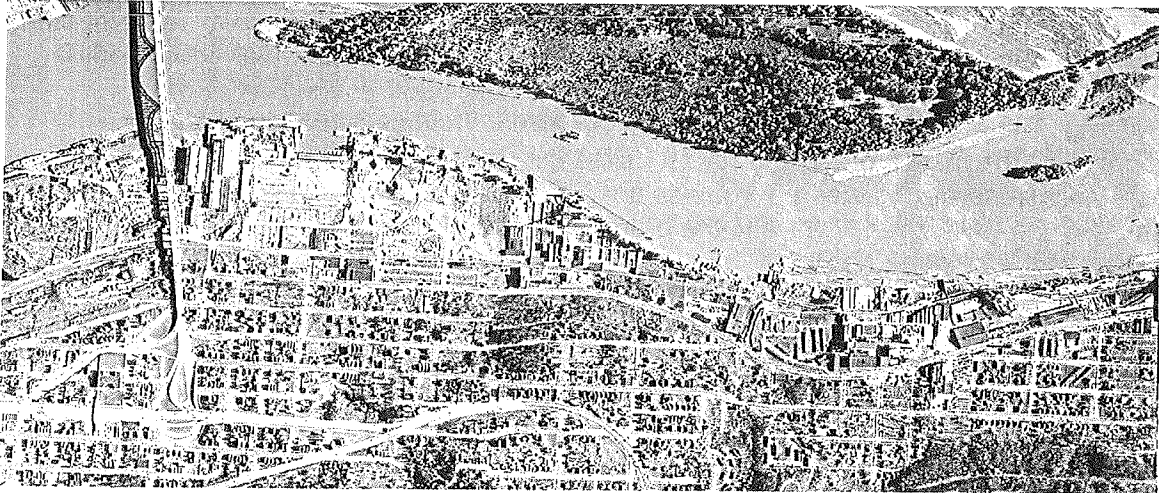


OPERATIONS PLAN
for
South Waterfront Greenway
Central District



(Historic image from 1950 of the Willamette River)

January 17, 2014

Purpose of this Operations Plan

The purposes of this Operations Plan are to:

1. review the purpose and significance of the Greenway Central District;
2. highlight the new maintenance, monitoring and reporting responsibilities for this new park asset; and
3. update the budget request.

Purpose and Significance of the Greenway Central District

The Central District of the South Waterfront Greenway represents the vision, work, and dreams of many people over many years. The South Waterfront Greenway Development Plan, accepted by Council of 2004, provided a vision and a concept plan for the entire South Waterfront Greenway from the Marquam Bridge south to the River Forum Building. The part of the South Waterfront Greenway that is covered by this plan represents the middle of three districts, called the Central District, which covers a 4.35 acre area generally between SW Gibbs and SW Lane Streets, and between the western shore of the Willamette River and the property line at the eastern base of the residential towers in the neighborhood.

The goals of the Central District are to help link Downtown Portland with the Sellwood Bridge and points south via a trail system, to provide recreational opportunities in the highest-density neighborhood in the state, and to provide restored riverbank habitat to meet the needs of the endangered fish migrating by in the river.

All of the project area is built upon fill material left over from former industrial uses that is composed of debris, rock, and lightly contaminated soil. The entire site is enrolled in the DEQ's Voluntary Cleanup Program and a clean fill cap has been constructed over the contaminated soil that must be maintained in perpetuity.

The project has been reviewed and permitted by Federal and State governments, as well as other City of Portland bureaus, to ensure its success as both a source of recreation for people and sustained habitat value for fish and other river residents. Phase 1, the riverbank reconstruction where the salmon habitat is located, is complete, but the human habitat – the Phase 2 upland park - was delayed for permitting reasons in 2009 and then again for funding reasons in 2012. Funding has now been identified to finish Phase 2, and this Operations Plan lays out how Portland Parks and Recreation intends to operate and maintain this important new asset upon completion of Phase 2.

