North Coast Regional Water Quality Control Board
Nonpoint Source Program – Five-Year Implementation Plan 2013-2018

Introduction – Region Description

The North Coast Region encompasses 12,409,600 acres (19,390 miles^2) of lands, representing all or part of Sonoma, Mendocino, Humboldt, Siskiyou, Trinity, Del Norte, Marin, Modoc and Glenn counties. Watersheds include the Klamath River and its major tributaries: Scott River, Shasta River, Salmon River and the Trinity River; Smith River, Redwood Creek, Little River, Mad River, Eel River, Van Duzen River, Mattole River, Big River, Noyo River, Gualala River, Garcia River, Russian River, and the coastal rivers and creeks that flow into the Pacific.

The North Coast Region is characterized by distinct geographic and climate zones with differing rainfall patterns and temperature levels. The low Coast Ranges along the Pacific reach to over 5200 feet. The climate is moderate and foggy and with moderate temperature variations. For example, at Eureka, the average summer temperature high has not exceeded 64°F for the period of record. Inland summer temperatures can exceed 110°F in the lower-lying areas, with winter temperatures reaching below 20°F.

Precipitation in the North Coast Region exceeds any other part of California, and damaging floods are a fairly frequent hazard. The North Coast Region includes 12 percent of the State's land area, yet is the source of 40 percent of the State's total runoff. The streams and rivers of the Region are home to important fish species, including salmon and steelhead, many of them listed as threatened or endangered under the Federal Endangered Species Act. The majority of North Coast watersheds are listed as sediment impaired, and to a lesser degree temperature-impaired, under Section 303(d) of the Federal Clean Water Act. These impairments are due to past and current land use activities, unstable and highly erodible geologies, and abundant winter rainfall. Because of the Region's largely rural nature, many of the existing and potential pollution impacts are from such nonpoint source land use activities as rural roads, logging, grazing, agriculture, and the like.

This workplan is a planning document meant to guide activities. The target dates given are approximate and may change depending upon a variety of internal and external factors.

a. Initiative 1.1 – Ownership/Watershed WDRs for Timber Harvest and Nonpoint Source Activities

1. Initiative Description
   The North Coast Regional Water Quality Control Board (Regional Water Board) has been successful at adopting and implementing timber harvest WDRs on both an ownership basis (Green Diamond) and watershed basis (the most recent example being Bear Creek.) The Board and staff have committed to a number of these regulatory actions, which are an efficient and predictable method of ensuring such activities are protective of water quality.

2. Needs Statement

   The Regional Water Board has been active in regulating discharges from logging and associated activities since 1972. Our role in regulating discharges from timber harvesting activities is consistent with the abundance of timber and water resources in the North Coast Region. The North Coast Region includes 12 percent of the State's land area, yet produces 48 percent of the private timber harvested within the State and 40 percent of the State's total runoff.

   Timber harvesting activities with the greatest potential to impact waters of the State include: felling, yarding, and hauling of trees; road construction and reconstruction; watercourse crossing construction, reconstruction, or removal; and herbicide applications. Excessive vegetation alteration, soil erosion, and sediment delivery associated with these activities can impact the beneficial uses of water by silting over fish spawning habitats; clogging drinking water intakes; filling in pools creating shallower, wider, and warmer streams, and increasing downstream flooding; creating unstable stream channels; and losing riparian habitat and function. Timber harvesting in the riparian zone can adversely affect stream temperatures by removing stream shading, especially important for maintaining cold water beneficial uses in temperature-impaired waterbodies.

3. Goals and Objectives

   To continue to extend NPS permit coverage to timber harvest activities on private land and other nonpoint sources on federal lands, on an ownership or watershed basis. These permits can build on, and compliment, Habitat Conservation Plans, in the case of Green Diamond Resource Company (GDRCo), Humboldt Redwood Company, and Mendocino Redwood Companies.

