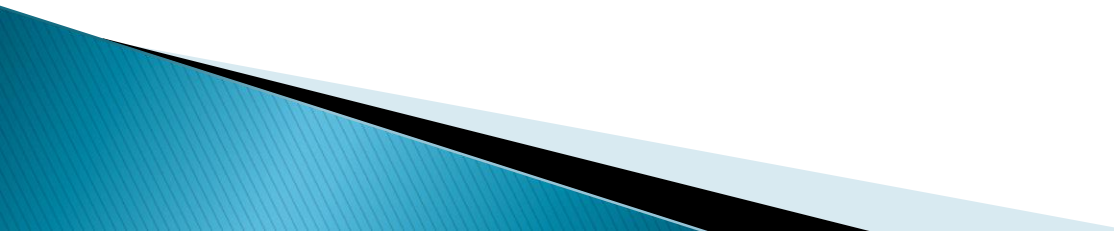


2015 Watershed Evaluations

Eastern WA Livestock and Water Quality

Watershed Evaluations History

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

Evaluation Overview

Field

Office

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

Standard Operating Procedures

ERO Watershed Evaluation Standard Operating Procedures

By: Mike Bland, Jr.
 4/17/2013
 Approved/Checked:
 GPS
 Digital Camera
 Clipboard
 Field data collection forms (at least 20 sheets)
 Data Profile
 Data
 Laptop computer with GPS/GIS software (optional)

Approved/preparation:
 "Sync" the date and time entries on the GPS and camera as recommended."

GPS:
 1. Create user repository file with location in user's e-mail address, e.g.
 2. Create user tracking file based on date.

Digital Camera:
 1. Review the camera's user's manual prior to use.
 2. If camera supports it, turn the photo timestamping on so it includes in camera to match electronic field data times for the office. Note: Camera timestamp (EXIF) will timestamp each individual photo of one after another for the camera's call of "Shutter Release" or "Auto Release". Note: EXIF will require "Shooting Off" setting to reduce delays in camera's shutter release.
 3. If the method is used, be sure to confirm the camera's timestamp is correct in the GPS location field.

Field operations:
 GPS: use GPS's live status screen to log the wanted evaluation and then it's missing fix a few minutes after the collection is completed.
 Digital Camera: if the camera supports it, enable GPS logging of the photo location.
 Field forms: fill out field forms as completely as possible and include hand-written notes to record additional information as needed.



Geotag Photos



Sync Date & Time



ERO Watershed Evaluation Field Data Sheet
 (Ver. 2 - 4/12/2013)

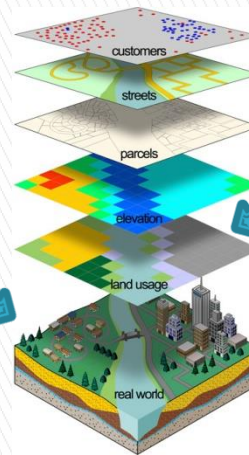
Ecology Staff _____ Date _____

GPS User	Water Body	Problem Category	Observation Code	Observations	Photo Number(s)
		<input type="checkbox"/> Livestock Grazing <input type="checkbox"/> Livestock Handling <input type="checkbox"/> Fertilizer <input type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides <input type="checkbox"/> Other	<input type="checkbox"/> Non-geomorphic soil <input type="checkbox"/> Geomorphic soil (active or potential) <input type="checkbox"/> Shading, erosion/sediment and erosion <input type="checkbox"/> Shading of 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		
		<input type="checkbox"/> Livestock Grazing <input type="checkbox"/> Livestock Handling <input type="checkbox"/> Fertilizer <input type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides <input type="checkbox"/> Other	<input type="checkbox"/> Non-geomorphic soil <input type="checkbox"/> Geomorphic soil (active or potential) <input type="checkbox"/> Shading, erosion/sediment and erosion <input type="checkbox"/> Shading of 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		
		<input type="checkbox"/> Livestock Grazing <input type="checkbox"/> Livestock Handling <input type="checkbox"/> Fertilizer <input type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides <input type="checkbox"/> Other	<input type="checkbox"/> Non-geomorphic soil <input type="checkbox"/> Geomorphic soil (active or potential) <input type="checkbox"/> Shading, erosion/sediment and erosion <input type="checkbox"/> Shading of 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		

