

An aerial photograph of a coastal town, likely in the Pacific Northwest, showing a mix of residential and commercial buildings, green spaces, and a marina with several boats. The town is situated on a peninsula or near a large body of water. The text is overlaid on the top half of the image.

Source Identification and Diagnostic Monitoring

Linking Stormwater Management Actions to Receiving Water Bodies

Mindy Fohn

May 19, 2010

Management Actions

- Business inspections
 - Illicit discharges
 - Maintenance
 - Retrofit
 - Septic repair
 - Farm Planning
- ...and more*



Regional ← → Local

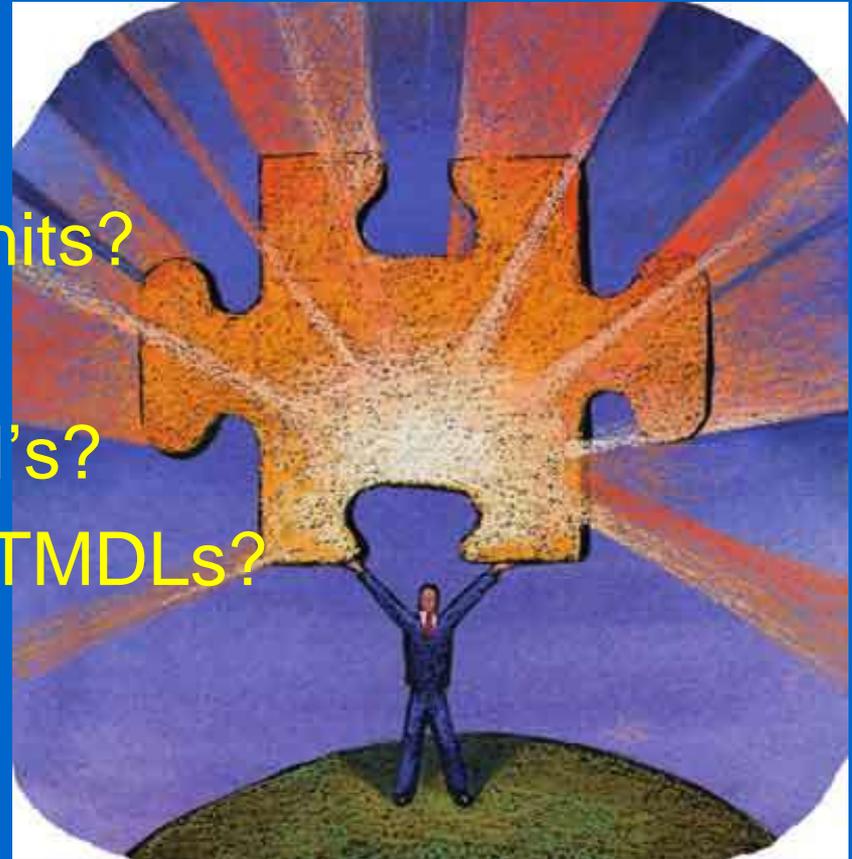
- A matter of scale
- Link S&T and Effectiveness
- Are management actions improving priority receiving water “problems”?
- Flexibility to address local priority problems



Link to beneficial uses

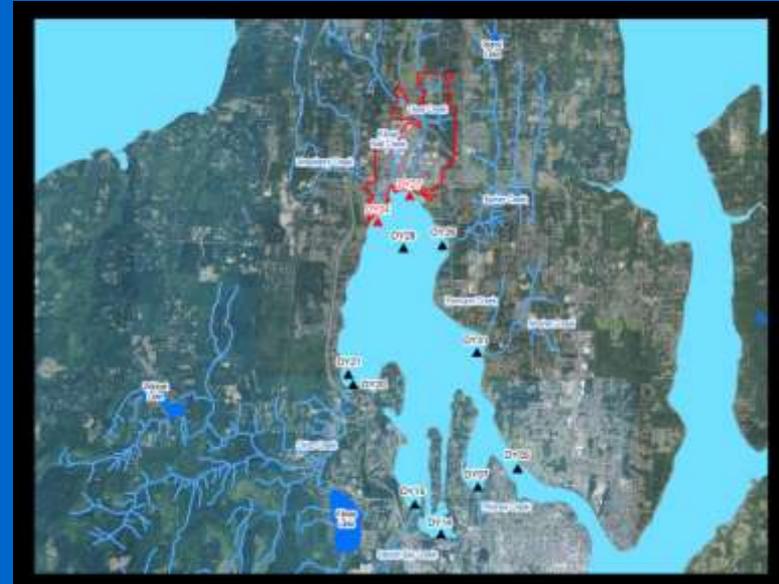
Forging New Territory

- What it is...and is not.
- Receiving water focus
- How incorporate into permits?
- Limited resources
- Impact to smaller Phase II's?
- How is this different from TMDLs?



