



**PORTLAND PARKS & RECREATION**

Healthy Parks, Healthy Portland



## Errol Heights Master Plan

December 2005



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# Introduction

## Purpose of the Master Plan

The Master Plan for Errol Heights Park outlines a long-term vision for the park and includes policies and development concepts. The plan also is intended to guide the preparation of detailed design and construction drawings, once funding is secured.

In general, the plan focuses on protecting the site's natural resources while providing recreational opportunities that are needed in the city — particularly in SE Portland. Because the Master Plan focuses on broad policies and a general concept, it does not detail all of the projects that will be carried out in the future. Consequently, more refined plans and designs will have to be prepared once funding is identified. What is critical is that these future activities be consistent and support the values and policies in this Master Plan.

A secondary but very useful role of the Master Plan is to serve as a reference document for future activities. The Master Plan includes a breadth of background information such as acquisition ordinances, newspaper articles, an environmental assessment, and an acquisition history of the site.

Portland Parks and Recreation (PP&R) has partnered with the Bureau of Environmental Services (BES) to acquire critical stream and habitat property on Errol Creek which is now Errol Heights Park. PP&R takes the lead in managing the property. Recently BES was successful in obtaining a grant to begin stream restoration on Errol Creek. This funding and restoration possibility has initiated the Master Plan process.

## Location and Context

Errol Heights park comprises 14.28 acres in the Brentwood - Darlington Neighborhood in southeast Portland (see map on page 4). The park's boundary is irregular in shape and includes the dell and lowland property along with former home sites on the bluff. The Woodstock and Ardenwald/Johnson Creek neighborhoods are also adjacent to the south and west of the park. It is the largest park in the immediate area, which consists mainly of a mixture of light commercial, industrial and residential uses. Other nearby open spaces include Tideman Johnson Park and the Springwater Corridor Trail.

The site is bordered on the north by single-family residences on unimproved roadways (see photo on page 5). On the west, the park is



*Errol Heights Park  
volunteer workgroup.*

bordered by SE 45th Avenue. A coin operated car wash abuts the park on the southwest corner. There, Errol Creek runs parallel to the property line. Industrial uses predominate to the south across SE Harney Drive.

Access into the site is from SE Tenino Court, SE 52nd Avenue, SE 45th Avenue and Harney Drive. SE Tenino Court and SE Tenino Drive are unimproved roadways maintained sporadically by immediate neighborhood residents.

### Site History

In 1999 Barbara Schnabel, widow of George Schnabel, sold her home and the 2.32 acres surrounding it to PP&R. For more than 30 years George had been working to build a new family home and workshop of salvaged heavy timbers from Portland's old warehouses. While working mostly alone constructing the home and workshop he also sought to create in his view a landscape that was a sanctuary for people and wildlife. As part of the agreement between Mrs. Schnabel and PP&R, she will continue to reside in the family home until she is no longer able to.

During the planning process, Barbara Schnabel, whose husband George Schnabel passed away some years ago, shared some stories of their life in the area for over 40 years. Many of her stories revolve around the work done by George, almost single-handedly, to create the ponds and buildings:

*“After digging the ponds in the mid-60s, George intended to have a fish farm but was ‘fished out’ by the neighborhood boys soon after stocking the ponds. Later he sold fresh watercress from the ponds to cover his property taxes of about \$18 a year.*

*George’s drafting course at Benson High School was the only formal architectural education he had before designing, drafting, and building the remarkable structures still in the park. He used a 50’ garden hose as a level for the 4,200 square foot home.*

*George had a great love of the outdoors and worked hard to protect the animals and create an oasis for people to visit and relax.”*



## The Planning Process

Planning for the park began in February 2005 with the formation of a six-person Project Steering Committee (PSC). The committee's composition comprised representatives from the park's neighborhood groups, interested citizens, and watershed agencies (the list of PSC members is on the inside cover).

In April of 2005, one open house was held to provide information and updates to the general public. A questionnaire was also sent out at the project's outset to ask residents for their ideas and concerns about the project. The PSC began its meetings in February and met five times over the next five months, ending in June 2005 (see Appendix A & B).

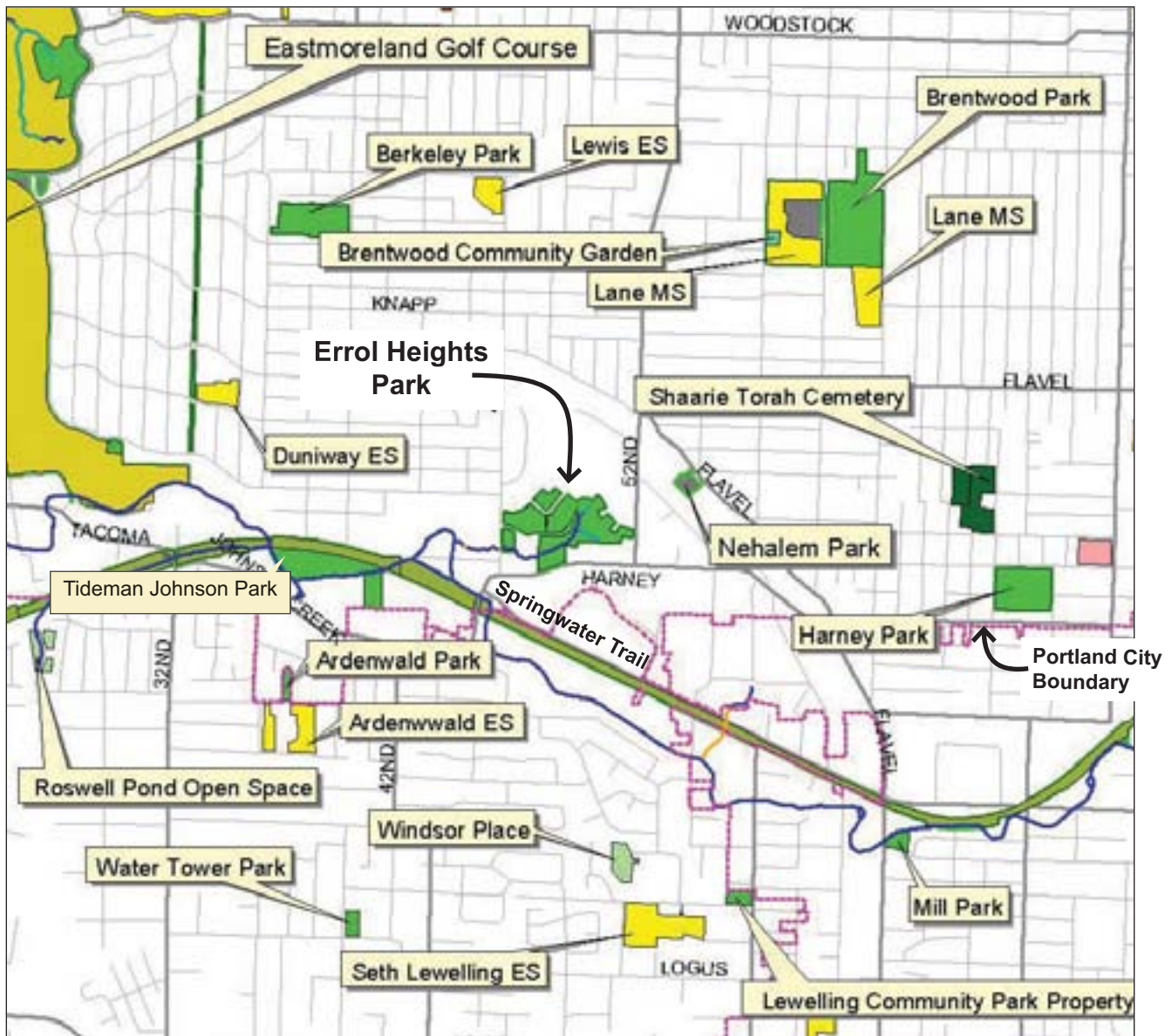
Some of the common concerns about the park's future focused on the protection of the site's natural resources, "over-improvement" of the site, where active recreation is appropriate, impacts on neighbors from proposed changes to Errol Creek, and preserving cultural amenities through park development. Suggestions included preserving and enhancing the natural character of the park while adding pathways and benches for a better experience.

