# *Oregon Department of Agricultural Water Quality Program and YOU*

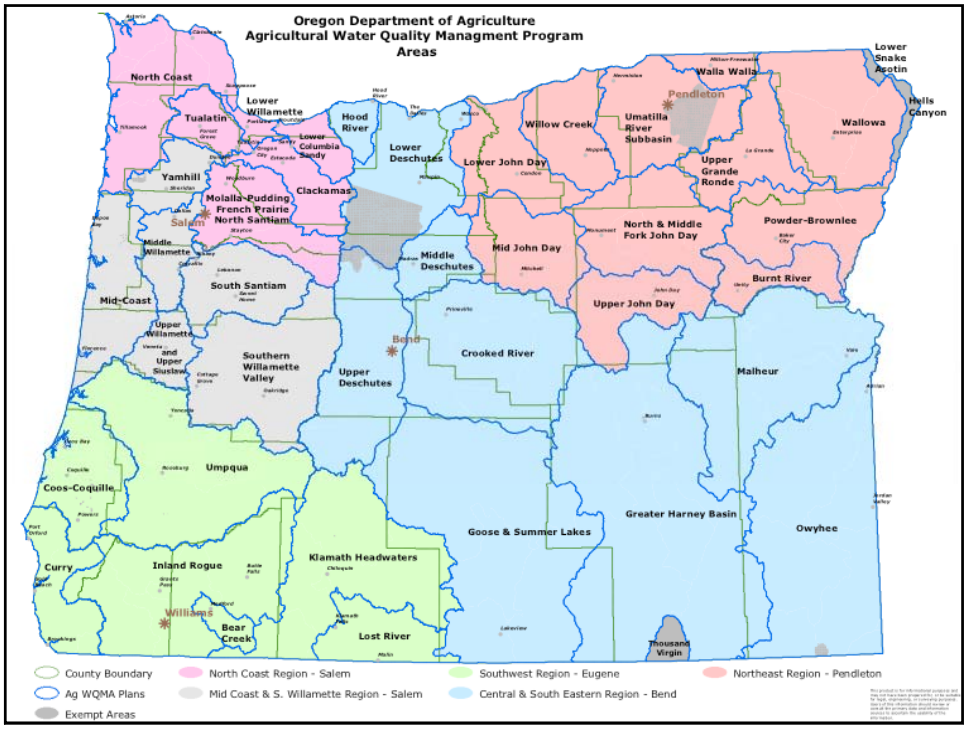
***NRCS Animal Waste Management Workshop***

***March 22, 2011***

***Kevin Fenn, RWQS***

# Ag Water Quality Program Staffing

* Five Regional Water Quality Specialists
* Hydrologist and Monitoring Specialist
* GIS Specialist (shared)
* Administrative Specialist
* Riparian & Outreach Specialist (vacant)
* Compliance Leader
* Program Manager




# A Bit O' Background

- Clean Water Act
  - Each State develops its own program to address Water Quality issues
  - Oregon -- a division of responsibility
    - ODF -- private land forestry
    - DEQ -- Urban storm water, municipal waste water, transportation system and non-ag point sources, federally managed land
    - ODA -- private land agricultural activities
      - Regulate point and non-point sources

# Quick History

* Ag Water Quality Management Act, 1993
  * ODA - plans to prevent/control ag pollution & soil erosion.
* Senate Bill 502, 1995
  * ODA regulates farming practices for water quality
  * Must meet water quality standards set by EQC
* From 1996 - 2004, 39 Area Plans and Rules developed.
* AgWQ Program Rules (OAR 603-90)
* AgWQ Plans and Rules (OAR 603-095)

# AgWQ Plans Locally Based

* 39 Management Areas
* Vary by type of agriculture and water quality problems
* Local Advisory Committees
* Soil and Water Conservation Districts
* AgWQ Plans are reviewed and updated on a biennial basis

## ODA/SWCD Relationship

- Education and outreach on water quality
- Advise ODA regarding program implementation
- Assist landowners with grant programs
- Provide technical assistance for conservation practices
- Assist with biennial reviews of Area Plans/Rules
- Resources: 45 SWCDs, 180 staff, ~$6M/2yr
- Other funds: DEQ 319, Federal and State cost-share

## Water Quality Program Mission and Goal

- *Mission*: To help landowners prevent and control water pollution from agricultural activities and soil erosion in a manner consistent with agricultural viability.
- *Goal*: Prevent and control water pollution from agricultural activities and soil erosion through voluntary activities.

