Historic District and establishes building standards for new buildings to ensure the building pattern is maintained and to complement the architectural character-defining features of the UCZO as identified herein.

1. GENERAL RULES: USES & MISC.

Potential building typologies and frontages are available in the Appendix.

2. ARCHITECTURE: FORM & ELEMENTS

- A. See the Architectural Standards for specific requirements and parameters for architectural materials and configurations.
- B. Ground floor building frontage shall be designed with 30-80% of the building frontage glazed, with the window sill no higher than thirty inches (30") above the finished floor.
- C. Placement—openings shall occur along Broadway & side-street façades at thirty feet (30') on center minimum; openings to be three (3') wide minimum.
- D. Entrance—each ground floor use shall have 1 entrance minimum for each thirty feet (30') or less of building frontage length.
- E. Articulation—building façade at front and side street shall change each fifty feet (50') minimum in height, or setback, or material.
- F. Property walls & fences— as allowed in current City regulations at fronts, sides & rears of buildings. See Architectural Standards for specific requirements and parameters.
- G. Drive-thru type buildings not allowed in this category.



1. SETBACKS

Buildings shall be placed within the shaded area as shown in the above diagram.

- A. Front Setback: per historic setbacks per lot
- B. Side Street Setback: same as above
- C. Side-yard Setback: five foot (5') minimum.
- D. Rear Setback: five foot (5') minimum.

2. HEIGHT

Building height shall be measured in feet from grade as defined in the zoning code [on site] to top of parapet or midpoint of gable.
Maximum: 4 stories/32'-0" high.

1. ENCROACHMENTS ALLOWED

Porches may encroach into the setback as shown in the shaded area. Encroachments into Public Right of Way (ROW) shall follow existing City regulations.

- A. Front encroachment: eight foot (8') maximum
- B. Side street encroachment: eight foot (8') maximum

Maximum encroachment height is 1 story.

1. PARKING REQUIREMENTS

On-site parking allowed only in shaded areas as shown.

- A. Front setback: 50% of lot depth minimum
- B. Side street setback: twenty feet (20') minimum
- C. Side setback: ten feet (10') minimum
- D. Rear setback: five feet (5') minimum

Parking requirements below are subject to reductions due to mixed-uses and location on transit corridor:
1 parking spaces: residential or live/work (1 bathroom)
2 parking spaces: commercial or retail per 1000 s.f.
1 parking space: restaurants, per each 4 seats
1 parking space: per hotel room

Vehicle access is permitted only from side street or alley. Parking garages shall have liner buildings along all side street frontages and solid 3'-0" minimum high walls (all levels) or solid landscape at side and rear property lines; provided, however, if the side or rear property line is adjacent to a residentially-zoned lot, the wall of the parking structure must be entirely solid, without opening. (Solid landscaping or substantial screening required on rear and side lot lines of off street parking areas, parking lots and structures abutting a SF residential district lot.)

2. LANDSCAPE REQUIREMENTS

The landscape design should reflect the more urban character of this area in its programming, detailing, and planting interests.

The landscape should be distinct from the existing and proposed prototypical standards currently being developed by the City.

Figure 27: An Illustration of Form Based Codes. Source: Rocky Mountain Land Institute

From the example above, we can visualize the results of the regulations in this area and the vision for this neighborhood in Albuquerque. From the photo in the upper left corner we can see that buildings are close to the street, and sidewalks and on-street parking are present. And from the diagrams we can see that parking is allowed to the rear of parcels and front yard terraces and overhangs are encouraged. One thing missing from the above example is transportation standards and regulations. The City of Denver references transportation standards within their adopted FBC.

Advantages

FBCs have been applied in neighborhoods and cities across the nation; however, the effects are difficult to measure because the implementation is new and comparison measurements are not widely published. Nevertheless, the Form Based Code Institute published the following advantages of implementing FBC:

1. Because they are prescriptive (state desired results), rather than proscriptive (state what is not allowed), FBCs can achieve a more predictable physical result. The elements controlled by FBCs are those that are most important to the shaping of a high quality built environment.
2. FBCs encourage public participation because they allow citizens to see what will happen where, which leads to a higher comfort level.
3. Because they can regulate development at the scale of an individual building or lot, FBCs encourage independent development by multiple property owners.

Form Based Codes in Florida, Texas, and Mississippi

Miami, Florida

Miami was the first major U.S. city to adopt a form-based code for the entire city. Miami 21 represents the “Miami of the 21st Century” and entails a holistic approach to land use and urban planning. It will provide a clear vision for the city that will be supported by specific guidelines and regulations so that future generations will reap the benefits of well-balanced neighborhoods and rich quality of life (“Project Vision” 2011).

Leander, Texas

Leander introduced a semi-form-based code in what they call a “composite code”. The main difference is that the city used the existing zoning code and retrofitted it with an “a la carte” aspect to allow more flexibility. The city’s approach is described as follows: “[r]ather than having zoning districts with just one component, a list of uses, we include three separate and independent components describing use, site, and architectural characteristics. The components may be combined to create a composite zoning district.” (Hutton 2006).

