

Agriculture and Water Quality Advisory Committee

Meeting #1

Water Pollution Control Act

- RCW 90.48.030—Jurisdiction of Department
 - The department shall have the jurisdiction to **control and prevent** the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, water courses, and other **surface and underground waters** of the state of Washington.

Water Pollution Control Act

- Chapter RCW90.48.080
 - It is "unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, drained, allowed to seep or otherwise discharge into such waters any organic or inorganic matter that shall cause or tend to cause pollution..."
- Chapter RCW90.48.120
 - "Whenever, in the opinion of the department, any person shall violate or creates a substantial potential to violate the provisions of this chapter.....the department shall issue such order or directive as it deems appropriate under the circumstances, and shall notify such person thereof by registered mail."

Water Quality and Nonpoint Pollution in Washington

- Nonpoint source pollutants are transported to surface water by a variety of means, including runoff, snowmelt, direct deposition, and ground-water infiltration.
- Unlike many point sources, nonpoint discharges are not always continuous.
- Through many studies and TMDLs Ecology and others have documented significant, and ongoing impacts from nonpoint pollution.

Nonpoint Sources of Pollution are Connected to Multiple Water Quality Parameters

- Nutrients
- Temperature
- Dissolved Oxygen
- Turbidity
- pH
- Fecal Coliform Bacteria
- Toxics

What are we looking for in the field?

- State Waters
- Pollution sources
- Proximity of pollution source to state waters
- Pollution pathways to state waters
- Evidence of previous or current pollutant transport to state waters
- Source Control and Delivery Reduction of Pollutant -
Are there protective practices in place to address pollution sources?

Nonpoint Pollution Compliance Process

- Work in impaired waters (i.e. TMDL areas or areas with impairments).
- Observe and document site conditions that are indications of nonpoint pollution.
- Provide multiple technical and financial assistance opportunities to the landowner.
- Escalation to informal enforcement (warning letter).
- If pollution issues are not addressed, enforcement staff may issue an order and/or penalty.

What is the goal of our compliance and enforcement work?

- Clean Water
 - Pollution Identification—Staff identify nonpoint pollution problems at a specific sites.
 - Implementation—Suites of BMPs that ensure compliance with state law and compliance with the water quality standards.