What it is...

- Monitoring to link receiving water to upland actions
- Implement at the “local” scale
- Local priorities, *for example*
 - Shellfish
 - Sediment contamination
 - Pre-Spawn Mortality
 - Habitat
 - Recreation



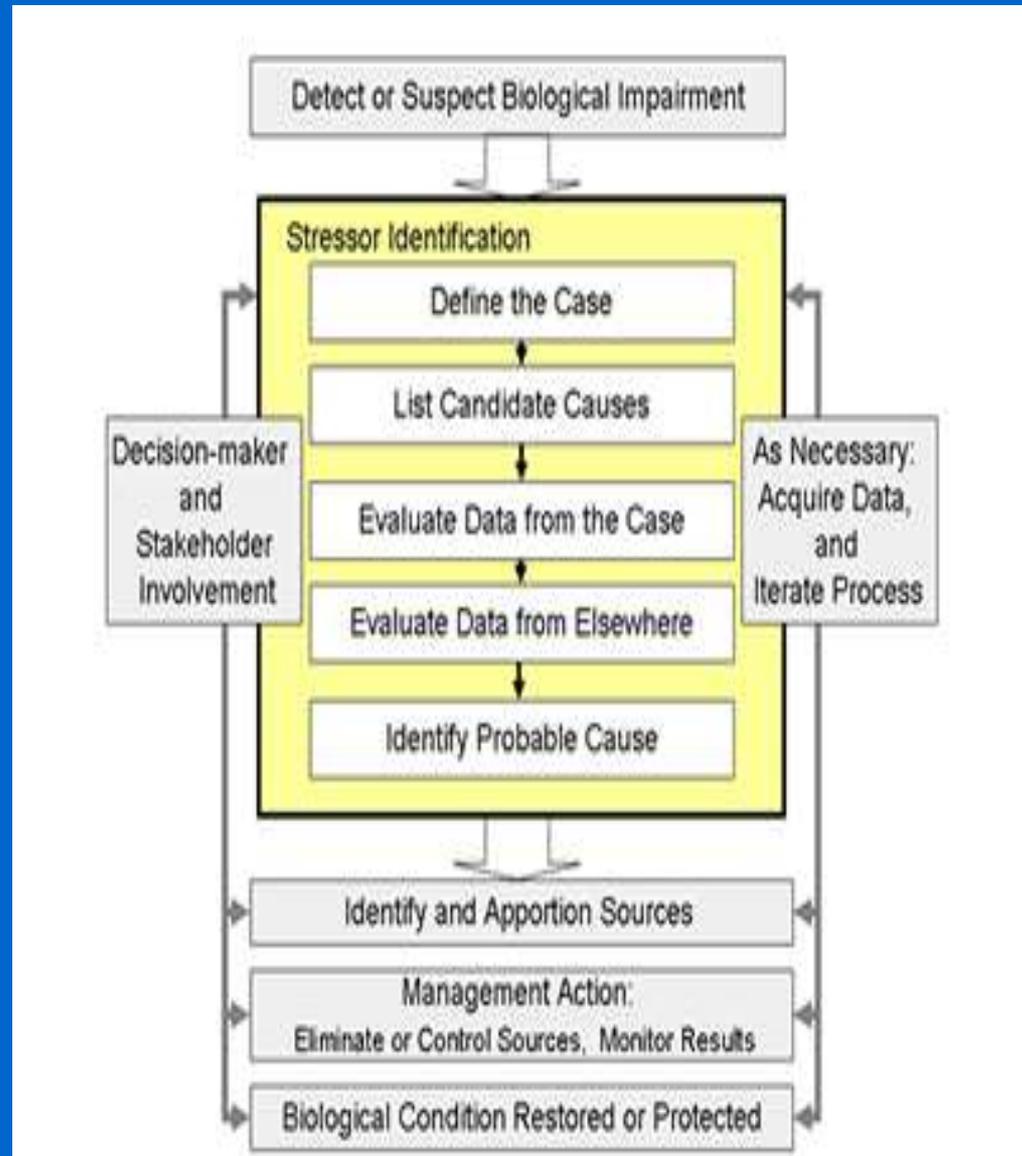
What it is...cont.

