To fix Puget Sound, fix the streams that feed it

Everyone wants Puget Sound cleaned up, but that can't happen while development along streams hurts water quality. Some streams aren't even on the maps.

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The governor, scientists, conservationists, government agencies, tribes and other defenders of healthy ecosystems and northwest icons are shouting from the mountaintops, "Save Puget Sound before it's too late."

To this end, Puget Sound-related partnerships, teams and programs have been formed, staffed, renamed and restaffed. The main focus of these efforts has been on restoration – prioritizing and funding opportunities to glue together broken shorelines, and identifying and treating insults to the Sound’s water quality.

Meanwhile, it is largely status quo for land-use practices along the streams that feed the Sound – and that is a big mistake.

The serious environmental challenges facing Puget Sound reach beyond its deep inlets and sinuous shorelines all the way to the crest of the Cascades and the Olympics, into the rivers and streams that are the Sound’s capillaries. The streams that flow into the Sound form an integral part of its physical, biological and chemical integrity. When those streams are compromised by land-use practices, the consequences flow into Puget Sound as surely as water flows downhill.

When development occurs too close to streams, fall and winter stormflows increase in magnitude and frequency, and summer baseflows reduce or disappear altogether.

When streamside plants are removed, summer water temperatures go up. Erosion, aggravated by the removal of streamside vegetation and altered streamflows, can cause dramatic unraveling of stream channels.

Increased impervious areas accumulate and deliver automotive, household and industrial pollutants, channeling them into streams through stormwater infrastructure. Septic drainfields built too close to streams result in excessive nutrients leaching into them, with subsequent ecological and health concerns.

Ultimately, sediment- and contaminant-laden stormwater is delivered to our nearshore habitats during the fall and winter, and warmer (and less) water is delivered to our nearshore habitats during the summer.

Sensing the change in the public’s environmental awareness, developers and local governments are now toting low-impact development standards. While generally a step in the right direction, LID is not no-impact development, and in some cases the resultant environmental impacts are still significant.

Cooper Crest, a purported "low impact" "built green" subdivision being constructed by SoundBuilt Homes in west Olympia, has received at least 36 state Department of Ecology permit violations, including allowing muddy runoff into nearby streams.

A SoundBuilt Homes subsidiary is proposing a massive housing development in the headwaters of Joe’s Creek at the North Shore Golf Course in Tacoma. Joe’s Creek drains directly into Puget Sound at Dumas Bay and is known to support resident and sea-run cutthroat trout and coho salmon.

Federal, state and local government agencies are charged with protecting Puget Sound's streams from adverse impacts associated with adjacent land-use activities. Growth management regulations are supposed to protect stream reaches that support fish habitat.

Most of those agencies have fallen well short of the mark for a surprisingly simple reason: They are relying on inaccurate maps and incomplete data to make permitting decisions.

In Washington, the responsible agencies depend on a process called water typing to identify and categorize streams, lakes, and wetlands for their importance — ecologically and for human use. This basic inventory is the most fundamental step in
conserving the health of Puget Sound and its tributaries: Where are the streams, and where are the fish habitats within them?

Unfortunately, current water typing records and maps often underestimate the actual length of fish-bearing waters by 50 percent or more.

The Wild Fish Conservancy has found that the upstream extent of fish habitat shown in official data is often underestimated, and a significant number of streams in Puget Sound do not even appear on any maps.

Hundreds of miles of productive aquatic habitats are being compromised because they have been misidentified and subsequently subjected to inappropriate land practices, despite the laws in place to protect them.

The development of Puget Sound’s watersheds is occurring rapidly, and the implications are much greater than the impacts to the individual stream. Unless the watersheds draining into Puget Sound are accurately identified and protected, cumulative effects from the development of these watersheds will continue to compromise the health of Puget Sound.

In the meantime, the continued investment of hundreds of millions of public dollars in nearshore protection and marine restoration gives the public a false sense that the Sound can be saved even while uninformed development continues at unsustainable rates.

We will not be able to end, or even significantly slow, the pervasive loss of habitat and water quality in Puget Sound until the streams that feed the Sound are adequately protected.

Jamie Glasgow is director of science and research for the Wild Fish Conservancy, based in Duvall. Formerly known as Washington Trout, the group seeks to protect wild fish ecosystems throughout the state. For more information, see http://www.wildfishconservancy.org/.