In addition to the PSC meetings, city staff also briefed the Johnson Creek Watershed Council regarding the Master Plan.



*Mayor Tom Potter attends volunteer workgroup party.*

# Introduction



*Errol Heights Park study area. The existing conditions of the surrounding parks and open spaces influenced the outcome of the Recreational Analysis and Master Plan.*





*2003 Aerial Map of Errol Heights Park showing the tax lots and Errol Creek.*



# Existing Conditions & Site Issues

*Errol Heights Park is a complex property that includes a variety of environmental conditions and land use issues. It includes wetlands, springs, riparian zones, deciduous and coniferous forest, open grassy areas, and cultural history and amenities. Governing the site's future are several layers of environmental zoning, city, state and federal agencies. Because of these conditions a sensitivity to neighbor concerns and to the past is required.*

## Natural Conditions

### TOPOGRAPHY

Elevation ranges from 160' (above sea level) at the park's highest point to about 100' at the lowest point, where Errol Creek flows in the southern half of the site. The slope that divides the upper and lower areas is generally about 30' high and is very steep -- many areas are in the 50% slope range (one foot of elevation gain for every two feet of horizontal distance).

The effect of the site's topography is to divide the park into three distinct zones, which provide a basis for some of the plan's recommendations. The northern third of the site includes most of the park's flat areas that consist of open spaces, with trees around the edges. The middle third of the park consists of steep slopes (as described previously). The southern third of the park includes Errol Creek and is wetter with some dense groupings of trees and shrubs.

### SOILS

Three soil types are found on the site. Soils on the higher elevations site are classified by the USDA Soil Conservation Service as Urban Land Multnomah Complex, 0-3 percent slopes. These soils have been graded, cut, filled, or disturbed and are found on broad convex terraces. In areas that are relatively undisturbed, permeability is moderate and runoff is slow. In areas that have not been disturbed, soils may be gravelly.

Soils along the creek are classified by USDA as Haploxerolls, steep (19E). These are well drained soils that are found along escarpments that have cut into valley terraces. They also are found at the intersections of terraces and flood plains. The composition of these soils is a mixture of silt and sand.

Soils along the southern edge of the site are classified by USDA as Wapato silt loam (55). These are poorly drained soils on flood plains, formed in recent alluvium. Permeability in these soils is moderately slow and from

December through April, is subject to a seasonal high water table at or near the surface.

## VEGETATION

Existing vegetation was inventoried by PP&R's natural resources staff who also compiled an inventory of species by plant community. The most common trees include red alder, Oregon alder, and bigleaf maple. Commonly found shrubs and smaller plants include giant horsetail, annual ryegrass, and Italian ryegrass. Some areas of the park also have an extensive growth of Himalayan blackberry. In general, invasive species are found throughout the site with higher concentrations in several locations.

## DESIRED FUTURE CONDITION (DFC)

Because plant communities at natural resource sites such as Errol Heights Park need to be actively managed, PP&R has developed a program -- the Desired Future Condition or DFC for short -- that defines how this should occur. DFC is a systematic inquiry process to guide ecological restoration and part of PP&R's Ecosystem Management Strategy.

Ecosystem management is an organized approach to improving the quality of habitat for fish and wildlife and other natural resource functions and values. The Ecosystem Management Strategy consists of the following steps: (1) Inventory, (2) Determination of Desired Future Condition, (3) Assessment, (4) Prescription, (5) Intervention (if needed), and (6) Monitoring.

Applied over time, the sequence of steps forms a recurring cycle that termed an "adaptive management loop." Using consistent protocols and GIS technology, Ecosystem Management enables PP&R's natural resources staff to qualify and quantify the condition of natural resources in its portfolio of responsibilities.

### **DFC for Errol Heights Park**

The DFC for Errol Heights Natural Area is a forested upland and wetland that consists of native vegetation in multi-layered vertical structures. Species diversity will be high and reflect the prevailing underlying physical environmental features. Plant communities will consist of natural associations that are recognized by current biological

understanding and are consistent with historical conditions of the site. Specific plant communities will include:

- Big Leaf Maple and Douglas Fir Forest,
- Oregon Ash Seasonally Flooded Forest,
- Oregon White Oak Woodland,
- Red Alder Saturated Forest, and
- Douglas-Fir and Pacific Madrone Forest.

Non native flora species will be removed and landscaping within the neighborhood park will consist of native flora. The entire site will be allowed to undergo natural ecological succession. The DFC is a site that allows a mixture of early seral and climactic features. Aquatic mammals, such as beaver, will provide succession-disrupting disturbances in the stream corridor.

The site will provide habitat for all native fauna species that are sustainable and appropriate to the size of the site. The repatriation of species that historically occupied the site will occur consistent with sustainable population sizes. The habitats will be allowed to develop structures that provide shelter, food, and reproduction opportunities. The stream and banks will provide habitat for the resident trout and aquatic mammals. The riparian area will provide habitat for mammals, reptiles, and birds and consist of dense shrubbery and large downed wood. The uplands will provide habitat for small mammals and birds.

Space will be provided in the upland woodland for ground level herbaceous species that attract butterflies. Bats and swallows will be supported with nesting structures. Dead trees will be left standing to support cavity nesters and other wildlife.

The recommended communities represent the following plant alliances (Natureserve 2005).

### **Big Leaf Maple and Douglas Fir Forest**

*Acer macrophyllum and Pseudotsuga menziesii - Forest Alliance*

These forests are typically characterized by a broad-leaved deciduous and needle-leaved evergreen tree canopy from 35-50 meters high with over 60% cover. Often the canopy is two-tiered with the evergreen trees emergent through the deciduous tree layer. A shrub layer is often present ranging from 20-60% cover. The herbaceous understory is typically comprised of a diverse and dense mixture of shade-tolerant forbs and ferns.

### **Oregon Ash Seasonally Flooded Forest**

*(Fraxinus latifolia - Temporarily Flooded Forest Alliance)*

These forests have a dense canopy of deciduous trees of moderate stature (10-25 meters). Multiple age classes of trees are usually present. Conifers are absent or of relatively minor significance. Deciduous shrubs are typically abundant and usually form dense thickets. A lush herbaceous layer of perennial grasses and sedges, ferns, and forbs is typical. Flooding is typical following winter and spring rain. These are the typical gallery forests of fluvial habitats, such as oxbow lakes, and fluvial terraces.