4. Proposed Activities

   a) The Non-Federal Timber Harvest Waiver was adopted in 2009, and will expire in 2014. Staff shall revise the permit and bring it to the Board to consider adoption.
   b) The “Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands” (US Forest Service Waiver) was adopted in 2010, and will expire in 2015. Staff will revise the permit and bring it to the Board to consider adoption.
   c) Humboldt Redwood Company (formerly Pacific Lumber) owns significant holdings in five watersheds that were determined to be undergoing cumulative effects from timber harvest activities. In order to allow harvesting, and associated restoration efforts, we need to issue watershed WDRs (WWDRs) for Stitz Creek and Jordan Creek watersheds. Two other watersheds, Elk River and Freshwater Creek, have existing WWDRs, but they are out of date and need significant revision. They are important implementing mechanisms for the upcoming TMDLs.
   d) Mendocino Redwood Company has significant timber holdings (formerly owned by Georgia-Pacific) in Mendocino and Sonoma Counties. They are in the process of completing an Aquatic Habitat Conservation Plan (HCP) for the wildlife agencies. As we did with Green Diamond and their HCP, we propose to develop the ownership WDR (OWDR) to incorporate and reflect the heightened

protection measures that are part of the HCP.

5. Performance Measures (Metrics)
   The dates reflected below are estimates. Revised estimates will be reflected in annual updates.

   a) Non-Federal Timber Harvest Waiver
      i. Develop revised permit: outreach, stakeholder meetings, workshops – March 2014
      ii. Bring revised permit to the Board to consider adoption – June 2014
   b) U.S. Forest Service Nonpoint Source Waiver
      i. Develop revised permit: outreach, stakeholder meetings, workshops – March 2015
      ii. Bring revised permit to the Board to consider adoption – June 2015
   c) Jordan Creek Watershed WDR
      i. Develop new permit: review ROWD, meetings with HRC, Board or Staff Workshop –January 2014
      ii. Adopt new permit: bring permit to the Board to consider adoption – March 2014
   d) Stitz Creek Watershed WDR
      i. Develop new permit: review ROWD, meetings with HRC, Board or Staff Workshop –January 2015
      ii. Adopt new permit: bring permit to the Board to consider adoption – March 2015
   e) Elk River Watershed WDR
      i. Develop new permit: review ROWDs, meetings and outreach with HRC, GDRCo, and other watershed stakeholders, conduct Board Workshops – October 2014
      ii. Adopt new permit: bring permit to the Board to consider adoption – December 2014
   f) Freshwater Creek WDR
      i. Develop new permit: review ROWDs, meetings and outreach with HRC, GDRCo, and other watershed stakeholders, conduct Board Workshops – January 2016
      ii. Adopt new permit: bring permit to the Board to consider adoption – March 2016
   g) Mendocino Redwoods Company Ownership WDR
      i. Develop new permit: review ROWD, meetings and outreach with MRC and other watershed stakeholders, conduct Board Workshops –March 2017
      ii. Adopt new permit: bring permit to the Board to consider adoption – June 2017

b. **Initiative 1.2 – Water Quality Compliance Program for Discharges from Agricultural Lands**

1. Initiative Description
   The Regional Water Board is in various stages of developing and implementing a Program to address discharges from agricultural lands in the North Coast Region, with focused efforts on discharges from vineyards, orchards, lily bulbs, marijuana,

dairies, grazing, and agriculture in the Scott River, Shasta River, Tule Lake, and Butte Valley watersheds. Individual permitting efforts to address specific water quality concerns from nurseries and other agricultural discharges are also part of the Program.

2. Needs Statement
   The North Coast Region has more than 360,000 acres of agricultural land and contains surface waters and groundwaters that are, or may be, affected by discharges of waste from agricultural lands and other controllable water quality factors. Types of waste and controllable factors associated with activities on agricultural lands include, but are not limited to nutrients, pesticides, pathogens, sediment, and organic matter. Types of discharges from agricultural lands that may contain waste include, but are not limited to, tailwater, storm water, infiltration to groundwater, subsurface drainage water, tile drainwater, and frost protection water.