Farmers Branch, Texas

The Station Area form-based code applies to a struggling commercial district adjacent to an interstate highway interchange. Farmers Branch initiated a master plan effort to prepare for anticipated redevelopment of the district in conjunction with extension of the Dallas Area Rapid Transit light rail line to the city. The master plan calls for creation of strong development regulations that are consistent with the community’s vision. The frontage-based form-based code prescribes clear and precise design standards for street spaces, broad categories for uses, and general architectural parameters that are important to the quality and character of a vibrant new downtown (“Sample Codes” 2010).

Gulfport, Mississippi

The Gulfport Code is the first new FBC to be adopted in a community hit by Hurricane Katrina. While an optional code, an add-on to the city’s existing regulations, it still holds immense potential to serve as a model for other recovering communities. The sheer effort to create the Gulfport code brought the community together under difficult circumstances. It makes many additions to the base Smart Code, with the intention of embedding the FBC in local practice (“Sample Codes” 2010).

This obviates the need for large land assemblies and the megaprojects that are frequently proposed for such parcels.

4. The built results of FBCs often reflect a diversity of architecture, materials, uses, and ownership that can come only from the actions of many independent players operating within a communally agreed-upon vision and legal framework.

5. FBCs work well in established communities because they effectively define and codify a neighborhood's existing "DNA." Vernacular building types can be easily replicated; promoting infill that is compatible with surrounding structures.

6. Non-professionals find FBCs easier to use than conventional zoning documents because they are much shorter, more concise, and organized for visual access and readability. This feature makes it easier for non-planners to determine whether compliance has been achieved.

7. FBCs obviate the need for design guidelines, which are difficult to apply consistently, offer too much room for subjective interpretation, and can be difficult to enforce. They also require less oversight by discretionary review bodies, fostering a less politicized planning process that could deliver huge savings in time and money and reduce the risk of takings challenges.

8. FBCs may prove to be more enforceable than design guidelines. The stated purpose of FBCs is the shaping of a high quality public realm, a presumed public good that promotes healthy civic interaction. For this reason, compliance with the codes can be enforced, not on the basis of aesthetics, but because a failure to comply would diminish the good that is sought ("Eight Advantages" 2009).

Barriers

FBCs are relatively new for practicing planners of today. Some barriers to the FBC concept are listed below. The first three are broad-based barriers, and the last three are specific to implementation in Salem.

1. Loss of development rights: The combination of explicit down-zoning of properties (i.e. industrial to commercial), and the adoption of regulations that make it difficult to rezone to a higher-intensity zone result in the loss of development rights for some property owners (Kasdin and Frey 2010).

2. Increased cost to developers through implementation of public benefits programs: Miami 21's "public benefits program," contemplates developer contributions for affordable housing, brownfield remediation, civic facilities (schools, police stations, hospitals, and infrastructure), green building, parks, and historic preservation.

3. Vague provisions of intention and unfamiliarity of the new code can lead to confusion (Kasdin and Frey 2010).

4. Salem may wish to expand the boundaries of the FBC area to match existing relevant study areas (e.g. North Downtown, Urban Riverfront Redevelopment Area, CANDO neighborhood).

5. Connectivity, both for transportation modes and land uses, may be compromised by introducing an FBC to a specific neighborhood versus citywide.

6. Implementing a code that would incorporate all the requirements, cutting

across all the city departments, would be a serious undertaking. The coordination of a vision for the site should include public participation that, if done well, would require significant time, energy, and resources.

In general, the benefits of FBC outweigh the barriers. We propose that the City of Salem adopt a Form Based Code as a strategy to encourage transit-oriented development in the North Downtown Riverfront area.

Recommended Implementation Strategies

- A) Perform site inventory to consider feasibility of implementing Form Based Code to establish coordinated design standards.
- B) Suggest amendments to Downtown URA, North Downtown Plan and Comprehensive Plan to establish coordinated documents that encourage appropriate development.
- C) Engage all relevant city departments in developing FBC.

Conclusion

Salem was historically a place for people to gather and meet. The confluence of the Willamette River and Mill Creek has always played an important role in Salem's development. Salem's unique geographic location has shaped its economic development, industry structure, and local human settlements tremendously.

Salem today has many development challenges. One of them is the absence of high-quality, sustainable mixed-use development in the North Downtown Riverfront area. As the student groups' site analysis shows, the North Downtown Riverfront area faces problems such as stagnation of industrial development, underutilization of the land, and lack of connection between the area and the rest of Salem.

To address these problems faced by Salem's North Downtown, throughout fall term 2010, the five student groups worked on translating the vision outlined in City of Salem plans and policy documents into five concrete goals to transform the North Riverfront Downtown area into a vibrant, dynamic, open, and livable place for residents of diverse backgrounds. These goals include providing places for people to live downtown, providing a vibrant destination with places for people to meet and gather, promoting sustainable options for transportation within the site, city, and region, improving hydrologic health and enhancing ecosystem services, and encouraging appropriate development with coordinated regulations and design standards.

