North Coast Resource Partnership

Policy Review Panel (PRP) & Technical Peer Review Committee (TPRC) Meeting
April 16, 2015; 10 am – 3 pm; Holiday Inn Express, Yreka

BACKGROUND INFORMATION AND RECOMMENDATIONS

The following items correspond to the North Coast Resource Partnership (NCRP) agenda for April 16, 2015 per agenda order and item number. The items below include background information for agenda items that require additional explanation and in some cases include recommendations for action. The meeting agenda and other meeting materials can be found on the NCRP website at http://www.northcoastresourcepartnership.org/app_folders/view/8837

Item. V. Proposition 84 IRWM 2015 Project Solicitation

Background: Proposition 84, Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 provide $900 million in regional funds to be allocated to 11 California Funding Areas. The North Coast's allocation is $37 million with approximately $11M remaining. On March 13, 2015 the California Department of Water Resources (DWR) released the Draft 2015 Integrated Regional Water Management (IRWM) Program Guidelines and Draft 2015 Proposal Solicitation Package (PSP) for the last round of Proposition 84 funding. The final DWR 2015 IRWM Guidelines and 2015 PSP are expected to be released in late May 2015. Release of the final guidelines and PSPs may result in changes to the North Coast Resource Partnership (NCRP) Project Review and Selection Process Guidelines and application materials. Information about IRWM program, guidelines and PSPs can be found at http://www.water.ca.gov/irwm/grants/p84implementation.cfm.

Item VI. NCRP Project Review and Selection Process Guidelines & NCRP Proposition 84 2015 Project Application materials (DECISION)

Background: During the NCRP Meeting in October 2014, the PRP directed staff to work with the TPRC and Executive Committee to develop improvements to the project review and selection process for consideration as an update to the NCRP Project Review and Selection Process Guidelines. A list of NCRP project review and selection process improvement recommendations and feedback was compiled from

NCRP meetings, project proponents, a Tribal representatives meeting held on November 14, 2014 and from the TPRC Project Review de-brief meeting held on June 10, 2014 in Eureka. In November of 2014 staff provided this list of process improvements to the TPRC for additional input. Based on the input, updated Guidelines were provided to the TPRC for review in December 2014. Updated Guidelines were presented for review and discussion during the NCRP meeting in January 2015.

In response to the release of the draft IRWM Program Guidelines and Draft 2015 Proposal Solicitation Package, staff worked with the TPRC Co-chairs to update the NCRP Project Review and Selection Process Guidelines and develop the NCRP Proposition 84 2015 Project Application materials for review by the TPRC. On April 6, the TPRC met to discuss and revise the materials which can be found herein as:

- Attachment A - NCRP 2015 Project Review and Selection Process Guidelines
- Attachment B - NCRP 2015 Project Proposal Scoring Criteria
- Attachment C - NCRP Proposition 84 2015 Project Application materials

TPRC Recommendation: The NCRP TPRC recommends approval of the 2015 NCRP Project Review and Selection Process Guidelines, NCRP 2015 Project Proposal Scoring Criteria and the NCRP 2015 Project Application materials (see Attachments A, B & C) to allow for the commencement of the NCRP 2015 Project Solicitation and development of a regional NCRP 2015 Grant Application which is expected to be due to DWR in early August. The recommendation includes approval to allow minor changes made by staff with input from the TPRC Co-chairs to the NCRP Project Review and Selection Process Guidelines and NCRP 2015 Project Application materials, if necessary, to comply with the final DWR IRWM 2015 Guidelines and 2015 Project Solicitation PSP expected to be released in May.

The TPRC requests PRP review, consideration and direction for the following items:

Scoring Criteria for Projects that Address Long-Term Drought Conditions

Background: Eligible projects under the final round for Proposition 84 funding must yield multiple benefits and include one or more of the following elements. The draft DWR 2015 Project PSP provides extra points for projects in regional proposals that address long-term drought conditions as their primary purpose.

- Water supply reliability, water conservation, and water use efficiency
- Drinking water treatment and distribution
- Stormwater capture, storage, clean-up, treatment, and management
- Non-point source pollution reduction, management, and monitoring
- Groundwater recharge and management projects
- Contaminant and salt removal through reclamation, desalting, and other treatment technologies and conveyance of reclaimed water for distribution to users
- Water banking, exchange, reclamation, and improvement of water quality
- Non-point source pollution reduction, management, and monitoring
- Planning and implementation of multipurpose flood management programs
- Watershed protection and management

- Removal of invasive non-native species, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands
- Ecosystem and fisheries restoration and protection

For PRP consideration: The TPRC recommends giving preference to projects that effectively address long-term drought preparedness by providing a weighting factor of 2 to the Drought Preparedness scoring criteria, allowing up to 10 out of 7p points to drought preparedness projects. See Attachment C for the proposed NCRP 2015 Project Proposal Scoring Criteria.

Special Consideration for NCRP 2015 Project Solicitation

During the April 17, 2014 meeting the PRP directed that the NCRP 2014 Drought Solicitation grant would be considered phase one of two funding phases. Their intention in creating two linked funding phases was to ensure regional representation in project selection for the remaining Proposition 84 Implementation funding. During the final 2015 Proposition 84 Implementation Funding round, project selection will take into account the location of the NCRP 2014 Drought Projects. Following is a table depicting the NCRP 2014 Drought Projects and funding amounts per county and Tribal region. Please note that 3 projects crossed county lines; these project proponents were contacted to determine the proportion of funding to be spent in each county to determine the full funding amount per county.

County / Tribal Region	Funding Amount	Percentage
Del Norte County	$438,060	5.30%
Humboldt County	$1,531,700	18.53%
Mendocino County	$4,558,293	55.15%
Modoc County	$0	0.00%
Sonoma County	1,310,573	15.86%
Siskiyou County	$0	0.00%
Tribal - Northern Region	$201,770	2.44%
Tribal - Central Region	$0	0.00%
Tribal - Southern Region	$0	0.00%
Trinity	$224,604	2.72%
	$8,265,000	**100.00%**

For PRP consideration: The TPRC requests clarifying direction about how to interpret this previous direction.

NCRP Proposition 84 2015 Project Solicitation schedule

This schedule is subject to change based on new information and the final 2015 IRWM Guidelines and final 2015 PSP expected to be released by DWR in May.

- March 13: DWR release Draft IRWM Guidelines and 2015 Proposal Solicitation Package
- April 20 – May 29: NCRP 2015 Project Proposal Solicitation
- May: DWR release Final IRWM Guidelines and 2015 Project Solicitation Package

- May 4 - 8: Informational & Technical Assistance Workshops held throughout the North Coast Region
- May 29: NCRP 2015 Project Proposals due
- June 1 – June 21: TPRC Project Implementation Proposal review
- June 25 & 26: TPRC Project Review meeting
- **July 2: NCRP PRP & TPRC meeting, Weaverville**
- Early August (subject to change): NCRP 2015 Project Application due to DWR

For PRP consideration: To allow staff and project proponents enough time to prepare a complete NCRP 2015 Project proposal by the expected due date of early August, the PRP will need to approve the final Priority Project suite in early July and requires that the quarterly July NCRP meeting be rescheduled. In March, staff polled PRP members for their availability for a meeting in early July and July 2 was selected as the date with the most PRP members able to attend.

IX Strategic Growth Council Sustainable Communities Planning Grant

IX. i Status Update

Karen Gaffney will provide an update on the status of the SGC grant and progress since the last NCRP meeting, including research, contract process for technical experts, interviews with agency staff, and review of other relevant plans.

IX. ii Round Table Discussion: North Coast Vision and Opportunities Moving Forward

The SGC planning grant awarded to the North Coast Resource Partnership (current working title*: Healthy Communities, Functional Watersheds and Viable Economies)* presents an opportunity for the region to address a broad suite of issues. The SGC program which funded this grant is focused on implementing the requirements of SB 375 – legislation which tiers off of AB 32 with the intent of reducing GHG emissions while achieving other community benefits.

Unlike other more populated parts of California, the North Coast is not required to develop a Sustainable Communities Strategy such as those required for the Bay Area and other densely populated metropolitan regions. The NCRP therefore has significantly more latitude in the development of this plan and will tailor the plan to the unique needs and character of the diverse, rural North Coast region. In keeping with previous Policy Review Panel direction, the NCRP has built into this grant the ability for counties and Tribes within the region to opt out of particular thematic areas that are not relevant to them, and to review and revise sections of the plan as they are developed to ensure that plan sections reflect the unique objectives of each county and Tribe.

Following is a list of the objectives that were included in the PRP approved grant application for *Healthy Communities, Functional Watersheds and Viable Economies:*

A. Improve air and water quality
B. Promote public health
C. Promote equity
D. Increase housing affordability
E. Protect natural resources and agricultural lands
F. Reduce automobile usage and fuel consumption
G. Improve infrastructure systems (water/wastewater, broadband, energy, waste, transportation, natural infrastructure)
H. Promote water conservation
I. Promote energy efficiency and conservation
J. Strengthen the economy

In advance of hiring technical experts and developing a detailed annotated outline for the plan, **staff would appreciate the perspective of the PRP and TPRC on the most important opportunities and challenges facing the region that are related to the above objectives**. After a round-table discussion at this meeting, staff expects to conduct detailed follow-up interviews with all PRP and TPRC members, and key regional stakeholders. Following are some questions that may help to guide the discussion:

a) Of the above listed objectives, which are the highest priorities for the North Coast Region?
b) How can the NCRP build on existing work to most effectively address the above objectives?
c) Do you have specific recommendations on how best to address particular objectives?
d) Are there some objectives which are of concern to your county or Tribe?
e) Are there objectives missing which should be added or expanded upon?

IX. iii. Consider Name for SGC grant funded plan: discuss options

The SGC grant application was approved by the PRP and was submitted with the following name: *Healthy Communities, Functional Watersheds and Viable Economies.* Given the amount of time that passed between the application and grant award, the PRP may wish to consider an update or revision to the name for this plan. Alternatively, the PRP may wish to continue to use the working title and revisit the final name for the plan at a future date as more information becomes available.

IX. iv. Ad Hoc Committee

With previous planning grant awards, the NCRP Policy Review Panel has convened an Ad Hoc Committee comprised of TPRC and PRP members to provide the following:

a) Technical review of plan sections prior to review by the full PRP and TPRC and public;
b) Development of criteria for the award of sub-grants to Tribes, counties or their designees.

NCRP staff recommends that the PRP form an Ad Hoc committee for the SGC grant implementation. This committee would be disbanded at the end of the grant period.

Item X. Updates

Item X. iii. Marijuana Ad Hoc Committee Update

During the January 15 NCRP meeting, staff was directed to send out an invitational poll to gage interest in a North Coast marijuana issue ad hoc committee to be chaired by Supervisor Morris that would report to the Executive Committee regarding pending legislation and future steps for the NCRP. Supervisor Lovelace, Supervisor Gjerde and Javier Silva all expressed interest in the ad hoc committee.

Following is recent information and pending legislation relevant to the North Coast.

In March, a report titled "Impacts of Surface Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds" was published by the California Department of Fish and Wildlife (CDFW). The study was conducted in Humboldt and Mendocino counties by CDFW's Watershed Enforcement Team, a multi-agency pilot project that includes CDFW (Eureka) and the National Marine Fisheries Service (Arcata). Following is the Abstract.