# Water Quality Rules

- **Oregon Law: ORS 468B.025**

  **No person shall:**

  **(a) Pollute any waters of the state**

  **(b) Place wastes where they are likely to enter waters of the state.**

  **(c) Discharge any wastes into the waters of the state if the discharge violates water quality standards.**

http://oregon.gov/ODA/NRD/water_agplans.shtml

# Riparian Rules

- Allow vegetation to develop & establish (may be perennial only or all streams)
- Consistent with capability of site
- Vegetation should provide certain functions
  - Stabilize streambanks
  - Shade/moderate solar heating
  - Filtration of overland flow

Need to determine if the agricultural activity is preventing the vegetation from establishing.

# Compliance and Investigation

- Compliance with Area Rules is required (outcome, not practice based)
- HOW landowners comply is up to them

Complaints, can be filed by:

- Citizens and have to be in writing, signed, and have a location and description of the problem.
- Another Agency (DEQ, DSL)
- ODA, self-initiation
- Landowner, self-initiation

**OREGON DEPARTMENT OF AGRICULTURE**
**AGRICULTURAL WATER QUALITY PROGRAM COMPLAINT FORM**

Date Filed: _____

The Department will evaluate or investigate a complaint if: it is in writing, is signed and dated by the complainant, indicates the location and description of the surface or ground water being impacted, and identifies the property allegedly being managed under conditions violating water quality regulations. The Department may not be able to investigate if the form is not complete. Send the completed form to the Oregon Department of Agriculture, Natural Resources Division, Water Quality Program, 635 Capitol St NE, Salem, OR 97301. Fax (503) 986-4730. You may also email the form to: nrd-office-manager@oda.state.or.us.
Oregon Administrative Rules 603-095-0000 to 3960 describe the Oregon Department of Agriculture's procedures for receiving and investigating complaints.

**COMPLAINANT INFORMATION**
(Individual Filing Complaint)

- Signature: _____
- Name: (print) _____
- Address: _____
  _____
- Phone: (Home)_____ (Cell)_____ (Work)_____
- Email: _____

**PLEASE PROVIDE INFORMATION ABOUT THE PROPERTY WHERE THE VIOLATION IS HAPPENING:**

- Name of landowner: _____
- Phone: _____
- Property location: _____
  (address, tax lot, GPS coordinates, or detailed description so we can locate the property) _____
- Waterbodies allegedly being damaged or impacted: _____

**NATURE OF COMPLAINT:** (check those that apply)

❒ Soil erosion ❒ Animal waste management ❒ Nutrient management

❒ Damage to near-stream areas ❒ Other (describe in the box below)

**OBSERVATIONS AND EVIDENCE THAT THERE IS WATER POLLUTION FROM AN AGRICULTURAL ACTIVITY:**

_____
_____
_____
_____

# Compliance and Investigation

* Information gathering, site visit and follow-up if needed.
* Work in cooperation with SWCDs.
* Landowners receive document describing situation and needed actions:
  - Letter of Compliance
  - Water Quality Advisory
  - Letter of Warning
  - Notice of Non-compliance
  - Civil Penalty

# Types of Water Quality Concerns Investigated

| Water Quality Concern | Number of Complaints 2009* | Number of Complaints 2010 | Number of Complaints Total through 2010 (439) |
|---|---|---|---|
| Potential manure runoff to surface or groundwater | 21 | 19 | 199 |
| Potential sediment runoff to surface water | 4 | 9 | 127 |
| Riparian area management concerns | 19 | 11 | 115 |
| Other issues | 4 | 0 | 30 |
| Other 468B potential violations | 21 | 1 | 49 |

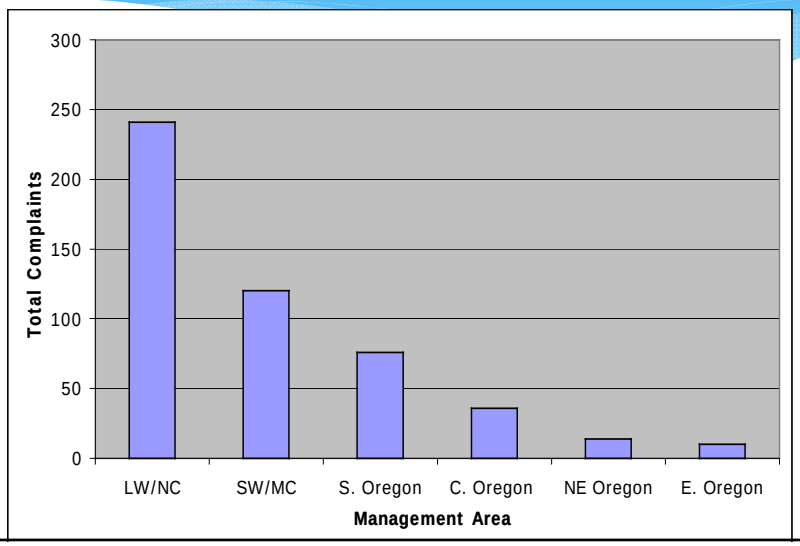
* If more than one issue was identified it is counted under both categories.