3. Goals and Objectives
   The objective of the Program is to prevent and minimize water quality impacts associated with agricultural lands in the North Coast Region. The goals are to address the agriculture-related water quality issues and to meet the requirements of the California Water Code, the State Nonpoint Source Implementation and Enforcement Policy, and the Klamath River and other Total Maximum Daily Loads.

4. Proposed Activities
   Regional Water Board staff recently revised the proposed approach to permitting agricultural discharges from one, region-wide permit to a series of separate permits tailored to specific commodities or geographic areas. The proposed activities are as follows:
   a) Vineyards and Orchards: Develop and adopt general WDRs or a general Waiver of WDRs for discharges from vineyards and orchards throughout the region, although the majority of such agriculture is located in Sonoma and Mendocino counties.
   b) Lily Bulbs: Develop and adopt general or individual WDRs for discharges from lily bulb cultivation throughout the region, although all the lily bulbs are currently grown in a small area in Del Norte County.
   c) Tule Lake Watershed: Develop and adopt general or individual WDRs for discharges from agricultural lands in the Tule Lake watershed in Siskiyou and Modoc counties.
   d) Dairy Program: Implement and renew the existing general WDR, general Waiver, and NPDES permits for discharges from dairy lands throughout the region.
   e) Scott and Shasta River Watersheds: Implement and renew the existing TMDL Waivers of WDRs in the Scott River and Shasta River watersheds in Siskiyou County.
   f) Butte Valley: Investigate groundwater and surface water impacts from agricultural activities in Butte Valley, Siskiyou County.
   g) Grazing: Work with the statewide Grazing Regulatory Action Plan team to develop options for addressing discharges from grazing lands throughout the region.

h) Facilitate grant funding, outreach, and public education on the potential discharges of waste and resulting water quality impacts from large-scale marijuana cultivation on private properties. Research and consider pursuing regulatory options for discharges of waste from marijuana cultivation on private land. Continue our coordination with other agencies, including law enforcement, to take enforcement actions as needed, with a focus on marijuana activity on public lands.
i) Other Agricultural Discharges: Develop individual WDRs or appropriately enforce to address discharges from other types of agriculture in the region, including nurseries.

The details of the program are still in development.

5. Performance Measures (Metrics)
The dates reflected here are estimates. Timelines and scopes of work for several of the commodity/area-specific permits have not yet been developed. Revised estimates will be reflected in annual work plans.

a) Vineyard and Orchard General WDRs or waiver
    i. Develop new permit: outreach, stakeholder meetings, workshops – August 2017
    ii. Adopt new permit: bring new permit to the Board to consider adoption – October 2017
b) Lily Bulbs – General or individual/co-permit WDR
    i. Develop new permit: outreach, stakeholder meetings, workshops – August 2015
    ii. Adopt new permit: bring new permit to the Board to consider adoption – October 2015
c) Tule Lake Watershed General WDR or waiver
    i. Develop revised permit: outreach, stakeholder meetings, workshops – August 2016
    ii. Adopt new permit: bring new permit to the Board to consider adoption – October 2016
d) Dairy Program
    i. Implementation of existing permits is ongoing
    ii. Revisions, as necessary, of Waiver, and consideration of revisions to General WDR, and NPDES permits: outreach, stakeholder meetings, workshops – October 2016
    iii. Bring revised permits to the Board to consider adoption – January 2017
e) Scott and Shasta River Watersheds TMDL Waivers
    i. Develop revised permits: outreach, stakeholder meetings, workshops –June 2017
    ii. Bring revised permit to the Board to consider adoption – October 2017
f) Butte Valley – Complete water quality investigation – July 2016
g) Marijuana –
    i. Attend regular meetings of County Enforcement Task Forces
        1. Sonoma County – Host and attend six meetings per year
        2. Mendocino County – Attend four meetings per year
        3. Humboldt County – Attend four meetings per year

4. Trinity County – Attend four meetings per year
5. Federal Enforcement Task Force – Attend meetings as held

ii. Support development and publication of informative materials, such as FAQ and brochures, in cooperation with other agencies
iii. Support development of web-based materials – December 2014
iv. Annual updates to the Regional Water Board on progress
v. Education and outreach – Ongoing, plus Regional Water Board updates on progress and outcomes – Annually

c. Initiative 1.3 – Mendocino County Permit Coordination Program/Wood for Salmon

1. Initiative Description

The Mendocino County Permit Coordination Program (MCPCP) was developed to promote the implementation of high-quality conservation and restoration projects on farms, ranches, and forestland throughout the watersheds of Mendocino County. Projects implemented through the PCP are designed to improve and restore instream habitat for aquatic species, control erosion and sediment discharges, stabilize eroding streambanks, promote native vegetation growth, and enhance aquatic and terrestrial habitat that may be affecting water quality and beneficial uses. The MCPCP was developed through a partnership between the Mendocino County Resource Conservation District (RCD) and Natural Resources Conservation Service (NRCS) to provide technical, financial, and permitting assistance to landowners seeking to make environmental improvements on their lands. The MCPCP is based on a successful model[1] of coordinated, multi-agency regulatory review designed to ensure the integrity of agency mandates, while making permitting more accessible for working landscapes than the traditional process. The Regional Water Board recognizes the benefits provided to landowners by working with the District through the MCPCP and how conservation and restoration actions contribute towards TMDL implementation in sediment and temperature-impaired watersheds. The U.S. EPA has established sediment and/or temperature TMDLs for the following watersheds that are included within the MCPCP domain: Albion River, Big River, Eel River-Upper Main, Eel River-Middle Main, Eel River-Middle Fork, Eel River-South Fork, Garcia River, Gualala River-North Fork, Mattole River, Navarro River, Noyo River, Upper Russian River, and Ten Mile River.

2. Needs Statement

Many of the watersheds of Mendocino County are listed under Section 303(d) of the Clean Water Act due to excess sediment and elevated temperatures, primarily attributed to mid-20th century land use practices that lacked adequate environmental protections for streams and rivers. In addition to being listed as impaired, many of these watersheds also include threatened and/or endangered salmonids such as coho salmon, Chinook salmon, and steelhead trout. It is widely recognized that the current process to secure state and federal permits, as well as associated costs for implementation of conservation and restoration activities, can

[1] The PCP is an expansion of the *Navarro River Watershed Permit Coordination Program* developed by the District and NRCS and adopted by the NCRWQCB in March 2003 via Order No. R1-2003-0009.

impede a landowner's intentions to conduct beneficial projects on their lands that improve beneficial uses and conditions for aquatic species.

3. Goals and Objectives
   The intent of the MCPCP and the associated conservation and restoration practices is to reduce erosion and sedimentation, enhance habitat values, and promote the implementation of key recovery actions identified in state and federal recovery plans for endangered salmonids in the watersheds of Mendocino County. To assist landowners with regulatory compliance, the RCD seeks to offer "one-stop permit shopping" to assist landowners who agree to work under the guidance of the District to achieve water quality and habitat conservation and restoration goals. Once this permit is developed and adopted, it is hoped that the lessons learned can be used to develop like permits throughout the Region.

4. Proposed Activities
   Proposed conservation practices will include actions such as: erosion control on roads, critical area planting with native vegetation, instream habitat improvements such as wood debris augmentation and boulder clusters, grade stabilization of gullies or eroding channels, road and landing decommissioning, bioengineering practices, and stream crossing upgrades.