Livestock and Water Quality in Eastern Washington

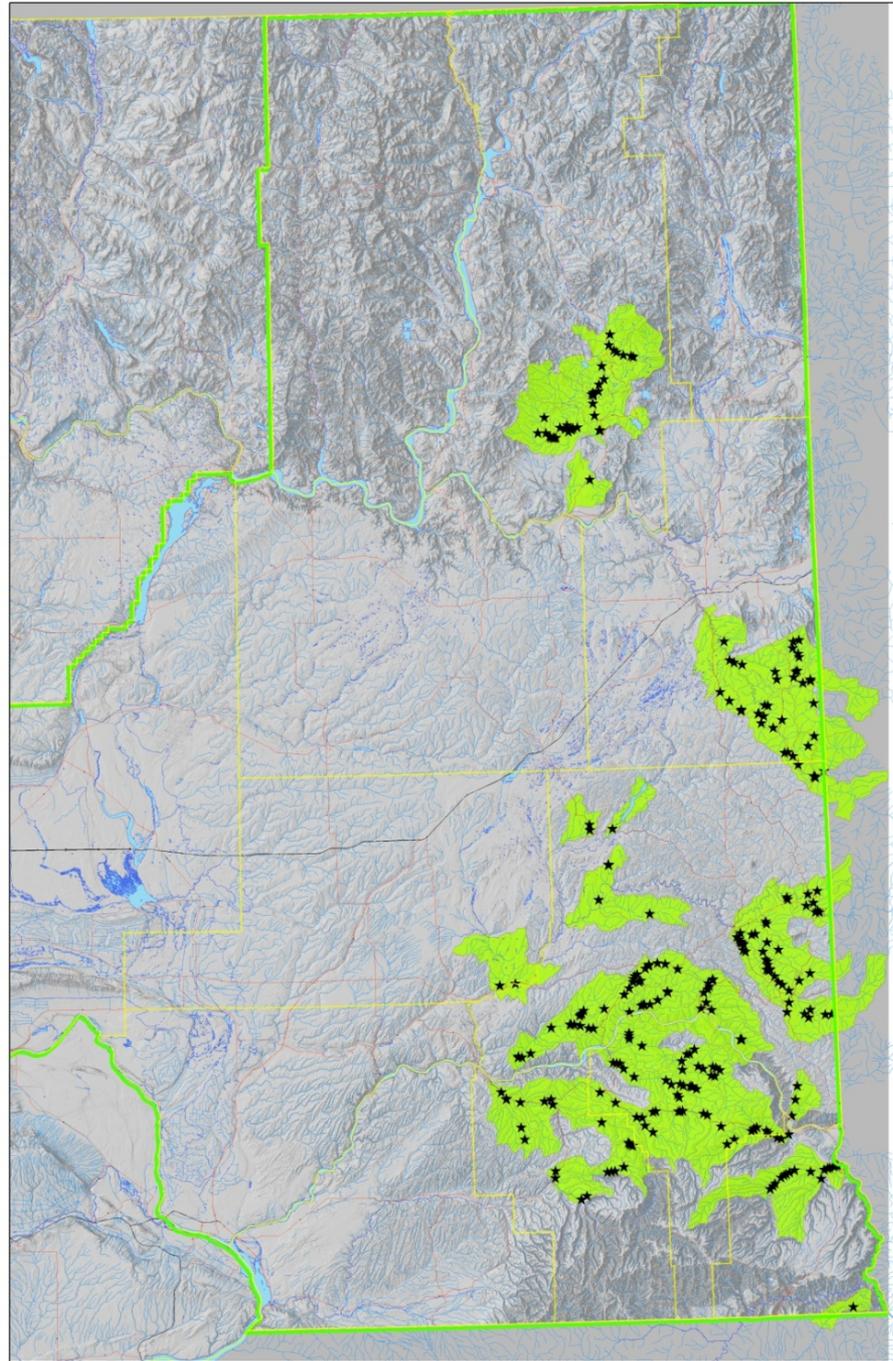
Livestock & Water Quality History

- Began in 2001 in response to EPA overflights
- Partnered with CDs to help livestock producers be proactive and access technical and financial assistance
- Worked with over 100 livestock producers to implement more than 300 miles of riparian protection
- Work focused in Asotin, Garfield, Columbia, Whitman, Adams, Lincoln Counties

Livestock Operations May Affect Water Quality

- Not just about manure - fecal coliform & nutrients
- Temperature (lack of trees/shrubs along streams)
- Dissolved Oxygen (temperatures too high or too many nutrients)
- Turbidity (eroding streambanks)
- pH (too many nutrients)

2013 ERO Watershed Evaluations



Watershed Evaluations

- Work is focused in watersheds with completed TMDL water cleanup plans or 303(d) listed streams.
- We work within public road right-of-ways to do the following:
 - Take photographs
 - Record conditions in our field notes
 - Record locations with a GPS device

Watershed Evaluations

- We look for the following conditions that cause nonpoint water pollution:
 - Bare ground and exposed soil
 - Contaminated runoff
 - Slumping streambanks and erosion
 - Overgrazing of grasses
 - Feeding near the water
 - Absence of woody vegetation
 - Manure accumulations
 - Extended animal access to water
 - Livestock paths and trails within riparian areas

Areas Evaluated in 2013

- NF Palouse R. Watershed
- SF Palouse R. Watershed
- Tucannon/Touchet R. Watersheds
- Asotin Crk. Watershed
- Hangman Crk. Watershed
- Chamokane Crk. Watershed
- Independent Snake R. Tributaries
- Alpowa Crk. Watershed
- Deadman/Meadow Crk. Watersheds
- Palouse-Rock Lake Watershed

*All areas evaluated have TMDLs in place or 303(d) listings to address.

2012-13 New Process Developed

Field

Office

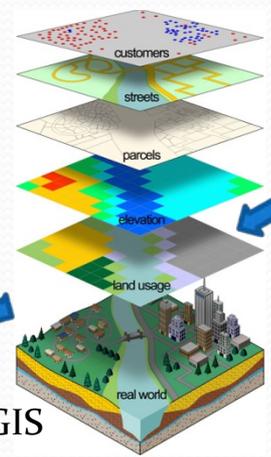
- Site Folders:
- File Notes
 - Photos
 - Score Sheet, etc.

Standard Operating Procedures

ERO Watershed Evaluation Standard Operating Procedures
 By: Mike Kuntz, Jr.
 4/17/2013
 Equipment Checklist:
 - GPS
 - Digital Camera
 - Clipboard
 - Field Data collection form (see below)
 - Pencil/Pen
 - Cell phone
 - Laptop computer with GPS software installed
 Appointments preparation
 *Verify that the data and photos collected on the GPS and camera are accessible!
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 GPS
 1. Create new waypoint file with description name (i.e. watershed_evaluation_point)
 2. Create new location file named by date.
 Digital Camera
 1. Review the camera's user manual prior to photo collection.
 2. If camera supports it, use the photo scheduling to snap at 1 minute intervals to match photo collection data for the effort. Note: Camera resolution (10MP) is not essential; camera resolution at one other location (the camera used for "Photo Tracking" is only "Auto Focus") which will be captured "Standard" settings to capture photos to match resolution. The resolution is not 10MP; it is 10MP. Camera resolution is not essential; camera resolution is not essential.
 Field operations
 GPS: mark GPS's 10m accuracy points for capturing the watershed evaluation and for tracking for a 20m accuracy while the collection is completed.
 Digital Camera: if the camera supports it, make GPS logging of the photo location.
 Field Form: fill out field forms as completely as possible and include field notes when not required additional information is needed.



Sync Date & Time



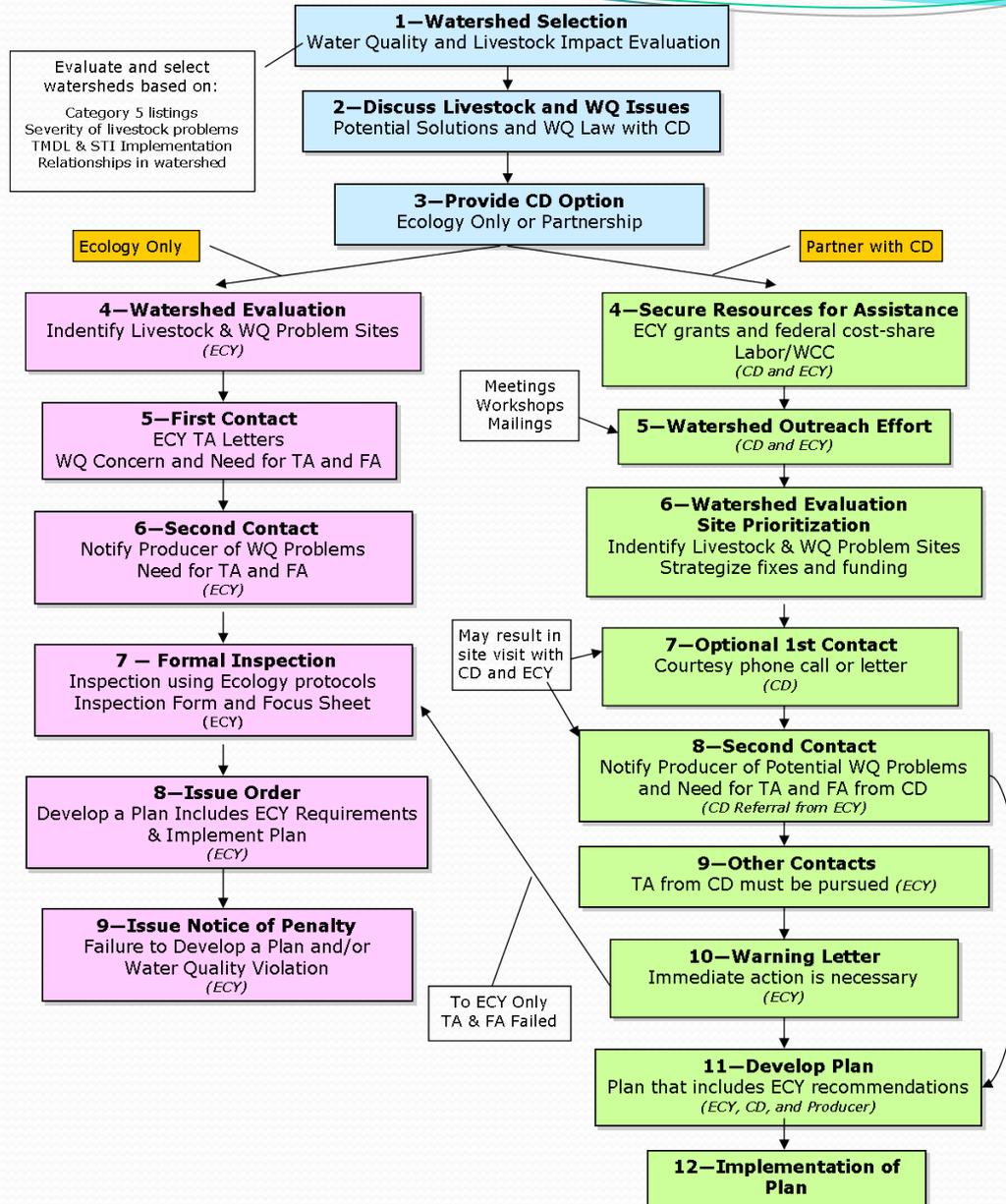
- Database:
- Location
 - Owner
 - Problems
 - Staff Assigned
 - Follow up, etc.

GPS Use	Water Body	Problem Category	Apparent Code	Observations	Photo Number(s)
<input type="checkbox"/> Use <input type="checkbox"/> No Use	<input type="checkbox"/> Stream <input type="checkbox"/> Pond <input type="checkbox"/> Wetland <input type="checkbox"/> Other	<input type="checkbox"/> Erosion <input type="checkbox"/> Sediment <input type="checkbox"/> Invasive Species <input type="checkbox"/> Other	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	<input type="checkbox"/> Non-vegetated soil <input type="checkbox"/> Contaminated runoff surface or potential <input type="checkbox"/> Stormwater runoff and erosion <input type="checkbox"/> Impervious surfaces <input type="checkbox"/> Presence of woody riparian vegetation <input type="checkbox"/> Riparian vegetation <input type="checkbox"/> Riparian access to surface water <input type="checkbox"/> Riparian paths and trails in riparian area <input type="checkbox"/> Other	
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Field Data Sheet

Photos
PIMS

Flow Chart for Addressing Agricultural WQ Problems in ERO



Technical Assistance in 2013

- **Planned to send 32 total letters (sent 30)** to livestock producers offering technical and financial assistance.
 - 4 letters per CD/watershed
 - Sites selected based on prioritization score and qualitative analysis by staff (first time using score sheet - needs modifications)
- Majority of CDs have been cooperative and are working with us.
- Many livestock producers have been cooperative and are seeking assistance from their CD.
- Have encountered some challenges to getting water quality protection on the ground.