# Compliance Actions

| Compliance Action | Issued after first visit 2010 | Issued after first visit TTD* | Issued after follow-up visits TTD* |
|---|---|---|---|
| No full investigation performed (No water quality concerns identified or not in ODA jurisdiction) | 3 | 109 | N/A |
| **Letter of Compliance (initiated in 2004)** | 13 | 65 | 23 |
| **Water Quality Advisory** | 9 | 109 | 10 |
| **Letter of Warning** | 9 | 66 | 7 |
| **Notice of Noncompliance** | 1 | 8 | 3 |
| **Civil Penalty** | 1 | 1 | 2 |
| Referred to another agency/program | 1 | 33 | 0 |
| Investigation pending | 20 | 0 | 0 |

*Total to Date 1998 to 2010

# Compliance for entire state: 1998-2010



# Water Quality Considerations

* Proximity to surface and groundwater
* Groundcover and vegetation
* Precipitation and run-off
* Permeable and impermeable surfaces
* Compaction
* Stocking rates
* Storage Capacity
* Acreage available for grazing
* Acreage available for manure application
* Filter strips and buffers

# Compliance and Recommendations

* Concern: Horse access to creek area in winter

* Implemented Practices: Gutters, manure management, riparian fencing, and change in timing of use

# Compliance and Recommendations

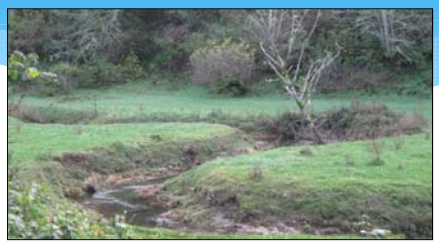
- Concern: Manure in Creek

- Recommended practices: Gutters, manure storage, exclusion from riparian area, buffer, filter strip, and off-stream watering

# Compliance and Recommendations

## Compliance and Recommendations

- Concern: Livestock impacts to vegetation along stream
- Corrective actions: Livestock removed



## Compliance and Recommendations

Concern: Summer feeding area with unlimited access to seasonal stream.

Preferred Result: Livestock access limited and groundcover allowed to establish.

## Compliance and Recommendations

Concern: Heavy use of streamside area and runoff of manure into seasonal stream:

Preferred Result: Riparian fencing and less intense use.

## Compliance and Recommendations

Concern: Manure in a location where it is likely to enter waters of the state.

Preferred Result: Covered storage on a concrete slab.

# Managing Manure

- store manure on concrete and under cover
- minimize bedding in your manure pile
- store manure away from water sources
- compost manure and spread it on your fields!
- composting will kill parasites in the manure

# Storage vs. Composting

**Storage = a pile of manure that sits around for awhile**

**Composting = a pile of manure managed for oxygen and moisture that creates an optimal soil amendment**

## The Manure

## The Water

## Run-off Path

# Run-off Path

# Run-off Path

# Common Misperceptions

- Application of manure as fertilizer has less potential for pollution than application of synthetic fertilizers.
- Spreading of manure kills bacteria quickly, nitrogen in the manure is stable, and contaminants are not easily carried off pastures in run-off.
- Dragging manure in pastures is bad because it exposes parasites. If you have that much manure, you have too many horses.
- Using a "pond" to filter out pollutants in run-off before it reaches a creek. Seems like a good idea, but typically the pond is waters of the state.
- No connection to surface water equals no problem. In many situations there is likely a connection to groundwater.
- Storing manure for application where it is likely to pollute even for a short time is OK (NOT).

# Riparian Vegetation Removal

Issue: Riparian vegetation is removed to reclaim farm land.

Solution: Leave the vegetation intact or leave sufficient vegetation to provide desired functions.

## Compliance Concern: Erosion

Concern: Sediment from gully erosion entering waters of the state.

Preferred result: Adequate practices implemented to prevent sediment from entering waters of the state.

## Christmas Trees

Issue: Potential for erosion of soil into waters of the state.

Solutions: Cover crop, leave trimmings, grassed roads, and field borders.

# Vineyard Development

Issue: Main concern is with land that is bare going into the rainy season. Potential for sediment to erode into Waters of the State.

Solutions: Cover crops, straw mulch, sediment basins, filter strips, and field borders.

# Questions?

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