### **Oregon White Oak Woodland**

*(Quercus garryana - Woodland Alliance)*

Vegetation within this alliance is characterized by an open canopy of deciduous trees 8-25 m in height. The clonal nature of the dominant tree can create dense patches of similarly sized tree. Generally, there is a sparse deciduous or evergreen shrub layer. Drought-tolerant grasses and herbs usually form a continuous ground cover less than 1 m in height. Most stands are two-tiered with either a short-shrub layer or an herbaceous, usually graminoid, layer.

### **Red Alder Saturated Forest**

*(Alnus rubra - Seasonally Flooded Forest Alliance)*

These forests are typically characterized by a broad-leaved deciduous tree canopy from 15-25 meters high with over 60% cover. A vigorous shrub layer is often present. The herbaceous understory is typically comprises a diverse mixture of herbs and subshrubs.

Communities within this type are usually strongly dominated by *Alnus rubra* (red alder) which forms a diffuse canopy. Cover of *Alnus* ranges from 40-80%. The forest undergrowth is usually dominated by a deciduous shrub layer. The herbaceous layer may be well-developed.

These forests are seasonally flooded by spring rains, and the soils may be saturated year-round in some stands. *Alnus rubra* is well-adapted to wet soil conditions and is highly shade-intolerant. *Alnus rubra* is a short-lived (80-100 years) pioneer species. Stands are often formed by disturbance such as flood events and therefore are even-aged.

### **Douglas-fir and Pacific Madrone Forest**

*(Pseudotsuga menziesii and Arbutus menziesii - Forest Alliance)*

These forests are characterized by a diffuse broad-leaved and needle-leaved evergreen tree canopy from 35-50 meters high with 50-70% cover. The canopy is often two-tiered, with conifers emerging through the hardwood tree layer. A shrub layer is often present, ranging from 20-60% cover. The herbaceous understory typically comprises a diverse and dense mixture of shade-tolerant forbs and ferns, but annual forbs and grasses can be common in light gaps.



*Current Condition of SE Tenino Court.*

### **HYDROLOGY**

Errol Heights Park includes a small, rare group of wetlands that feed Errol Creek, a tributary of Johnson Creek. The wetlands are at the bottom of a canyon that was formed by an escarpment. The escarpment exposed a gravel formation, which discharges an extensive spring system and feeds the wetlands. The escarpment is a unique topographic feature in this section of the watershed and likely created many wetlands that no longer exist.

The importance of these wetlands is recognized in the Johnson Creek Watershed Council's Watershed Action Plan and the City of Portland's Johnson Creek Restoration Plan, which designates the park as a high priority restoration area. With its abundant cool water springs and location as a tributary near spawning habitat in Johnson Creek, it is an ideal rearing habitat, summertime cold-water refugia and winter off channel habitat for anadromous fish.

The wetlands also are located near other high quality habitat pockets in Johnson Creek and regional migration corridors for birds and mammals. Errol Creek and its wetlands provide highly suitable habitat for amphibians and reptiles in a watershed that has few habitat areas.

BES hopes to establish an ongoing program to study the hydrology of Errol Heights, including the total volume of water draining from the area, any seasonal fluctuations, and the direction and extent of ground water contributing to the system. BES recently began studying the hydrology of the area by installing a flow meter and a series of gauges, which will be used to help map groundwater levels.

### **SCHNABEL BUILDINGS REPORT**

A structural evaluation of the two buildings in the park was conducted in July 2005 by Alpha Community Development (see Appendix C).

The report's conclusions are as follows:



### Storage Building

It appears to be in “relatively good condition”. Structural upgrades are needed before the structure can be used as a storage facility to address inadequate structural support, deterioration of some materials, and the proper disposal of stormwater.

Additional improvements are needed if the building is to be used as a meeting room or for offices. These improvements would include changes to or the provision of an HVAC system, plumbing, electrical, fire safety changes, parking, and ADA accessibility.

### Residence

The residence suffers from more serious structural problems, with damage to its framing, some of which has failed. Some structural beams and joists are “about ready to fail” and as a result should be barricaded to prevent access.

Some parts of the residence can be salvaged and reused. The garage portion can be saved and renovated into a public space with the addition of more structural reinforcement.



*Schnabel Workshop*



*Schnabel Garage Structure*

## Population, Planning, & Land Use Conditions

The area in which the park is located exhibits some striking characteristics. Compared to the City of Portland and based on the 2000 Census, the area includes a higher percentage of children under 17 years old, lower percentages of 18-34 year olds and 65 and over, lower percentages of ethnic minorities, lower education levels, lower median income, and slightly higher percentages of homeowners.

Since 1990, there have been several significant shifts in the area's population characteristics. The percentage of ethnic minority residents has doubled from 8% to 16%, with most of this growth occurring with Hispanic and Asian/Pacific Islanders. Also, the recent-immigrant community has doubled as well, from 4% to 9% of total population (defined by foreign born residents who entered the U.S. between 1980-90).

In addition, less dramatic shifts include an increase in education levels, and a decline in the percentage of older residents (65 and over).

### Population Characteristics: Errol Hts. Park Area & City of Portland

CATEGORY		% TOTAL POPULATION	CITY OF PORTLAND
	<b>Total Population</b>	<b>37,465</b>	
<b>Age Groups</b>	0-17	<b>24.2%</b>	21.2
	18-34	<b>26.1%</b>	28.2
	65 and Over	<b>11.0%</b>	11.6
<b>Ethnic Minorities</b>	Black	<b>0.9%</b>	6.1
	Native American	<b>0.9%</b>	0.9
	Asian and Pacific Islander	<b>7.0%</b>	6.5
	Hispanic	<b>6.7%</b>	6.8
	All Minorities	<b>15.5%</b>	20.4
<b>Foreign Born Residents</b>	Entry From 1980 - 1900	<b>8.5%</b>	7.1
<b>Education</b>	Some School (No Diploma)	<b>11.3%</b>	8.9
	High School Diploma (Incl. GED)	<b>19.8%</b>	15.2
	Some College	<b>16.9%</b>	17.2
	Associates or Bachelors	<b>13.3%</b>	18.7
	Masters or Professional	<b>4.1%</b>	7.1
<b>Median Income</b>		<b>\$35,705</b>	<b>\$44,080</b>
<b>Housing</b>	Owners	<b>67.6%</b>	59.1
	Renters	<b>31.3%</b>	38.2

## ZONING AND LAND USE

Errol Heights Park now comprises four base zoning classifications:

(OS) Open Space Zone is intended to “preserve public and private open and natural areas identified in the Comprehensive Plan.” Open Space regulations also define development standards for building setbacks, parking, street trees, and other related improvements.

(R2a) Residential Zone 2,000 SF lots with an accessory building, and (R2.5a) Residential Zone 2,500 SF lots with an accessory building and (R5a) Residential Zone 5,000 SF lots with an accessory building. The property adjacent to Errol Creek also has both Conservation and Protection Environmental “overlay” zones associated with it. In large part the lowland areas and the valley walls are protected by the environmental overlay zones.

