

# Lower North Fork Clearwater River TMDL Implementation Plan Addendum (17060308)



Idaho Soil and Water Conservation Commission

Eileen Rowan

December 2013

Original Plan: Clearwater Soil and Water Conservation District. 2004. Lower North Fork Clearwater River  
Subbasin TMDL Implementation Plan. Orofino, ID.

**Table of Contents:**

<i>Introduction</i>	<u>4</u>
<i>Background</i>	<u>7</u>
<i>Conservation Accomplishments</i>	<u>7</u>
<i>Resource Concerns</i>	<u>7</u>
<i>Treatment and Priority Areas</i>	<u>8</u>
<i>Maintenance, Monitoring, and Evaluation</i>	<u>11</u>
<i>References</i>	<u>12</u>

## List of Figures and Tables

<i>Table 1: Streams and TMDLs in 2002.</i>	4
<i>Table 2: Overall average Lack of Shade for TMDL Streams (DEQ 2002).</i>	5
<i>Figure 1: Location Map of Watersheds in Five Year Review and TMDL Addendum</i>	6

## Introduction

The Five Year Review and TMDL Addendum to the Lower North Fork (LNF) Clearwater River Subbasin Assessment (SBA) and Total Maximum Daily Load (TMDL) was developed by IDEQ to review progress made in the subbasin since the completion of the original SBA-TMDL and implementation plan. It was also developed for new waterbodies listed for temperature impairment under Category 5 of Idaho's 2010 Integrated Report (DEQ 2011).

The original Lower North Fork Clearwater River Subbasin Assessment (SBA) and Total Maximum Daily Load (TMDL) was finalized in November 2002. Please refer to the original TMDL for more information (DEQ 2004). Table 1 lists the streams for which TMDLs were developed in 2002.

Table 1: Streams and TMDLs in 2002.

<b>STREAM</b>	<b>TMDL</b>
Breakfast Creek	sediment
Cranberry Creek	sediment, temperature, bacteria
Lower Elk Creek	temperature
Long Meadow Creek	sediment, temperature, bacteria
Partridge Creek	sediment
Reeds Creek	sediment
Swamp Creek	sediment, temperature

The Idaho Soil and Water Conservation Commission is the designated agency responsible for preparing an implementation plan for agriculture and grazing. The Clearwater Soil and Water Conservation District completed the original TMDL Implementation Plan in May 2004, which focused on seven streams (listed in Table 1) that had received TMDL's (CSWCD). The projects listed in the implementation plan were site-specific projects that addressed forest road maintenance, culvert replacement, landslide repair and road decommissioning or obliteration. Please refer to the implementation plan developed for the original SBA-TMDL for more information.

This implementation plan addendum provides a strategy for agriculture to assist and/or complement other watershed efforts in restoring and protecting beneficial uses for newly listed streams in the Lower North Fork Clearwater River subbasin. Agricultural pollutant reductions will be achieved by on-farm conservation planning with individual operators and application of BMPs in agricultural critical areas

Streams with TMDLs from the original SBA-TMDL are not the same as (with the exception of Breakfast Creek) the streams in the Five Year Review and TMDL Addendum completed in April 2013. DEQ has adopted assessment units (AU) for streams in Idaho, since the 2002 approval of the LNF Clearwater River SBA-TMDL. Twenty-five assessment units in the Lower North Fork watershed have been added to Category 5 of the 2010 integrated report due to temperature violations. All of these AUs are given temperature TMDLs in the Five Year Review and TMDL Addendum. Table 2 shows the average lack of shade for each segment in the TMDL addendum (DEQ 2002).

Table 2. Overall average Lack of Shade for TMDL Streams (DEQ 2002).