- Identify current problem sources/impairments
- Prioritize
 - Use existing data/information
 - Incorporate S&T in following permit cycle

Next...

Apply appropriate steps

- Identify stressor
- Set a target
- Locate sources
- Plan/Implement
- Follow-up
- Incorporate new info



What it is not...

- *one size fits all*
- *or land use-based characterization outfall monitoring*



Receiving Water Focus

Impacted by Stormwater

- Water
- Sediment
- Flow
- Biological Endpoint
- Beneficial Use
- Natural link with S&T, and Effectiveness Monitoring



Permits

- Recommend WRIA-based prioritization process
- If permit integrated then dedicated funding to address high priority problems

The screenshot shows a web browser window displaying the 'Municipal Stormwater Permits' page on the Washington State Department of Ecology website. The page title is 'Municipal Stormwater Permits' and the URL is 'http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html'. The page content includes a navigation menu, a search bar, and a main heading 'Municipal Stormwater Permits'. Below the heading, there is a paragraph explaining that urban areas collecting stormwater runoff in municipal separate storm sewers and discharging it to surface waters are required to have a permit under the federal Clean Water Act. The page also features several sections with links: 'Permits and Permittees', 'Permittee Resources and Guidance', 'Trainings and Workshops', and 'Contacts and Listserv'. A sidebar on the right contains a 'NEW!' section with links to 'You found what in the storm drain?', 'Phase II Western Washington Stormwater Manual Workshops', and 'Municipal Stormwater Grants Final Offer and Applicant List'. There is also an 'Updated!' section with a link to 'Developing Low Impact Development (LID) Standards'. The footer of the page includes 'Access Washington', 'Copyright © Washington State Department of Ecology', and 'Information for Ecology staff'.

Municipal Stormwater Permits

Urban areas that collect stormwater runoff in municipal separate storm sewers and discharge it to surface waters are required to have a permit under the federal Clean Water Act. The [Environmental Protection Agency \(EPA\) stormwater regulations](#) established two phases (Phase I and Phase II) for the municipal stormwater permit program. The Department of Ecology develops and administers National Pollution Discharge Elimination System (NPDES) municipal stormwater permits in Washington State.

Permits and Permittees

Phase I and Phase II permits; who's covered; petition criteria; appeals; and permit history.

Permittee Resources and Guidance

Resources and Guidance for permittees, including stormwater design manuals, information on emerging technologies, maps, annual reports, and stormwater education and outreach resources.

Trainings and Workshops NEW!

Information on Ecology's and Ecology-approved trainings and materials from previous workshops.

Contacts and Listserv

How to contact your permit manager and sign up for the listserv.

NEW!
[You found what in the storm drain?](#)

NEW!
[Phase II Western Washington Stormwater Manual Workshops](#)

NEW!
[Municipal Stormwater Grants Final Offer and Applicant List](#)

Updated!
[Developing Low Impact Development \(LID\) Standards](#)

[PCHR Appeal Decisions](#)

[Control of Toxic Chemicals in Puget Sound](#)

Access Washington
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Information for Ecology staff

Limited Resources

- Work regionally to replicate successful programs for the same sources
- Use regional protocols and methods



Impact to Smaller Phase II's

- Partnerships to solve problems
- Pay-in option component?