> *Marijuana (Cannabis sativa L.) cultivation has proliferated in northwestern California since at least the mid-1990s. The environmental impacts associated with marijuana cultivation appear substantial, yet have been difficult to quantify, in part because cultivation is clandestine and often occurs on private property. To evaluate the impacts of water diversions at a watershed scale, we interpreted high-resolution aerial imagery to estimate the number of marijuana plants being cultivated in four watersheds in northwestern California, USA. Low altitude aircraft flights and search warrants executed with law enforcement at cultivation sites in the region helped to validate assumptions used in aerial imagery interpretation. We estimated the water demand of marijuana irrigation and the potential effects water diversions could have on stream flow in the study watersheds. Our results indicate that water demand for marijuana cultivation has the potential to divert substantial portions of streamflow in the study watersheds, with an estimated flow reduction of up to 23% of the annual seven day low flow in the least impacted of the study watersheds. Estimates from the other study watersheds indicate that water demand for marijuana cultivation exceeds streamflow during the low-flow period. In the most impacted study watersheds, diminished streamflow is likely to have lethal or sub-lethal effects on state- and federally-listed salmon and steelhead trout and to cause further decline of sensitive amphibian species.*

Citation: Bauer, Scott, et al. "Impacts of surface water diversions for marijuana cultivation on aquatic habitat in four northwestern California watersheds." *PloS one* 10.3 (2015): e0120016. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0120016

Pending Legislation

California A.B. 243 Assembly Member Jim Wood. Marijuana Watershed Protection Act.

This bill would ensure that medical marijuana farms are using best practices while cultivating and would minimize their impact on natural resources by requiring the Regional Water Quality Control Board to develop environmental protection regulations to address environmental and water impacts of indoor and outdoor medical marijuana growing operations.

Status: Last amended on April 8, 2015; Committee hearing date April 15, 2015
Info from: http://leginfo.legislature.ca.gov/faces/billVersionsCompareClient.xhtml

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Item X. v. Executive Committee, PRP direction and staff action

Executive Committee Action documents and materials can be found at:
http://www.northcoastresourcepartnership.org/app_folders/view/6947

The NCRP Executive Committee met on March 16, 2015 to discuss PRP direction items per the NCRP Meeting in January, 2015 and to review the NCRP Quarterly Meeting Agenda and Materials for April 16, 2015.

During the January 15 NCRP meeting, the PRP authorized the Executive Committee to take necessary actions to provide input on behalf of the NCRP as implementing legislation is developed and to direct staff to set up meetings in Sacramento with key legislators and agency staff to deliver common messages and promote NCRP goals and objectives.

- On February 10th, Chair Mackenzie, Supervisor Morris and Karen Gaffney met with Senator McGuire, Assembly Member Wood and Senator Wolk staff and all expressed support for the NCRP and North Coast communities. Chair Mackenzie also testified at the Assembly Water, Parks & Wildlife Committee hearing about suggestions pertaining to Proposition 1 funding timing and project type.
- On April 7, the Executive Committee sent a comment letter to Senator Wolk, Chair of the Senate Budget Subcommittee on Resources, Environmental Protection, Energy & Transportation regarding the timing of Proposition 1 funding rounds.
- The Executive Committee is developing an input and comment letter to DWR regarding proposed definitions of Proposition 1 Bond language, timing of funding and contract administration improvements to be considered during the Proposition 1 IRWM program guideline development.

On March 13, staff and TPRC members presented at the Annual Salmonid Restoration Conference:

> **The Continuum of Conservation: Achieving Long-term Ecosystem Goals through Integrated Programs and Diverse Partnerships.** Session Coordinator: Karen Gaffney
>
> **The North Coast Resource Partnership: Multiple Benefits for Watersheds & Communities.** Jen Jenkins Kuzmar, County of Humboldt, and Toz Soto, Karuk Tribe, Fisheries Program

Attachment A

North Coast Resource Partnership

Project Review and Selection Process Guidelines

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NORTH COAST RESOURCE PARTNERSHIP

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Background

The North Coast Resource Partnership (NCRP) is committed to transparency, stakeholder inclusion and process improvement. At the July 21, 2011 NCRP meeting, the Policy Review Panel (PRP) directed the formation of an ad hoc committee comprised of PRP and Technical Peer Review Committee (TPRC) members and staff to evaluate the existing approach to project evaluation and ranking and to develop a draft approach for consideration at future NCRP PRP meetings. An on-line survey and interviews were conducted of ad hoc committee members, TPRC members, and project proponents to gather information about the existing process and to make recommendations for improvement of the process. With this information as the basis, the ad hoc committee developed the NCRP Project Review and Selection Process Guidelines. The Guidelines have been used during Proposition 84 Integrated Regional Water Management (IRWM) project solicitations.

The NCRP project application, review and selection process is an ongoing, multi-step progression that involves the participation of the NCRP PRP, TPRC, project proponents and other regional stakeholders. The process and Guidelines are continually revised as needed and as opportunities for input are presented.

- On March 1, 2012 the TPRC conducted a NCRP project review and selection process debriefing meeting and developed a listing of suggested process improvements. These were presented to the PRP during the April 2013 NCRP quarterly meeting. The TPRC project review and selection process debriefing meeting summary and presentation can be found at: http://www.northcoastresourcepartnership.org/app_folders/view/6985
- In March 2014, the ad hoc committee reviewed and refined sections of the Project Review and Selection Process Guidelines based on input from the TPRC project review de-brief meeting and the Draft 2014 IRWM Guidelines and Draft 2014 Drought Proposal Solicitation Package. The draft NCRP 2014 Project Review and Selection Process Guidelines and draft NCRP 2014 Drought Solicitation Project Application were approved by the PRP during the April 17, 2014 meeting. Additionally, the PRP directed that the NCRP 2014 Drought Solicitation grant would be considered phase one of two funding phases. Their intention in creating two linked funding phases was to ensure regional representation in project selection for the remaining Proposition 84 Implementation funding. During the final 2015 Proposition 84 Implementation Funding round, project selection will take into account the location of the NCRP 2014 Drought Projects. The meeting materials and summary can be found at: http://www.northcoastresourcepartnership.org/app_folders/view/8473
- During the NCRP Meeting in October 2014, the PRP directed staff to work with the TPRC and Executive Committee to develop improvements to the project review and selection process for consideration as an update to the NCRP Project Review and Selection Process Guidelines. A list of NCRP project review and selection process improvement recommendations and feedback was compiled from NCRP meetings, project proponents, a Tribal representatives meeting held on November 14 and from the TPRC Project Review de-brief meeting held on June 10, 2014 in Eureka. In November staff provided this list of process improvements to the TPRC for additional input. Based on the input, updated Guidelines were provided to the TPRC for review in December 2014. Updated Guidelines for review were presented for review and discussion during the NCRP meeting in January 2015. The meeting materials and summary can be found at http://www.northcoastresourcepartnership.org/app_folders/view/8541

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Schedule for NCRP 2015 Project Solicitation, Project Proposal Review and Selection Process

This schedule is subject to change based on new information and the final 2015 IRWM Guidelines and final Proposition 84 2015 Proposal Solicitation Package expected to be released by California Department of Water Resources (DWR) in May.

- March – April 2015: The TPRC and staff refine the NCRP Project Review and Selection Process based on TPRC input and develop application materials based on the draft IRWM 2015 Guidelines and draft Proposition 84 Project Proposal Solicitation Package (PSP) released by Department of Water Resources (DWR) on March 13, 2015.
- April 16, 2015 NCRP meeting: PRP review, consider, provide direction, edit and approve NCRP Project Review and Selection Process Guidelines, 2015 and NCRP 2015 Project Application
- April 2015: Staff refine the final NCRP 2015 Project Application materials and NCRP Project Review and Selection Process Guidelines
- April 20 – May 29: NCRP project solicitation for IRWM Proposition 84 Implementation Project grant funding
- May 4 - 8: Informational & Assistance Workshops held throughout the North Coast Region. Project proponents are invited to bring project concepts and preliminary proposals to the meeting for review and discussion by TPRC members and NCRP staff.
- May 29: NCRP 2015 Project Proposals due
- June 1 – June 21: TPRC project review period; a TPRC project evaluation conference call or meeting will be held prior to the TPRC project review period.
- June 25 & 26: TPRC Project Review meeting to select a portfolio of priority projects as a TPRC recommendation to be presented to the PRP for final approval. As a public meeting, project proponents and the public are welcome to attend all TPRC Project Review Meetings and provide public comment where noted on the published agenda.
- July 2: PRP consider/approve TPRC recommended suite of Priority North Coast Projects for IRWM Proposition 84 Implementation Project funding at an in-person meeting held within the North Coast boundary
- Early August: regional application due to DWR for IRWM Proposition 84 Implementation Project grant funding

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Description of the NCRP Project Evaluation Roles

Policy Review Panel

The Policy Review Panel (PRP) is the governing and decision-making body for the North Coast Resource Partnership (NCRP). The composition of the PRP and decision-making process is defined in Section 5.4 of the NCIRWMP Memorandum of Mutual Understandings (MoMU). The role of the PRP in the NCRP project review and selection process is to set the policy, decision making criteria and framework for the process and to ensure that the process is fair, open and transparent. As the decision-making body, the PRP provides direction about how the project evaluation and selection process aligns with the NCRP priorities by defining project review and selection guidelines (*see PRP Directed Guidelines for Project Scoring and Selection section*). Taking into account review and recommendations from the Technical Peer Review Committee, the PRP takes final action to approve all projects included in the NCRP and approves the region's highest priority projects for grant submittals. As defined in the MoMU, the PRP is subject to the Ralph M. Brown Act and is committed to transparency and inclusion, supporting input from stakeholders from throughout the region. All NCRP meetings are noticed in advance, open to the public, and all meeting summaries and information are posted on the NCRP website.

Technical Peer Review Committee

The Technical Peer Review Committee (TPRC) is advisory to the PRP and evaluates and makes recommendations based on technical expertise and scientific data. The composition of the TPRC is defined in the NCRP MoMU and is subject to the Ralph M. Brown Act. The TPRC is comprised of technical and agency staff with expertise that includes fisheries, ecology, engineering, agriculture, geology, conservation, watershed planning and management, and water infrastructure. The role of the TPRC in the project review and selection process is to evaluate projects for technical merit based on their professional judgment and expertise, as well as on guidelines developed by the PRP and set by the funding solicitation. The TPRC prepares a draft suite of priority projects for review by the PRP. Scoring criteria and evaluation outcomes from the TPRC are available for public review.

NCRP Staff

The role of NCRP staff during the project application, review and selection process is to facilitate and ensure the integrity of the process. Staff develops and coordinates project application materials; performs outreach and makes information available to the PRP, TPRC and stakeholders; clarifies outstanding issues; makes sure decisions are understood; maintains records; consolidates and summarizes TPRC review of project grant applications, and performs fact checking of state guidelines and criteria as necessary. Per the direction of the PRP (NCRP meeting, July 2013) staff will support project proponents in coordinating and potentially integrating projects in the same watershed or project area (e.g., informing project proponents of opportunities to partner or gain economies of scope and scale by combining projects) where timing allows and in accordance with the source funding proposal process and eligibility requirements.

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NCRP Project Application, Review & Selection Process

The NCRP project application, review and selection process is a multi-step process:

1. **NCRP Projects, Preliminary Project Information**
   Project proponents will upload Preliminary Project information to the NCRP website on an ongoing basis; project proponents will submit a signed MoMU; staff will publish eligible NCRP Projects (*see On-Going Project Inclusion Process below*).

2. **NCRP Project Solicitation, Supplemental Project Information**
   At the direction of the PRP and when there is a funding opportunity, a call for proposals will be announced to North Coast stakeholders. The PRP will review and refine the PRP directed guidelines and criteria for project scoring and selection based on NCRP goals and objectives, specific regional priorities and funding source requirements and preferences. Staff will develop and make available Project Solicitation application materials based on the NCRP priorities and the funding source solicitation and requirements. The project application materials will include an application, detailed instructions, a check list of elements that make up a competitive proposal and a clear description of scoring guidelines and evaluation criteria, all of which will be reviewed by the TPRC and PRP and approved by the PRP. Project applicants will provide application materials to NCRP staff via email. Microsoft Word and Excel files that make up the NCRP project application will be made available for reference, for application development and for submittal to NCRP staff. Staff will provide outreach, education and technical assistance via workshops and informal meetings by phone, internet and in person.