Stream Name	Assessment Unit	Average Lack of Shade
Elkberry Creek	ID17060308CL002_02b	-19%
Middle and South Forks Robinson Creek	ID17060308CL002_02c	-25%
Gold, Meadow, and Snake Creeks	ID17060308CL003_02	-24%
Reeds Creek	ID17060308CL003_03, ID17060308CL003_04	-16%
Reeds Creek and tributaries	ID17060308CL004_02	-31%
Reeds Creek	ID17060308CL004_03	-23%
Alder Creek and tributaries	ID17060308CL005_02	-29%
Beaver Creek	ID17060308CL009_02	-25%
Bingo Creek	ID17060308CL009_02c	-24%
Beaver Creek tributaries	ID17060308CL009_02e	-20%
Beaver Creek	ID17060308CL009_03, ID17060308CL009_04	-10%
Isabella Creek	ID17060308CL010_03	+16% (exceeds target)
Stony Creek and tributaries	ID17060308CL020_02, ID17060308CL020_04, ID17060308CL020_04a	-21%
Floodwood Creek tributaries	ID17060308CL021_02	-24%
Floodwood Creek	ID17060308CL021_02a, ID17060308CL021_03a, ID17060308CL021_03	-16%
Stony Creek	ID17060308CL023_02, ID17060308CL023_02a, ID17060308CL023_03	-22%
Breakfast Creek	ID17060308CL025_02	-21%