The (CG) General Commercial zone is intended for sites that “allow auto-accommodating commercial development in areas already predominantly built in this manner and in most newer commercial areas. The zone allows a full range of retail and service businesses with a local or regional market. Development is expected to be generally auto-accommodating, except where the site is adjacent to a transit street or in a Pedestrian District. The zone’s development standards promote attractive development, an open and pleasant street appearance, and compatibility with adjacent residential areas. Development is intended to be aesthetically pleasing for motorists, transit users, pedestrians, and the businesses themselves.”

### Overlay Zones

In addition to the base zones, the park also includes an environmental zone overlay, which consists of two types.

The Environmental Conservation Overlay (c) “conserves important resources and functional values in areas where the resources and functional values can be protected while allowing environmentally sensitive urban development.”

The Environmental Protection Overlay (p) “provides the highest level of protection to the most important resources and functional values. These resources and functional values are identified and assigned value in the inventory and economic, social, environmental, and energy (ESEE) analysis for each specific study area. Development will be approved in the

environmental protection zone only in rare and unusual circumstances.”

Activities that are affected by the Environmental Overlays regulations include “development, all land divisions, removing, cutting, mowing, clearing, burning, or poisoning native vegetation listed in the Portland Plant List; changing topography, grading, excavating, and filling; resource enhancement; and dedication and expansion of rights-of-way.”

**JOHNSON CREEK PLAN DISTRICT**

The Johnson Creek Plan District provides additional protection of natural resources, per the City’s Comprehensive Plan (Goal 8) and Statewide Planning Goal 5. The district provides for the safe, orderly, and efficient development of lands which are subject to a number of physical constraints.

Under the district’s policies, special regulations to new land division proposals are applied to specific locations. In addition, the district’s plan also includes restrictions on all new land uses and activities to reduce stormwater runoff, provide groundwater recharge, reduce erosion, enhance water quality, and retain and enhance native vegetation throughout the plan district. At other locations, development is encouraged and mechanisms are included that provide relief from environmental restrictions.

**TRAFFIC AND PEDESTRIAN CLASSIFICATION**

Errol Heights Park is accessed from five streets—SE 45th Avenue, SE 52nd Avenue, SE Harney Drive, SE Tenino Drive and SE Tenino Court. All of these streets have different transportation designations.

Classification	Street				
	SE Harney Drive	SE 45th Avenue	SE 52nd Avenue	SE Tenino Drive	SE Tenino Court
City Bikeway	o	o	o		
City Walkway	o	o	o		
Local Service Traffic Street	o	o	o	o	o
Neighborhood Collector	o	o	o		
Community Transit Street	o				
Transit Access Street		o	o		
Minor Truck Street	o		o		
Major Emergency Response Street	o	o	o		

## Park and Recreation Needs

The assessment of park and recreation needs is based on an analysis of several conditions and factors such as proximity to other parks, recreation trends, a review of PP&R plans, and a review of participation patterns. The following section summarizes this assessment.

### GENERAL TRENDS

One of the most significant trends that will affect the use and management of Errol Heights Park is population growth. Between 1990 and 2000, the U.S. population increased by 13% while the Portland – Vancouver area grew by 27%. Reasons for this growth include location (between growing states), ties to the Pacific Rim, and quality of life.

The result is that as Portland grows in both number and density, there will be greater demands on parks and recreational facilities. Parks will be used more intensively, resulting in greater levels of trash, vandalism, and inappropriate uses.

Smaller parks such as Errol Heights will be especially sensitive to more intensive use, as the population around the park increases. As a result, there will be greater demands on management and operations staff to deal with higher levels of use in parks. Also, education programs will be needed to establish and maintain a stewardship ethic among the general public and park users.

### PARKS AND SCHOOLS IN THE AREA

The Brentwood Darlington Neighborhood is located in an area where residents generally have to travel about one mile to visit a developed neighborhood park. The closest park is Nehalem Park, about one-half mile to the east. This park was recently acquired as park property, is currently undeveloped, and does not have a master plan.

Three developed parks are found about a mile away from Errol Heights Park -- Brentwood Park (14 acres), Berkeley Park (6 acres), and Harney Park (7 acres). All have a variety of park facilities but are not within walking distance for children and most families with small children.

School grounds sometimes provide opportunities for playgrounds and an open field, though not serving all of a neighborhood's recreational needs. Several schools are within one mile of the Errol Heights Park and one (Holy Family Elementary School) is within .50 mile of the

Existing Conditions & Site Issues

Site	Owner/ Operator	Type	Size (ac.)	Play grnd	Softball/ Baseball	Soccer/ Ftball	Bskball	Tennis	Rest room	Other	
<b>Within ½ mile of Errol Heights Park</b>											
Tideman Johnson Park	PP&R	Habitat	5.83	Natural resource park							
Nehalem Park	PP&R	Nbhd	1.02	Undeveloped							
Holy Family ES	Private	School	4.84	1	1	1					
Springwater Corridor	PP&R	Trail		Regional trail							

<b>Within 1 mile of Errol Heights Park</b>											
Berkeley Park	PP&R	Nbhd	6.50	1	1	1		2	1		
Brentwood Park	PP&R	Nbhd	14.06	1	1	3		2	1	Volleyball	
Harney Park	PP&R	Nbhd	5.00	1	1				1		
Ardenwald Park	N. Clackamas	Nbhd	0.78	1						Walking Loop	
Windsor Place	Private	Habitat	1.00	Natural resource park							
Lane MS	PDX Public Schools	School	9.50	1	2						
Lewelling Comm. Park	Milwaukie	School	0.93	Undeveloped							Picnic
Mill Park	N. Clackamas	Nbhd	1.00	1						Walking Loop	
Roswell Pond Open Space	Milwaukie	Nbhd	1.62								
Water Tower Park	N. Clackamas	Nbhd	1.99	2			1/4 court				
Ardenwald ES	N. Clack Public Schools	School	0.25	2	2	1	1				
Duniway ES	PDX Public Schools	School	5.60	1	2	1					
Lewelling ES	N. Clack Public Schools	School	11.50	2	1			2		Picnic	
Lewis ES	PDX Public Schools	School	5.45	2	3	1	1				
Reed College Parkway	PP&R	Median									

park. The school includes a playground, softball/baseball field, and a soccer/football field as well. Five public schools are located within a one-mile radius of the park and all have a variety of recreational improvements (see table at left).

In summary, the neighborhood is relatively well served by a variety of parks but residents in the area of Errol Heights Park have fewer opportunities that are within walking distance. Consequently, the park will meet the need by a large part of the community for developed facilities such as playgrounds, field, and other more traditional improvements.

#### USE OF NATURAL RESOURCE AREAS FOR RECREATION

Visitation to parks that have natural resource areas -- such as Errol Heights Park -- will likely increase as population grows. The current use of natural areas is already relatively high and with greater population growth throughout the city, place such as Errol Heights will experience a greater number of visitors over the long term.

The most recent PP&R survey in 2004 provides evidence of how popular natural areas and trails are. In the survey, four of 10 respondents visited “natural wildlife areas” either daily, weekly, or monthly, a frequency that is comparable to playground use. This frequency also ranks third of the eight activities queried, behind “parks and facilities” and “trails for hiking, walking, or running”.

