

ROADWAYS TO HEALTHIER WATERS

thurston regional planning council

Thurston County Road Retrofit Study

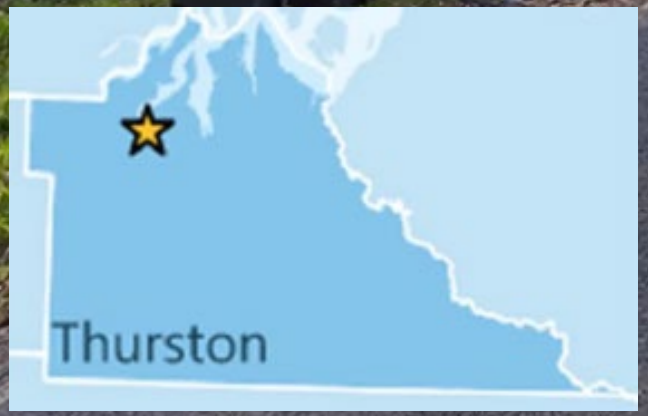
How a regional screening tool can help retrofit legacy roads that drain to Puget Sound

2026 South Sound Science Symposium

Every storm, road runoff drains straight into Perry Creek.

Perry Creek holds Coho salmon.
It's listed as impaired for bacteria.
Old Hwy 410 SW was built decades before treatment for roadway runoff was required.

This is one of thousands of miles just like it — draining, untreated, into creeks and Puget Sound.



Roadways to Healthier Waters

Ponding in a driveway off Old Highway 410 SW

One county. Thousands of miles of legacy roads.



2,500+

miles of roadway



1,000

miles of streams & rivers



128

miles of marine shoreline

Until recently, there was no way to know which stretches of road were doing the most damage.

Everyone wants to fix it. We didn't have a roadmap.

What's in the runoff

Fine sediments
from roadway wear and erosion

Heavy metals
copper and zinc from vehicles

Nutrients
phosphorus and nitrogen

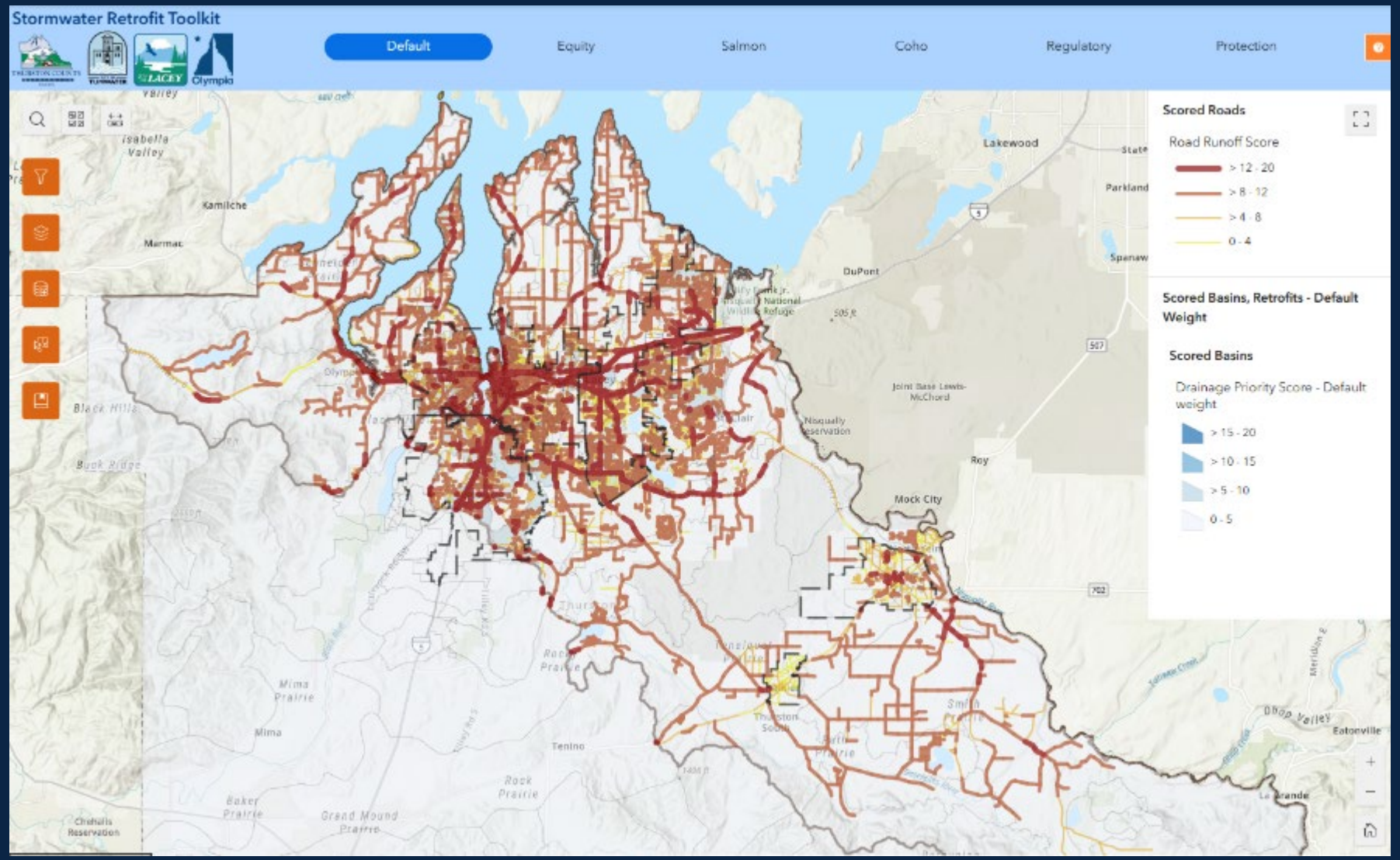
6PPD-quinone
tire-wear toxin linked to Coho die-offs

