J U N E 2 0 1 2

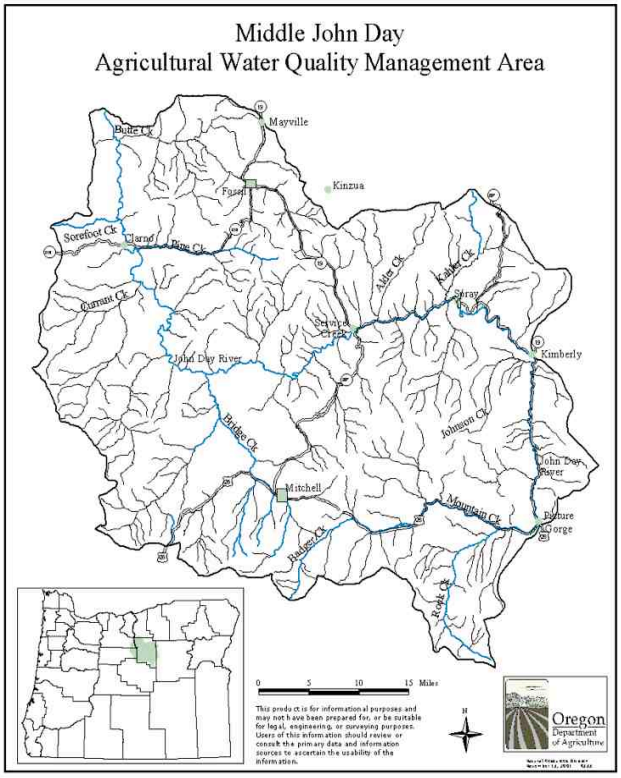
Middle John Day Agricultural Water Quality Management Area Plan

Middle John Day Local Advisory Committee Meets to Review Area Plan

Executive Summary

The Middle John Day Local Advisory Committee (LAC) met with the Oregon Department of Agriculture (ODA) to conduct its fourth biennial review of the Middle John Day Agricultural Water Quality Management Area Plan (Area Plan). LAC members present were: Ted Molinari, John Aaron, Lee Hoover and Bill Potter. Also present were Tom Straughan, ODA, and Judy Potter, Joan Field, and Gabe Williams, Wheeler Soil and Water Conservation District (District).

During the review, ODA staff updated the LAC on statewide water quality and compliance issues and reviewed the District implementation activities. The Area Plan was revised to strengthen the goals and objectives, to add language to support priority areas, monitoring and pesticide management plans, and to add information from the John Day Basin Total Maximum Daily Load (TMDL).



The Middle John Day Agricultural Water Quality Management Area includes the area that drains into the John Day River between the Wheeler-Gilliam county line and the upstream end of Picture Gorge.

The John Day Basin TMDL focuses on temperature and bacteria reduction measures. Each jurisdictional authority is responsible for developing water quality management plans to achieve the load allocations. This Area Plan serves as the implementation plan for agriculture's load allocation.

LAC Plan Review

LAC Findings/Recommendations

The LAC recommended the following revisions to the Area Plan:

- Updated TMDL target and load allocation information to affirm agriculture's responsibilities to achieve water quality standards.
- Strengthened the goal statement to reflect current program direction and needs.
- Added language to support priority areas and increased monitoring to demonstrate the effectiveness of the program.

Compliance Summary

ODA has received no complaints about violations of Area Rules and no investigations have been conducted.

Background

The Area Plan was developed by the LAC to identify strategies to reduce water pollution from agricultural lands through a combination of educational programs, monitoring, suggested land treatment, and management activities.

Landowners and the District use the Area Plan as guidance to solutions for water quality problems. It is also used to enhance public awareness and understanding of water quality issues.

In 2003, the Oregon Board of Agriculture adopted the Middle John Day Area Plan and Oregon Administrative Rules (603-095-2500 thru 2560). Biennial reviews were conducted in 2006, 2008, 20010, and 2012. The Area Plan was revised during the 2012 biennial review to add TMDL information and to add information about monitoring and priority areas.

Goals

- Prevent and control water pollution from agricultural activities and soil erosion and achieve applicable water quality standards.
- Develop strategies that are practical and economically feasible in order to aid the prevention of water pollution from agricultural and rural activities and the control of water pollution if such problems exist.
- Achieve the following land conditions that contribute to good water quality on agricultural lands throughout the management area:
    - Streamside vegetation providing streambank stability, filtration of overland flow, and moderation of solar heating, consistent with site capability.
    - Livestock management is controlling runoff of sediment and animal waste to waters of the state.
    - Irrigation management is controlling runoff of pollutants to waters of the state.

Objectives

- Promote voluntary land stewardship practices that enhance water quality and comply with Area Rules.
- Increase public awareness and understanding of agriculture's contributions to improving water quality.
- Ensure technical and financial assistance for implementing effective water quality improvement projects.
- Promote a monitoring program that provides scientifically credible data.
- Identify priorities for pollution source identification and determining areas for implementing restoration activities including reasonable timelines for management strategies targeting TMDL attainment and water quality standards.

Summary of Accomplishments

Education and Outreach

- Five public displays – 2,165 attendees,
- Newsletters (1,300 mailed + electronic) and press releases,
- Four workshops (64 attendees) – Juniper Marketing, Freshwater Trust, Salmon Watch, Watershed Health,
- Five project tours (32 attendees) – Bear Creek, Mountain Creek, and Twilight tour,
- Youth Education – Salmon Watch, Thirty Mile Creek (monitoring and planting), OYCC crew, and greenhouse project,
- Website – established and kept up-to-date,
- Watershed council presentations,
- Project signs – interactive kiosk.