Partnership field training

West Sound Phase II's

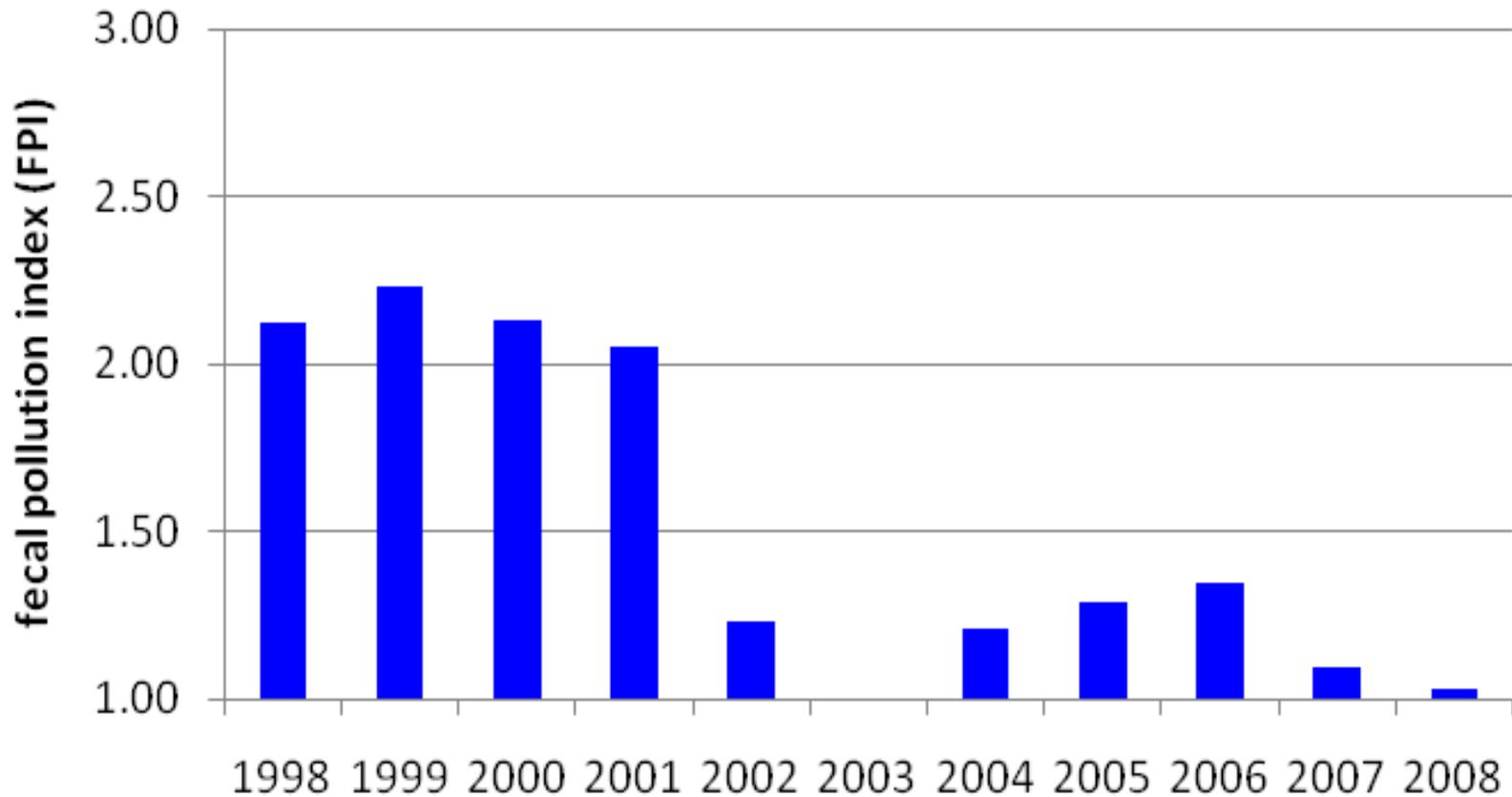
Sounds like TMDLs on Steroids

- A point source model
- Early action to solve problems
- Encourage receiving water data without penalties