Transportation **Stormwater** **Parks**

Three departments. Three sets of priorities.

Transportation thinks pavement condition and safety. Stormwater thinks compliance. Parks thinks habitat. Nobody had a shared, defensible answer for where limited retrofit dollars would do the most good.

A Screening Tool for Every Mile of Road



Introducing the Thurston County Road Retrofit Prioritization Toolkit

One score, built from three questions



Road Runoff

How much pollution and peak flow is this segment likely generating?



Drainage Attribute

How much does the receiving water need protection?



Retrofit Feasibility

Can we actually build something here?





One Priority Score

Every parcel, right-of-way, and catch basin — ranked on one shared map.

From long list to preparing for action

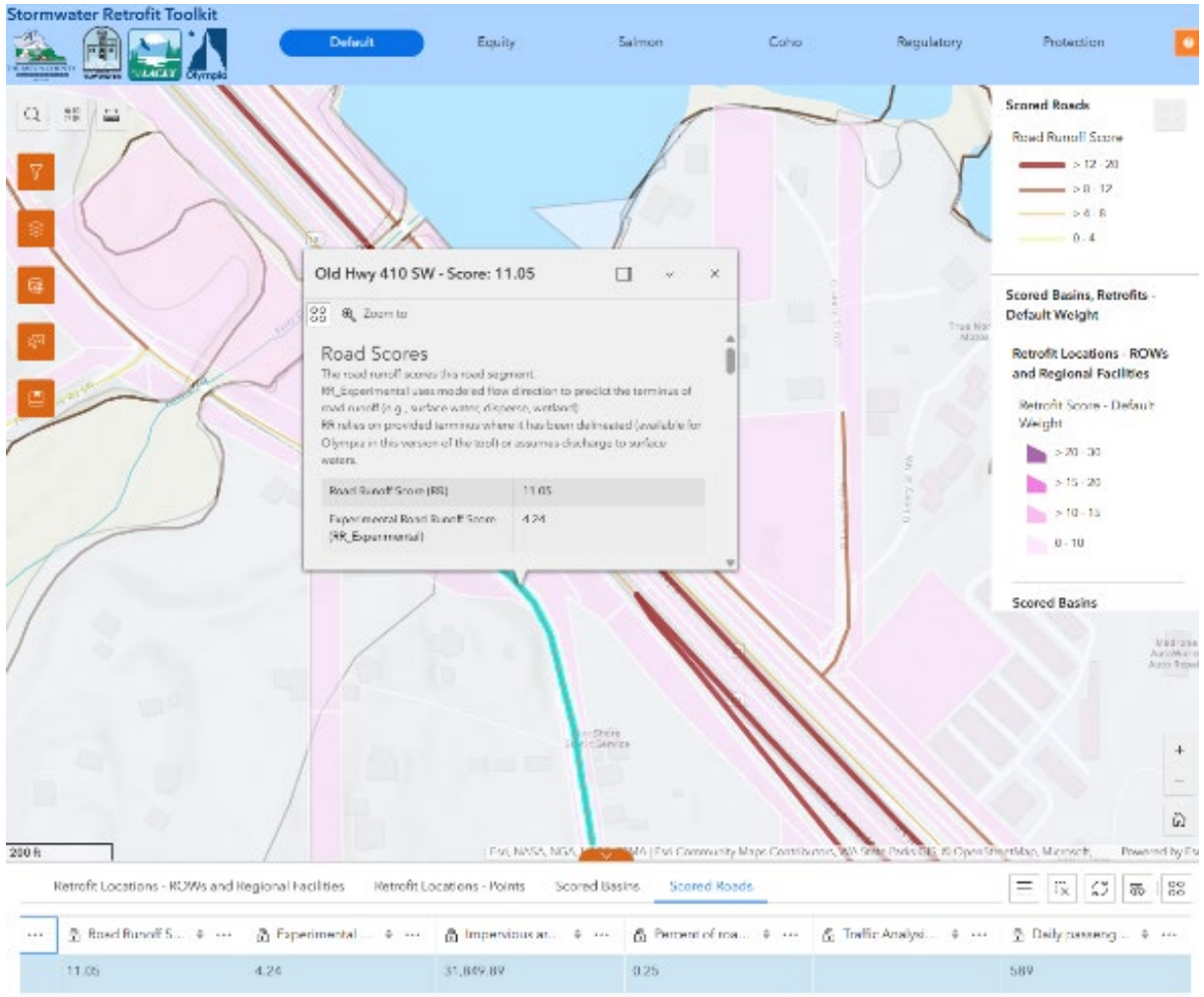
Every parcel, right-of-way & catch basin scored