3. **Individual TPRC review of NCRP Project Applications**
   Staff will compile and provide application materials to the TPRC for review and scoring along with scoring/evaluation forms. When packaging the project application materials for each TPRC member, staff will randomize chronology of the project applications so that TPRC members are reviewing project applications in a different order. The TPRC members will strive to individually review and score the NCRP project applications for technical merit based on criteria as defined by the funding solicitation, NCRP PRP defined guidelines (*see PRP Directed Guidelines for Project Scoring and Selection section*) and their professional expertise and judgment. A TPRC project evaluation conference call meeting will be held prior to the TPRC project review period to discuss the general review process and go over scoring definitions to ensure calibration and clarity. TPRC members will review all projects referred to them unless they recuse themselves due to a potential conflict of interest. TPRC members will provide individual scores to staff for compilation. Time allowance for the individual TPRC review of project applications will be at least 2 weeks depending on the proposal solicitation timeframe. If two weeks is not available, the Executive Committee will determine the suitable duration to meet grant solicitation needs.

4. **Group TPRC review of NCRP Project Applications**
   Staff will compile all individual scores submitted by TPRC members to date, to determine an initial average project score; these scores are meant to facilitate discussion and will be presented at the TPRC meeting. Please note, the initial scores may not represent all TPRC scores and thus should not be

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interpreted as an official preliminary score. Adhering to a high standard of professional conduct, TPRC members and staff will meet to discuss each project and may make adjustments to their individual scores based on the group discussion. To ensure a comprehensive project proposal review process, TPRC member in-person attendance is strongly encouraged at this meeting. Staff will compile all updated TPRC individual scores to determine an updated average project score. TPRC review meetings are open to project proponents and the public. The agenda at a formally noticed public meeting will include a thorough review of the NCRP Conflict of Interest Guidelines as well as time for comment from the public (*see Conflict of Interest and Public Input Guidelines sections below*). All meeting deliberations, project scores, applicant and public input and recusals will be recorded.

5. **TPRC Selection of Draft Suite of NCRP Priority Projects**
   During the project review meeting, the TPRC will select a draft suite of NCRP Priority Projects and draft budget amounts for each project. The selection will be based on a number of factors including: technical project scores; project scalability and potential funding allowance; the overall balance of projects based on the PRP's defined guidelines for project selection (*see PRP Directed Guidelines for Project Scoring and Selection section*); and the collective ability of the projects to meet NCRP goals and be competitive for the funding opportunity. A contingency list of projects will also be developed for consideration in the event that a selected project could not move forward for inclusion into the regional application for any reason. All meeting deliberations, public input and Conflict of Interest recusals will be recorded in the meeting minutes.

6. **PRP Review, Consideration and Final Approval of the Suite of NCRP Priority Projects**
   The NCRP PRP will convene a Brown Act compliant in-person meeting held within the North Coast boundary to present, review and approve the final list of NCRP Priority Projects. During a NCRP meeting, the TPRC will provide a summary of the project review process and present their recommended draft suite of NCRP Priority Projects and contingency project list. The PRP will review, may amend and will approve by majority vote a final suite of NCRP Priority Projects and contingency projects to forward to the funding entity. During the PRP's review of the draft suite of NCRP Priority Projects, the TPRC will answer questions and provide information as requested by the PRP. The PRP – comprised of elected public officials or their designees and elected Tribal representatives – will make their final decision based on TPRC recommendations, PRP guidelines and other factors that they believe represent the best interest of the North Coast region. For more information on the process by which PRP members are selected, refer to the NCRP Memorandum of Mutual Understanding (MOMU). The NCRP Priority Projects list will be posted to the website and made available to the public. Project review scores and review meeting materials will be made available to the project proponents and to the general public, upon request.

7. **NCRP Priority Project Application Materials for Regional Proposal**
   Depending on the source funding solicitation, NCRP Priority Project proponents will be asked to provide additional project information to include in a competitive regional application. Additional information may include, but not be limited to, a detailed work plan, budget, schedule, economic cost/benefits analysis, monitoring & performance measures and technical documentation that support the project.

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The timeframe to submit this additional information may be very short for expedited funding solicitations. In the event that sufficient additional information for a project cannot be provided within the requested timeframe, that project may not be able to be included in the regional application and another project may instead be selected from the contingency list. Where feasible, NCRP staff will provide technical assistance to project proponents who require it.

Once the regional application has been approved and selected for funding, individual project proponents will enter into an agreement, likely with the NCRP regional grant administrator, to implement each project. It is imperative that an agreement between a project proponent and the NCRP regional grant administrator be executed in a timely fashion, particularly with rounds of expedited funding. It will contain numerous conditions and default provisions. An example of a DWR grant agreement, from the Proposition 84 Round 2 funding opportunity, is available online: http://www.water.ca.gov/irwm/grants/docs/ResourcesLinks/ContractTemplates/GrantAgreement_Template_P84R2_FINAL_2014_02.pdf. The terms of the agreement that will be used for this funding opportunity will likely be similar. However, it is important to note that those specific terms have yet to be determined by DWR.

Preliminary Project information for all eligible projects will be published to the NCRP website on an ongoing basis as described in "*On-Going Project Inclusion Process*" below and included in the NCIRWM Plan.

Guidelines for Public Input and Project Proponent Input during the Project Review Process

All TPRC project review meetings will be noticed at least 72 hours in advance and will be open and welcoming to the public. A conference call-in number will be provided for project proponents so that they may listen to the meeting and provide input during the public comment period if desired. The meeting agenda and background materials to be used in the TPRC's decision-making will be available at the meeting location, posted to the NCRP website 72 hours in advance of the meeting and mailed to any interested member of the public upon request.

All TPRC meeting agendas include time for public comment, which will be typically limited to 3 minutes for each speaker. Project proponents, interested stakeholders and members of the public will be invited to provide comment:

- on items not on the agenda;
- after the TPRC discusses the projects amongst themselves, but before the TPRC members submit their final scores
- after the TPRC develops their draft recommended list, but before the TPRC submits their final recommendation to the PRP

Public Comment portions of the meeting are not meant to be interactive and TPRC members will not engage in discussion or debate an issue with any member of the public. Public comment and materials delivered to staff from the public will be published on the NCRP website.

NCRP Conflict of Interest Policy

The NCRP Conflict of Interest Policy will follow the California Fair Political Practices Commission (FPPC) guidelines and the intent of the guidelines to address obligations under the Political Reform Act's conflict of interest rules.

Under the FPPC rules, when a member has a conflict of interest with a specific project, that member must publicly disclose the specific nature of the conflict and recuse themselves (i.e. leave the room or remain silent) during discussion of that specific project. The FPPC guidelines seek to prevent conflicts of interest in two ways - disclosure and recusal.

> "No public official at any level of state or local government shall make, participate in making or in any way attempt to use his official position to influence a governmental decision in which he knows or has reason to know he has a financial interest." (Political Reform Act; Gov. Code Section 87100)
>
> "Assets and income of public officials which may be materially affected by their official actions should be disclosed and in appropriate circumstances the officials should be disqualified from acting in order that conflicts of interest may be avoided." (Gov. Code section 81002)

During the NCRP project review and selection process, TPRC and PRP members will disclose any potential financial interest in a project. If a TPRC or PRP member has a potential conflict of interest, they will be expected to recuse themselves (i.e. leave the room or remain silent) from making, participating in or in any way influencing a project scoring or selection decision.

In the interest of transparency, TPRC and PRP members will also disclose any history of contribution to the project including input in the grant development or project planning or other involvement that could potentially represent a real or perceived conflict of interest. Once disclosed, the TPRC and PRP member will determine whether these actions constitute a conflict of interest or will prevent an objective review of the NCRP implementation project(s) and will determine if recusal is necessary. The PRP or TPRC member may wish to request the advice of their colleagues on the PRP or TPRC to make their determination.

Opportunities for disclosure and reporting will occur during the individual TPRC review of NCRP projects, during the group TPRC project review and during the TPRC and PRP selection meetings. The project score sheets will include a checklist and comment box for TPRC members to disclose potential conflict of interest. Project review score sheets and meeting notes will document any conflict of interest disclosures and recusals. In addition, the TPRC Chair(s), or his/her designee, will be selected to provide oversight during the project review meetings and act as a facilitator of TPRC discussion should conflict of interest issues arise.

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The TPRC Chair(s), or his/her designee, will be supported by staff to ensure the process adheres to the Conflict of Interest Policy established by the PRP.

On-Going Project Inclusion Process into the NCIRWM Plan

Background

Increasingly, funding opportunities for project implementation require or give preference to projects that are included in an IRWM Plan. The following process will provide a mechanism for including projects on an on-going basis into the NCIRWM Plan.

1. Project proponents will complete preliminary on-line project information:
    - Project Name
    - Organization Name, Type & Contact information
    - Project location address (for mapping purposes)
    - Funding Program names
    - Total project cost & Funding request
    - Start/End dates (tentative)
    - Alignment with NCIRWMP Objectives (selection boxes)
    - Project Summary & Goals
    - Project partners
    - Description of benefits (including if/how the project will benefit DACs)
    - Project management strategies/ project elements (selection boxes)
2. Project proponent will submit a signed MoMU
3. Staff will review the project and follow-up with project proponents regarding any eligibility concerns (Urban Water Management Plan, Agricultural Water Management, Surface Water Diverter, Groundwater Management Plan, CASGEM compliance, proponent type)
4. The TPRC will review and accept eligible projects
5. Staff will 'Publish' eligible NCRP Projects; project summaries will be included on the website; project locations will be included on the interactive map; and staff will report to the PRP at a NCRP meeting
6. Additional project information will be required when funding solicitations and calls for proposals occur; NCRP project proponents will be allowed to edit preliminary project upload information.
7. NCRP Projects will be reviewed and scored by the TPRC if required by a respective funding solicitation; NCRP Priority Projects will be selected by the PRP. NCRP Priority Project proponents will need to adopt the NCIRWM Plan when completed as per the IRWM Guidelines.

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Project Budget Under-runs and Funding Reallocation Process

Background: In some cases, a NCRP implementation project may complete under budget or otherwise not expend their entire grant allotment. Typically the funding agencies have allowed reallocation of funds to another project *within the suite* of projects included in the grant agreement for additional work toward the project. In previous instances where there has been funding to reallocate, the PRP has reallocated the funding to the projects within the county where the under-budget project occurred. The PRP members from that county have in turn determined how to reallocate the money to project(s) within that county.

It is expected that with current and future funding there will be projects that are completed under-budget and/or will have remaining funds to reallocate.

NCRP Project Funding Reallocation Process

1. Consistent with funding requirements, project funding reallocation will occur, to the maximum extent feasible, within the County where the original project is located and is within the existing suite of projects in the grant agreement.

2. PRP members from the County and Tribal region where the original project is located will determine which projects receive reallocation and the amount of funding

3. If the County of origin option is not available (i.e., no projects from the County of origin within the project suite need additional funding):
    a. Staff will announce the availability of funds to project proponents within the grant agreement suite of projects; staff will solicit project requests and description of need from eligible project proponents
    b. Staff will determine eligible projects
    c. TPRC ad hoc committee will be formed (at NCRP meeting if timing allows)
    d. Ad hoc committee will develop criteria for project reallocation selection
    e. Ad hoc committee will develop project reallocation option recommendations
    f. TPRC will review ad hoc committee option recommendations
    g. PRP will review and approve recommendations at the next PRP meeting
    h. TPRC ad hoc committee will be disbanded

4. Future grant applications: During the TPRC and PRP review process, projects will be identified to receive priority should additional funding become available; priority will be given to projects within the County where the original projects are located.

PRP Directed Guidelines for Project Scoring and Selection

Background

The intent of the following PRP-directed project scoring and selection guidelines is to promote the implementation of NCRP goals while allowing the flexibility to address specific regional priorities and funding source requirements. These guidelines are in addition to those defined by the NCRP goals &

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objectives and IRWM Program or other funding source guidelines and scoring criteria. The PRP includes the following preferences and priority considerations in its decision-making process:

Regional Representation
The PRP will make every effort to ensure geographic representation by including projects from each of the seven counties and from the north, central and southern tribal areas of the North Coast Region. This guideline will apply only to those projects which are eligible for funding under the NCRP and other state and federal requirements, and which have met the technical criteria established by the PRP and evaluated by the Technical Peer Review Committee.