The final product of this report drew on the creativity of the student groups and the great benefit of working with the City of Salem and the University of Oregon's Sustainable City Year program. This form of collaboration and cooperation will be helpful in solving complex local planning and development problems in the future.

Appendix A: Salem History

Geology of Salem, Oregon

Oregon's landscape has a much longer history than what is typically imagined, and geological processes have been shaping the state's landscape for more than 150 million years. This timeline provides another perspective: the stage was set for Oregon to become a ripe place for human settlement.

Floodwaters transformed the Willamette Valley into a lake 100 miles long, 60 miles wide and 300 feet deep. The ice age floods significantly altered the landscapes, topography, and the presence of estuaries. Subsequently, nutrient rich soils filled the Willamette Valley. This renders Salem one of the most fertile and agriculturally productive regions of the United States; the proliferation of agriculture is mirrored in Salem's contemporary economy.

Early Human Settlement

The Kalapuya Indians, Willamette Valley's first inhabitants, called Salem "Chemeketa," meaning meeting or gathering place. From the time of the Kalapuya Indians' camps to the present day, Salem remains the essence of a gathering place, for both the environment and its people. Salem is centrally located between Portland and Eugene along the Willamette River. Residents have access to rich natural resources provided by lush forests, fertile land, a long growing season, and rivers and creeks. These factors attracted economic growth, a vast transportation network, and political and educational institutions. These developments have preserved Salem as the meeting place in the Willamette Valley.

The migratory pattern of the indigenous people was well suited to the exploitation of the land in the form of hunting and gathering patterns to accommodate their nutritional needs. Agriculture was not necessary. The Kalapuya gathered fruits, seeds and roots for subsistence, the most important of which were camas roots found on moist plains or banks. For the men, the major subsistence activity during the winter months was game hunting.

Over the centuries, the



Figure 28: Kalapuya seasonal dwellings of the Willamette Valley. Source: Esther Stutzman, *Indians of Oregon*

Kalapuya created a society and economy that was built upon a keen combination of extensive knowledge of botany, ecology, and climate, and a way of life that made maximal use of these resources. From 1820 to 1840, the majority of the Kalapuya population had died from diseases contracted by white hunters and trappers.

The Arrivals of Europeans and the Creation of the Oregon Institute in Salem

The first European-Americans arrived in the Salem area in 1812. Working as trappers and food gatherers for the fur trading companies in Astoria, Oregon, these early residents built a log dwelling and trapping house near the Willamette River. Available, fertile land that had been cleared by the Kalapuya was the reason the pioneers chose to settle in the Willamette Valley. Lumber and farming became the first commercial enterprises as the farmers established saw and gristmills on Mill Creek.

Permanent American settlement of Salem began with the establishment of Jason Lee's Methodist mission. He built a sawmill along Mill Creek in 1841, the first of its kind in Salem (Mercinger 2005). The missionaries who came to Oregon in the 1830s were mainly interested in saving the Indians' souls and in establishing farms. They found fewer Indians than anticipated because of the ravages of disease. This calling to evangelize and educate led Jason Lee and the missionaries to them to build a school and university, originally named 'The Institute'.

The Methodist missionaries organized the Oregon Institute, an institution of higher learning in 1842, later renamed Willamette University, which was the first institute of higher education to be established in the Western United States. The Institute housed the first session of the state legislature after Salem was established as the capital after much dispute in 1851 (Gatke 1943). Willamette University functioned as a base for the establishment of a more complex, decentralized city and state government throughout Salem's history. Currently, the capital building is located directly across the street from Willamette University.

Early Transportation Network

Transportation routes in Salem were based off of early Indian trails. By the early nineteenth century, they were being shaped into trails for horses and wagons. Rivers were traditional arteries for moving commerce, but for horses and wagons they became a barrier to travel. There were informal ferries as early as the 1830's, often operated by Indian boatmen. Ferry landings became important points for the shipment of goods. As wheat and other crops began to move down the Willamette River for export and imported goods came upriver, small settlements sprang up along the riverbanks. The viability of those towns was dependent on changing transportation networks and the fickle forces of

the river, which typically flooded. With the decline of river transport, landings and ferries became less important. Communities endured, but the focus moved away from the river.

Before the establishment of the Donation Land Act of 1850, Euro-American settlers in the Willamette Valley settled near streams and timberland that would help build their farms. Using the township system first laid out in the Land Ordinance of 1785, federal surveyors placed an imagined north-south grid over the Willamette Valley. Existing claims were validated through this process and new claims were created from the remaining pieces.

The result of this interaction is why survey lines follow the natural topography. Since historic trails and roads are shaped by topography, property boundaries became tied to the survey grid. To minimize the impact on property owners, later roads would often follow property lines regardless of intervening creeks or hills.