Based on the survey, most people visit these sites a “few times a year” (29%) and “monthly” (25%). Public support for natural areas appears to be significant as well. The 2004 citywide survey reported that 52% of all respondents said there should be more natural wildlife areas, the highest of the 13 facilities listed.

#### TRAILS

The use of trails for hiking, running, or walking is high when compared to the use of other park improvements, according to the most recent park survey in 2004. Approximately 52% of all respondents used trails either daily, weekly, or monthly, a frequency that is exceeded only by the use of parks and/or facilities, with 65%. What is particularly notable about trail use is how balanced frequency is — weekly, monthly, and few times/year use is about the same, between 21-23%. Seven percent of respondents use trails daily.

## Summary of Conditions

### NATURAL CONDITIONS

- The park is characterized by a small bowl-like valley that drains to the southwest into Johnson Creek. The headwaters of Errol Creek emerge from the base of the slopes in several locations to form a small creek that meanders through wetlands and ponds. The valley slopes are somewhat steep and are populated by large exotic and native trees.
- Several parts of the park, including the forested areas along the valley walls, have relatively high percentages of non-native and invasive plants.
- The park has great potential to provide a high quality, winter refuge for juvenile Coho and Chinook salmon as well as habitat for Red Legged frogs (see Appendix D).
- Environmental conditions are unique for the lower reaches of Johnson Creek due to the presence of clean and cool water throughout the year. Until recently, because of increased development and loss of habitat in the area, local residents have experienced a rich mixture of wildlife species throughout the park.

### POPULATION, PLANNING, AND LAND USE CONDITIONS

- Development and use of the site is governed by a variety of general land use plans such as the city's zoning code, Johnson Creek Watershed Plan, and Transportation System Plan.
- The park is important to residents as the only site in the area where they can enjoy basic recreation opportunities. The closest improved neighborhood park is Brentwood Park, which is about a mile to the northeast.
- The site has value for environmental and cultural interpretation, but a more comprehensive strategy must first be prepared to guide future projects and programs.
- Street improvements will be needed before significant levels of park use can be accommodated.
- Changes to Errol Creek will require careful consideration and planning to minimize impacts to downstream land owners.



## PARK AND RECREATION NEEDS

- One of the most significant trends that will affect the use and management of Errol Heights Park is population growth. As Portland grows both in number and density, parks will be used more intensively. Smaller parks such as Errol Heights will be especially sensitive to more intensive use, as the population around the park increases.
- There will be greater demands on management and operations staff to deal with higher levels of use in parks. Also, education programs will be needed to establish and maintain a stewardship ethic among the general public and park users.
- The Brentwood Darlington Neighborhood is located in an area where residents generally have to travel about one mile to visit a developed neighborhood park.

The neighborhood is relatively well served by a variety of parks but residents in the area of Errol Heights Park have fewer opportunities that are within walking distance. Consequently, the park will meet the need by a large part of the community for developed facilities such as playgrounds, field, and other more traditional improvements.



# Strategy and Recommendations



## A Vision for Errol Heights Park

*The defining feature of Errol Heights Park is its topography which creates an ideal setting for tranquility and repose, along with an opportunity to escape the city's frantic pace, enjoy the gurgling stream, and absorb the sounds of nature. Errol Heights Park should be a place where people can enjoy the park in different ways while also enjoying nature.*

*The upper area along SE Tenino Court will be maintained in a manner that allows greater use by people. Indeed, this area will be key to developing a sense of community through recreational opportunities. Deep in the dell, trails that are accessible, allowing everyone the opportunity to enjoy the wildlife and native vegetation.*

*Benches, overlooks, and small gathering areas will permit more solitary experiences. Errol Creek will be enhanced to provide better habitat for fish and other wildlife. Over time the hard work of volunteers and PP&R staff will develop the Park into a natural area of unparalleled beauty.*

## Core Values and Guiding Principles

The Core Values and Guiding Principles for Errol Heights Park is organized into five topics that address how people will use the site, how it should be managed, what the teaching opportunities are, and what its inherent character is. These values and principles were developed by the Steering Committee, City staff, and the general public by discussion in numerous meetings, internal reviews, newsletters, and an open house. The categories provide a foundation for the plan's recommendations and define basic principles that will guide future improvements and actions.

### Recreation Needs

- Provide a variety of spaces and facilities that are appropriate to the site and its designation as a hybrid park.
- Meet recreation needs of existing and future area residents in designated areas.



*View of lowland wetland from south bluff.*

### **Environmental Restoration**

- Develop a “systems” approach to improve habitat values for flora and fauna through an ongoing program of invasive species removal, and habitat restoration.
- Protect quality of waterway by providing fish habitat for resting and rearing by striving to increase in-stream complexity, removing fish barriers, protecting from solar heating and providing off channel habitat.
- Establish a process for ongoing evaluation of hydrology and use that information to design restoration improvements.
- Control human and domestic animal access into restoration sites and natural resource areas.
- Restore wetland habitat, function, and quality while minimizing impacts to adjacent properties.

### **Interpretive Programs**

- Provide a variety of opportunities for students and citizens to learn about the site, its natural resources, its history, Errol Creek, Johnson Creek, and the neighborhood.
- Provide restoration involvement opportunities for school groups, citizens, and Johnson Creek Watershed Council.

### **Beauty and Character of the Site**

- Enhance and improve the park’s visual character through a vegetation management program that provides for a variety of experiences that improve views and defines open spaces.
- Introduce ornamental plants to the neighborhood park areas that are noninvasive and have water-conserving characteristics.
- Honor and respect the park’s historical and cultural precedents.
- Continue the legacy of neighborhood involvement.
- Develop and sustain partnerships with the neighborhoods, Friends group, Johnson Creek Watershed Council, and others for programs and maintenance.
- Join adjacent property owners and neighbors in efforts to educate others about stream stewardship and assist them in altering habits and practices to better protect Errol Creek.

## Access & Circulation

The circulation system is a key part of managing the site in a positive way. It defines the various areas and character zones of the park, directs park users to appropriate locations, and provides opportunities for park visitors to enjoy the beauty of the park.

- Develop a circulation system for the park and to connect the site, to adjacent neighborhoods, and to the Springwater Trail. Coordinate with Portland Office of Transportation to enhance connecting roadways for pedestrians and cyclists.
- Improve access to the park for pedestrians and maintenance vehicles. Provide limited parking areas where needed for automobiles and school busses. Parking areas should not be located within the current park boundaries but should instead be sited on current right-of-ways.
- Develop a pathway system that integrates the park’s three access points. The system should include a loop connecting the lower basin to the upper recreation area.
- Design the path system to be visually unobtrusive by using appropriate materials and by locating them at the edges of open areas, wherever possible. The path system will consist of two trail types:

*Hard Surface Paths* will be built of porous asphalt or other “hard-surface” material that meets ADA requirements, and will be approximately 5’ - 8’ wide (the specific width will be defined during the design phase).

*Soft-Surface Paths:* can be built of bark mulch or gravel and will be used in natural resource areas when there are no ADA accessibility requirements. Trail widths will vary between 4’ and 6’ wide. In some areas, boardwalks will focus traffic and provide limited access to wetland areas for interpretive benefit.