Planning and Projects

- Upland improvement and habitat improvement;
  - 350 acres prescribed burning and 20 acres fuels reduction,
- Juniper removal - 2,577 acres,
- Weed mapping or eradication, and reseeding;
  - 811 acres mapped, 654 acres weed control, and 984 acres reseeded,
- Spring development, fencing and cross-fencing;
  - 12 springs, two ponds, and 11,380 ft. cross-fencing,
- Fish passage and irrigation efficiency;
  - Five diversions, one fish ladder, two culverts, 62,160 ft. pipelines, and one pivot,
- Riparian improvement and plantings with 12.4 miles enrolled in CREP,
- Sediment reduction,
- Technical assistance.

Funding and Grants

- 20 grant proposals funded,
- Funds received from OWEB, BPA, NRCS, ODA, CTWS, and others.

Monitoring

- Mountain Creek Reach Evaluation and Action Plan,
- 19 project monitoring reports,
- Three sites monitored for water quality.

Progress Measurement

- Mountain Creek Reach Evaluation and Action Plan completed to establish baseline of habitat/riparian conditions. Targeted assistance will be provided to landowners as needs are identified and assessed.

Success Story

Mountain Creek Reach Evaluation

Mountain Creek is located in North Eastern Oregon, in the Middle John Day Management Area, and drains into the John Day River. It serves as spawning habitat for steelhead (Oncorhynchus mykiss), which are currently listed as threatened and is one of 11 major spawning areas that collectively make up the Lower Mainstem John Day River unit.

Many tributary habitat limiting factors were identified for the Lower Mainstem John Day River with the primary factors being "degraded floodplain and degraded channel structure (key habitat quantity and habitat diversity), altered sediment routing, water quality (temperature), and altered hydrology."

In 2010, the Wheeler SWCD received grant funds to perform a reach evaluation of Mountain Creek. The purpose of this reach evaluation was to identify the severity of the limiting factors on a reach-by-reach basis and create an interactive geographic information system (GIS) framework with the purpose of improving the effectiveness of restoration work conducted within the Mountain Creek watershed.

The field survey of Mountain Creek was conducted from August 8, 2010, through October 8, 2010. Field technicians systematically walked and surveyed the stream channel starting at the confluence with Rock Creek up to above where Mountain Creek turns into Badger Creek. The survey was conducted using an "Intermediate Survey Level" as defined by "Surveying Oregon's Streams 'A Snapshot In Time': Aquatic Inventory Project Training Materials and Methods for Stream Habitat Surveys."

Continued from page 3

The data collected along Mountain Creek was used to calculate several metrics used to develop rating criteria for the quarter mile segments. The different metrics were separated into five categories:

- active erosion,
- shading,
- habitat complexity, barriers, and
- irrigation withdrawals.

Below is an example of the data display that rates active erosion. Each unit was assigned a value for percent active erosion determined by the amount of bare soil present along the stream bank. Due to stream dynamics, active erosion was typically only observed on one side of the stream.

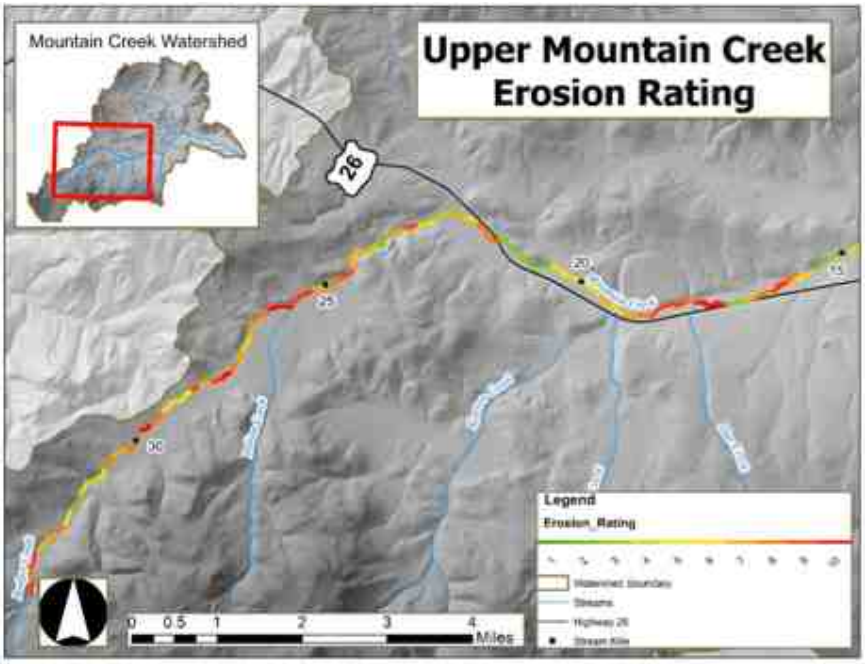


FIGURE 5 - SPATIAL DISTRIBUTION OF TOTAL ACTIVE EROSION (UPPER WATERSHED)

The SWCD and ODA will be using this data to determine a rating for streamside vegetation condition that will indicate compliance with the Area Rules for streamside vegetation and allow the SWCD to target focused outreach to landowners in need of assistance to meet the requirements for protecting water quality.

Oregon Dept. Of Agriculture
Natural Resources Division
Water Quality Program
635 Capitol St. NE
Salem, OR 97301

Regional Water Quality Specialist
Tom Straughan

Phone:
(541) 278-6721

E-Mail:
tstraughan@oda.state.or.us