Economically Disadvantaged Community (DAC) [1]
In an effort to build capacity and extend services to communities that are under-served and/or limited by economic barriers, the TPRC will include screening criteria that will confer additional weight to projects that, in addition to meeting other NCRP criteria, will benefit North Coast DACs. The PRP reserves the right to prioritize DAC projects, based on a project's ability to mitigate threats to public health, watershed health, and the economic and public health benefits that project implementation would bring to these communities.

Jurisdictional Notification & Coordination
Project applicants are required to demonstrate that they have notified counties and Tribes re: proposed projects in the proposed project impact area of a particular watershed or relevant area of County or Tribal interest. Project applicants are required to demonstrate coordination and outreach to potentially interested stakeholders in the relevant watershed, sub-watershed or project impact area.

Programmatic Integration and Balance of Project Type to effectively implement NCRP goals
NCRP goals: To support local autonomy and encourage cooperation; enhance public health & economic vitality in disadvantaged communities; restore salmon populations; enhance beneficial uses of water; and promote energy independence, emissions reductions and climate change adaptation.

a) All project types should address grant requirements and NCRP goals and priorities
b) Programmatic integration and project type diversity will be achieved at the portfolio level - (e.g. small /individual projects not required to demonstrate integration of all priorities, yet they must contribute to a comprehensive suite of projects that achieve a multi-benefit, integrated program)
c) Programmatic integration and project type diversity will be achieved over time and through multiple rounds of funding
d) Projects that provide multi-benefits will be prioritized (where all else is equal)
e) Projects that address specific targets as identified by the PRP, including specific North Coast objectives, challenges and opportunities (e.g., promote biomass-related projects, effective in-stream flow approaches, energy retrofits, drought or flood preparedness, effective instream flow approaches or specific funding opportunities) may be prioritized by the PRP.

---

[1] *Definition for Economically Disadvantaged Community (DAC)*: Department of Water Resources defines "disadvantaged community" as a community with an annual household income that is less than 80% of the statewide annual median household income*

Special Consideration for NCRP 2015 Project Solicitation

During the April 17, 2014 meeting the PRP directed that the NCRP 2014 Drought Solicitation grant would be considered phase one of two funding phases. Their intention in creating two linked funding phases was to ensure regional representation in project selection for the remaining Proposition 84 Implementation funding. During the final 2015 Proposition 84 Implementation Funding round, project selection will take into account the location of the NCRP 2014 Drought Projects. Following is a table depicting the NCRP 2014 Drought Projects and funding amounts per county and Tribal region.

County / Tribal Region	**Funding Amount**	**Percentage**
Del Norte County	$438,060	5.30%
Humboldt County	$1,531,700	18.53%
Mendocino County	$4,558,293	55.15%
Modoc County	$0	0.00%
Sonoma County	$1,310,573	15.86%
Siskiyou County	$0	0.00%
Tribal - Northern Region	$201,770	2.44%
Tribal - Central Region	$0	0.00%
Tribal - Southern Region	$0	0.00%
Trinity	$224,604	2.72%
	$8,265,000	**100.00%**

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Attachment B

NORTH COAST RESOURCE PARTNERSHIP

North Coast Resource Partnership 2015 Project Proposal Scoring Criteria

Please note that all Criteria are scored on a 0 – 5 basis, with a weighting factor applied where:

- A score of 5 points will be awarded where the criterion is fully addressed and supported by thorough and well-presented documentation & logical rationale.
- A score of 4 points will be awarded where the criterion is fully addressed but is not supported by thorough documentation or sufficient rationale.
- A score of 3 points will be awarded where the criterion is less than fully addressed and documentation or rationales are incomplete or insufficient.
- A score of 2 points will be awarded where the criterion is marginally addressed and documentation is incomplete and insufficient.
- A score of 1 point will be awarded where the criterion is minimally addressed and not documented.
- A score of 0 points will be awarded where the criterion is not addressed.

Scoring Criteria	Weighting Factor	Range of Points Possible	Application Questions Used to Inform Score
Eligibility Criteria Does the project address at least one of the NCRP Objectives? Is the project type eligible for the current funding solicitation? Does the project impact groundwater? Is there a Groundwater Management Plan in place or planned for the groundwater basin that will be impacted? Is the project located within high or medium priority CASGEM groundwater basin? If yes, does the groundwater basin have a monitoring entity established? Is the organization required to file an Urban Water Management Plan, Agricultural Water Management Plan and/or a Surface Water Diversion Report?		y/n	**Section B: Eligibility** • all

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Scoring Criteria	Weighting Factor	Range of Points Possible	Application Questions Used to Inform Score
Project Information Has the project proponent implemented similar projects in the past? Does the project proponent have the capacity and resources to implement this project? Does the Project Description include a clear problem statement and appropriate solution? Does the Project Description summarize the major components and the intended purpose of the project? Do the goals and objectives of the Proposal help to achieve the goals and objectives of the NCIRWM Plan? Does the proposal describe adequate need for the project? Is this an important project for the project community? region? Will this project mitigate an existing or potential Cease and Desist Order or other regulatory compliance enforcement action? Is this project supported locally and/or politically? Is the Proposal part of a larger multi-phased project that leverages other benefits and resources? Are their collaborative partnerships involved in the project?	2	**0 – 10** (0-5 x 2 = 0-10)	**Section C: Project Information** • all
Project Benefits to Economically Disadvantaged Communities Is the project located in an economically disadvantaged community (DAC)? Does the project significantly improve a DACs public health, water supply and/or water quality? Was the description of how the project benefits the economically disadvantaged community adequate?	2	**0 – 10** (0-5 x 2 = 0-10)	**Section C: Project Information** • Project Description/Summary **(C.2)** • Specific Goals and Objectives **(C.3)** • Regulatory Compliance Enforcement **(C.6)** • Population Served **(C.7 & 8)** • Benefit to DAC **(C.9)**

Scoring Criteria	Weighting Factor	Range of Points Possible	Application Questions Used to Inform Score
Drought Preparedness Does the project contribute to sustainable water supply and reliability during water shortages? Does the applicant clearly describe how the proposed project will effectively address long-term drought preparedness?	2	**0 – 10** (0-5 x 2 = 0-10)	**Section D: Drought Preparedness**
Project Justification & Technical Basis Is the description of the scientific and technical basis for the project adequate considering the size of the project and physical benefits claimed? Does the technical analysis support the claimed physical benefits? Are the potential adverse impacts reasonable? Can they be mitigated? Does the project include adequate project performance monitoring?	2	**0 – 10** (0-5 x 2 = 0-10)	**Section E: Justification & Technical Basis of Project** • Existing Plans and Reports **(E.1 & 2)** • Projected physical benefits **(E.3)** • Adverse effects **(E.5)** • Scientific and Technical Basis **(E.6)** • Project monitoring **(E.7)**
Project Benefits Does the project implement effective strategies and provide multiple benefits? Does the project appreciably benefit impaired water bodies, sensitive habitats or protected areas (i.e. Areas of Biological Significance, Marine Protected Areas, Critical Coastal Areas or other protected areas)? Will the project effectively improve conditions for salmonids and other endangered/threatened species? Does the project measurably address climate change by reducing GHG emissions, carbon, or water demand or by incorporating energy efficiency or other strategies? Are there likely other benefits not claimed as a result of this project? Are the qualitative benefits significant?	2	**0 – 10** (0-5 x 2 = 0-10)	**Section C: Project Information** • Project Description/Summary **(C.2)** • Specific Goals and Objectives **(C.3)** **Section E: Justification & Technical Basis of Project** • Projected physical benefits **(E.3)** • Benefits to sensitive species **(E.8)** • Climate change strategies **(E.9)** • Project Benefits Table **(E.10)** • Alternative Methods **(E.11)**

Scoring Criteria	Weighting Factor	Range of Points Possible	Application Questions Used to Inform Score
Are the benefits claimed of a magnitude appropriate to the cost of the project and the grant request? Have alternative methods been considered to achieve the same types and amounts of physical benefits as the proposed project? Is the proposed project the least cost alternative to achieve the physical benefits?			
Project Tasks and Schedule Do the scope of the project and the projected immediate outcomes of the project provide an adequate solution to the problem? Are the Project Description, Major Tasks and Deliverables of adequate detail and completeness that it is clear that the project can be implemented? Does the proposal include appropriate environmental documentation and permitting? Does the Proposal include appropriate and reasonable Major Tasks, Deliverables and Timeframe for implementing the project?	1	**0 – 5** (0-5 x 1 = 0-5)	**Section C: Project Information** • Project Description/Summary **(C.2)** • Specific Goals and Objectives **(C.3)** **Section F: Project Tasks, Budget and Schedule** • all • Major Tasks, Schedule and Budget Table **(F.13)**
Project Budget Is the budget of adequate detail and completeness so that it is clear that the project can be implemented? Are the task budget and the overall budget reasonable for the project type and current stage of the project? Does this Proposal and budget respond to a valid financial need? If the project does not benefit a critical water supply or water quality issue for an economically disadvantaged community, does the project budget include a	2	**0 – 10** (0-5 x 2 = 0-10)	**Section F: Project Tasks, Budget and Schedule** • Financial Need of the Proposal **(F.7)** • Budget Scaling **(F.8)** • Project Cost Basis **(E.9)** • Source for Matching Funds **(E.10 & 11)** • Major Tasks, Schedule and Budget Table **(F.13)**

Scoring Criteria	Weighting Factor	Range of Points Possible	Application Questions Used to Inform Score
25% non-state match that is reliable? Is the project budget appropriate for this funding solicitation? Can the project budget be scaled to be appropriate for this funding solicitation?			
Professional Judgment and PRP Directed Criteria Is the project a good fit for the current funding solicitation? Is this partial funding to complete a quality project, partially funded by other sources? Is this an important project for the North Coast region? Does this project effectively implement the NCRP/NCIRWMP goals and objectives? Does this project contribute to the goals of programmatic integration and project type diversity at the project portfolio level? Is there general agreement among the TPRC members regarding the ranking of this project? Is this the project proponent's highest priority project submitted to the NCRP/NCIRWMP? Can the project budget be scaled to be appropriate for this funding solicitation?	2	**0 – 10** (0-5 x 2 = 0-10)	**Section B: Eligibility** • NCRP Goals/Objectives **(B.1 & B.2)** • Eligible Project Type **(B. 3)** **Section C: Project Information** • Project Description/Summary **(C.2)** • Specific Goals and Objectives **(C.3)** **Section E: Justification & Technical Basis of Project** • Projected physical benefits **(E.3)** • Project Benefits Table **(E.10)** **Section F: Project Tasks, Budget and Schedule** • Financial Need of the Proposal **(F.7)** • Budget Scaling **(F.8)**
Total Score		**0 - 75**	

Attachment C

NORTH COAST RESOURCE PARTNERSHIP
2015 IRWM Project Application

The North Coast Resource Partnership (NCRP) 2015 Project Application Instructions and additional information can be found at the ***NCRP 2015 Project Solicitation*** *webpage. Please fill out grey text boxes and select all the check boxes that apply to your project. Application responses should be clear, brief and succinct. Character limits are provided and include spaces.* ***It is important to save the application file with a distinct file name that references the project name. When the application is complete, please email to kgledhill@westcoastwatershed.com***

Project Applications will be accepted until 5:00 pm, May 29, 2015. *The project solicitation will be closed after this date/time and edits to project applications and new applications will no longer be accepted.*

If you have questions, need additional information or assistance please contact Katherine Gledhill at kgledhill@westcoastwatershed.com or 707.795.1235.