   Another effort, the Wood for Salmon Workgroup, includes several state and federal agencies, non-governmental agencies, and stakeholders. These include:

   <u>Federal Agencies:</u>
   National Oceanic and Atmospheric Administration (NOAA)
   Army Corps of Engineers (ACOE)
   U.S. Fish and Wildlife Service (USFWS)
   Natural Resources Conservation Service (NRCS)

   <u>State Agencies:</u>
   CAL FIRE
   California Department of Fish and Wildlife (CDFW)
   California Geological Survey (CGS)
   State Water Resources Control Board (SWRCB)

   <u>Non-Regulatory Agencies:</u>
   Mendocino County Resource Conservation District
   U.C. Cooperative Extension

   <u>Non-Profit Organizations:</u>
   The Nature Conservancy
   The Conservation Fund
   Trout Unlimited
   Sustainable Conservation

   <u>Stakeholders:</u>
   Alnus Ecological
   Campbell Timberland Management

The purpose of the Wood for Salmon effort is to streamline permitting for the introduction of large wood into coastal Mendocino streams.

5. Performance Measures (Metrics)

MCPCP

a) Permit Development
    i. Regional Water Board staff will develop one programmatic permit for the MCPCP to cover waste discharge requirements and a general 401 water quality certification – September 2013
    ii. Work with state and federal agencies in developing programmatic permits – conduct up to 25 conservation and restoration practices per year, with up to 250 projects being completed by the end of the ten-year period – 100 projects in five years.
b) Permit Adoption –December 2013.

Wood for Salmon

a) Participate with other state and federal agencies, environmental non-profits, and stakeholders, in regularly scheduled Wood for Salmon Working Group meetings. Meeting minutes shall be maintained and utilized for ongoing facilitation of action items, next steps, and public outreach activities – Three (3) meetings per year, with minutes.
b) Conduct outreach to other state and federal agencies, environmental non-profits, and stakeholders on the Water Board's restoration permitting process. Provide interested parties information relative to large wood restoration permitting.
c) Provide ongoing technical and planning support to the State Water Resources Control Board leading to their revision of the General 401 small habitat restoration permit – June 2014.
d) Participate in at least one public workshop, conference, or training each year to educate state and federal agencies, environmental non-profits, and stakeholders about the various permitting pathways for large wood restoration projects – One per year.
e) Help to coordinate, permit, and seek funding to facilitate the implementation of four large wood restoration projects per year – Four per year, 20 total.

c. Initiative 1.4 – Watershed Stewardship Approach

1. Initiative Description

The Watershed Stewardship Approach will result in enhanced capabilities for the Regional Water Board to develop comprehensive and collaborative water quality improvement measures that support all program areas and increase the level of coordination with other agencies, entities, and programs. The initiative is based on defined watershed management areas and is intended to promote collaboration among participants. This approach is already being utilized in varying degrees within the Klamath, Shasta, and Garcia River watersheds. This initiative would recognized these existing efforts, and expand the approach, identifying stewardship leads within a select group of Mendocino County coastal watersheds, then actively working with these leads to develop the watershed

stewardship frameworks. The steps associated with the watershed stewardship approach adaptive management cycle are illustrated in Figure 1 below.

2. Needs Statement
   The goal of the watershed stewardship approach is to establish collaborative frameworks within select North Coast watersheds to promote water quality protection and improvement activities.

   The North Coast Regional Water Board has adopted Total Maximum Daily Loads (TMDLs) for many watersheds, and more are in development. The primary pollutant sources identified in most TMDLs are from non-point sources of pollution. TMDL assessments have shown that some of the impairment to North Coast waterbodies is the result of legacy sources of pollutants for which no responsible party can be identified. In addition, the Regional Water Board has been adopting tools such as waste discharge requirements, waivers and policies (e.g., Temperature Policy) to facilitate actions to address NPS pollution. The 319(h) grant process also requires applicants to take a watershed approach. This is consistent with the fact that NPS controls require close collaboration with land managers, and an inherent uncertainty with NPS targets. Therefore a watershed approach with an adaptive management component is an essential element of improving water quality conditions in our Region.

3. Goals and Objectives
   The initiative will build partnerships with other programs, agencies and organizations through the watershed stewardship framework, and coordinate resources for: partnership building, assessment, monitoring, project identification and implementation, reporting, and adaptive management. Objectives include:
   - Broader participation and integration with watershed stewardship participants;
   - Improved and optimized monitoring networks within participating watersheds;
   - More comprehensive assessments to support problem identification and project priorities;
   - Increased transparency and distribution of watershed stewardship information through use of web-based reporting and documentation of assessments and activities;
   - Increased level of resources for project activities through coordinated funding and activities;
   - Improved tracking and documentation of stewardship activities of watershed stewardship participants; and
   - Actual use of adaptive management principles to update implementation activities by comparing water body assessments to anticipated outcome of stewardship activities.

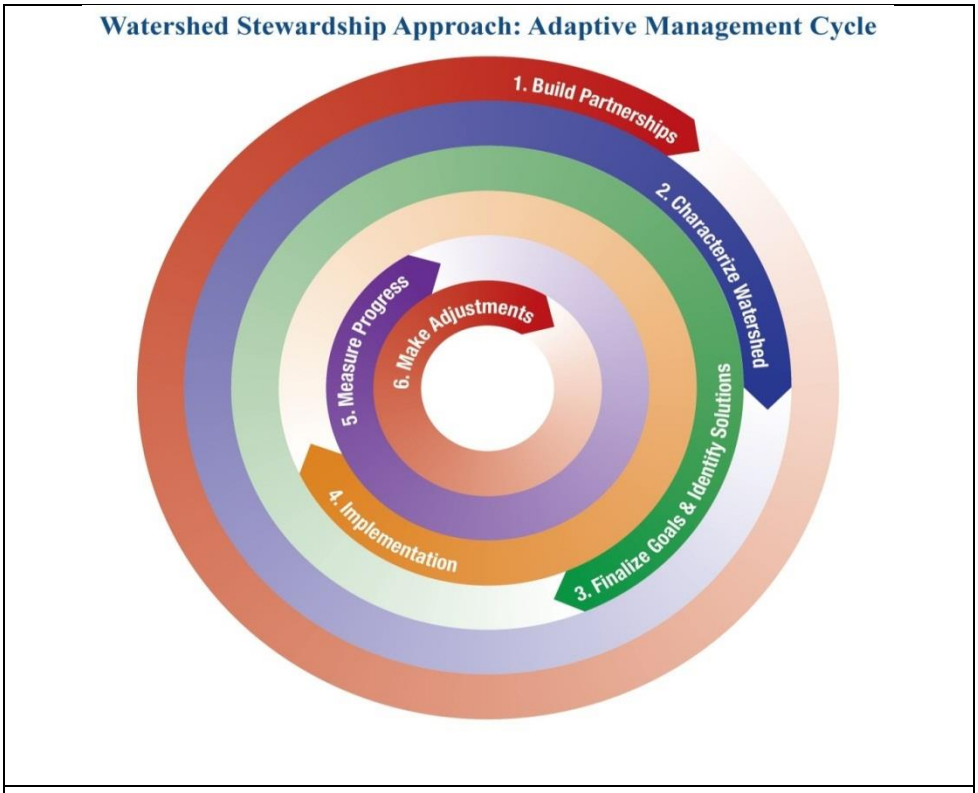

Figure 1. Steps involved in the watershed stewardship approach

4. Proposed Activities

The Regional Water Board is already utilizing a stewardship approach in varying degrees within the North Coast Region, including the Klamath, Shasta, and Garcia River watersheds. In addition to continuing ongoing efforts in these watersheds, we plan to expand these initial efforts of the stewardship approach to the coastal tributaries of Mendocino County, between the Russian River and the Mattole River. 303(d)-listed watersheds include Noyo, Big, Albion, Navarro, Ten Mile, Gualala, and Garcia Rivers. We will identify watershed stewardship leads within selected watersheds and establish agreements to develop and implement watershed stewardship frameworks with local lead entities. The Regional Water Board, in conjunction with stewardship partners, will develop implementation guidance for each step of the adaptive management cycle.

Regional Water Board staff will be assigned to serve as watershed stewardship leads in the pilot watersheds. They will support the development of watershed stewardship approaches using this framework. This initiative will complement our Initiative 1.3 – the *Mendocino County Permit Coordination Program/Wood for Salmon* Initiative, which is focused on Mendocino County watersheds.

The Regional Water Board Watershed Stewardship leads will work with the local lead entities to build the capability to manage the adaptive management framework. The steps of the watershed management cycle will require specific tasks to build this capability. A list of activities by step is provided below. The exact set of activities below each step will be tailored to each watershed. Not all watersheds will receive the exact same set activities.

a) Building Partnerships
    i. Develop stakeholder outreach strategy that identifies potential participants;
    ii. Develop web site to host information regarding the watershed stewardship approach;
    iii. Describe mission and objectives for local watershed stewardship that is inclusive;
    iv. Propose organizational structure and procedures for stakeholder involvement;
    v. Identify physical meeting space; and
    vi. Conduct quarterly meetings of watershed stewardship partnership.
b) Characterize the Watershed
    i. Compile GIS data layers regarding important watershed components (e.g., natural vegetation, land use, roads, hydrology, etc.) and prepare watershed stewardship base maps;
    ii. Compile existing water quality and fisheries data, format, and conduct quality assurance;
    iii. Inventory and describe existing watershed stewardship projects; and
    iv. Conduct assessment of existing conditions which includes identification of key questions, missing information, and uncertainties.
c) Identify Problems and Develop Solutions
    i. Conduct stakeholder meetings to establish water quality priorities;
    ii. Describe water quality priorities and proposed project matrix; and
    iii. Provide conceptual design plan for proposed projects with proposed roles for participants.
d) Implement
    i. Develop collaborative agreements to implement priority projects; and
    ii. Conduct at least one collaborative stewardship project that addresses one of the top three project priorities identified in item (c) above.
e) Measure and Evaluate Progress
    i. Identify organizations conducting monitoring within the watershed and describe their activities (location of stations, purpose, parameters sampled, etc.);
    ii. Develop collaborative monitoring plan for status and trends, to evaluate stewardship project status, and to address key information needs; and
    iii. Establish procedures for updating water quality priorities.

5. Performance Measures (Metrics)
Each watershed is expected to complete the a) – e) performance measures. The exact sub-metrics below each performance measure will be tailored to each watershed. Not all watersheds will accomplish the same set of sub-metrics, and there could be others used which are not detailed below.
a) Building Partnerships
    i. Develop and implement stakeholder outreach strategy – June 2014
    ii. Maintain list of members / participants – January 2015
    iii. Establish a web page – June 2014
    iv. Describe organization structure and charter – June 2014
    v. Hold meetings and take meeting minutes – Thrice annually
b) Watershed characterization

i. Post description of watershed to website –May 2014
ii. Perform water quality assessment – July 2014
iii. Describe water quality priorities – December 2014
iv. Describe watershed stewardship projects – December 2014
v. Develop list of key questions, uncertainties and missing information – December 2014

c) Identification of Problems and Develop Solutions
   i. Action items of priority setting and project development meetings – December 2014
   ii. Priority project matrix – December 2014
   iii. Priority Project conceptual design plan – December 2014
d) Implement
   i. Reach agreements on collaborative implementation – December 2014
   ii. Document project progress – December 2014
e) Measure and Evaluate Progress
   i. Collaborate on developing monitoring plan – December 2014
   ii. Provide description of adaptive management procedures – December 2014