How the Greenway Central District is Different

There are many factors that make the Greenway Central District unique, and consequently a unique operations and maintenance challenge. Some aspects of how it is different include:

- The Greenway in the Central District is 100-feet wide, the widest in the state – which was negotiated among all the property owners and agencies involved. It will integrate urban uses for play and transportation with riverbank clean up and salmon habitat restoration.
- There has been a high level of permitting agency involvement to achieve the desired habitat outcomes. Consequently there are specific monitoring tasks and

reporting required by permit for up to seven years after completion of construction in three different areas:

- The **rocky beach**, as required by the Army Corps of Engineers (COE) and the Division of State Lands (DSL), to ensure that the shallow water fish habitat remains viable;
 - The **protective caps** which cover the lightly contaminated soils are required to be monitored according to the Oregon Department of Environmental Quality (DEQ) permit. These vary by zone (upland, beach and in between) including hardscape features (sheet pile, gabion, and concrete walls) as well as landscape elements (riprap, sand/gravel filter blanket, clean soils, round rock and geotextile fabrics); and
 - The **plantings**, in the vaults and the landscape beds between the vaults and the wall above it are also under monitoring requirements, per the COE/DSL permit. There are requirements for overall establishment success rates and invasive removal.
- There are significant challenges and limitations on typical landscape work, due to the caps and requirements to ensure they are not disturbed. This requires special training for staff and oversight of all bureau and public activities within the District, in perpetuity.
 - PP&R has taken on establishment obligations for the entire project – hard structures, the plantings and the caps - that normally remain with the contractor for 2 years after completion. But as part of price negotiations with the contractor, this obligation was shifted to the Bureau. Given that this project involves approaches to habitat restoration and contamination containment that are unfamiliar to the City plus some that are completely innovative, there is a greater level of uncertainty within the Bureau about what it will take to maintain the Central District than on a normal urban park project.
 - In exchange for \$1.42 million of funding, the City contracted with TriMet to transfer the habitat mitigation – the beach - for TriMet's new light rail bridge to the Central District. Therefore, they have significant interest and investment in the project's success, and PP&R is required to continue to adhere to TriMet's permit requirements around mitigation.
 - Similarly, downstream property owners have done their own riverfront restoration efforts, and they are watching closely to ensure that our project lives up to expectations and does not jeopardize their completed clean up or habitat restoration efforts.
 - This will be the first section of the City's Greenway trail system that provides separated trails for cyclists and pedestrians, which will provide a safer experience for both user groups. With the soon-to-be completed Sellwood and TriMet Bridges, when the remaining two districts of the South Waterfront Greenway are completed, there will be a complete circuit possible to points south and east, and a significant increase in commuting and recreational cyclists is expected.

Lastly, though not unique to this project, there was a high level of community involvement throughout the process, from master planning through site design and construction. With that comes a significant community expectation regarding the entire project, the aesthetics, the level of maintenance, the level of river access, and the close attention to the success of the improved habitat function.

PP&R will adapt its management and maintenance routines to the specific needs of this endeavor, as they arise.

Update to Budget Request for Greenway Central District

Given the many unique qualities of this project, the degree of uncertainty moving forward, and the high expectations on the part of the community, the permitting agencies, TriMet and the adjacent property owners, we have worked hard to be as accurate in our cost estimating as possible.

In May 2012, PP&R foreshadowed the anticipated operations and maintenance (O&M) costs for this project based on what we knew at the time. Finding # 10 from Ordinance # 185370 detailed these costs as follows:

Phase 2 O&M will include one-time costs for post construction inspection and start up and annual O&M for maintenance of Phase 1 improvements and all the hard surfaces, site furniture, the bioswale between the bike and pedestrian trails, landscaped beds, irrigation, trees, lawn, and for the provision of Park Ranger. One-time costs are estimated at \$13,230. Annual O&M cost when construction is complete are estimated at \$346,800.