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Project Name: _____

A. Organization Information

1. **Organization Name:** _____

2. **Contact Name/Title**
   Name: _____
   Title: _____
   Email: _____
   Phone Number (include area code): _____

3. **Organization Address (City, County, State, Zip Code):**
   _____

4. **Organization Type**
   ☐ Public Agency
   ☐ Nonprofit Organization
   ☐ Tribe
   ☐ Other: _____

5. **Authorized Representative (if different from the contact name)**
   Name: _____
   Title: _____
   Email: _____
   Phone Number (include area code) : _____

6. **Has your organization implemented similar projects in the past?** ☐ yes ☐ no
   Briefly describe these previous projects.
   _____

7. **List all projects your organization is submitting to the North Coast Resource Partnership for the 2015 Project Solicitation in order of priority**.
   _____

8. **Organization Information Notes:**
   _____

B. Eligibility

1. **North Coast Resource Partnership and North Coast Integrated Regional Water Management Objectives**
   [for more information see the North Coast Integrated Regional Water Management Plan]
   Check any of the following that apply to your project:

   GOAL 1: INTRAREGIONAL COOPERATION & ADAPTIVE MANAGEMENT
   ☐ **Objective 1** - Respect local autonomy and local knowledge in Plan and project development and implementation
   ☐ **Objective 2** - Provide an ongoing framework for inclusive, efficient intraregional cooperation and effective, accountable NCIRWMP project implementation

   GOAL 2: ECONOMIC VITALITY
   ☐ **Objective 3** - Ensure that economically disadvantaged communities are supported and that project implementation enhances the economic vitality of disadvantaged communities.
   ☐ **Objective 4** - Conserve and improve the economic benefits of North Coast Region working landscapes and natural areas

   GOAL 3: ECOSYSTEM CONSERVATION AND ENHANCEMENT
   ☐ **Objective 5** – Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity
   ☐ **Objective 6** - Enhance salmonid populations by conserving, enhancing, and restoring required habitats and watershed processes

   GOAL 4: BENEFICIAL USES OF WATER

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☐ **Objective 7** - Ensure water supply reliability and quality for municipal, domestic, agricultural, cultural, and recreational uses while minimizing impacts to sensitive resources
☐ **Objective 8** - Improve drinking water quality and water related infrastructure to protect public health, with a focus on economically disadvantaged communities
☐ **Objective 9** - Protect groundwater resources from over-drafting and contamination

GOAL 5: CLIMATE ADAPTATION & ENERGY INDEPENDENCE
☐ **Objective 10** - Assess climate change effects, impacts, vulnerabilities, and strategies for local and regional sectors
☐ **Objective 11** - Promote local energy independence, water/ energy use efficiency, GHG emission reduction, and jobs creation

GOAL 6: PUBLIC SAFETY
☐ **Objective 12** - Improve flood protection and reduce flood risk in support of public safety

2. **Eligible Project Type under 2015 IRWM Grant Solicitation**
[select all that apply]
☐ Water supply reliability, water conservation, and water use efficiency
☐ Stormwater capture, storage, clean-up, treatment, and management
☐ Removal of invasive non-native species, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands
☐ Non-point source pollution reduction, management, and monitoring
☐ Groundwater recharge and management projects
☐ Contaminant and salt removal through reclamation, desalting, and other treatment technologies and conveyance of reclaimed water for distribution to users
☐ Water banking, exchange, reclamation, and improvement of water quality
☐ Non-point source pollution reduction, management, and monitoring
☐ Planning and implementation of multipurpose flood management programs
☐ Watershed protection and management
☐ Drinking water treatment and distribution
☐ Ecosystem and fisheries restoration and protection

3. **Water Conservation Law Compliance**
[Compliance with Water Conservation Laws link: http://www.water.ca.gov/wateruseefficiency/finance]

California Statewide Groundwater Elevation Monitoring (CASGEM)
a) What is the priority of the project's groundwater basin(s)? [Refer to the CASGEM Basin Prioritization http://www.water.ca.gov/groundwater/casgem/basin_prioritization.cfm]
☐ high ☐ medium ☐ low ☐ very low
b) If the project's groundwater basin(s) is considered to be a high or medium priority, has a monitoring entity been established for the relevant basin(s)?
☐ yes ☐ no
c) Please list this entity and any additional information as needed: _____

Groundwater Management Plan (GWMP)
a) Will the proposed project directly affect groundwater levels or quality?
☐ yes ☐ no

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If Yes, the organization is required to be GWMP compliant in accordance with CWC §10753. Please note that projects located in a high or medium priority groundwater basin without an adopted GWMP before January 1, 2015 are not eligible for funding unless the project sponsor's service area falls completely within an economically disadvantaged area. Indicate how the project proponent is or will be compliant:

b) ☐ The organization has prepared and implemented a GWMP consistent with CWC §10753. Provide the GWMP in your application materials or provide a hyperlink to the Plan here. _____
c) ☐ The organization participates or consents to be subject to a GWMP, or a basin-wide management plan that meets the requirements of CWC §10753. Provide the GWMP in your application materials or provide a hyperlink to the Plan here. _____
d) ☐ The organization conforms to the requirements of an adjudication of water rights in the subject groundwater basin
e) ☐ The project is located in a low or very low priority groundwater basin and the proposal includes the development of a GWMP that meets the requirements of CWC §10753 to be completed within 1-year of the grant application submittal date.
f) Additional information as needed: _____

Urban Water Management Plan

a) Is your organization required to file an Urban Water Management Plan (UWMP)?
☐ yes ☐ no
[*Definition of entity that is required to file an UWMP with DWR: water supplier of more than 3,000 customers or supplying more than 3000 acre-feet annually*].
b) If Yes, list the date the UWMP was approved by DWR: _____
c) Is your UWMP in compliance with AB 1420 requirements?
☐ yes ☐ no
d) Does the urban water supplier meet the water meter requirements of CWC 525?
☐ yes ☐ no

Agricultural Water Management Plan

a) Is your organization – or any organization that will receive funding from the project – required to file an Agricultural Water Management Plan (AWMP)?
☐ yes ☐ no
[*Definition of an agricultural water supplier: a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water. This includes a supplier or contractor for water regardless of the basis of right that distributes or sells water for ultimate resale to customers*.]
b) If Yes, list date the AWMP was approved by DWR: _____
c) Does the agricultural water supplier(s) meet the requirements in CWC Part 2.55 Division 6?
☐ yes ☐ no

Surface Water Diversion Reports

a) Is your organization required to file surface water diversion reports per the requirements in CWC Part 5.1 Division 2?
☐ yes ☐ no
b) If Yes, list date the surface water diversion report was submitted to DWR: _____

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C. Project Information

1. **Project Name:** _____

2. **Project Description**
   The project summary should include a problem statement, the major components of the project and the intended purpose of the project. [3000 characters max.]
   _____

3. **Specific Project Goals/Objectives**
   [for each goal list specific objectives]
   Goal 1: _____ [100 characters max.]
   Goal 1 Objective: _____ [200 characters max.]
   Goal 1 Objective: _____ [200 characters max.]
   Goal 1 Objective: _____ [200 characters max.]
   Goal 1 Objective: _____ [200 characters max.]

   Goal 2: _____
   Goal 2 Objective: _____
   Goal 2 Objective: _____
   Goal 2 Objective: _____
   Goal 2 Objective: _____

   Goal 3: _____
   Goal 3 Objective: _____
   Goal 3 Objective: _____
   Goal 3 Objective: _____
   Goal 3 Objective: _____

Additional Goals & Objectives (List)
_____

4. **Describe the need for the project**. [1000 characters max.]
   _____

5. **Describe how your project addresses the North Coast Resource Partnership and North Coast IRWM Plan Goals and Objectives selected** [1000 characters max.]
   _____

6. **List the impaired water bodies (303d listing) that your project benefits:**
   [500 character max.] [for more information, see map and SWRCB]
   _____

7. **Will this project mitigate an existing or potential Cease and Desist Order or other regulatory compliance enforcement action?** ☐ yes ☐ no
   If so, please describe? [500 characters max.]
   _____

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8. **Describe the population served by this project.** [500 characters max.]

_____

9. **Is this project located in a Disadvantaged Community?** [see North Coast map]
   - ☐ Entirely
   - ☐ Partially
   - ☐ No

   List the Disadvantaged Community(s)

   _____

10. **Describe how your project directly benefits the Economically Disadvantaged Communities it serves.** [500 character max.]

    _____

11. **Describe local and/or political support for this project.** [500 characters max.]

    _____

12. **List all collaborating partners and agencies and nature of collaboration.** [1000 characters max.]

    _____

13. **Is this project part or a phase of a larger project? Are there similar efforts being made by other groups? If so, please describe?** [500 characters max.]

    _____

14. **Describe the kind of notification, outreach and collaboration that has been done with the County(ies) and/or Tribes within the proposed project impact area:** Note that selected projects may be requested to submit documentation of notification or land owner access for the appropriate jurisdiction of the proposed project impact area. [500 characters max.]

    _____

15. **Project Information Notes:**

    _____

D. Drought Preparedness

1. **Drought Project Elements**
   Indicate which elements will be achieved by the project:

   [select all that apply]
   ☐ Promote water conservation, conjunctive use, reuse and recycling
   ☐ Improve landscape and agricultural irrigation efficiencies
   ☐ Achieve long term reduction of water use
   ☐ Efficient groundwater basin management
   ☐ Establish system interties

2. **Describe the water management impacts in the project area due to the current drought.** [1000 characters max.]

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_____

3. **Describe how the project contributes to sustainable water supply and reliability during water shortages and effectively addresses long-term drought preparedness.** [1000 characters max.]

_____

4. **Drought Preparedness Notes:**

_____

E. Project Location

16. **Describe the location of the project**
Geographical Information (latitude and longitude in degrees, minutes, and seconds):

_____

17. **Site Address (if relevant) :**

_____

F. Project Tasks, Budget and Schedule

1. **Major Tasks, Schedule and Budget for NCRP 2015 IRWM Project Solicitation**
Please complete MS Excel table available at XXXXXXXX; please see instructions for submitting excel documents with application materials.

2. **Current Project Phase:**
☐ Feasibility Study
☐ Planning
☐ Environmental Documentation & CEQA
☐ Permitting
☐ Implementation / Construction
☐ Maintenance
☐ Monitoring
☐ Other: _____

3. **Projected Project Start Date:** _____

4. **Anticipated Project End Date:** _____

5. **Project Schedule & Readiness**
On what date will the project be ready to proceed to construction/implementation? [For construction projects," ready to proceed" means that construction bids have been awarded by the specified date.]

_____

5. **What level of CEQA does your project require?**

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Please note that because this solicitation is for state funding, CEQA will be required. Select the type of documentation:

☐ Initial Study
☐ Environmental Impact Report (EIR)
☐ Environmental Impact Statement (NEPA/Federal involvement)
☐ Mitigated Negative Declaration
☐ Negative Declaration
☐ Environmental Assessment
☐ Exempt
☐ N/A - not a CEQA Project

Date or anticipated data for CEQA compliance: _____
State Clearinghouse Number: _____

6. **Are other permits required for this project?** ☐ yes ☐ no
   If yes, please list: _____

7. **Describe the financial need for the project** (i.e. describe why the project cannot be completed with the existing financial resources of the project proponent, landowner and/or beneficiary)**.** [1000 characters max.]

   _____

8. **Is the project budget scalable?** ☐ yes ☐ no
   Describe how a scaled budget would impact the overall project. [500 characters max.]

   _____

9. **Describe the basis for the costs used to derive the project budget according to each budget category. Include the source of the unit cost estimates used. Also, explain any costs that are higher than the average market value. If labor costs are higher than those required by prevailing wage, explain why and what those labor costs are based on.** [500 characters max.]

   _____

9. **List the sources of non-state matching funds, amounts and indicate their status** (i.e. not applied for, pending, received and the date of receipt)**.**

   _____

10. **List the sources and amount of state matching funds** (these are not eligible matching funds)**.**

    _____

11. **Project Tasks, Budget and Schedule Notes:**

    _____

G. Justification & Technical Basis of Project

1. **List any studies, plans and designs completed for the project.** ***Please the instructions for more information about submitting these with the final application.***

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_____

2. **Is this project integrated into existing local, watershed, basin/regional plans or reports?**
   ☐ yes ☐ no
   If so, please list plans or reports [list format: Document name, Author, Published date]:
   _____

3. **Summarize the projected physical benefits and outcomes of the project:**
   Water Supply & Conservation
   a) Quantity and type of new storage or delivery infrastructure built [200 characters max.]: _____
   b) Number and type of water users provided with water [200 characters max.]: _____
   c) Acre-feet of water leased/purchased: _____
   d) Quantity and type of stormwater capture infrastructure built [200 characters max.]: _____
   e) Quantity and type of grey/reclaimed water infrastructure built [200 characters max.]: _____
   f) Other water supply and/or conservation measure completed – include quantity: _____

   Water Quality
   a) Water and/or wastewater treatment projects
      i. Quantity and type of water treatment infrastructure built or installed: _____
      ii. Quantity and type of upgrades/replacements to water treatment infrastructure: _____
      iii. Other water and/or wastewater water quality improvements – include quantity: _____
   b) Quantity and type of road related water quality improvements [200 characters max.]: _____
   c) For improvements that are not road related, number and type of watershed erosion and sediment control treatments completed [200 characters max.]: _____
   d) Number and type of other water quality improvements [200 characters max.]: _____

   Watershed Rehabilitation & Habitat Improvement
   a) Quantity and type of instream habitat improvements [200 characters max.]: _____
   b) Quantity and type of vegetation improvements [200 characters max.]: _____
   c) Quantity and type of fish passage improvements [200 characters max.]: _____
   d) Other watershed or habitat improvements – include quantity [200 characters max.]: _____

   Flood Management
   a) Quantity and type of new infrastructure built [200 characters max.]: _____
   b) Other flood management measure completed – include quantity [200 characters max.]: _____

   Energy independence & Climate Change
   a) Quantity and type of new infrastructure built [200 characters max.]: _____
   b) Other energy independence and/or climate change measure completed – include quantity: _____

   Other Work or Outcomes (not captured above)
   a) New infrastructure built and quantity [200 characters max.]: _____
   b) Briefly describe outreach proposed including the number of landowners targeted and number of events [200 characters max.]: _____
   c) Briefly describe any other type of specific work proposed including quantities: _____

4. **List all new facilities, policies, and actions required to obtain the physical benefits.** [500 characters max.]
   _____

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5. **Describe any potential adverse physical effects and what is being done to mitigate these impacts. If none, explain.** [1000 characters max.]

   _____

6. **Explain the scientific and technical basis for your project; describe the methods used to estimate the physical benefits above.** [2000 characters max.]

   _____

7. **Describe how the performance of the project will be monitored.**
   Include what targets and methods will be used to monitor the project's ability to achieve the benefits claimed and how performance will be assessed: [1000 characters max.]

   _____

8. **Describe how your project benefits salmonids and other endangered/threatened species.**
   [500 character max.]

   _____

9. **Describe how your project addresses climate change adaptation and mitigation: energy efficiency, reduction of greenhouse gas emissions, reduction of carbon, or reduction in water demand.** [500 character max.]

   _____

10. **For each of the Potential Benefits that your project claims complete the following table to describe an estimate of the benefits expected to result from the proposed project.** [*See the NCRP Project Application Instructions, Potential Project Benefits Worksheet and background information to help complete the table. Attachment B includes additional guidance, source materials and examples from North Coast projects*.]

PROJECT BENEFITS TABLE

Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
Water Supply				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Water Quality				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Other Ecosystem Service Benefits				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
Community and Social Benefits				
_____	_____	_____	_____	_____

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Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
_____	_____	_____	_____	_____
Other Benefits				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

11. **Alternative Methods to Achieve Benefits**
    a) Have alternative methods been identified to achieve the same types and amounts of physical benefits as the proposed project? If yes, describe the alternative methods and estimated costs of the alternative(s). If a study of alternatives has been completed, please attach this information and note that this information is included in the application. [1000 character max.]

    _____

    b) If no, please explain why alternative methods should not be considered. [500 character max.]

    _____

    c) If alternative methods have not yet been considered, but at least one alternative method exists to achieve the same types of physical benefits, please describe that alternative and why it was not considered. [500 character max.]

    _____

    d) Is the proposed project the least cost alternative to achieve the physical benefits? If so, please provide supporting information. [500 character max.]

    _____

    e) If the proposed project is not the least cost alternative, why is it the preferred alternative? Provide an explanation of any accomplishments of the proposed project that are different from the alternative project or methods. [500 character max.]

    _____

12. **Project Justification & Technical Basis Notes:**

    _____

H. Other Project Data

1. **Select the other sensitive habitat areas your project benefits.**
   [select all that apply]

   ☐ Riparian corridors
   ☐ Perennial and intermittent streams
   ☐ Wetlands
   ☐ Lakes and ponds and adjacent shore habitat
   ☐ Marine habitats
   ☐ Coastal tide lands and marshes
   ☐ Coastal and offshore areas containing breeding or nesting sites
   ☐ Native grassland
   ☐ Serpentine chaparral/grassland
   ☐ Cypress woodland
   ☐ Oak woodland
   ☐ Redwood forest

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☐ Areas used for ecological scientific study and research
☐ Existing wildlife refuges and reserves
☐ Habitats supporting rare, endangered, threatened and endemic species (CNPS, State, Federal)

2. **Project Benefits** [select all that apply]

Increase Water Supply
☐ Increased water supply or range in water supply (i.e. acre-feet per year)
☐ Improved water quality
☐ Increased recreational opportunities
☐ Decreased reliance on imported water
☐ Reduced groundwater overdraft
☐ Creation of wetlands and riparian habitat
☐ Decreased operational costs
☐ Other _____

Water Quality Improvement
☐ Increased water supply
☐ Improved aquatic and wetland species habitat and populations
☐ Increased cropland production
☐ Creation of wetlands and riparian habitat
☐ Improved recreation opportunities
☐ Decreased treatment costs
☐ Other _____

Groundwater Improvements
☐ Improved flood protection
☐ Decreased reliance on imported water
☐ Reduced surface water use, reduced pumping costs
☐ Decreased or prevention of groundwater overdraft
☐ Other _____

Water Conservation and Reuse
☐ Increased water saving
☐ Efficient reuse of wastewater
☐ Costs savings from reduced purchases of imported water
☐ Saving construction of water storage facilities
☐ Increased nutrient levels for plant and crop use from use of reclaimed wastewater
☐ Other _____

Watershed Rehabilitation
☐ Long-term sediment reduction and temperature improvements
☐ Reduced surface water nutrient and bacteria concentrations (improved water supply quality)
☐ Improved fish and wildlife habitat and passage
☐ Enhanced public safety and recreational opportunities
☐ Instream rehabilitation to redress hydromodification
☐ Other _____

Habitat Improvement
☐ Reduced surface water nutrient and bacteria concentrations (improved water supply quality)
☐ Enhanced fish habitat
☐ Increased opportunities for recreational hunting and viewing
☐ Increased numbers of native species
☐ Reduced flood risks
☐ Education opportunities
☐ Other _____

Flood Management
☐ Increased aquifer recharge
☐ Runoff reduction
☐ Improved surface water quality
☐ Natural resources preservation and restoration
☐ Reduced risk to life and property
☐ Decreased flood insurance costs
☐ Other _____

3. **Select the Areas of Biological Significance (ASBS), Marine Protected Areas (MPA) and Critical Coastal Areas (CCA) that your project benefits:**
[select all that apply] [for more information, see North Coast map]

Critical Coastal Area:
- ☐ Klamath River
- ☐ Redwood Creek
- ☐ Redwood National Park

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- ☐ Trinidad Head
- ☐ Mad River
- ☐ Eel River
- ☐ Mattole River
- ☐ King Range
- ☐ Pudding Creek
- ☐ Noyo River
- ☐ Jughandle Cove
- ☐ Big River
- ☐ Albion River
- ☐ Navarro River
- ☐ Garcia River
- ☐ Saunders Reef
- ☐ Del Mar Landing
- ☐ Gerstle Cove
- ☐ Estero Americano
- ☐ Estero de San Antonio

California Marine Protected Area:

- ☐ Punta Gorda
- ☐ MacKerricher
- ☐ Point Cabrillo
- ☐ Russian Gulch
- ☐ Van Damme
- ☐ Manchester and Arena Rock
- ☐ Del Mar Landing
- ☐ Salt Point
- ☐ Gerstle Cove
- ☐ Fort Ross
- ☐ Sonoma Coast
- ☐ Bodega

Areas of Special Biological Significance:

- ☐ Bodega Marine Life Refuge
- ☐ Del Mar Landing Ecological Reserve
- ☐ Gerstle Cove
- ☐ Kelp Beds at Saunders Reef
- ☐ Kelp Beds at Trinidad Head
- ☐ Kings Range National Conservation Area
- ☐ Pygmy Forest Ecological Staircase
- ☐ Redwood National and State Parks

4. Statewide Priorities

[select all that apply] [for more information see IRWM Program Guidelines]

Drought Preparedness

☐ Promote water conservation, conjunctive use, reuse and recycling
☐ Improve landscape and agricultural irrigation efficiencies
☐ Achieve long term reduction of water use
☐ Efficient groundwater basin management
☐ System interties

Use and Reuse Water More Efficiently

☐ Increase urban and agricultural water use efficiency measures such as conservation and recycling
☐ Capture, store, treat, and use urban stormwater runoff (such as percolation to usable aquifers, underground storage beneath parks, small surface basins, domestic stormwater capture systems, or the creation of catch basins or sumps downhill of development
☐ Incorporate and implement low impact development (LID) design features, techniques, and practices to reduce or eliminate stormwater runoff

Climate Change Response Actions

☐ Adaptation to Climate Change: Advance and expand conjunctive management of multiple water supply sources
☐ Adaptation to Climate Change: Use and reuse water more efficiently
☐ Adaptation to Climate Change: Water management system modifications that address anticipated climate change impacts
☐ Adaptation to Climate Change: Establish and enhance migration corridors, re-establish river-floodplain hydrologic continuity, re-introduce anadromous fish populations to upper watersheds, and enhance upper watershed forests and meadow systems
☐ Reduction of Greenhouse Gas (GHG) Emissions: Reduce energy consumption of water systems and uses
☐ Reduction of Greenhouse Gas (GHG) Emissions: Use cleaner energy sources to move and treat water
☐ Reduce Energy Consumption: Water use efficiency
☐ Reduce Energy Consumption: Water recycling
☐ Reduce Energy Consumption: Water system energy efficiency
☐ Reduce Energy Consumption: Reuse runoff

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Expand Environmental Stewardship

☐ Expand Environmental Stewardship to protect and enhance the environment by improving watershed, floodplain, and instream functions and to sustain water and flood management ecosystems.

Practice Integrated Flood Management

☐ Better emergency preparedness and response
☐ Improved flood protection
☐ More sustainable flood and water management systems
☐ Enhanced floodplain ecosystems
☐ LID techniques that store and infiltrate runoff while protecting groundwater

Protect Surface Water and Groundwater Quality

☐ Protecting and restoring surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses
☐ Salt/nutrient management planning as a components of an IRWM Plan

Improve Tribal Water and Natural Resources

☐ Improve Tribal Water and Natural Resources and include the development of Tribal consultation, collaboration, and access to funding for water programs

Ensure Equitable Distribution of Benefits

☐ Increase the participation of small and disadvantaged communities in the IRWM process.
☐ Develop multi-benefit projects with consideration of affected disadvantaged communities and vulnerable populations.
☐ Address safe drinking water and wastewater treatment needs of DACs.
☐ Address critical water supply or water quality needs of California Native American Tribes within the region.

5. Other Project Data Notes:

_____

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NORTH COAST RESOURCE PARTNERSHIP
2015 IRWM Project Application Instructions

Important note: Potential project proponents should read through this entire document before beginning to develop a project application.

If you have questions, need additional information or assistance please contact Katherine Gledhill at kgledhill@westcoastwatershed.com or 707.795.1235.

Background

Proposition 84, Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 provides $900 million in regional funds to be allocated to 11 California Funding Areas. The North Coast's allocation is $37 million with approximately $11M remaining. On March 13, 2015 the California Department of Water Resources (DWR) released the Draft 2015 Integrated Regional Water Management (IRWM) Program Guidelines and Draft 2015 Proposal Solicitation Package (PSP) for the last round of Proposition 84 funding. The final DWR 2015 IRWM Guidelines and 2015 PSP are expected to be released in late May 2015. Release of the final guidelines and PSPs may result in changes to the North Coast Resource Partnership (NCRP) Project Review and Selection Process Guidelines and application materials. Information about IRWM program, guidelines and PSPs can be found at http://www.water.ca.gov/irwm/grants/p84implementation.cfm.

The NCRP 2015 Project Review and Selection Process Guidelines (Guidelines) and application materials were developed by the NCRP Technical Peer Review Committee (TPRC) and were approved by the NRCP Policy Review Panel (PRP) during the April 16, 2015 NCRP meeting (pending). Familiarity with the NCRP Guidelines is essential to developing a competitive project proposal. Other important sources of information include the NCRP website, North Coast IRWM Plan (NCIRWM Plan) and the NCRP 2015 Project Solicitation webpage: XXX

Projects are required to be included in the NCIRWM Plan to be eligible for Proposition 84 Implementation Grant programs. One regional application consisting of a suite of Priority Projects will be submitted on behalf of the North Coast Region for the 2015 NCRP Project Grant, as per the final IRWM guidelines and PSP expected to be released in late May 2015.

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Project Review and Selection Process

All projects submitted to the NCRP will be subject to review by the NCRP TPRC and PRP. As approved by the PRP, the NCRP Project Review and Selection Process Guidelines define the process for project compilation, review, ranking and selection. The NCRP Guidelines include procedures for public input during the project review process, conflict of interest guidelines and project review scoring criteria. With the assistance of the TPRC's technical project review, the PRP will approve a suite of NCRP Priority Projects for inclusion in the $11 million North Coast 2015 Project Grant application that is expected to be due to DWR in early August 2015 (subject to change based on the final DWR IRWM Guidelines and PSP). The selection will be based on a number of factors including: technical project scores; project scalability and potential funding allowance; the overall balance of projects based on the PRP's defined guidelines for project selection; and the collective ability of the projects to meet NCRP goals and be competitive for the funding opportunity.

Given the limited funding available in this round, project proponents are encouraged to determine the highest priority projects for their organization, agency or Tribe; and to consider the scalability of the projects. Any project that is selected as a Priority Project for inclusion in the regional NCRP 2015 IRWM Project proposal may be subject to budget revisions to accommodate funding limitations.

Schedule

This schedule is subject to change based on new information and the final 2015 IRWM Guidelines and final 2015 PSP expected to be released by DWR in May.

- March 13: DWR release Draft IRWM Guidelines and 2015 Proposal Solicitation Package (PSP)
- April 20 – May 29: NCRP 2015 Project Proposal Solicitation
- May: DWR release Final IRWM Guidelines and 2015 Project Solicitation Package
- May 4 - 8: Informational & Technical Assistance Workshops held throughout the North Coast Region (see below for workshop times & locations)
- May 29: NCRP 2015 Project Proposals due
- June 1 – June 21: TPRC Project Implementation Proposal review
- June 25 & 26: TPRC Project Review meeting
- July 2: NCRP PRP & TPRC meeting
- Early August (subject to change): NCRP 2015 Project Application due to DWR

Workshops

- **May XX: Trinity County Library**, 351 Main St., Weaverville, 530-623-1373
- **May XX: Siskiyou County Administration Office** Conference Room, 1312 Fairlane Road, Yreka, 530-842-8005
- **May XX: University of California Cooperative Extension, Humboldt County Office**, 5630 South Broadway, Eureka, 707-445-7351
- **May XX: Sonoma County Water Agency**, Redwood Room, 404 Aviation Blvd, Santa Rosa, 707-526-5370
- **May XX: - Mendocino County Administration Building**, Conference Room C (east side of building), 501 Low Gap Road, Ukiah, 707-463-4441

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North Coast Resource Partnership Project Application

The Microsoft Word and Excel documents that make up the NCRP 2015 Project Application are available for reference and for application development. If you would like to request a copy please contact Katherine Gledhill at kgledhill@westcoastwatershed.com or 707-795-1235. The documents can also be downloaded from the NCRP website at: XXX

NCIRWM Plan projects already submitted for IRWM Funding will not be automatically reviewed and ranked for 2015 IRWM project funding, though these projects will remain part of the NCIRWM Plan. All relevant projects to be considered for the NCRP 2015 IRWM Project grant funding must be resubmitted.

Project Applications will be accepted until 5:00 pm, May 29, 2015. The project application will be closed after this date/time and edits to project applications and new project applications will no longer be accepted. Please provide the application files with distinct file names that reference the organization and project name. When the application is complete, please send to kgledhill@westcoastwatershed.com

A Complete Application

A Complete Application includes the following files. All files should be provided with a distinct file name that references the organization and project name.

- ☐ NCRP 2015 Project Application Word file
- ☐ NCRP 2015 Project Application Excel File: Major Tasks, Task Descriptions, Schedule and Budget
- ☐ Supporting documents: copies of the studies, plans and designs completed for the project

Additional Requirements of Priority Project Applicants

The NCRP Priority Project proponents selected by the PRP to be included in the NCRP regional proposal will be required to provide additional project and applicant eligibility information to allow NCRP staff to develop a competitive regional application.

- ☐ A detailed Work Plan and Schedule
- ☐ A detailed Budget
- ☐ Additional information and documentation to support the Project Justification claims
- ☐ A Monitoring Plan consistent with the *NCRP Project Performance and Monitoring Plan Guidelines* found at http://www.northcoastresourcepartnership.org/app_pages/view/7954
- ☐ Project location and service area boundary GIS shapefiles or detailed map that shows the project's geographical location and the surrounding work boundaries, service area boundaries, facilities of the project, the water resources (groundwater or surface water) that will be affected, DACs within the project service area, and proposed monitoring locations.
- ☐ And other items deemed necessary by NCRP staff

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Eligibility Requirements

- ☐ For those projects that directly impact groundwater, the project sponsor will be required to submit a self-certification document regarding Groundwater Management Plans.
- ☐ Urban water suppliers will be required to submit DWR verification and self-certification documents regarding Urban Water Management compliance and Water Metering compliance
- ☐ Surface Water Diverters will be required to submit SWRCB verification documentation
- ☐ Documentation of notification or land owner access for the appropriate jurisdiction for the proposed project impact area.
- ☐ Signed North Coast Memorandum of Mutual Understandings (MoMU) (http://www.northcoastresourcepartnership.org/documents/view/7016)
- ☐ Resolution documenting formal adoption of the North Coast Integrated Regional Water Management Plan, Phase III (http://www.northcoastresourcepartnership.org/app_pages/view/7715). A sample resolution is provided as Attachment A of this document.

Additional Requirements of Project Applicants prior to Contract agreement awards

If the North Coast 2015 Project Grant application is selected for funding, DWR will award a contract agreement to the County of Humboldt, the NCRP contract administrator. NCRP Priority Project proponents will need to provide the following prior to entering into a sub-agreement with the County of Humboldt.

- Audited Financial Statements for project sponsors
- CEQA/NEPA documentation for projects that are about to begin construction/implementation
- Other materials that DWR deems necessary, which will be detailed in the award notification

Project sponsors may wish to review the NCRP Grant Manual and sample grant agreement to become familiar with the grant requirements associated with the IRWM Program. See XXXX and DWR's Proposition 84 contract templates (http://www.water.ca.gov/irwm/grants/resources_contracttemp.cfm) for more information.

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North Coast Resource Partnership Drought Project Application Instructions

Project Name

- Provide the Project Name

Organization Information

- Please provide information about the organization that will be implementing and managing the project including the Organization name, type, address and whether the organization has implemented similar projects.
- Provide information about the Project Contact person and Authorized Representative along with contact information.
- Include other important information about the project sponsor in the Organization Information Notes (only succinct information please)

Eligibility

- Addressing NCRP Objectives is a critical eligibility and project review criterion. Select all the Objectives that apply to your project. More information about the NCIRWM Plan and objectives can be found throughout the NCRP website (http://www.northcoastresourcepartnership.org/) and the NCIRWM Plan (http://www.northcoastresourcepartnership.org/app_pages/view/7715).
- Select all the eligible project types as listed in DWR's 2015 IRWM Project PSP. Projects that provide a direct critical water-related benefit to an economically disadvantaged community are not required to implement or construct a project using these funds. Types of eligible projects to address critical water supply or water quality needs of a economically disadvantaged community may consist of project development activities that will lead to a construction project including, but not limited to, project scoping, planning, feasibility studies, preliminary design, and engineering designs and specifications.
- Indicate whether your organization is compliant with Water Conservation Laws as per the IRWM Guidelines. These include the following:
  - Urban Water Management Compliance
  - Water Conservation Programs and Measures
  - Agricultural Water Management Compliance
  - Surface Water Diverter Compliance
  - Groundwater Management Compliance
  - CASGEM Compliance

General Project Information

- Provide the Project Name
- The Project Description/Summary should include:
  - the intended purpose of the project
  - a problem statement: why the project is needed
  - project setting and background

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  - the major components of the project; a description of how the project will be implemented
  - and the expected outcomes
- List the specific project goals and objectives for each goal.
- Describe the need for the project, including recent and historical conditions that provide background for benefits to be claimed; for example, recent water shortages, loss of habitat or ecosystem function, and water quality problems.
- Describe how your project addresses the NCRP/ North Coast IRWM Goals and Objectives listed above.
- List the impaired water bodies that your project benefits. For more information about impaired waterbodies, Clean Water Act Section 303(d) List, and Total Maximum Daily Load (TMDL) program:
  - State Water Resource Control Board (http://www.swrcb.ca.gov/water_issues/programs/tmdl/303d_lists.shtml);
  - US Environmental Protection Agency (http://www.epa.gov/region9/water/tmdl/california.html)
- Please indicate and describe whether the project will mitigate an existing or potential Cease and Desist Order or other regulatory compliance enforcement action.
- Provide a brief description about the population served by the project and indicate whether your project is located in an economically disadvantaged community. An economically disadvantaged community is defined by DWR as a community with an annual median household income that is less that 80% of the Statewide annual median household income. To see an interactive map of the economically disadvantaged communities in the North Coast region, go to http://www.northcoastresourcepartnership.org/app_pages/view/7718 and toggle on the Economically Disadvantaged Communities layer.
- If the project directly benefits economically disadvantaged communities, please describe how.
- Briefly describe the local and political support for the project
- List and briefly describe the collaborative partnerships involved in and the support for this project.
- Indicate whether the project is part or a phase of a larger project. Explain whether other groups are conducting similar projects in the area that collectively represent a larger project or effort in the area. Discuss ways that the other projects support the proposed project or help to leverage resources.
- Describe the kind of notification, outreach and collaboration that has been done with the County(ies) and/or Tribes within the proposed project impact area.
- Add additional information as needed to the *Project Information Notes* text box found at the end of this section of the application.

Drought Impacts

- In the check boxes provided, check each drought element addressed by the project. Describe how the selected elements are addressed.
- Describe the water management impacts in your area due to the current drought, as well as any projected impacts if drought conditions continue into 2016.
- Explain how the project contributes to sustainable water supply and reliability during water shortages. Describe how the project addresses long-term drought preparedness.
- Add additional information as needed to the *Drought Preparedness Notes* text box found at the end of Project Information section of the application.

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Project Location

- In the Location Description text box, provide information about the project location, with enough detail to allow NCRP staff to generally map the project location. Please provide latitude and longitude in degrees, minutes and seconds (in NAD84 UTM) if available.