Salem Railways During the Late 18th and Early 19th Centuries

The City of Salem in the late 18th century and early 19th century had a comprehensive railway network for moving both freight and people within the city and between cities. The streetcars in Salem emerged in 1889 and were expanded from their original plat into the suburbs, past Mission Street to the south, Mill Creek to the north and 12th Street to the east (Duniway 1982). The first street cars were pulled by horses and ran west from Commercial Street out to State Street, to 12th Street and the depot (Duniway 1982). During the 1890s there was an overabundance of streetcar lines in the downtown core. In the 1900s the street car lines were consolidated and transitioned from different owners. By 1912, the streetcar lines were not making enough money to cover their expenses. By 1927, the last streetcar ran in Salem and buses took over.

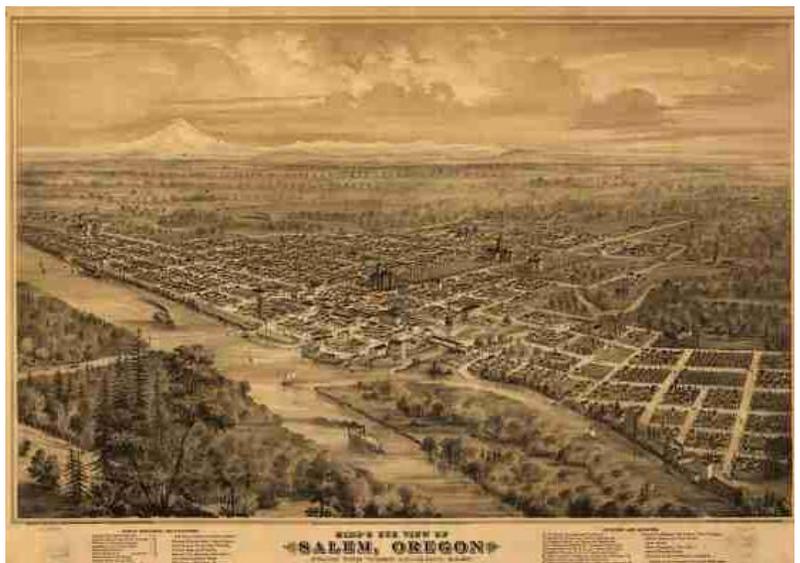


Figure 29: Early Land Grid Pattern in Salem. Source: Salem Public Library

In 1908, an electric interurban railway network was started in the City of Salem. At the peak of service, the Oregon Electric Railway ran 33 trains a day between Portland and Salem for only 25 cents. The Oregon Electric passenger service ran north on High Street from Salem's downtown and the Oregon Electric freight

service ran north on Front Street from the downtown. The Oregon Electric Railway in its beginnings had a lot of competition from various companies but became the dominant railway line.

Southern Pacific Union did not like the Oregon Electric Railway because it was intruding upon one of their main lines. As a result, the Southern Pacific Union attempted to start their own interurban line, but was unsuccessful. The historical Oregon Electric Railway and Southern Pacific Union lines both ran directly down Front Street. Southern Pacific Union still operates trains on Front Street today.

Because of its central location in the Willamette Valley and its role as the state capital, Salem was a railroad hub with tracks that ran in every direction throughout town. One of the last remaining lines primarily used for freight runs through the North Downtown Riverfront area, on Front Street. At its current position in the center of Front Street, this rail line poses challenges for traffic flow and safety. However, there are definite lessons to be learned about the railway system in Salem and how these challenges have been addressed.

After World War II, Salem's downtown tracks were called the "iron ring" and seen as a hindrance to in-town mobility and commerce. The tracks on Union Street were removed first, followed by the tracks on Trade Street. The tracks on Front Street were later moved to make room for the Front Street bypass.

