PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

Salmon Safe Park Design Checklist

All Parks

Water Use Management (Irrigation Activities)

The focus of this category is on the use of water for irrigating park vegetation. Water withdrawals have the potential to adversely impact salmonid habitat, primarily by reducing instream flows. Impacts can be minimized by selecting alternative water sources, and by reducing the use of water. Water conservation methods include the use of less water-dependent landscaping, maximizing the efficiency of the application system, and reducing the area irrigated. This category includes two standards:

Standard B.3.1: The selected source of irrigation water results in the least potential impact to instream flows of fish-bearing streams.

___YES **___NO**

If no, can the following be implemented or improved?

i) Withdrawals of surface water sources are managed to avoid impact to salmonids in the source stream during cases of drought.

Notes:

Standard B.3.2: Water conservation measures reduce irrigation water use to the minimum necessary to support maintenance of park system grounds.

___YES **___NO**

If no, can the following be implemented or improved?

i) Low water use landscaping – landscapes are developed that utilize vegetation that requires less dependence on irrigation.
ii) Expansion of an efficient, modern irrigation system (e.g. Maxicom)

Notes:

Stormwater Management

This category focuses on the management of stormwater runoff. High levels of impervious surface and drainage systems such as roads, gutters, and drain inlets reduce soil infiltration, and

can increase the magnitude and frequency of peak flows in the receiving stream. Increased flooding can degrade stream habitat by eroding the channel bed and banks, scouring spawning gravels, and removing stream structures. Frequent flooding can also directly impact juvenile rearing salmonids that require stable, slower waters as over-wintering habitat. Stormwater from parking lots, roads, and landscapes can also be contaminated with oils, heavy metals and pesticides that degrade the water quality of the receiving streams. This management category addresses practices to treat stormwater runoff to reduce both water quantity and water quality impacts. This category has a single standard:

Standard B.4.1: Various methods to treat stormwater runoff are maximized within the park system as feasible, including infiltration, bio-filtration, and detention.

____YES ___NO

If no, can the following be implemented or improved?

i) Reducing impervious surface (pavement)
ii) Treatment for water quantity and quality – use of various methods to diffuse, store, and filter stormwater runoff, such as bio-filtration swales, bio-filtration sumps, constructed stormwater treatment wetlands, and rain gardens.
iii) Incorporate alternative (pervious) pavement materials

Notes:

Erosion Prevention and Sediment Control

Sediment delivery into fish-bearing streams is a major cause of habitat degradation, particularly for salmonid spawning. Stream bank erosion and upland surface soil erosion are the principle sources of sediment. Only upland sources of erosion are evaluated under this category, as bank erosion is evaluated in the instream channel category. Management practices should adequately protect soils from movement. This category has a single standard.

Standard B.5.1: Soils protection

- Trail systems – Earthen trails are protected by mulch, water bars, closures or other BMPs as necessary to prevent erosion.
- Vegetative cover – No area larger than 100 square feet within individual park sites is comprised of bare or disturbed soils that show evidence of sediment transport to streams or off-site in stormwater.

___YES ____NO
If no, can the following be implemented or improved?

i) Seek out and decommission unauthorized trails.
ii) Plant trampled or denuded areas, fencing if necessary to protect plantings.

Notes:

Park Sites with Streams

Instream Habitat Protection and Restoration

B.1.1: Stream channels are in good condition for providing salmonid habitat, with naturally protected stream banks, meandering channel, and large and small wood structure?

- Channel protection – existing channels are protected from new impacts such as filling and excavation, straightening, unnecessary additional stream crossings, unnecessary removal of wood, or disconnection of off-channel wetlands and ponds.

_____YES **_____NO**

If no, can the following conditions be implemented or improved?

i) Type of bank protection – Stream banks are well stabilized by native vegetation.
ii) Channelization – The stream has an intact natural channel and floodplain.
iii) Artificial ponds – Artificial ponds located in stream channels are removed or reconstructed to provide adequate fish passage, habitat, and maintain stream temperatures and oxygen levels within applicable state water quality standards.
iv) Large wood management – large wood and/or beaver dams provides channel structure and habitat, where feasible.

Notes:

Standard B.1.2. Road and trail crossings of streams that are on park system property and under park jurisdiction have a minimal effect on instream habitat, fish passage, and constriction of flood conveyance.

_____YES **_____NO**

If no, Can the following be implemented or improved?

i) Ensuring that the frequency and placement of crossings contributes to the restoration of riparian habitat and reduction of water quality impacts.
ii) Replacement of culvert crossing with bridges or natural bottom culverts where feasible and where there are clear benefits for fish.

Notes:

Riparian and Wetland Protection/Restoration

This category applies where streams, wetlands, or their riparian zones occur within park system boundaries. This category applies to a) known and potential fish-bearing streams and b) non-fish bearing perennial or intermittent streams greater than two feet in bankfull width that are connected to fish bearing streams.

Standard B.2.1: Riparian areas are in good condition, functioning to maintain and restore stream health, and provide shade, wood recruitment, leaf litter supply, stream bank stability and cover, and filtration of sediment.

- Riparian zone width – For natural area parklands, impacts on riparian functions affecting water quality, water quantity, food web, microclimate, floodplains, and habitat shall be

minimized within 200 feet of a stream, or within the riparian protection areas cited in adopted local or state plans, whichever distance is larger. Trails are generally an accepted use within these riparian areas unless they are obvious sources of sediment, chemical pollution, or bank instability.

- Vegetation – Riparian zones are dominated by vegetation that provides riparian functions of bank stability and shade, at a minimum.

_____YES ___NO

If no, can the following be implemented or improved?

i) In developed park lands, improving function of riparian buffers in an area from 50 to 200 feet from the stream channel, depending on site characteristics, with respect to:
-providing off-channel habitat,
-improving water quality,
-providing additional flood storage
-reducing the impact of invasive species, restoring native vegetation.

ii) In natural area park lands, enhancing native plant communities.

Notes:

Standard B.2.2: If present, Wetlands connected to known or potential fish-bearing streams are in good condition, providing valuable slow water rearing habitats for juvenile salmonids and helping to filter and moderate flow to downstream areas.

____YES _NO

If no, Can the following be implemented or improved?

Restoring naturally occurring wetlands or creating wetlands that improve stream habitat directly or indirectly by:
-providing off-channel salmonid habitat,
-improving water quality,
-providing additional flood storage,
-reducing the impacts of invasive species, and restoring native vegetation.

Notes: