

WCR11

Water Quality Monitoring Special Project Workplan Proposal - FY 2007

GENERAL INFORMATION

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Region: West Central Region

Program: Watershed

Basin: Region-wide

PROJECT INFORMATION

Project Category: 2

Activity Code: WTSK

Project Location(s): West Central Region

Watershed(s): Multiple

WORKPLAN DETAILS

1. Project Description (including what, when, where, who of project):

The goal of this project is to undertake a region wide inventory of selected West Central Region wadeable streams for inclusion on the 303d impaired water's list. Biological and chemical information targeting exceedances of state water quality standards will be collected between June and August by regional biologists assisted by a region wide SWAT team of LTEs. This information will be used to determine if any of these streams should be listed on the 303d list.

This project request supports two LTEs for 2-3 field days per week between June and August (192 hours each). WCR expects to primarily use LTEs currently hired to perform baseline monitoring as part of the fisheries team. The LTEs will assist the basin water quality biologist with the collection of fishery surveys, continuous dissolved oxygen and temperature monitoring, pH, transparency tube, and stream habitat. Basin water quality biologists will prioritize monitoring of stream sites anticipated to exceed state water quality standards by based upon existing baseline wadeable stream data and their knowledge of basin streams.

Approximately 48 to 60 sites will be evaluated (2 to 3 per day). Fishery and habitat surveys will follow the baseline wadeable stream protocol and an index of biotic integrity will be calculated for each site. Continuous dissolved oxygen monitoring will be completed in mid to late summer.

At each site, a synoptic water chemistry survey will be completed on 48 stream sites. Parameters collected include; BOD, suspended solids, nutrients and chlorophyll a. The water chemistry data will be used in conjunction with the dissolved oxygen and temperature data. Continuous dissolved oxygen meters will be deploy for 1 week periods and rotated between approximately half the sites (24).

2. Justification (why is this project necessary?):

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Since Tier I baseline monitoring site selection has recently been changed to random sites, WCR biologists have proposed this Tier II monitoring project to collect information from targeted streams where there are anticipated standard exceedances. The collection of fish, water chemistry and continuous dissolved oxygen data will also provide an opportunity to evaluate the new TALU system the Department has drafted.

Field meters have been requested to support the regional SWAT team including a field DO, pH and conductivity meter, two continuous DO recording meters with peripherals. A mini-stream boat shocker is also requested due to the limited access of backpack and stream boat shockers in the WCR.

3. Performance Measure(s) (including sample collection, report completion date, etc.):

Data collected will be evaluated using the TALU tables to determine if these streams should be listed or de-listed on the 303 (d) list. This monitoring will also provide data to aid in the future selection of eco-region reference sites. Biological, chemical and habitat data will be available by the end of summer. A final summary report will be completed for the project after all data is analyzed including fishery, habitat, temperature and continuous dissolved oxygen data from several

4. Data Storage System (work station computer, lab portal, SWIMS, FH database, etc.):

Fishery data will be entered into the fish and habitat database while other chemical and physical information is expected to be will be stored on regional server until staff are trained to use SWIMS database.

5. File Manager Responsible for Data Entry: Regional water quality staff supported by LTE hours will be responsible for data entry, evaluation and report development.

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Cost Worksheet

FY 2007

July 1, 2006 - June 30, 2007

	Hours	Cost (\$)
FTE Resources	192	
LTE Resources	384	\$4,608
Line S (supplies, contracts, travel)		2,136
UWSP Bug Contract		
SLOH Lab Services (attach lab spreadsheet)		10,432.80
Equipment <\$5,000		16,550
Capital Equipment =>\$5,000		
Subtotal DNR contributions		\$33,726.80
Partner Contributions		
Total Contributions		

Equipment purchase Breakdown.

556 DO meter with a pH probe, temp sensor and conductivity	\$3,050
Mini Stream boat shocker	\$1,500
YSI Continuous multi-probe data loggers - \$4,500 each x 2 sondes =	\$9,000
YSI Communication Device - \$2,500 each x 1 =	\$2,500
Field Communication cable - \$500 each x 1 =	<u>\$500</u>
Total	\$16,550