



Salmon Safe Bi-Annual Report January 2015 General Information and Conditions Status

General Information

Portland Parks & Recreation (PP&R) was re-certified Salmon-Safe subject to two conditions in February 2012. For the past two years PP&R has continued to improve best management practices to enhance salmon habitat throughout the system of developed parks and natural areas, and include Salmon-Safe design elements for new and updated park design and construction.

Reduction in Water Use/Irrigation

In the past two years PP&R's irrigation weather based control system (MAXICOM[®]) was installed in an additional six parks that previously were "stand alone", manually programmed. Additionally, two water play splash pads were configured with flow sensors to allow hourly flow capture to establish baseline data for future conservation efforts. Ongoing irrigation tune-ups, system modifications, and product replacements continues at every park.

In addition, PP&R installed a moisture sensor array at Caruthers Park. Data is manually read and loaded into a spreadsheet and climate conditions are also tracked. This information is then utilized in determining irrigation frequencies.

High efficiency water application devices are under test at Peninsula Rose Garden, North Park Blocks, Portland Japanese Garden, Montavilla Park, and Mt. Tabor Operations Yard. The components range from multi-stream rotating nozzles to on-site climatic controllers.

PP& R installed weather based central controls at the following new and updated parks:

- The Fields
- Dawson
- K^hunamokwst

Integrated Pest Management (IPM)

The PP&R IPM program requires the use of a very limited number of herbicides that are known for low environmental persistence. The approved list of herbicides is being expanded when new chemicals are identified that are target species specific and are effective at lower concentrations.

PP&R implemented new policies to comply with the new National Pollutant Discharge Elimination System (NPDES) permitting requirements for aquatic and waterside use of

Administration

1120 S.W. 5th Ave., Suite 1302
Portland, OR 97204
Tel: (503) 823-7529 Fax: (503) 823-6007

www.PortlandParks.org
Amanda Fritz, Commissioner
Mike Abbaté, Director



herbicides. The existing IPM program and its practices made it easy to comply with these new requirements.

PP&R continues to provide trainings, both formal, and to address work unit needs. For example, when the NPDES permitting requirements were implemented, PP&R's IPM coordinator, John Reed conducted individual work unit site trainings to ensure that all staff were aware of the new requirements, and the process to comply. PP&R continues to provide pesticide license recertification trainings for both our staff, and for other licensed professionals in the region. This totals 12 state accredited hours, all IPM related; part of this training relates directly to IPM in riparian and aquatic systems.

Natural Areas Restoration Plan Update

PP&R completed the first system-wide Natural Areas Restoration Plan (plan) in October 2010 as a condition for Salmon -Safe certification. The plan established restoration goals and strategies, management priorities and implementation actions. It is currently used to set restoration priorities (staff effort and funding) for natural areas. The plan stated that there would be a review and update every 3-5 years.

The 2014 update modified the functional methodology and revised the weighting to include a wide range of biodiversity criteria, including salmonids and their habitat needs. The 2014 Natural Area Management Priority Matrix changes are based on the updated natural resource function methodology and ecological health determined by the best professional judgment of the ecologist managing each site. The goals, strategies and implementation actions remain the same. This update also includes the natural area properties purchased since 2010.

Salmon Restoration Projects

1. Crystal Springs Creek and Westmoreland Park – the Bureau of Environmental Services (BES) and PP&R partnered with Tri-Met, Union Pacific Railroad, East Multnomah Soil and Water Conservation District, Metro Nature in Neighborhoods Program, Oregon Watershed Enhancement Board, Johnson Creek Watershed Council, U.S. Army Corps of Engineers, NOAA-Fisheries, and Portland Bureau of Transportation to complete the following:
 - a. Replacement of nine culverts along Crystal Springs Creek at SE 28th Avenue, SE Tenino, SE Umatilla, under the railroad tracks, SE Tacoma, Eastmoreland Golf Course, and in 2015 SE Bybee and Glenwood.
 - b. Restoration of the stream and wetland in Westmoreland Park. Wild Coho spawned in the restored creek in October 2014.
2. South Waterfront Greenway – the riverbank component of the project includes shallow water benches that will provide shelter for juvenile fish, and adjacent riparian plantings.
3. Marshall Park – moved the playground out of the floodplain and restoring the riparian area along Tryon Creek in anticipation of salmon returning to the park.
4. Willamette Park – updated the master plan to include bank layback to create shallow water habitat for salmon and riparian enhancement. Presently seeking funding for the project.
5. Johnson Creek Park – fenced the banks of Crystal Springs Creek and the west bank of Johnson Creek and the stream buffer is being revegetated with trees and shrubs.
6. Errol Heights Parks – the final segment Errol Heights Creek in private ownership was purchased, and grant funding acquired for removal of stream bank rock and concrete.