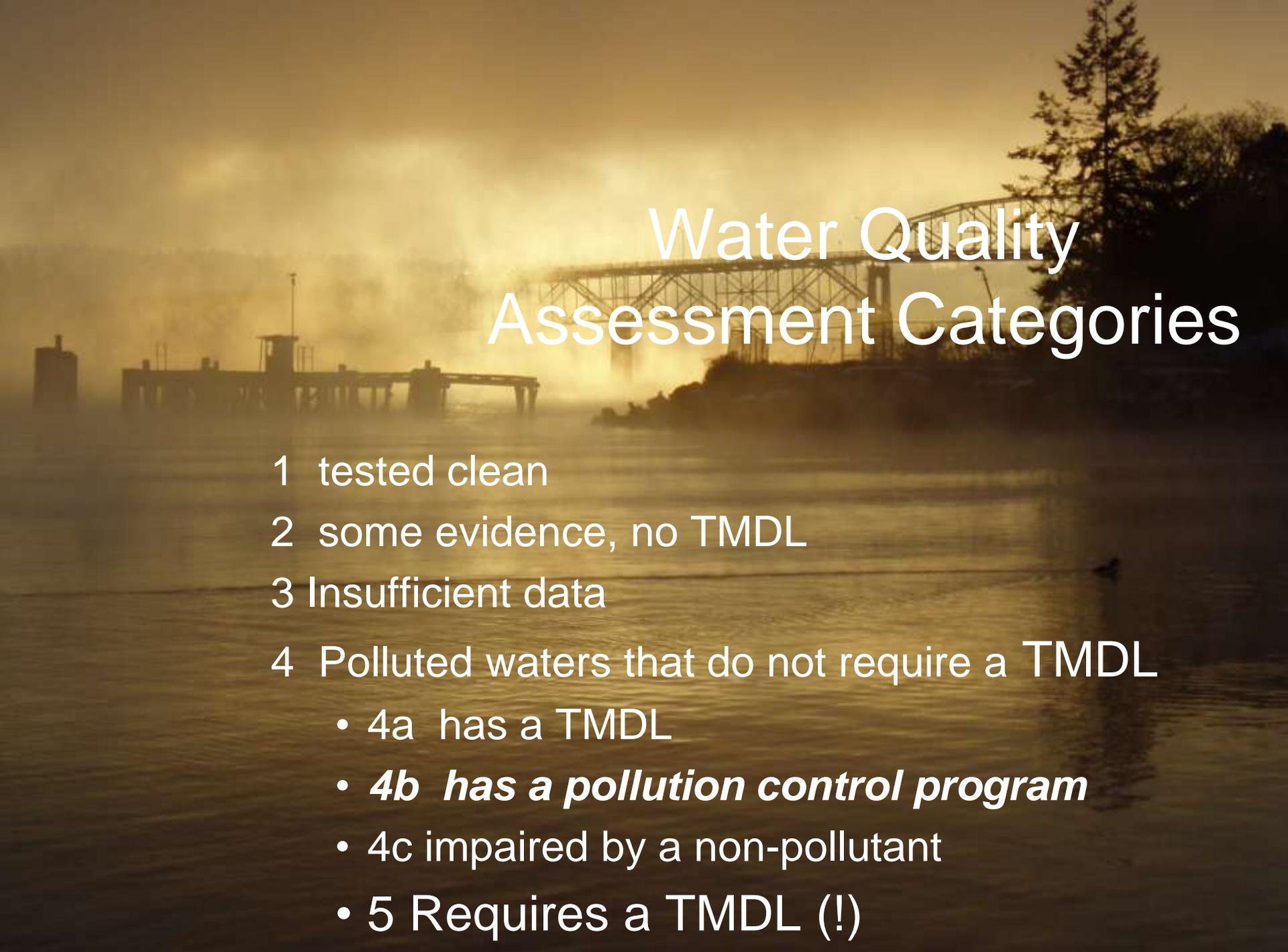


Dyes Inlet

Result of Management Actions



Determan, WSDOH 2009



Water Quality Assessment Categories

- 1 tested clean
- 2 some evidence, no TMDL
- 3 Insufficient data
- 4 Polluted waters that do not require a TMDL
 - 4a has a TMDL
 - **4b has a pollution control program**
 - 4c impaired by a non-pollutant
 - 5 Requires a TMDL (!)

Ecology home > Water Quality Program home > Water Quality Assessment Categories > Water Quality Assessment Category 4b

Water Quality Assessment Category 4b

Ecology recognizes that communities do not have to wait for a formal TMDL planning process and can grab the initiative to create programs to clean up polluted waters. Because these programs are locally controlled, there is an opportunity to reduce overall costs and for the communities to exert greater control over the cleanup process.

Category 4b - has a pollution control program: water bodies that have a program in place that is expected to solve the pollution problems. While pollution control programs are not TMDLs, they must have many of the same features and there must be some legal or financial guarantee that they will be implemented.

Several programs have been accepted by Department of Ecology and the Environmental Protection Agency as qualifying as 4b programs. Accordingly, the Category 5 waters in these programs have been removed from Category 5 (on the 303(d) List) to Category 4B. A write-up of these programs follows:

- [Bear, Burley, and Purdy Creeks](#)
- [Couse Creek](#)
- [Cow Creek](#)
- [Deadman Creek](#)
- [Dogfish Creek](#)
- [Entiat River](#)
- [Gorst Creek](#)
- [Kitsap Creek](#)
- [Martha John and Gamble Creeks](#)
- [Tenmile Creek](#)
- [Upper Alpowa Creek](#)
- [Yellowjacket Creek](#)

Some required elements:

- ***Problem-specific, water body specific***
- ***Interim targets***
- ***Effectiveness monitoring component***
- ***Adaptive management***
- ***Enforceable controls/action***

[Contact us](#) for more information

Last updated February 2009

Is this a New Approach or a New Look?



Prioritize locally

Use existing data

Link with S&T

Fix problems

Avoid TMDLs

Discussion Questions

- Do you agree with prioritizing problems at the WRIA level for applying adaptive management actions?
- How many priority problem impairments should be pursued over a 5-year permit cycle?