Cornwall Park Current

News for the Cornwall community

Squalicum Creek makeover aims to improve habitat for threatened fish species



Here you see Whatcom Creek, a real life example of what the Squalicum Creek will look like after the re-route, with a curvy channel and grassy wetlands. Click to enlarge.

The Bellingham Public Works Department hopes to redesign and re-route a part of Squalicum Creek to make it a better habitat for fish, including the two threatened species chinook salmon and steelhead trout. The new route has been designed but permits are still needed before construction can start. Construction will take 3-4 months, and is projected for the summer of 2014.

This project will re-route the section of the creek that runs through Bug Lake and Sunset Pond, just north of St. Joseph's PeaceHealth Medical Center. After the project, the creek will have an entirely new channel that will run just north of the current one.

Bug Lake will be filled in to create grassy wetlands, while a defined channel of the creek runs through it. Sunset Pond will be deepened and filled in partially with wetlands as well, creating smaller channels. Having these channels could increase recreation value, according to LaCroix.

"People take their dogs there right now," said LaCroix. "After this is done, there might be some opportunities for canoeing and kayaking."

The re-route is funded by a partial-loan grant given to the City of Bellingham by the Department of Ecology for \$1.7 million.

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"Squalicum Creek has probably the best potential fish habitat in the city's jurisdiction, of all of our city creeks," said Renee LaCroix, an environmental programs manager with Public Works. Despite this, the creek's current route, with barriers that inhibit fish migration, prevents it from having much of a fish habitat.

Under the Endangered Species Act, this part of Squalicum Creek is considered a sub-par habitat. Public Works has been looking into improving the area since 2002. The Washington Department of Fish and Wildlife has known that the ecosystem is in danger since 1998.

"This is a system that's compromised from temperature, compromised from lack of access for fish," said LaCroix. "We're trying to look at what's the best way to fix that."

"It's long overdue," said Bellingham City Council Member Gene Knutson. "We've been talking about this for many years now, and it's finally coming together. I think it's a great idea, and it's going very well." The new route will help the city council reach its goals for a healthy environment, said the councilman.

The creek now flows through two culverts, or pipes that allow streams to cross under roads. One of these culverts flows under I-5. The culverts are too small for the volume of water that flows in the creek, and they are difficult to impossible for fish to get through. If the re-route project can successfully fix the culvert problems, it will open up 22 miles of habitat.

"When the creek is really going, it's like a fire hose coming out the other end. The fish don't have the ability to migrate through that," said LaCroix. The plan is to create a new channel with larger culverts that allow for fish passage.

"The high velocity culverts are too fast for juvenile fish in particular," said Dr. Leo Bodensteiner, Professor of Environmental Sciences at WWU. Bodensteiner is a fish ecology and water quality expert.

Right now, the creek is fairly straight and shallow, with rocks on either side. In contrast the new channel will be very diverse, with lots of oxbows and varied depths. This diversity will allow the fish to rest.

"The different types of habitat suits their different needs at different times of day," said Bodensteiner. "Fish need a place to eat. Faster water provides food. The deeper water is a place to hide from predators."

Currently, the creek runs through two lakes: Bug Lake and Sunset Pond, two bodies of water that were made when they were excavated for fill during the construction of Interstate 5 in the 1960s. These ponds compromise Squalicum Creek's quality, said LaCroix.

Despite the problems they cause, the lakes serve an important purpose. According to Fish and Wildlife's 1998 survey, the two ponds "now function as part of a flood control system for the city of Bellingham." This means that LaCroix and her team must make sure that the lakes and the creek will still be able to control flooding after the project is completed.

"At some point someone got the bright idea to route the creek into them," said LaCroix. "Though it seemed like a good idea at the time, what we're finding is that they're very shallow and very flat, so the water sits in there for a long time, heating up even more." The heat promotes bacteria growth, meaning that the creek currently does not meet Washington state's water quality standards. This unnatural heat, said Bodensteiner, also makes the creek more hospitable for invasive fish species like bass that prey on the young salmon.

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"Blue gill, yellow perch and large-mouth bass are all non-native species found in the creek. We've found large mouth bass with juvenile coho salmon in their stomachs," said Bodensteiner.

"We have the wrong kind of fish habitat for this area and the kind of species that we're interested in," said LaCroix.

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