That request was prepared as a placeholder, designed to highlight for Council the expected costs of maintaining the new riverbank and park, and meeting Federal and State permit requirements. But it was prepared before construction began and before the final permit requirements were received from the agencies. After completion of the riverbank reconstruction, PP&R has a much clearer understanding of the site, with its soft, contaminated soils and river level fluctuations, the permit requirements, which require monitoring and repair activities for up to seven years after construction and the relationship of our clean up to that of our downstream neighbor. PP&R has re-evaluated it's scope of work for maintenance and monitoring and the cost has increased from an estimated \$ 346,800 per year to an estimated \$ 488,831 per year now, with one time costs of \$26,730.

How is this calculated?

This O & M request is based on several factors:

- Staff calculations of the cost to maintain all the new assets and meet public and regulatory agency expectations for standards of service.
- Input from contractors involved in the design, construction and permitting process on anticipated O&M costs based on their understanding of monitoring and reporting requirements, as well as potential impact from floods / high water events that might occur every 3-5 years. (This estimate does not include budget for responding to a significant flood.)

Summary

Opening a new park is always a significant moment. Opening this park, with such a long history in development, a high profile, strong expectations, and significant regulatory oversight, is even more so. Portland is demonstrating leadership and ingenuity with this project in terms of riverbank restoration efforts. It will likely set the ground for future efforts, provided we can demonstrate its success. This is both a wonderful opportunity and a significant challenge. We are mindful of the current budget climate, and the need for efficiency. This O & M estimate represents essential costs based on the park's design, stakeholder and regulatory agency expectations and the realities of public space in one of the densest residential neighborhoods in the state. It includes the resources required for maintenance and one-time investments needed to establish the park, and allow it to live up to the vision and goals the community has set for it.

SOUTH WATERFRONT GREENWAY – CENTRAL DISTRICT CONSTRUCTION COSTS	
Total Project Cost Estimate (TPC)	
Phase 1 river bank habitat enhancement, including soft costs	\$ 10,798,100
Phase 2 upland park improvements, including soft costs	\$ 4,700,000
Total, Phases 1+2)	\$ 15,498,100
Construction Costs Only	
Total Project Cost, Phases 1+2, less soft costs	\$ 11,796,000
Operational Costs (Annual)	\$ 488,831
1 year's Operational costs as % of TPC	3.15 %
1 year's Operational costs as % of Construction Costs	4.14 %

APPENDIX A – List of Agencies involved in permitting operations at South Waterfront Greenway

US Army Corps of Engineers (COE)
National Marine Fisheries Service (NMFS)

Oregon Division of State Lands (DSL)
Oregon Division of Fish & Wildlife (ODFW)

Oregon Department of Environmental Quality (DEQ) – Water Quality
Oregon Department of Environmental Quality (DEQ) – Clean Up
Bureau of Development Services (BDS) – Land Use
Bureau of Development Services (BDS) – Building Permits
Bureau of Environmental Services (BES) – Encroachment Agreement