- Access into sensitive natural areas should be discouraged and limited to maintenance functions. Every effort should be made to avoid further fragmentation of the natural resource areas.
- Design paths to anticipate pedestrian desire lines while minimizing the overall amount of impervious material in the park.
- Eliminate the use of rogue trails with educational signage, fences, and restoration plantings.



*Park entrance from SE 45th Avenue.*



*Current trails are soil foot paths.*

## Park Use and Character Zones

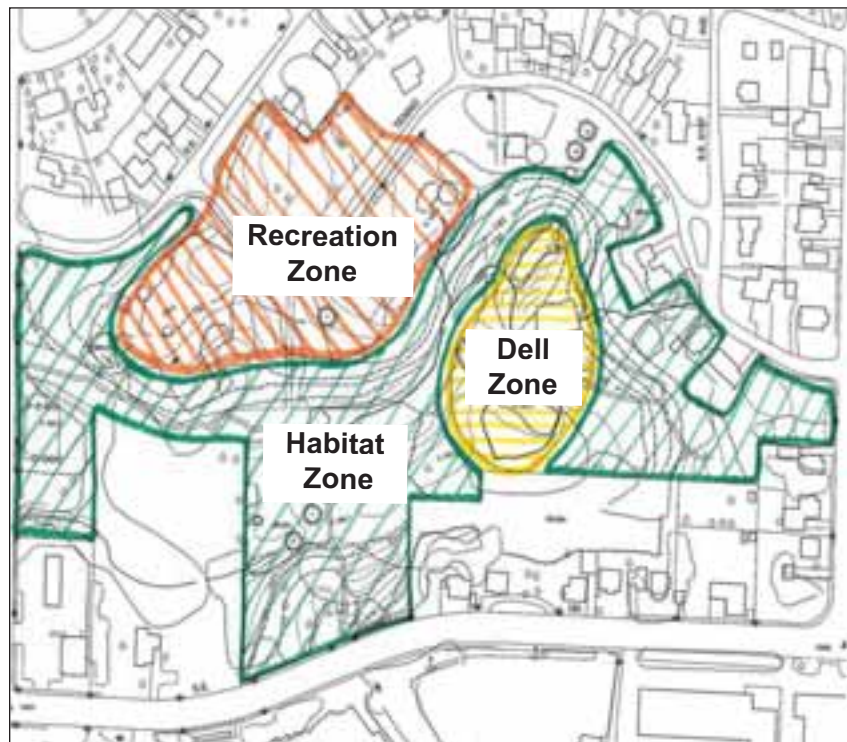
Errol Heights Park is an unusual part of the City’s portfolio of parks. The site includes wetland natural areas, cold water springs, small ponds, many large trees, open grassy areas, and a small bowl shaped valley that provides a sense of removal and escape from the sights and sounds of the City. There are also unique cultural amenities with its historic Native American use and the heavy timbered Schnabel buildings.

The Master Plan’s policies address the qualities that make it a special place. The following sections address specific zones and issues of the park. The map below delineates these different character zones.

### OVERALL POLICIES FOR CHARACTER ZONES

Improve and maintain Errol Heights as a “hybrid” park which includes uses and activities typically associated with neighborhood parks and natural resource sites. The park will also be used for cultural and environmental interpretation programs and projects that involve neighbors, students, and other groups.

*Character Zone Map*



## Habitat Zone

*Maximize the habitat value in this zone for vegetation and wildlife. This zone should be carefully managed to provide opportunities to enjoy nature while protecting the natural resources. A large part of the park comprises natural resource areas, which contribute visually and functionally to the park. These areas should be maintained and enhanced to ensure that the park continues to function as high-quality habitat.*

- Apply the principles of PP&R’s Ecosystem Management Program and Desired Future Condition of this zone.
- Reduce fragmentation of the habitat areas by strengthening connectivity between habitat islands and minimizing human intrusion.
- Locate trails and habitat viewing opportunities along the developed edge with minimal intrusions into the Habitat Area.
- Expand the vegetative buffer between the active recreation areas and the natural resource areas to minimize noise and aesthetic impacts to the natural areas.
- Manage vegetation to maintain lines of sight that provide a sense of safety along pathways in the natural areas. This may include the selective removal of trees and vegetation to maintain key view-points along the bluffs and from the Schnabel buildings.
- Continue removing non-native and invasive plants in the Habitat Area and replant with native species. Volunteers should work with PP&R Natural Resources staff to identify priority work areas and to coordinate efforts.
- Develop and implement a maintenance plan to address invasive tree species during the transition phase to the Desired Future Condition.

Note: The issue of whether pets should be allowed in habitat areas will be discussed in the design and implementation phase, when there will be an opportunity for public comment.

### Recreation Zone

*One of the main functions of the park will be to provide recreation opportunities for area residents. Because the site includes many environmentally sensitive areas, the recreation area must be carefully sited, designed, and managed. The size and usability of this zone can be greatly enhanced by relocating the right-of-way of SE Tenino Court that now bisects the upland area to the northern boundary of the park.*

- Minimize the impacts of active recreation by concentrating the activities to the western upland area, where access from adjacent streets and neighborhoods is relatively easy.
- Coordinate with Portland Office of Transportation to abandon the existing right-of-way and create the new right-of-way.\*
- Improve and manage this zone to accommodate recreation uses and facilities such as group picnics, a playground, a full size basketball court, educational programs, and other small group functions.

This area could include two small sports fields for 8 yr. old soccer or U8, which would be located within the open lawn area just south of SE Tenino Court.

- Design the improvements to promote visibility and security of the area. Park improvements should be located to minimize impacts on adjacent residents.
- Create a vegetative buffer zone to prevent unwanted runoff of nutrients, and herbicides into the Habitat Zone.

\* Easements will be needed for the existing utilities in the current location SE Tenino Court. The former home sites in the upland area can accommodate the active recreation uses, in proximity to one of the primary access points into the park. It is expected that use will be concentrated in this zone, leaving the lowland part of the park as a place for quiet and tranquility.



*Future Active Recreation Zone.*



## The Dell Zone

*This area is characterized by the small secluded valley at the headwaters of Errol Creek. The valley is within the Habitat Zone and acts as the interface between park users and the more restrictive habitat zone. The small ponds and the open character, combined with the unique timber framed structures, allow for experiences not found throughout the city. The ability to overlook the dell and the picturesque openings in the forest makes this the “heart” of the park.*

- Provide a balance of nature-based recreation and education uses in this zone, with a special emphasis on maintaining the aesthetic qualities and sense of discovery envisioned by Mr. Schnabel. This setting should be managed as a habitat area and as a place of refuge and quiet.
- Manage the vegetation in this area to provide the experience of entering into an opening in the forest. Tree plantings or tree removal of exotics can be used to enhance the experience.
- Balance the restoration of ecological and hydrologic functions with visitor access. While open water is an essential characteristic of the Dell Zone, the ponds must be managed to maintain the hydrologic functions of the habitat zone.
- Limit water access to a few key points. Use boardwalks and dense vegetation to concentrate use away from these sensitive features.
- Maintain the former garage as a picnic shelter, as an example of George Schnabel’s design, or as a respite and a place for educational programs. As resources are available, the Schnabel overlook deck should be rebuilt with salvaged timber from the home. These structures will be elevated and connected to provide a sequence of experiences to an elevated overlook.