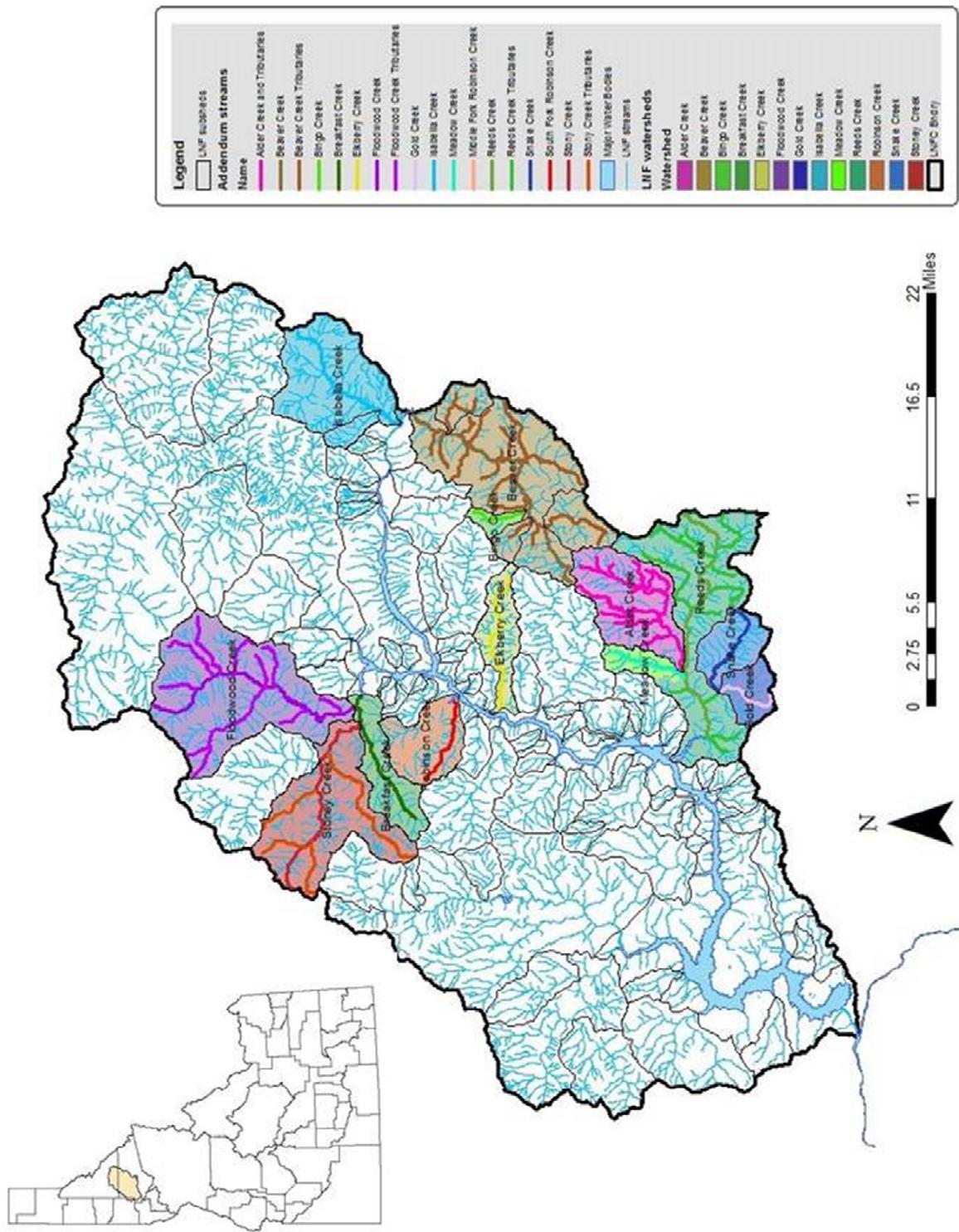


Figure 1: Location Map of Watersheds in Five Year Review and TMDL Addendum

## Background

The watersheds in the Five Year Review and TMDL Addendum have a combined acreage of 204,890, or about 25% of the total subbasin (Figure 1). They are almost entirely in Clearwater County. Elevations for these watersheds range from 1,240 feet at the mouth of Reeds Creek at Dworshak Reservoir to 6,879 feet at Mallard Peak in the Isabella Creek watershed. The land use in these watersheds is predominantly forestry—timber harvest. Primary landowners include Potlatch Corporation and the Idaho Department of Lands. A few areas are owned by the United States Forest Service. There are a few grazing leases through Idaho Department of Lands and Potlatch Corporation. No other grazing or agriculture is present in the watersheds.

Further background information on climate, slope, land use, culture, and history can be found in the Lower North Fork Clearwater River Subbasin TMDL Implementation Plan (CSWCD 2004).

## Conservation Accomplishments

Agriculture is a small portion (0.8%) of the entire Lower North Fork Clearwater subbasin. Projects that have been completed since the TMDL was issued are a ranch corral and a septic tank replacement with a private landowner and stream segment restoration on Partridge Creek. The private ranch project focused on reducing sediment, bacteria and nutrients. The Partridge Creek project focused on reducing sediment, temperature and bacteria. Other projects and their associated sediment load reductions can be found in the TMDL addendum document by DEQ.

## Resource Concerns

The resource concern for the 25 AU's in the addendum is temperature (DEQ 2012). The factors influencing shade are lack of streamside vegetation, channel morphology and anthropogenic activities (DEQ 2012).

## Treatment and Priority Areas

Treatments will include BMP's that will focus on increasing shade for the listed streams. Priority watersheds will be those that are lacking more than 20% shade. Second tier implementation will take place in the remaining watersheds listed in the Five Year Review and TMDL addendum. All implementation projects will be of a voluntary nature and as funding can be secured, which may dictate which watersheds have implementation projects first and what BMPs are installed. Individual conservation planning for willing landowners will determine the most appropriate BMPs to install on a case by case basis.

### Priority 1 Watersheds:

Reeds Creek and tributaries  
Alder Creek and tributaries  
Middle and South Fork Robinson Creek  
Gold, Meadow and Snake Creeks  
Beaver Creek and tributaries  
Bingo Creek  
Stony Creek and tributaries  
Floodwood Creek tributaries  
Breakfast Creek

### Priority 2 Watersheds:

Elkberry Creek  
Reeds Creek  
Beaver Creek  
Floodwood Creek  
Isabella Creek

## Recommended BMPs

<b>Reeds Creek and tributaries</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	4	miles
Critical Area Plantings	10	acres
Riparian Forest Buffer	3	miles
Riparian Herbaceous Buffer	3	miles
Stream Channel Stabilization	2	miles
Stream Habitat Improvement	2	miles
Streambank Protection	2	miles
Prescribed Grazing	1000	acres

<b>Alder Creek and tributaries</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	1	miles
Critical Area Plantings	10	acres
Riparian Forest Buffer	1	miles
Riparian Herbaceous Buffer	1	miles
Prescribed Grazing	1000	acres

<b>Middle and South Fork Robinson</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	1	miles
Critical Area Plantings	1	acres
Riparian Forest Buffer	1	miles
Riparian Herbaceous Buffer	1	miles