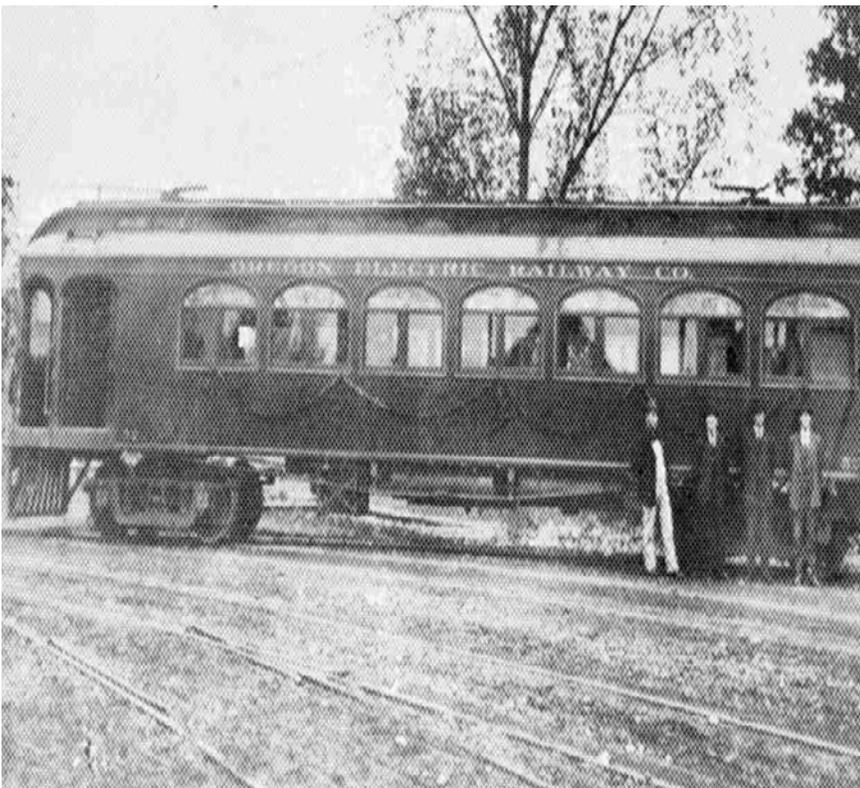


Figure 30: The Oregon Electric Railway. Source: Salem Public Library

Salem's Transportation Network in the 20th Century

Salem's transportation network allows the city to serve as a meeting place for Oregonians and people living in regions throughout the Pacific Northwest. Prior to the arrival of the railroad, the Willamette River steamboats were the primary mode of transportation to move goods. The 50 mile trip between Portland and Salem could be made in one day overland. This allowed for a steady stream of trade between

Salem and other regions. Steamboat landings on Salem's riverbanks reinforced its riverfront location as a hub of regional commerce for both manufacturing and trade. The railroad system replaced the steamboats in moving freight and people through the state. Railroads, in comparison to the steamboat, are more efficient and can reach areas located further away from Salem. Competition for access to the Willamette Valley's abundant natural resources spurred infrastructure development to build railroads throughout the Willamette Valley. Two primary lines were built running north and south up the Willamette Valley and are still in operation today.

Developing the nation's roadways became the priority of the United States for the remainder of the 20th century. In 1914, the Oregon Highway Commission approved the first state highway plan, including the Capitol Highway. The Capitol Highway runs along the general route of present-day Oregon 99W, from Portland to Salem (Marschner 2008). Interstate 5 was built on the eastern edge of town after World War II. This extensive highway system allows people to move freely to and through Salem.

Industrialism and City Building in Salem after 1840

The sawmill was a defining symbol and the mill was an iconic institution in settling the Willamette Valley. The products of the sawmills went into building the community's houses, schools, churches, and shops. Through export sales they eventually supported the development of ports and railroads. The discovery of clay in the Willamette Valley led to the expansion of brick structures throughout the region (Mauro 2009).

Self-sufficiency was often a goal of early Willamette farmers, but turning wheat into flour required milling. Gristmills required a sizable investment in the water system to supply a waterwheel. The mills were built near farmers to minimize transportation time and effort (Mauro 2009). Hence small communities developed around the mills.

As communities grew and flourished, landholders promoted town sites that they hoped would become port cities or rail towns to spur the sale of their land. An essential part of the city-building opportunity was subdividing their property into blocks and lots and dedicating streets and public rights of way. Natural resources in the Willamette Valley boomed with the completion of the railroad. Reliable crops, which grew so well in the Valley, were dehydrated for preservation and shipping. New canning technology boosted the construction of fruit, vegetable and fish canneries. The growing timber industry supplied the nation with wood to build their homes and also encouraged the construction of more new railroad lines.

Early 20th Century to the Present

The Cannery during the 1920s truly shaped Salem, mechanizing the production

of food harvesting and forcing an amalgamation of efforts to define industries as a means of economic survival. The proliferation of commercial fishing fed the food-processing industry, creating business opportunity for a canning operation. The agricultural sector became a function of the market. Rural Salemites gave up farm acreage in exchange for dwellings near the urban core. Seeking employment, densities increased in North Downtown, spurring an era of home-building and desires for daily downtown commercial amenities.

By 1950, heavier commercial industry developed in North Downtown, due to mass production post-WWII of automobiles, sheet metal, train parts. The first car lots were established in the area. Densities around NE Commercial and Union Streets increased, especially at the corners of the blocks, feeding the workforce of the Western Paper Converting Company. Where Mill Creek meets the Willamette River, Terminal Ice and Cold Storage used the gradual embankments to harvest blocks of ice to power the refrigerators of the day. While these workers produced finished ice products, Colgan Lumber Company, closer to “old downtown,” sold lumber, increasingly demanded by the population growth of Oregon in the early half of the 20th Century.

Slowly the banks were pushed closer together; what used to be a gradual sloping embankment along Mill Creek became a deep, narrow channel, inaccessible and largely forgotten. Hydraulic power generated enough energy to process first grist, then food products, and finally lumber.