*Pond in The Dell*



## Errol Creek

*The waterways are some of the defining features of the park. Historically, the natural springs may have provided an ideal water source for Native Americans camping in area. Today, there is a wonderful mix of wetlands, open water, and channels that combine to create a beautiful amenity to the park and surrounding neighborhoods. Errol Creek will continue to function as critical habitat and cold water source to Johnson Creek.*

- Continue evaluating and monitoring creek to maximize its habitat function while minimizing impacts to downstream landowners.
- Improve water quality and habitat through projects that utilize available funding sources.
- Coordinate the design, timing, and funding of restoration programs and projects with all relevant agencies.
- Improve the waterway corridors with riparian plantings and native plant materials.
- Discourage human access to the waterways until trails are improved to provide safe access (exceptions should be made for maintenance and restoration projects).
- Maintain portions of the creek as open water in critical view areas.

*Example of desired future condition for an Ash Wetland in the Habitat Zone.*



*One of three Errol Creek crossings*

## Wildlife and Vegetation Management

*The character of the park is defined in large part by topography, Errol Creek, wetlands and its mature trees. In addition, the trees and vegetation also contribute to the habitat values of the park, which have been noted by area birders. The management policies are intended to build upon and enhance the qualities now provided by these areas.*

- Remove invasive and exotic plants and replace with species more appropriate to the park’s Desired Future Condition.
- Maintain the park’s “naturalistic” appearance through the careful location of large trees and understory plantings. Restoration plantings should be randomized to achieve a natural structure. Consider clumping and random disbursement of large trees.
- The removal of large trees should be carefully managed. Also, the public should be informed before any removal. Options to use the exotic trees as a snag or habitat without full removal should be explored.
- Maintain and enhance the park as habitat for wildlife. Design for habitat improvements for wildlife species appropriate to the site.
- Plan restoration activities that can increase habitat value include removing non-native vegetation, planting native species, restoring hydrologic connections to the creek, and connecting habitats with a continuous riparian corridor.
- Use PP&R’s Integrated Pest Management Policy as a guide to restore and maintain natural resource areas.
- Improve the diversity and abundance of wildlife food sources within the park by enhancing native plant communities.
- Increase habitat areas through the provision of snags, brush piles, and other natural features.
- Restrict human access and activity in natural resource areas. Discourage trail formation in these areas by anticipating desire lines and providing trails in non-sensitive areas.
- Provide educational material for park users about habitat values and protection of natural resources.



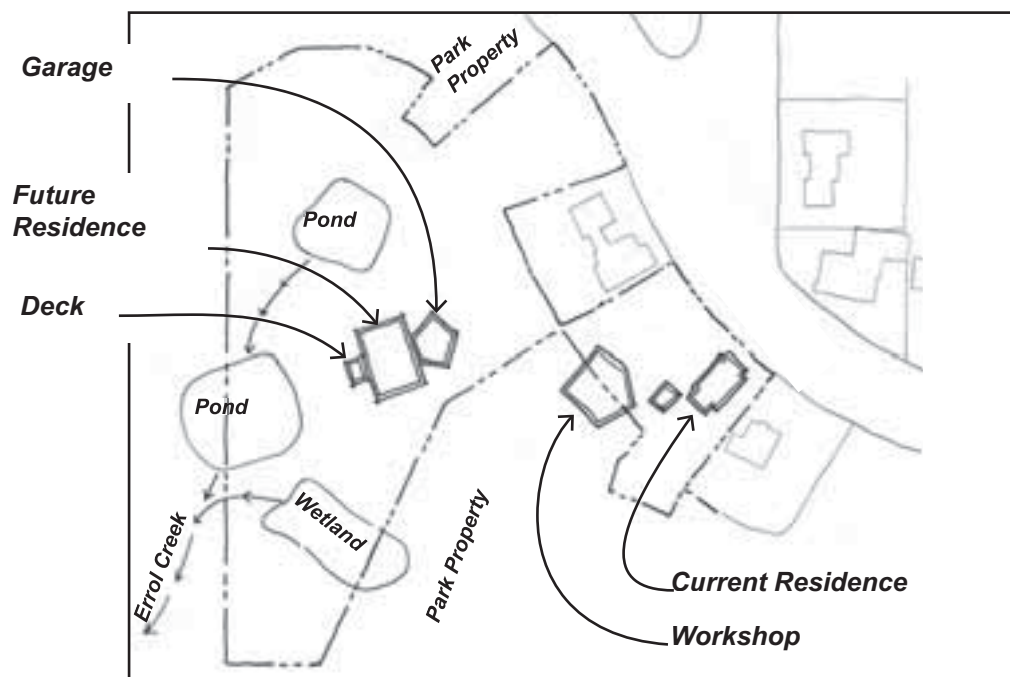
*Example of desired future condition for an Ash Wetland in the Habitat Zone.*

## Schnabel Home and Buildings

*The current Schnabel residence, the future residence, and the workshop are unique structures -- a wonderful example of 1920s era bungalow architecture and an incredible effort by one man and his work is a part of the neighborhood history.*

While these structures are a cultural resource for the City and the neighborhood they do not yet have an identifiable, funded, future use that is compatible with the mission of PP&R. There is considerable interest in maintaining these buildings, however there is no non-profit organization that is in a position to fund their improvement and operations. Consequently, the plan defines a specific time of five years for the community to respond to this challenge.

In the interim, PP&R will balance the public safety requirements and fiscal responsibility. During this time, minimal funds will be invested in these resources. The following statements outline the policy and sequence of events regarding each structure.



1999 Schnabel Acquisition 2.33 Acres



## FUTURE RESIDENCE

- Initiate process to demolish the future residence and deck. Care should be taken to separate structure from the garage. Priority should be given to a contractor that will salvage the wood from the structure for future re-use in the park.
- Document the look and structure of the deck for use in re-building it for the future. The concrete foundation will remain in place as a marker to the cultural history of the site.
- Stabilize and secure the garage for use as a covered shelter in the Dell Zone.



*Schnabel Workshop*

## WORKSHOP AND CURRENT RESIDENCE—BEFORE 2010

- Maintain the existing relationship and agreements with Barbara Schnabel. If she is no longer able to live in the home before 2010, rental of the home until 2010 should be considered.
- Continue to remove debris and materials from workshop and provide minimal maintenance intended only to preserve the opportunity for future use of building until 2010.
- Explore opportunities for a partnership with a non-profit organization to lease back or purchase property for offices, community center, museum, or educational purposes.
- Explore funding from sources other than PP&R for capital improvements to bring buildings into compliance with local land use standards and building codes. A funding source for ongoing operations and maintenance also will be needed.



*Schnabel Garage Structure*

## WORKSHOP AND CURRENT RESIDENCE—AFTER 2010

- Consider moving the current residence to a location within the neighborhood. Options include converting park property on the north side of SE Tenino Court to residential use. Funds from the sale of the home and property could be utilized for improvements to the park.
- Initiate process to demolish and salvage timbers from workshop.
- Restore and renovate site to enhance and protect the habitat zone below.