60+ candidate retrofit locations identified

19 concept designs — vetted with partner jurisdictions

Retrofit concept development was completed in consultation with the Steering Committee and project stakeholders — including a dedicated workshop to vet the prioritized concepts.

Same map. Same score. Each jurisdiction – each department – looking at the same results.

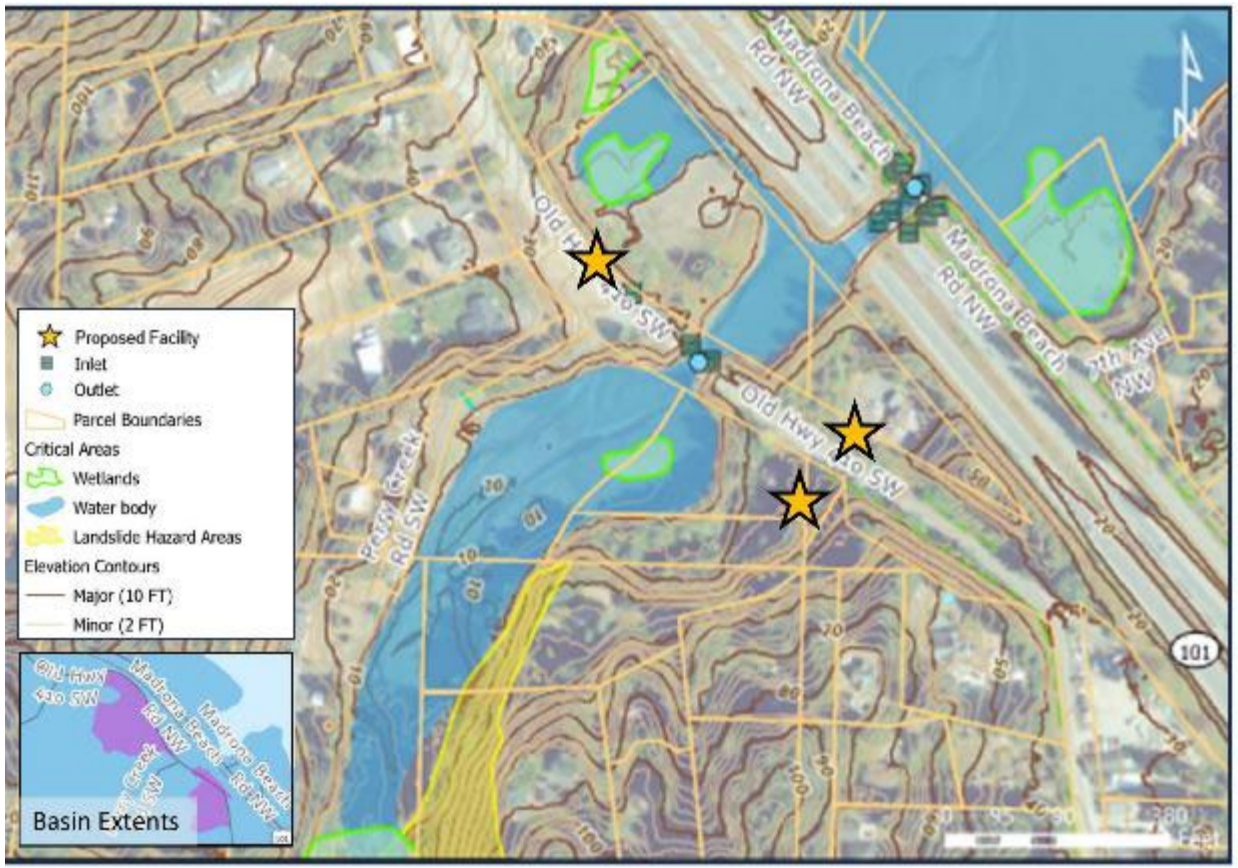


Retrofit Toolkit map – road attributes – Perry Creek at Old Highway 410 SW

What gets scored for every road segment

- ✦ Traffic volume and adjacent land use
- ✦ Connectivity to receiving waters and existing treatment
- ✦ Salmon and Coho-bearing streams, TMDL listings, shellfish beds, swim beaches
- ✦ Slope, soils, utility conflicts, and available right-of-way

Back to the road we opened with



Perry Creek Stormwater Retrofit, Thurston County

Three bioswales along Old Highway 410 SW — replacing the ditches that opened this talk to treat the stormwater.

3	4 ac	$333K
facilities	impervious area treated	total project cost

Pre-vetted. Cost-estimated. Pre-designed for next steps for a Capital Facilities Plan.

Five kinds of fixes.

19 concept designs across Lacey, Olympia, Tumwater, and Thurston County — sized and shaped to fit each site.



Bioswales & vegetated conveyance

Perry Creek (Thurston)
Dennis St (Tumwater)



Bioretention & infiltration systems

Spurgeon Creek (Thurston)
Hawks Ridge (Lacey)



Manufactured treatment devices

Madison Ave (Olympia)
Tumwater Hill (Tumwater)



Pond retrofits & expansions

Pacific Ave Pond and Ruddell & 32nd (Lacey)



Regional treatment facilities

Palermo Valley Park (Tumwater)
Henderson Blvd (Olympia)

Facility footprint: *150 sq ft to 232,000 sq ft (5+ acres)*
Catchment treated: *4 acres to 1,018 acres*

What changes for local agencies

Old Business

- ✗ Prioritization driven by whoever noticed first, or which grant deadline was open