<b>Gold, Meadow, Snake Creeks</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	1	miles
Critical Area Plantings	10	acres
Riparian Forest Buffer	1	miles
Riparian Herbaceous Buffer	1	miles
Prescribed Grazing	1000	acres

<b>Beaver Creek and Tributaries</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	4	miles
Critical Area Plantings	3	acres
Riparian Forest Buffer	3	miles
Riparian Herbaceous Buffer	3	miles

Stream Channel Stabilization	2	miles
Stream Habitat Improvement	2	miles
Streambank Protection	2	miles

<b>Bingo Creek</b>	<b>Amount</b>	<b>Units</b>
Critical Area Plantings	2	acres
Riparian Forest Buffer	1	miles

<b>Stony Creek and tributaries</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	4	miles
Critical Area Plantings	3	acres
Riparian Forest Buffer	3	miles
Riparian Herbaceous Buffer	3	miles
Stream Channel Stabilization	2	miles
Stream Habitat Improvement	2	miles
Streambank Protection	2	miles

<b>Floodwood Creek and tributaries</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	3	miles
Critical Area Plantings	2	acres
Riparian Forest Buffer	2	miles
Riparian Herbaceous Buffer	2	miles
Stream Channel Stabilization	1	miles
Stream Habitat Improvement	1	miles
Streambank Protection	1	miles

<b>Breakfast Creek</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	2	miles
Critical Area Plantings	10	acres
Riparian Forest Buffer	1	miles
Riparian Herbaceous Buffer	1	miles
Stream Habitat Improvement	1	miles
Streambank Protection	1	miles
Prescribed Grazing	1000	acres

<b>Elkberry Creek</b>	<b>Amount</b>	<b>Units</b>
Channel Vegetation	2	miles
Critical Area Plantings	10	acres
Riparian Forest Buffer	1	miles
Riparian Herbaceous Buffer	1	miles
Stream Habitat Improvement	1	miles
Streambank Protection	1	miles
Prescribed Grazing	1000	acres

<b>Isabella Creek</b>	<b>Amount</b>	<b>Units</b>
Critical Area Plantings	2	acres
Riparian Forest Buffer	1	miles

## **Maintenance, Monitoring, and Evaluation**

DEQ will continue to monitor the watersheds as per Idaho Code 39-3611, at least on a 5-year interval using BURP protocol. Additional monitoring of BMP's and the maintenance of BMP's installed will be performed by the designated agency or the agency that funded the BMP installations. The Clearwater Soil and Water Conservation District follows the Natural Resource Conservation Service guidelines for BMP life expectancy and monitors BMP installations for the expected life of each practice to ensure proper maintenance of the practices. Typically, when a volunteer approaches the district for BMP assistance the district evaluates the current site-specific resource concerns. For stream projects the Stream Visual Assessment Protocol is the primary tool used to assess and evaluate stream conditions. This tool can be used during the first site visit and after installations to assess water quality benefits visually.

Since land ownership along these streams is primarily Potlatch Corporation and Idaho Department of Lands (IDL), the Clearwater Soil and Water Conservation District (CSWCD) will continue to work with these agencies to implement BMP's as funding is secured and available. The CSWCD has worked with IDL and Potlatch Corporation to implement practices in other watersheds. They have a good working relationship, which benefits all entities. Projects follow the standards set forth by IDL and the Forest Practice Act (FPA) with monitoring and maintenance on all practices.

## References

- CSWCD (Clearwater Soil and Water Conservation District). 2004. *Lower North Fork Clearwater River Sub-basin TMDL Implementation Plan*. Orofino, ID: CSWCD.
- DEQ (Idaho Department of Environmental Quality). 2012. *Lower North Fork Clearwater River Five Year Review and TMDL Addendum*. Lewiston, ID: DEQ.
- DEQ (Idaho Department of Environmental Quality). 2011. *Idaho's 2010 Integrated Report*. Boise, ID: DEQ.
- DEQ (Idaho Department of Environmental Quality). 2002. *Lower North Fork Clearwater River Subbasin Assessment and TMDL*. Boise, ID: DEQ.