O&M Estimate for South Waterfront Greenway - WITH Beach Repair Costs									
Work group	Tasks	Hourly or Unit Cost	Time	Frequency / year	Materials	Ongoing Labor Costs: Sub-Total	Combined Materials and Labor	One Time Costs	Notes
Engineering	Periodic monitoring of beach and monitoring rocks, oversight of contracted services	\$ 77.00	\$ 3.00	\$ 5.00		\$ 1,155.00	\$ 1,155.00		The frequency may reduce after first 2 years.
Engineering	Contracted services for monitoring and reporting					\$ 5,000.00	\$ 5,000.00	\$ 3,970.00	Numbers are from Andy Jansky for his services. First year is higher in order to set up systems, templates, photo-monitoring etc.
Irrigation	One-time irrigation inspection & central control start-up	\$ 64.03	\$ 60.00				\$ -	\$ 3,841.80	
Irrigation	On-going maintenance support of irrigation system & central control water management.						\$ -		
Irrigation	Backflow & POC				\$ 250.00	\$ 250.00	\$ 250.00		
Irrigation	40 Irrigation zones at \$150.00 each	\$ 150.00		\$ 40.00		\$ 6,250.00	\$ 6,250.00		
Turf	One Time - inspection of turf install 16 x \$65.03	\$ 65.03					\$ -	\$ 1,040.48	
Turf	Weekly mowing as required	\$ 65.03	\$ 4.00	\$ 16.00		\$ 9,364.32	\$ 9,364.32		
Turf	Grass seed and fertilizer			\$ 36.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00		
Forestry						\$ 8,734.00	\$ 8,734.00	\$ 474.00	
Storm Damage repairs	Rock supplementation				\$ 3,400.00	\$ 13,600.00	\$ 17,000.00		These numbers reflect 1/3 of anticipated cost for beach damage likely to need work every 3 years.
Storm Damage repairs	Rip Rap repair				\$ 666.60	\$ 2,666.40	\$ 3,333.00		
Storm Damage repairs	Eroded soil replacement				\$ 500.00	\$ 2,000.00	\$ 2,500.00		
Storm Damage repairs	Ramp repair				\$ 800.00	\$ 3,200.00	\$ 4,000.00		
Rangers	Security patrols of new site					\$ 11,820.00	\$ 11,820.00		
Service Zones	Routine maintenance of trails, landscape beds, park amenities, and other assets. Training for boating skills for monitoring and responding to emergencies; permit requirements and requisite precautions for working at this site.				\$ 17,586.00	\$ 145,974.00	\$ 163,560.00	\$ 10,904.00	
Central Services					\$ 26,395.00	\$ 105,580.00	\$ 131,975.00	\$ 6,500.00	
Totals					\$ 50,598	\$ 315,344	\$ 365,941.32	\$ 26,730	
Grand Total						\$ 122,889	\$ 488,831	\$ 26,730	

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Frequency of Need						Costs				
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Frequency of Need					Costs				
Annual	Annual rock supplementation – 400 lf bench cut requiring additional rock.								
	400 lf x 10 ft area of impact requiring 1 cy per foot to recover beach back to required thickness								
	Material placed with small rubber tire machine								
	400 cy @ \$65/cy = \$26,000					\$ 26,000			
	Mobilization \$5,000					\$ 5,000			
	Misc access \$10,000					\$ 10,000			
	Parks/Consultation planning and oversight \$10,000					\$ 10,000			
	Total					\$ 51,000			
Annual	Beaver/Plant damage – assume 25% replacement								
	500 potted willow - \$5/ea = \$2500					\$ 2,500			
	Installation \$2500					\$ 2,500			
	Parks planning, coordination and oversight \$2500					\$ 2,500			
	Total					\$ 7,500			
Annual	Debris removal including dimensional wood, flotsam. Large wood not to be removed								
	40 hrs of staff time = \$2,500					\$ 2,500			
	10 hr of supervision/planning \$1,000					\$ 1,000			
	Total					\$ 3,500			
Annual	Rip-rap repair, limited area annually								
	100 sqft needing rock moved and supplementation.								
	Work to occur by hand over the bank								

	Assume less than 10 cy								
	Rock import \$1500				\$ 1,500				
	Labor to move and place material, including supervision				\$ 6,000				
	Total				\$ 7,500				
Every 5 years	Concrete ramp should be stable but may get undercut at some point and require more intensive rip-rap repair if we have a large event. Assume 2 times over 10 years.								
	Additional rip-rap placed \$50,000				\$ 50,000				
	Repair/re-pour concrete \$10,000				\$ 10,000				
	Design \$10,000				\$ 10,000				
	Parks supervision/coordination \$10,000				\$ 10,000				
	Total				\$ 80,000				
	Grand total of anticipated								

BRIEFING DOCUMENT
GREENWAY CENTRAL DISTRICT:

