Focus on Urban Stream Temperature

Water Quality



May 2011

Several Creeks Flowing to Bellingham Bay Need Your Help

Water in several tributary creeks that flow into Bellingham Bay is too warm and may be harming salmon and trout (salmonids), which need cold water to survive. The streams include Whatcom, Squalicum and Padden creeks. The warm temperatures, which occur in the low-flow season of late summer, also create more favorable conditions for bacteria and other disease-causing organisms.

Bellingham and Whatcom County have rules that protect streamside vegetation. Ecology believes that under these rules the streams will receive enough cooling shade to meet Washington's water quality standards for stream temperature. A draft Ecology study, Whatcom, Squalicum, Padden Creeks Temperature Total Maximum Daily Load Water Quality Improvement Report describes how much shade the creeks need and where they need it. We welcome your comments.

Cool streams with plenty of dissolved oxygen are important for water quality and fish



Salmon and trout need water with plenty of dissolved oxygen (DO). The cooler the water, the more of this "breathable" oxygen it can contain. Water with too little DO can weaken fish and other aquatic life and make them prone to disease. Fish begin to die in creeks above 77°-78° F.

Ecology sets stream temperature standards

based on these needs. The U.S. Environmental Protection Agency (EPA) reviews and approves the standards. The maximum general stream temperature standard is 60.8 °F in late summer. However, in

PUBLIC COMMENT PERIOD

ENDS JUNE 8, 2011

Find a copy of the document at www.ecy.wa.gov/biblio/111001 9.html

Please submit comments to:

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Contact information

How to contact Nooksack Salmon Enhancement Association to talk about options for your streamside vegetation:

On the web:www.n-sea.org/ Email: info@n-sea.org Phone: 360-715-0283

Special accommodations

If you need this document in a format for the visually impaired, call Linsay Albin at Ecology's Bellingham office, 360-715-5200.

Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.

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many streams-including these three creeks-the water would reach a higher temperature even if all of the natural shading was restored. In these cases, the naturally-occurring temperature is the state standard.

A lot of the work is already started

The city of Bellingham and Nooksack Salmon Enhancement Association have been working to improve streamside vegetation for years. Many people helped plant trees along the banks of Whatcom Creek Squalicum Creek and Connelly Creek-a tributary to Padden Creek-where the city owns the streamside property. When those trees grow, the shade they produce will mean cooler water in the summer.



Work party at Squalicum Creek along Squalicum Way in March 2008. Photo by NSEA staff

There is more to do

Individuals who own streamside property can also do streamside vegetation enhancement. By replacing blackberries and other invasive species with native plants, including shady shrubs and trees, they can help cool the water in their part of the creek.

Encouraging absorption of stormwater into the ground will also help. In late summer, creeks receive water that seeps from the ground. Directing more stormwater into the ground during the winter makes more-and cooler-water available to the creeks in the summer.