Riparian Code: 1 = Functional Buffer; 2 = 25' to 50' Buffer; 3 = 100' Buffer; 4 = No Buffer

Field Data Sheet

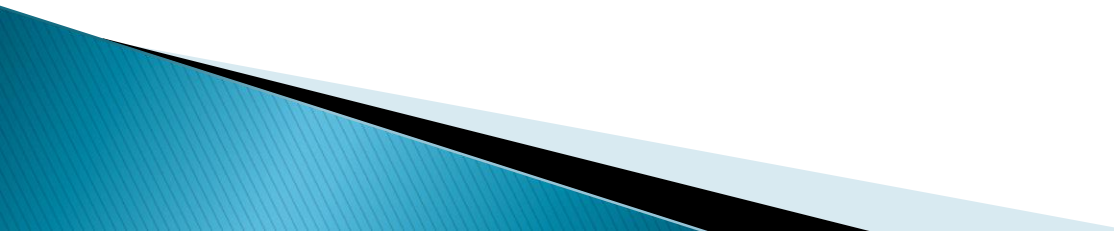
GIS



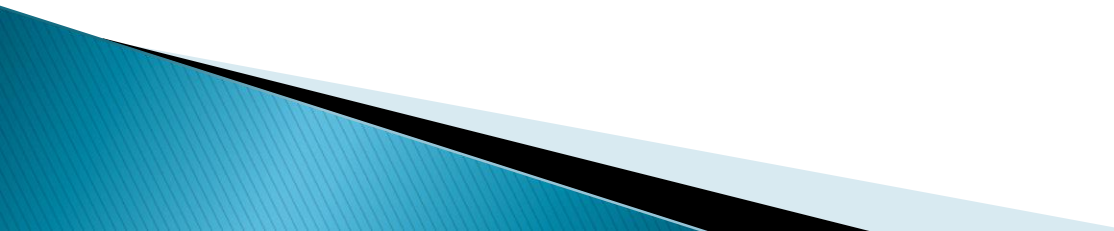
Database:
 •Location
 •Owner
 •Problems
 •Staff
 Assigned
 •Follow up,
 etc.

PIMS

Visual Indicators

- ▶ Areas of bare ground and exposed soil
 - ▶ Contaminated run-off (active or potential)
 - ▶ Slumping streambanks and erosion
 - ▶ Moderate to heavy grazing
 - ▶ Confinement areas near streams
 - ▶ Absence of woody vegetation due to livestock action
 - ▶ Manure accumulations
 - ▶ Extended access to surface water
 - ▶ Livestock paths and trails
- 