Example Sites









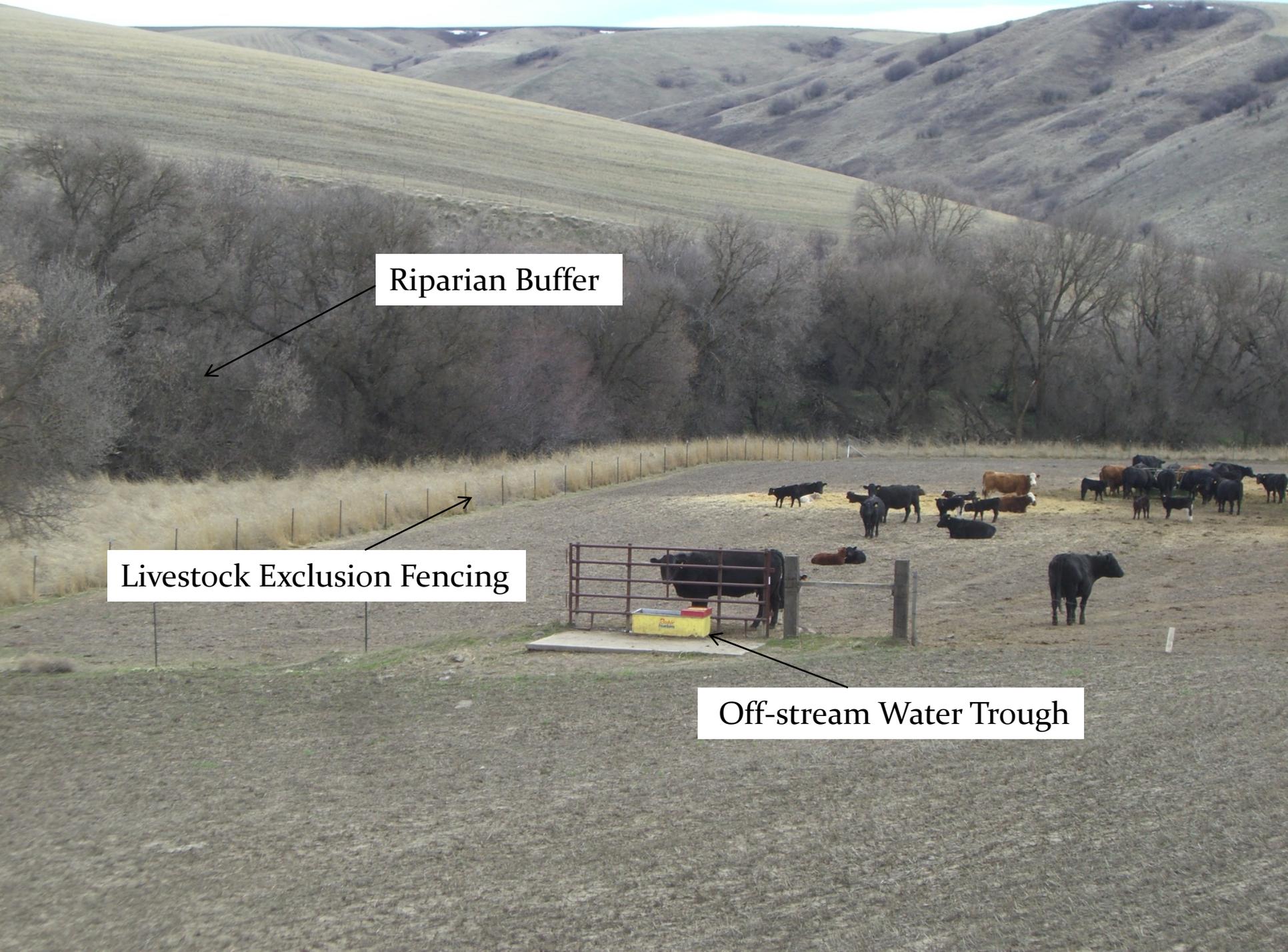








Following BMP Implementation



Riparian Buffer



Livestock Exclusion Fencing



Off-stream Water Trough





Riparian Buffer



Livestock Exclusion Fencing –
Off-stream water is provided





Off-stream Watering



Agriculture and Water Quality Advisory Committee Questions?

- How should Ecology contact producers?
- Should Ecology contact the Owner or Lessee? Both?
How do we obtain lessee information?
- What information should Ecology included in letters?
 - Detail on what we saw?
 - Pictures?
- What are reasonable timelines to respond to Ecology's letters?
- What are reasonable timeframes to address pollution issues?