## Implementation Strategy

Although there is no funding for park improvements, there are several things that can be done in the interim. Some tasks address the need for restoration while others focus on correcting existing problems. The following is an outline of recommended activities. Tasks that are considered to be a high priority are in bold type.

### Administrative Tasks

- Pursue a street vacation of the SE Tenino Ct. right-of-way (ROW) that bisects upland park area while reestablishing additional SE Tenino Court ROW to the north of the park.

*Responsibility: PP&R Property Management section*

*Time frame: 2006*

- Initiate assessments for amphibians and salmonid habitat potential for Errol Heights, in partnership with BES.

*Responsibility: PP&R City Nature staff with BES staff*

*Timeframe: 2006 - 07*

*Work groups at the park will continue to be a part of the plan's implementation.*



## Restoration and Park Management

PP&R's Natural Resources Division will assume primary responsibility for activities within the park's natural resource areas. These activities will be guided by the goals and policies described in the Desired Future Condition section.

- Develop a Maintenance Program that identifies a schedule of activities (mowing, pruning, brush clearing, tree removal, etc.), responsible parties, and opportunities for volunteer projects.

*Responsibility: PP&R City Nature staff*

*Timeframe: 2006 - 07*

- Initiate restoration of selected areas, including the removal of invasive species, based on discussion between BES, PP&R, and the neighborhood. Priority areas include the areas defined in the vegetation assessment with high percentages of invasive plants.

*Responsibility: PP&R City Nature staff, in consultation with BES and the neighborhood*

*Timeframe: 2006 - 07*

- Remove and/or relocate paths in habitat areas where they are not appropriately sited.

*Responsibility: PP&R City Nature staff with BES staff*

*Timeframe: 2006 - 07*

### Renovation of the Schnabel Structures

Renovating the Schnabel structures will be a complex and expensive task . The project needs to be part of an overall development program that addresses not only the structural renovation but issues concerning continued maintenance, operations, and management of the buildings. Funding sources will have to be identified and careful thought should be given to how maintenance will be funded and how the structures will be used.

Because *PP&R* will likely not be in a position to assist with any significant funding for renovation or maintenance, a partnership with a new or existing non-profit or other organization will have to be established.

- **Demolish and salvage portions of the lower Schnabel building that represent immediate hazardous conditions to park patrons.**

*Responsibility: PP&R City Nature and Parks Maintenance staff*

*Time frame: 2006 (this task was initiated before the plan was completed)*

- Protect and preserve “garage” portion of the lower Schnabel building for a picnic and educational program shelter.

*Responsibility: Non-profit or other organization*

*Timeframe: Contingent on funding and long-term agreement with PP&R*

- Rebuild the “elevated deck” from salvaged materials and reconnect to picnic shelter (former garage).

*Responsibility: Non-profit or other organization*

*Timeframe: Contingent on funding and long-term agreement with PP&R*

- Consider the renovation of the upper Schnabel building.

*Responsibility: Non-profit or other organization*

*Timeframe: Contingent on funding and long-term agreement with PP&R*



## Park Improvements and Acquisition

- **Install three park signs near the primary access points.**

*Responsibility: PP&R Zone Manager*

*Timeframe: 2006 - 07*

- Provide primary access points into the park from SE 45th Avenue, SE 52nd Avenue, and SE Tenino Court. If appropriate, parking for cars, school busses, and bicycles should be provided within the right-of-way.

*Responsibility: PP&R*

*Timeframe: Contingent on funding for park and street improvements*

- Explore acquisition of additional land through the willing seller program to increase the size of the Natural Resource Areas.

*Responsibility: PP&R Property Managent and Acquisition staff*

*Timeframe: Ongoing*

## Cost Estimate

### PERMIT & MANAGEMENT COSTS

E-Zone Review	\$3,755
Building Permit	\$10,625
Design, Project Management (20%)	\$399,034
PDOT Street Design (15%) of street construction costs	\$70,830
Public Involvement allowance	\$8,000
Land Use Preparation and follow-up allowance	\$10,000
Structural, architectural consultant fees (15% of bldg. and bridges)	\$33,000
Printing, construction signs, etc.	\$3,000
Construction Management (6%)	\$79,807
Percent for Art	\$26,536
Subtotal	\$644,587

### CONSTRUCTION COSTS

	Unit	Qty	Unit Price	Cost
Land Improvements				
Street removal	LS	1	\$33,500	\$33,500
Building removal	LS	1	\$50,000	\$50,000
Water Service (2" meter)	LS	1	\$20,000	\$20,000
Electrical Service	LS	1	\$8,000	\$8,000
Erosion Control	LS	1	\$4,000	\$4,000
Rough Grading	CY	23,872	\$12	\$286,464
Finish Grading	SY	18,363	\$2	\$41,317
Lawn in Neighborhood Park Area				
Two soccer fields (9665 sf ea)	EA	2	\$80,000	\$160,000
Irrigation	SF	165,200	\$1	\$123,900
Path Lighting	EA	20	\$4,500	\$90,000
Buffer vegetation	SF	30,000	\$1	\$30,000
Revegetation efforts throughout	LS	1	\$15,000	\$15,000
Tree planting	EA	100	\$400	\$40,000
Subtotal				\$926,961
Pathways, Street Improvements				
Asphalt Paths (8' wide)	LF	3,850	\$24	\$92,400
Soft-surface Paths (6' wide)	LF	275	\$20	\$5,500
Re-align Tenino Court-inclusive	LS	1	\$165,000	\$165,000
Sidewalks (other streets)	LF	1,555	\$30	\$46,650
Half-street minus walks	LF	960	\$320	\$307,200
Subtotal				\$616,750
Park Improvements				

## Strategy & Recommendations

<b>CONSTRUCTION COSTS (Cont'd)</b>	Unit	Qty	Unit Price	Cost
Play area	LS	1	\$65,000	\$65,000
Basketball Court	LS	1	\$40,000	\$40,000
Shelter remodel	LS	1	\$60,000	\$60,000
Teaching Area	LS	1	\$14,200	\$14,200
Entry Plazas	LS	3	\$17,000	\$51,000
Bridges	EA	2	\$80,000	\$160,000
Benches	EA	8	\$2,000	\$16,000
Picnic Tables	EA	3	\$3,000	\$9,000
Water line	LF	140	\$14	\$1,960
Drinking Fountain	LS	1	\$2,500	\$2,500
Trash Can	LS	1	\$1,800	\$1,800
Porta-Potty Enclosure & Slab	LS	1	\$20,000	\$20,000
Bollards	EA	20	\$500	\$10,000
			Subtotal	\$451,460
			Construction Subtotal	\$1,995,171
			Mobilization (8%)	\$159,614
			<b>Subtotal</b>	<b>\$2,154,784</b>
			Construction Contingency @ 30%	\$646,435
			<b>Construction Total</b>	<b>\$2,960,833</b>
			<b>PROJECT TOTAL (PERMIT/MGMT COSTS + CONSTRUCTION COSTS)</b>	<b>\$3,605,420</b>

# Appendix A: Newsletters

# Appendix B: Meeting Minutes

# Appendix C: Structural Evaluation

# Appendix D: Amphibian Habitat Study