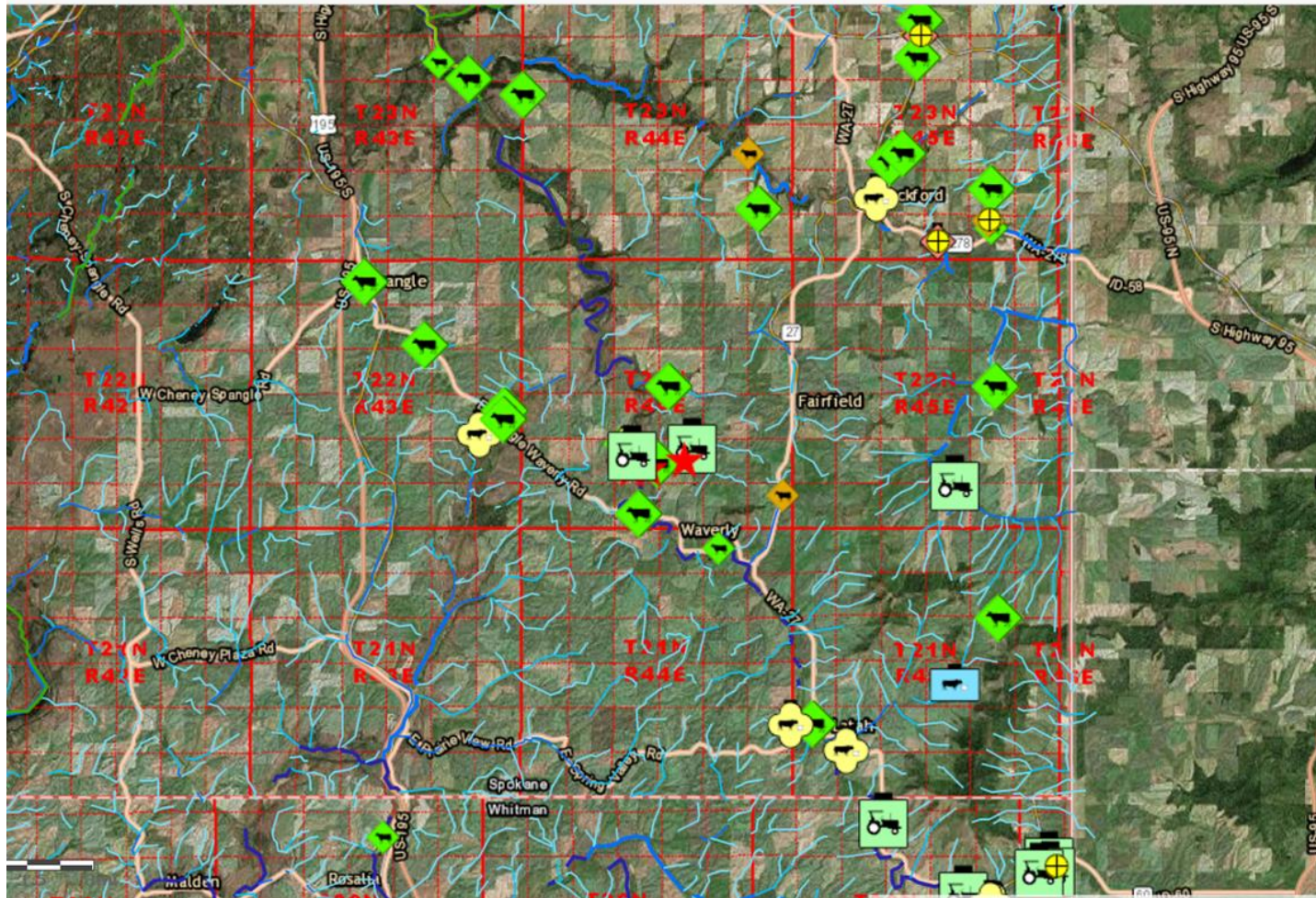
Ten Key Changes

- ▶ Increase education and outreach efforts
 - ▶ Increase engagement with producer groups
 - ▶ Letters will be improved:
 - Site specific observations
 - Clear timelines
 - Offer for Ecology staff to make a site visit
 - ▶ Try to connect with Lessees with first contact
- 

2015 Assessment Areas

- ▶ Blue Mountain Streams (Asotin, Alpowa, Deadman, Meadow)
 - ▶ Whitman County Snake River Tribs (Including Alkali Flat Creek)
 - ▶ North Fork & South Fork Palouse River
 - ▶ Walla Walla River
 - ▶ Hangman Creek
- 

Hangman Watershed





AM10:08 MAR/25/2015



AM10:59 MAR/25/2015



AM10:21 MAR/25/2015



AM11:46 MAR/25/2015



PM12:13 MAR/25/2015



AM10:21 MAR/25/2015



AM10.24 MAR



PM 2:10 MAR/25/2015

Technical Assistance Letters

- ▶ We will contact up to four priority sites in each of the five areas
 - ▶ In addition, we plan to contact 2013 sites if problems are still present.
 - ▶ We also will send some thank you letters
- 