

Rithet's Bog

South Perimeter Ditch Restoration Project

Russ Pym

The South perimeter ditch is located beside the trail on the south side of Rithet's Bog, below the Foxborough townhouses, and 500 metres southwest of the Fir Tree Glen entrance. It is part of a drainage ditch system that was installed in the late 1960s to divert high-nutrient surface water away from the central bog. The South ditch project is restoring a 50-metre long section which has become overgrown by reed canary grass and filled in with sediment.

The ultimate purpose of this project is to create a functioning ecosystem that can provide habitats for a wide variety of native plants and animals. We hope to see the ditch populated with three-spined stickleback, Pacific chorus and red-legged frogs, salamanders and newts, dragonflies and damselflies, water striders, backswimmers, and other small aquatic species.

Recent work in Great Britain and Europe, spearheaded by the Freshwater Habitat Trust (<https://freshwaterhabitats.org.uk/>), on the



Vegetation Obscuring Ditch

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importance of small water bodies has noted that ditches can make an important contribution to aquatic biodiversity.

The South ditch is one of only a few sites in Rithet's Bog that reliably retains standing water during late summer and provides a vital refuge to help aquatic species survive late summer drought. Climate change resilience and maintaining and enhancing biodiversity are increasingly important factors in our restoration work.

Before we started this project, the South perimeter ditch was covered by a tall stand of reed canary grass, an invasive species originally introduced to the site as a fodder crop when Rithet's Bog was a farm. The first photo shows how the ditch was completely obscured by this vegetation. The initial clearing cut this tall grass down to ground level so we could assess the site and plan our next steps.



Dense Mat of Reed Canary Grass

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The second photo shows how the reed canary grass had overgrown the ditch with a dense mat of rhizomes and fibrous roots that is 25 to 35 cm thick and floats above 70 cm of water and soft mud. We are currently removing this mat from the ditch to create open water. The third photo shows uncleared floating mat on the left and cleared open water on the right.

Once ditch clearing is complete, we will plant native shrubs such as red osier dogwood and black twinberry on the banks to provide shade and control water temperature. Also, native aquatic species such as yellow monkey flower, water smartweed, Pacific water parsley and marsh cinquefoil will be planted in the ditch to provide a vegetation component to the ecosystem and provide habitat for aquatic animals.



Obscured and Open Water

R.Pym