



**NRD WATER QUALITY PROGRAM  
AGRICULTURAL WATER QUALITY MANAGEMENT AREA  
BIENNIAL REVIEW SUMMARY**



**Management Area: Goose and Summer Lakes Basin**

**Meeting Date(s):** November 24, 2015

**LAC Members Present:** Bob Squires, Mike O’Leary, Pete Talbott (Vice-Chair), Keith Barnhart, Bob Elder, Leon Baker, LeeRoy Horton, John O’Keeffe (Chair)

**Progress Measurement:**

Baseline data for two Focus Areas: riparian condition classification

Class I	Class II	Class III	Class IV
Vegetation likely sufficient to moderate solar heating, stabilize streambanks, and filter out pollutants consistent with site capability.	Agricultural activities not impairing riparian growth, but vegetation likely insufficient to moderate solar heating, stabilize streambanks, or filter out pollutants consistent with site capability.	Agricultural activities likely not allowing vegetation to moderate solar heating, stabilize streambanks, or filter out pollutants consistent with site capability.	Non-agricultural activities, e.g. state highway, likely not allowing vegetation to moderate solar heating, stabilize streambanks, or filter out pollutants consistent with site capability.

BUCK CREEK	Percent of stream miles within focus area. Total miles = 8			
	2010	2013	2015	2017
Class I	3.7	3.55	3.7	
Class II	2.1	2.75	2.6	
Class III	1.3	0.8	0.8	
Class IV	0.9	0.9	0.9	

CROOKED CREEK	Percent of stream miles within focus area. Total miles = 11		
	2013	2015	2017
Class I	3.0	4.1	
Class II	4.7	4.7	
Class III	1.4	0.3	
Class IV	1.9	1.9	

**BUCK CREEK:** from 2010 to 2015, the Fort Rock/Silver Lake SWCD documented the following changes:

- Percent of streams in class I decreased by 0% (0.15 miles)
- Percent of streams in class II increased by 24% (0.5 miles)
- Percent of streams in class III decreased by 38% (0.5 miles)

In the last two years, conservation activities consisted of:

- 5 landowners contacted by visits
- Projects installed: 5 diversions, 0.2 miles of riparian fencing
- Grants received: 3 (2 SWCD, one watershed council)

**CROOKED CREEK:** from 2013 to 2015, the Lakeview SWCD documented the following changes:

- Percent of streams in class I increased by 37% (1.1 miles)
- Percent of streams in class II experienced no change (0.0 miles)
- Percent of streams in class III decreased by 79% (1.1 miles)

Conservation activities coordinated by the SWCD and Lake County Watershed Council resulted in:

- 8 landowners with projects: 6 culverts replaced/moved, 9 headcuts stabilized, 0.7 stream miles planted with 500 willow plants, 20 acres planted with riparian seed mix along stream, 2 hardened crossings, 400 feet of juniper-revetment bank stabilization, 0.5 mile historical channel relocation (included new irrigation infrastructure with fish passage), 10 rock grade control structures
- Grants received: 2 large OWEB grants partnered with Ducks Unlimited, US Fish and Wildlife Service and Resource Advisory Committee (RAC), total in excess of \$400,000

Two more landowners are being brought on board.

**Implementation Summary outside Focus Areas (Fort Rock/Silver Lake SWCD, Lakeview SWCD, Lake County Umbrella Watershed Council)**

***Outreach and Education:***

- Field tour of irrigation projects to USFWS
- Off-site water/spring development workshop (18 attendees)
- Booth at Lake County Fair
- 2-day Outdoor Education Program for all K-6th graders at North Lake Elementary, which included aquatic insect presentations to 140 students
- 8 newsletters distributed to 400 landowners with articles on pasture management, streamside vegetation, weeds, and conservation

***Planning and Projects:***

- 2 ¾ miles of riparian fencing
- 5,500 willows planted
- 1 mile streambank reconstruction, 1,000 feet of streambank stabilized
- 9 off-stream water systems, 1 water gap, 2 spring developments
- 850 acres juniper/conifer control; 7,000 acres sprayed for invasive annual grasses
- 6 irrigation diversions upgraded, including fish passage
- 1 bridge replaced with fish-friendly structure
- CCAAs for sage grouse with 15 landowners

***Monitoring:*** none other than the riparian condition monitoring in focus areas

***Funding and Grants:***

- Grants totaled over \$400,000 in Crooked Creek alone

**Summary of Impediments:**

- Drought resulting in season-long low flows in streams

**Recommendations for Modifications:**

- ODA should select a more appropriate site to monitor ag-influenced water quality
- ODA's aerial photography analysis is flawed and the results are not useful. ODA should develop a new method

**DEQ Recommendations:**

- The Plan does not provide a link between the PMP and water quality in the Goose and Summer Lake basins.
- The Plan does not discuss the relationship of agricultural activities to drinking water source areas in the geographic area.
- The Plan includes clear and measureable objectives.
- The monitoring identified to track progress in the Focus Areas appears to provide adequate information. Outside of the Focus Areas, it is unclear if there is sufficient monitoring to determine if water quality objectives are being met.

**Compliance:**

*Letter of Compliance -1*

*Water Quality Advisory -0*

*Letter of Warning -0*

*Notice of Noncompliance -0*

*Civil Penalty -0*

*Alternative Measures -0*

***Total New Investigations: 0***

**Notes:** The Letter of Compliance was issued for an investigation originating in the previous biennium.