Update of O&M Request
 January 23, 2014



**PORTLAND
 PARKS & RECREATION**

Healthy Parks, Healthy Portland

Contact: Allison Rouse, allison.rouse@portlandoregon.gov, 823-5598

SUMMARY:

In 2003, PP&R lead master planning of the South Waterfront Greenway, a habitat restoration and urban park project along 1.2 miles of the post-industrial west bank of the Willamette River. This project will make a critical link in the regional trail system, connecting Downtown Portland with the Sellwood Bridge. In 2007 PP&R undertook to design, permit and construct the Central District portion of the Greenway: 5 blocks between SW Gibbs and SW Lane Streets. The final design was completed in 2012. The scope of the Central District project is to clean up contaminated soil, install shallow-water and riparian habitat along the water's edge and construct a park along the upland portions of the riverbank. Construction was split into two phases in spring 2012 due to a lack of funding: Ph.1 is the riverbank reconstruction and Ph 2 is the upland park.

In May 2012, PP&R informed Council via Ordinance 185370 of the anticipated O&M costs of this development, consistent with policy of requesting and reporting O&M costs as projects move into construction. Phase I-only O&M costs were estimated at \$4,000 in one-time inspection costs plus ongoing costs of \$55,670 per year. A low-confidence estimate for O&M needs for Phase 2, unfunded at the time, was also provided, with the caveat that both site and permitting conditions were not fully known at that time.

Now, after completion of Phase I, the actual site conditions and permit conditions are much better understood. Several things changed about the project that affect the O&M estimate presented in May 2012:

1. The Federal and State permits that govern the work were not received until the end of June 2012, after the O&M estimate was prepared and the request made of Council, and they carried conditions requiring inspection and monitoring activities up to seven years after construction.
2. Much was learned during the 2012-2013 construction on Phase I, particularly about the soft, fast-draining riverine soils. They will require increased establishment maintenance of all planted areas once construction is complete.
3. Due to modifications to the design and construction schedule related to the soil and very high river levels during 2012, changes were necessarily made to the construction contract in order to come to agreement on a price to finish Phase I. They shifted the

establishment maintenance responsibility onto PP&R from the contractor where it normally resides, increasing PP&R's O&M burden.

4. PP&R has obtained the funding necessary to build Phase 2 immediately, and completion is expected by December of 2014. PP&R wishes to update the Council on the expected costs for operating and maintaining the full Greenway – Central District improvements (Phase 1 and 2).

This Ordinance requests authorization for an updated operation and maintenance (O&M) spending figure for the entire South Waterfront Greenway Central District, consistent with policy of requesting and reporting O&M costs as projects move into construction. One-time costs of \$26,730 and ongoing costs of \$488,831 per year are expected, beginning in December 2014. The goals and outcomes of this request are fully discussed in the attached document "Operations Plan for South Waterfront Greenway – Central District" which outlines PP&R's understanding of the site, the permit requirements and prudent, cost-effective asset management activities that will be required to operate and maintain the improvements.

PUBLIC INVOLVEMENT PROCESS:

An extensive public participation process began in 2003 with master planning for the SOWA Greenway as a whole and continued with a focused Advisory Group process in 2007-2008. Since then, a public information plan has kept the community informed about progress via website update, e-mails and occasional meetings and FB posts. PP&R visited the SOWA neighborhood four times in 2012 as well as sent out project updates every 2-3 weeks throughout that year. In 2013, PP&R visited the neighborhood twice, and again on 01/15/14. The bi-weekly updates will resume when construction begins again. The website and site signage are updated when the e-mail updates go out.

RECOMMENDATION:

- Sponsor the Emergency Ordinance (Ordinance and Budget Impact Statements attached) on the February 5 Consent Agenda.
- Take advantage of staff to provide briefings or answer questions from the rest of the Council as necessary.

ATTACHMENTS:

OPERATIONS PLAN for South Waterfront Greenway – Central District
Ordinance to Update the Greenway – Central District O&M Request
Budget Impact Statement for the Ordinance to update the O&M Request