The legacy of these past industries remains: succession of these land uses has retained enough industrial business in the area to establish it as an industrial center within the last half-century. This history continues to shape the character of North Downtown, as the train still runs down Front Street, though its utility has faded slightly. The vast parking lots and the high-volume traffic rushing through the site speak to the district’s history as a place of loading and unloading of goods. Though no longer the bustling center of regional industry, a strong history of supporting local economic development and providing housing for its workforce remains.

As examples demonstrate, Salem residents have been removed from their own history, associating more strongly with their region, nation, or place in the globalized world, than with their agricultural roots or local strengths. In doing so, fragmentation has been literally driven into neighborhoods, replacing public spheres with private automobile traffic prioritization. Roads have become solely venues for automobile traffic. Sidewalks were never prioritized, as primary concerns revolved around right-of-way for heavy commercial trucks or railway access. Access to the site still revolves around heavy industry needs. Salemites likely have an inkling as to the industrial nature of the North Downtown site, but the history and importance of the now-decaying remains of those industries has mostly been lost.

Appendix B: Salem Today

Economic and Demographic Trends

Study Area

The project area is located in the Central Area Neighborhood Development Organization (CANDO) neighborhood. It is bounded by waterways on two sides, Mill Creek to the north and the Willamette River to the west. The project area is bound to the east by High street and to the south by the Marion Street Willamette River crossing. The project area contains 43 acres of land area and 84 tax lots.

Population

The population data for Salem and Oregon are from American Community Survey (ACS) of 2009 and Census Decennial of 2000.

These data show that the population in the City of Salem has grown 2.5 percent annually since 1990. This rapid annual growth is due to a large net migration in the 1990s to the Salem area (Consolidated Plan, p 10). The population as of 2009 was 159,292. The overall population growth from 1990-2009 was 48 percent. 16 percent of the population growth occurred in the last half of that period. Also during that time the population in the state of Oregon grew 35 percent, with a majority of its population growth occurring in the 1990s.

Oregon experienced 12 percent growth from 2000-2009 (ACS 1990, P001; ACS 2009, B1003). If current population growth trends continue through 2030, the Salem population will increase by 50,000 people.

Age Groups

From the data available from American Community Survey of 2009, there is significant percentage of the population in the age group of 45 to 64. From 1990 to 2009 there was a 9 percent increase of persons 45 to 64. In contrast, ages 25 to 44 declined by 7 percent. This most likely represents the aging of the baby boomer generation.

Aging boomers are a significant fact in Salem as well as many parts of the United States. The boomers will soon be moving to fixed-incomes and the impacts presumably stress factors of housing affordability and access to mobility. Affordable housing and access to nearby public transit are potential needs determined by this demographic change.

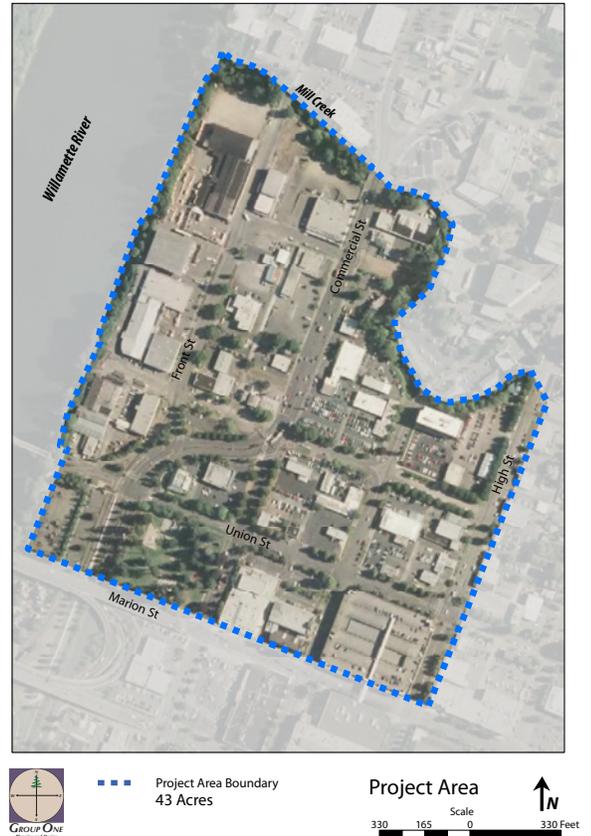


Figure 31: Project Area Map

	Salem	Eugene	Portland	Oregon
Population	156,955	157,100	566,606	
Population Growth Since 2000	14%	11%	7%	12%
Annual Pop. Growth Since 2000	2%	1%	1%	1.2%
Land Area [sq miles]	46	41	134	
Population Density [Persons/sq mi]	3412	3832	4228	
Hispanic Latino Population	18%	6%	9%	11%
White Population	73%	82%	74%	86%
Black and African American Population	2%	2%	0.50%	2%
Asian and Pacific Island Population	3%	5%	7%	4%
Native American Population	1%	6%	6%	1%