- ✗ Departments plan from separate spreadsheets and separate maps
- ✗ Funding requests defended with "we think this matters"
- ✗ A one-time study that goes stale

Better Business

- ✓ One transparent, repeatable score every department can see and defend
- ✓ A shared map and shared retrofit opportunity results
- ✓ Grant and CIP requests backed by a defensible, data-driven priority
- ✓ A living tool, refreshed on a regular update cycle

Built to be used — not shelved

The Best Practices Report and Implementation Plan pair with the Toolkit to keep it active



Update cycle

Annual review, with a deeper refresh every 3–5 years as data improves



Interdepartmental coordination

Shared retrofit opportunity registers and standing working groups



Multi-benefit decision framework

Transparent scoring that feeds directly into capital planning



Clarify Project Lead

Shared projects need an owner and funder before design advances

Roadblocks

Four barriers surfaced in the study— starting with the data itself



Uneven data quality



Leadership turnover



Mismatched expectations



No regional funding path

A shared score is only as strong as the data behind it — and the institutions willing to keep it current.

Every county has an Old Highway 410 SW

Puget Sound recovery depends on treating the older roads that drain to it, one retrofit at a time.

Planners & GIS staff

Adapt this modular scoring approach — it travels with data you likely already have.

Transportation staff

Ask your stormwater counterpart before you scope the next repaving project.

Decision-makers

Ask your staff for the map, not the memo. A shared score is easier to fund.

Healthier waters don't start at the creek. They start at the curb.

Thurston Regional Planning Council · Herrera Environmental Consultants

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