7. Tideman Johnson Park – ongoing stream bank restoration in conjunction with the Friends of Tideman Johnson Park.
8. Springwater Trail – in conjunction with the Johnson Creek Watershed Council stream bank restoration between SE Lynwood and Bell Avenue is currently underway. In conjunction with the Lents Habitat Improvement Project stream bank restoration is occurring at 103rd and SE Foster Road.

Specific Conditions

Condition 1: List of restoration projects planned for completion over the next five years (2015-2020)

The following project and on-going work represent what is planned for restoration over the next five years. Projects are implemented as funds become available. PP&R seeks funding through partnerships, grants and capital project requests.

1. Columbia Slough Watershed: Wright and Moore Island (2015) –partner with BES to add large wood into the Columbia Slough to create resting habitat for juvenile salmonids and increase the complexity of the system.
2. Johnson Creek Watershed
 - a. Culvert replacement on SE Glenwood and SE Bybee extending into Westmoreland Park (2015) – partner with BES to replace fish barrier culverts with a fish passable culverts along Crystal Springs extending into Westmoreland Park.
 - b. On-going riparian restoration in natural areas and restoring the creek’s floodplain adjacent to and including Johnson Creek. Projects include removing invasive species and planting native vegetation. Protect the Best (PTB) will continue invasive vegetation maintenance at properties in the Johnson Creek Watershed including Buttes Natural Area, Mitchell Creek Natural Area and Powell Butte Nature Park. PTB is involved in the city-wide effort to control garlic mustard, work that is focused mainly on riparian sites along Johnson Creek and its tributaries.
3. Willamette River
 - a. Oaks Bottom Wildlife Refuge: partner with BES and the Army Corps of Engineers for a Tidal Restoration project. The main component of the project will replace the fish barrier culvert underneath the Springwater on the Willamette Trail and railroad tracks, with a fish passable culvert (2016). The project includes channel and habitat restoration in Oaks Bottom Wildlife Refuge.
 - b. Powers Marine Park: partner with the Sellwood Bridge Project to restore shallow water habitat connected to the Willamette River (2015). The project will remove fill material and grade two streams to enhance salmon habitat.
 - c. River View Natural Area: this site contains seven cold water streams that run under Macadam Ave and into the Willamette River. Six of the streams also run through Powers Marine Park. Continue to restore native habitat through the removal of invasive species and planting native species.
 - d. On-going riparian restoration in natural areas adjacent to the river. Projects include removing invasive species and planting native vegetation. Protect the Best has treated invasive plant species in Forest Park in upland and riparian habitat, work that is expected to continue in the next five years.

Condition 2: Conduct a feasibility assessment, including preliminary design options and costs, for treating stormwater at the St. Johns Bridge boat ramp through diverting stormwater from the parking lot and ramp to Bioswales or preferable, rain garden(s) for infiltration.

Unfortunately PP&R has not had the funds to perform the feasibility study. We will continue to seek funding for this project.

Recommendation 1: To further reduce pesticide use, consider expanding the use of wood chip mulch as a substitute for herbicides for weed control in shrub beds, tree rings, and other locations.

Use of wood chip mulches in our parks has increased to help manage weeds and minimize reliance on herbicide application. Metrics for this are difficult to produce, however conversations with the work units indicate that this is the direction PP&R is going. PP&R using parks' green waste for mulch use. PP&R is using a large grinder to process all green waste coming from park activities such as pruning and weed removal. Once ground, this material is used for mulching purposes. To create the best product for this purpose, PP&R is planning improvements in this area, including designating a site for proper processing. This will lead to improvements and more utilization of this material.

Restoration activities in the Johnson Creek watershed mainly use wood chips obtained from local arborists. The application of chips one to two years in advance of plantings facilitates the restoration of the top soil horizon. Herbicide is used to control thistle that thrives in wood chips.

PP&R is completing an Ecologically Sustainable Landscape report that builds on established ecological and sustainable best management practices; identifies desired future landscapes for increasing ecological functions throughout the park system by diversifying landscapes to make them more sustainable and provide additional ecological function, sets priorities for identifying enhancement areas and suggests a process for collaboratively working together. The report updates best management practices that reduce water use, reduce fertilizer and pesticide use, enrich soil, and maintain plant health.

Recommendation 2: Seek opportunities to partner with other agencies to correct the lower-most fish passage barrier on Tryon Creek to allow fish migration into the stream system of the park and increase the value of park habitat restoration efforts.

In partnership with the Oregon Department of Transportation (ODOT), BES enhanced 900 feet of Tryon Creek beginning at the confluence with the Willamette River upstream to the culvert under Highway 43. ODOT retrofitted the Highway 43 culvert with a new baffle system to improve fish passage into Tryon Creek State Natural Area. The stream restoration and culvert modifications improved aquatic habitat for salmon and steelhead. BES and its partners are working on replacing the culvert under Boones Ferry Road (2016) that will allow fish to pass into upper Tryon Creek and Arnold Creek and improve instream habitat. PP&R is part of the technical team working on the design.