Figure 32: Demographics Comparison. Source: US Census 2000

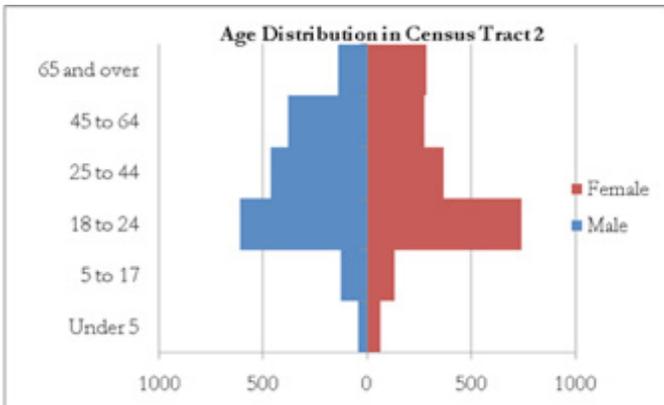


Figure 33: Salem Age Distribution. Source: US Census 2000

Race and Ethnicity

Salem is predominantly white at 84 percent. However, a relatively large segment of the population is of Latino ethnicity, 18 percent, compared to other minorities. Figure 32 lists data pertaining to ethnicity in Salem. The share of Latinos in the area grew by 12.2 percentage points from 1990 to 2009; this increase is much larger than that in Oregon as a whole.

The Latino population is slated to continue to grow exponentially. The

	Oregon	Salem
1990		
Total Population	2,842,321	107,786
Hispanic or Latino	110,606	6,207
Hispanic or Latino % of Pop.	3.90%	5.80%
2009		
Total Population	3,825,657	159,292
Hispanic or Latino	428,466	28,673
Hispanic or Latino % of Pop.	11.20%	18.00%
Change in Hispanic of Latino Population		
1990 - 2009		
Number	317,860	22,466
Percent Change	287%	362%
Share	7.30%	12.20%

Figure 34: Ethnicity in Salem and Oregon. Source: American Community Survey 2009

Oregon Commission of Hispanic Affairs (OCHA) projects that the number of Latino youth will grow 36 percent while the percentage of white youth will decrease by 2 percent. This is significant because it shows how quickly the Latino population is growing.

The Salem-Keizer School District is especially affected by this demographic shift. According to OCHA, there are only ten school districts that house more than 50 percent of the Latino student population. One of those is Salem-Keizer. The share of Latino population enrolled in the Salem-Keizer school district is 29.4 percent and rising quickly (Econorthwest, 2009).

Current Land Use

The existing land uses in the North Downtown Riverfront area are primarily industrial and commercial. The area between the Willamette River and Commercial Street includes industrial, retail commercial and commercial office spaces. Between Commercial Street and High Street, the land use is predominantly automotive services but it also includes other retail commercial and commercial office spaces. The area is currently lacking residential development.



Figure 35: Existing Zoning Map

Zone	Basic Description	Tax Lots	Total Acreage
Central Business District (CB)	Allows commercial, cultural and governmental uses within a high-density, pedestrian-oriented area.	14	17.95
Commercial Office (CO)	Primarily office uses with a minor retail component.	6	9.09
Commercial Retail	Primarily retail.	2	4.23
Industrial Commercial (IC)	Allows a mixture of retail and service businesses and light industrial uses.	1	1.0
Public Amusement (PA)	Allows recreational and cultural uses.	1	2.64
Multi-Family High Rise Residential (RH)	High Density multi-family dwellings. Unlimited number of dwelling units.	3	9.90

Figure 36: Comprehensive Plan Designations in Project Area

Economy

The economy in Salem, much like the economy in other metropolitan areas of Oregon, was hard hit by the recent economic recession. Salem's unemployment rate a year ago was over 11.5% and job growth has declined by almost 4% in that time. Poverty rates in Salem, as defined by the Federal Income Threshold, jumped to 14%. In the 97301 zip code of downtown Salem, the poverty level in 2008 was over 30%. The largest income bracket in Salem is those households making less than \$25,000 per year.

Figure 3. Income and Poverty

	Salem	Eugene	Portland	Oregon
Poverty Rate	14%	22%	16%	14%
Median Household Income	\$42,035	\$39,640	\$50,203	\$48,457
Unemployment Rate (September 2010)	9.60%	11%	10%	12%
% of Households Making Less Than \$15,000/yr	7%	15%	8%	7%
% of Households Making Less Than \$25,000/yr	13%	21%	15%	13%

*US Census Bureau 2009
*City-Data.com

Figure 37: Income and Poverty. Source: American Community Survey 2009; city-data.com

Employment

Salem is the state capital and therefore the largest employment sector is government jobs. Salem's location along the I-5 corridor and the city's high number of export commodities create a large amount of employment in the trade and transportation sector. Salem is also home to Willamette University, Chemeketa Community College, and Salem Hospital, so there is a large percentage of employment in education and health services. The following figure shows the percentage of employment in the top employment sectors.

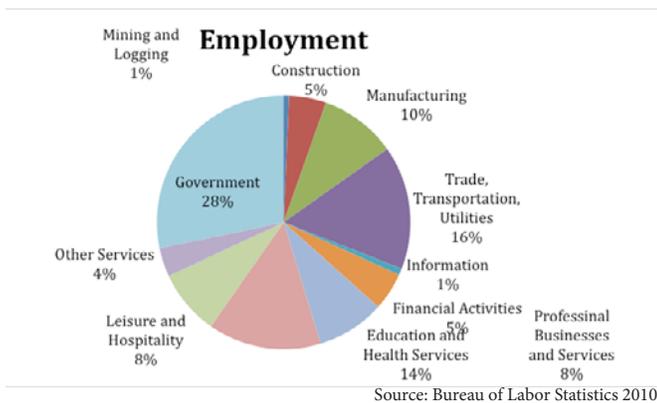


Figure 38: Employment in top employment sectors in Salem. Source: Bureau of Labor Statistics 2010

The top private employers in the Salem MSA are Salem Hospital, Spirit Mountain Casino, T-Mobile, NORPAC Foods, and Roth's Your Family Market. The top five sectors are Government, Trade and Transportation, Education and Health, Manufacturing and Leisure and Hospitality. There have been declines in many sectors of employment over the last seven years however Food Manufacturing, Technical Services, Company Management, and Ambulance Services have all seen substantial growth.

Appendix C: Ecological Resources

Mill Creek

The Mill Creek watershed, which is approximately 24 miles long, 6 miles wide and 110 square miles in area, is fed by the Cascade foothills in Coon Hollow just north of Mehama (Hemesath 2002). Within Salem, Mill Creek curves through residential and commercial areas and enters the Willamette River north of D Street (Hemesath 2002). The portion of Mill Creek that runs through the North Downtown project site is small in context to the greater extent of the watershed. Throughout the years, numerous floods have occurred in Mill Creek because it drains a mostly low-lying, shallow basin (Hemesath 2002).

The state and federal governments have identified Mill Creek as a priority area for conservation within the Willamette River Valley wetlands, indicating the need to implement natural habitat improvement strategies (United States Geological Survey 2000). Mill Creek is designated in the local wetland inventory (Mid-Willamette Valley Council of Governments 2000) as an R-2 perennial stream (Mid-Willamette Valley Council of Governments 1999), which establishes it as a priority area for rehabilitation.

The Oregon Department of State Lands identifies Mill Creek as essential indigenous anadromous salmonid habitat (Oregon Department of State Lands 2010). This means the habitat of Mill Creek must prevent the depletion of Oregon Chub; Sockeye, Chinook, and Coho Salmon; and Steelhead and Cutthroat Trout; which are listed as sensitive, threatened, or endangered (Oregon Department of State Lands 2010). In reference to Salem Revised Code 126.030, the Salem Wetlands Code, wetlands that are identified by the Local Wetlands Inventory and are habitats for indigenous salmonids are identified as significant wetlands. Significant wetlands must be provided long-term protection within the city of Salem (Salem Revised Code 2010).

Willamette River

The Willamette River is an extensive drainage basin that extends from British Columbia to Northern California. The Willamette River Basin is approximately 180 miles in length and roughly 100 miles wide (The Oregon Encyclopedia 2010). The Willamette river system, including all the tributaries, contributes 15 percent of the average annual flow of the Columbia River. The Willamette River is the thirteenth largest river in the United States (The Oregon Encyclopedia 2010). Because of the region's significant annual precipitation, the Willamette Basin discharges more runoff per acre than any other large river in the United States, with most of it occurring during the winter rainy season. The Willamette Basin is bounded on the west by the Coast Range and the Cascade Range to the east; these features contribute to the basin's unique temperature and precipitation ranges. Warm, moist air blowing in from the southwest produces heavy precipitation in the late autumn, winter, and early spring months.

The Willamette River acted as a very important trade route to Portland and significant oceanic markets. The waterway was reshaped to meet the demands of commercial and industrial shipping between major ports. Prior to large scale human influence on the Willamette River system and the construction of big federal dams on its tributaries between 1941 and 1969, the river and its tributaries provided important spawning grounds for spring Chinook salmon and steelhead trout.

Salem Area Wildlife

Along the Willamette River waterfront, the presence of wildlife varies between seasons. In the spring, Pacific tree frogs, rough skin newts and great blue heron are found along the river. In the summer, mallards arrive into the area, turtles take advantage of warmer stream banks and black-tailed deer are spotted. In the fall, Canada geese are abundant in the area, Chinook salmon spawn and elk can be heard in wildlife refuges. The winter months in the Pacific Northwest are known for creating habitats for geese and ducks, and bald eagles can also be witnessed. While there is a vast presence of diverse wildlife across the region there are a few endangered species in the Salem area. The Winter Steelhead and Spring Chinook Salmon, Oregon Chub and the Northern Spotted Owl are all endangered species in the region.

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