Project Tasks, Budget and Schedule

NCRP 2015 Project Application Excel File: Major Tasks, Task Descriptions, Schedule and Budget

- A completed Major Tasks, Task Description, Schedule and Budget Excel table is a requirement of the project application. The 2015 Project Application Microsoft Excel file can be downloaded at XXX. Fill out the highlighted sections of the table and add additional rows as needed. Please send a copy of the Excel document with the final application to kgledhill@westcoastwatershed.com. Please provide the Excel document with a distinct file name that references the organization and project name.
- In the Major Tasks, Task Description, Schedule and Budget table list the title for the Major Tasks, a brief Task Description, and a short phrase for Major Deliverables the project proponent will be submitting for 2015 Project funding. While being succinct, please provide enough detail to allow the review committee to understand how the project will be implemented.
- For each major task, include a budget total for labor and materials including the non-state funding match and the IRWM budget request amount for IRWM 2015 Project funding. Eligible costs incurred after January 1, 2015 will be eligible for reimbursement, including costs associated with developing the proposal and contract. Reimbursable costs may include the reasonable costs of engineering, design, land and easement, legal fees, preparation of environmental documentation, environmental mitigation, and project implementation including administrative costs and incidental costs. Per the IRWM Guidelines, some project related costs are ineligible for Proposition 84 IRWM 2015 grant funding, including:
    - Costs for preparing and filing a grant application belonging to another solicitation
    - O&M costs, including post construction project performance and monitoring costs
    - Purchase of equipment not an integral part of the project
    - Establishing a reserve fund
    - Purchase of water supplies
    - Replacement of existing funding sources for ongoing programs
    - Support of existing punitive regulatory agency requirements and/or mandates in response to negligent behavior
    - Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of the project, as set forth and detailed by engineering and feasibility studies
    - Payment of principal or interest of existing indebtedness or any interest payments unless the debt is incurred after effective date of a grant award with the State, the granting agency agrees in writing to the eligibility of the costs for reimbursement before the debt is incurred, and the purposes for which the debt is incurred are otherwise reimbursable project costs
    - Overhead not directly related to project costs
    - Meals, food items, or refreshments
    - Costs associated with travel

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- Note that for the 2015 IRWM Project grant there is a minimum funding match of 25% required for the regional grant proposal. The funding match must be non-state funds and include eligible costs incurred on the project since January 1, 2011.
- The 25% funding match may be waived for projects that address a water supply or water quality need of a economically disadvantaged community as detailed in the 2015 IRWM Drought Guidelines. Please call Katherine Gledhill at 707-795-1235 to discuss whether the funding match waiver will apply to your project. Additional information may be required, should the project be selected as a Priority Project to be submitted as part of the regional application.
- At the bottom of the table, indicate whether the budget request amount for the IRWM 2015 Project funding, project budget total and funding match is scalable by 25% and by 50% and include the scaled totals. Given the limited amount of overall funding available for the 2015 Project solicitation, budget and scalability is an important project selection factor. Please note that if a project proponent states that their project is not scalable and the TPRC determines that the budget amount is greater than the available funding resources, a highly ranked project may not be selected for funding.

NCRP 2015 Project Application Word file

- Select the phase the project is currently in.
- Provide anticipated project start and completion dates as well as the anticipated date that construction bids will be awarded.
- Indicate that level of CEQA that your project requires and the date for CEQA compliance. Please note that State funding requires CEQA compliance.
- Provide a complete listing of the permits required for the project.
- Describe the financial need for the project and why the project cannot be completed with the existing financial resources of the project proponent, landowner and/or beneficiary.
- Indicate whether the project is scalable. Briefly describe how a scaled budget would impact the overall project. Given the limited amount of overall funding available for the NCRP 2015 Project solicitation, budget and scalability is an important project selection factor (see the NCRP Guidelines). Please note that if a project proponent states that their project is not scalable and the TPRC determines that the proposed budget amount is greater than the available funding resources, a highly ranked project may not be recommended for funding.
- Describe the basis for the costs in enough detail to allow the technical reviewers understand how the costs were derived for the project budget. Include the source of the unit cost estimates used. Also, explain any costs that are higher than the average market value. If labor costs are higher than those required by prevailing wage, explain why and what those labor costs are based on.
- Provide a detailed list of non-state matching funds including the funding amounts and status (i.e. not applied for, pending, and received).
- If you would like to show the complete funding picture for the project, please provide the sources and amounts for state funds. Note, these are not eligible for matching funds.
- Add additional information as needed to the *Project Tasks, Budget and Schedule Notes* text box found at the end of this section of the application.

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Justification & Technical Basis of Project

- Provide a detailed list any studies, plans and designs completed for the project. Please send copies of these supporting documents with the final application to kgledhill@westcoastwatershed.com. Please provide the supporting documentation file(s) with a distinct file name that references the project and organization name.
- Indicate whether the project is integrated into existing local, watershed, basin/regional plans or reports and list plans or reports in the following format: *Document name, Author, Published date*
- Summarize the projected physical benefits and immediate outcomes of the project in the provided text boxes. Projects that provide a direct critical water-related benefit to an economically disadvantaged community that are in the planning or design phase and not intending to complete construction with this solicitation must provide an estimate of the anticipated physical benefits upon completion of construction.
- List all new facilities, policies, and actions required to obtain the physical benefits and potential adverse physical effects from the project.
- Describe the scientific and technical basis for your project including the methods used to estimate the physical benefits.
- Describe how the performance of the project will be monitored. See the *NCRP Project Performance and Monitoring Plan Guidelines* for a listing of monitoring protocols and resources (http://www.northcoastresourcepartnership.org/app_pages/view/7954).
- Briefly describe how your project benefits salmonids and other endangered/threatened species.
- Briefly describe how your project addresses climate change adaptation and mitigation.

Potential Project Benefits Table

- Complete the Project Benefits Table with information for each of the Potential Benefits that your project claims. Below is the Potential Project Benefits Worksheet that will help to complete the table in the application materials. Following are instructions and background information to help complete the worksheet; once the worksheet is filled in, transpose the information into the Project Application Project Benefits Table. Additional information is provided in Attachment B with guidance, source materials and examples from North Coast projects.
- Projects that provide a direct critical water-related benefit to an economically disadvantaged community that are in the planning or design phase and not intending to complete construction with this solicitation must provide an estimate of the anticipated benefits upon completion of construction.

The benefits listed in the Potential Project Benefits Worksheet consist of benefits that projects commonly produce and are sorted into general categories:

- Water Supply Benefits
- Water Quality Benefits
- Other Ecosystem Service Benefits
- Community and Social Benefits
- Climate Change Mitigation Benefits

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- Beneficial Uses for All Benefit Types

The work tables below outline these benefits. The first column identifies the benefit. The second and third columns provide guidance on how to quantify the benefit in biophysical units. The last two columns provide guidance on how to translate the biophysical effect into an economic value. Please Attachment B for more information examples drawn from past projects on the North Coast.

For some benefits, the economic value can be quantified in monetary terms. Where feasible, suggested dollar values are provided to use in the calculation. These dollar values are drawn from economic studies of projects in California can are generally applicable to projects in Northern California. It is always preferable to use local, site-specific data over these more general values, so if you have better information from the project area itself, please provide it. If not, it is permissible to use the unit value provided. In many cases, only site-specific information can be used to quantify the economic benefit and no general unit value is given. The table provides suggestions for the types of local data that are useful to describe the benefit in monetary terms.

For other benefits, the economic value may not be quantifiable in monetary terms, but can be described qualitatively. It is important to provide as much detail as you can to describe and justify the benefit when it cannot be quantified monetarily. The table provides suggestions about the types of information that would be most helpful in this description.

ATTACHMENT A: POTENTIAL PROJECT BENEFITS TABLE WORKSHEET

Potential Benefits	**Physical Amt of Benefit**	**Suggested Physical Units**	**Economic Value (estimate)**	**Suggested Economic Units** If project-specific units are used, provide source or other documentation of value at the end of each subsection.
Water Supply Benefits				
Increased Instream Flow for Environmental Purposes	_____	Acre-feet per year	_____	$80-120 per acre-feet per year, depending on scarcity and availability of substitutes. A higher value may be appropriate if water is being made available for San Francisco Bay area ($160-$250) or Central Valley ($80-$280) users.
Increased Instream Flow for Agricultural Purposes	_____	Acre-feet per year	_____	$80-120 per acre-feet per year, depending on scarcity and availability of substitutes. A higher value may be appropriate if water is being made available for San Francisco Bay area ($160-$250) or Central Valley ($80-$280) users.
Increased Instream Flow for Municipal Purposes	_____	Acre-feet per year	_____	$80-120 per acre-feet per year, depending on scarcity and availability of substitutes. A higher value may be appropriate if water is being made available for San Francisco Bay area ($160-$250) or Central Valley ($80-$280) users.

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Potential Benefits	Physical Amt of Benefit	Suggested Physical Units	Economic Value (estimate)	Suggested Economic Units If project-specific units are used, provide source or other documentation of value at the end of each subsection.
Change in Timing and Volume of Instream Flow	_____	Cubic feet per second (cfs) over a particular period (document evidence of scarcity during this period)	_____	Project specific / Not monetized
Increased Water Supply Reliability	_____	Number of household customers; Reduction in frequency of water shortages (e.g., once in five years, once in ten years); Reduction in magnitude of shortage (e.g., 10% reduction, 20% reduction)	_____	$19–$27 per household per month Lower value is appropriate for improvements in reliability in situations where shortage is likely to occur infrequently and/or for short periods of time. Higher value is appropriate for improvements in reliability in situations where shortage occurs frequently and/or for longer periods of time.
Increased Groundwater Recharge	_____	Percent increase; Gallons per year; Acre-feet per year	_____	Project Specific/Not monetized
Avoided Water Supply Purchases	_____	Volume of water purchased per year (or at the frequency purchases would be avoided)	_____	Project specific: $ per unit of raw water purchased per year
Avoided Water Supply Projects	_____	Description of the avoided project, including physical benefits, and timing of actions	_____	Project specific: Cost of avoided project(s), including capital, replacement, and operations & maintenance costs, as applicable.
Avoided Water Shortage Costs	_____	Gallons per year; Acre-feet per year; Percent change in frequency /severity of water shortages	_____	Project specific: Avoided costs associated with water shortages
Avoided Electric Costs	_____	Energy units (kWh) per year; Acre-feet of water pumped per year	_____	Project specific: $ per kWh per year (PG&E current rates for different customers can be found at: http://www.pge.com/nots/rates/tariffs/rateinfo.shtml)
Avoided Costs Associated with Emergency Repairs	_____	Project Specific	_____	Project specific: Avoided costs associated with labor and capital to make the emergency repair.
Revenue from Water Sales to New Customers	_____	Gallons per year; Acre-feet per year	_____	Project specific: $ amount of net increase in revenue
Project specific units and source of value (Water Supply): _____				
Water Quality				
Sediment Reduction	_____	Tons per year	_____	Project specific/ Up to $11 per ton of sediment per year
Decreased Water Temperature	_____	Avoided project; Change in maximum daily temperature, by day	_____	Project specific/Not monetized
Increased Dissolved Oxygen	_____	Avoided project; Change in DO concentration	_____	Project specific/Not monetized

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Potential Benefits	Physical Amt of Benefit	Suggested Physical Units	Economic Value (estimate)	Suggested Economic Units If project-specific units are used, provide source or other documentation of value at the end of each subsection.
(DO)				
Bacteria/ Contaminant Reduction	_____	Avoided project; Change in bacteria/ contaminant concentration	_____	Project specific/Not monetized
Additional Water Quality Projects Avoided	_____	Avoided projects	_____	Project specific/Not monetized
Avoided Water Treatment Costs	_____	Gallons per year; Acre-feet per year	_____	Project specific: Reduction in water treatment costs per unit of water per year
Avoided Culvert Failures	_____	Number of culvert failures avoided	_____	Project specific: Cost of culvert failure Either estimate costs if specific culvert failed or use an average appropriate for type of culvert and downstream/surrounding conditions.
Flood Damage Reduction	_____	Project specific.	_____	Project specific. May include avoided costs of damage to structures and infrastructure, avoided cost of loss or disruption of critical services, avoided cost of loss of life.
Project specific units and source of value (Water Quality): _____				
Other Benefits				
Fishery Improvement	_____	Number of fish per year; Percent population increase; Density (fish/m^2); Amount (e.g., miles) of new spawning habitat available. Other description of expected effects on fish populations, if none of the above are available.	_____	Project and species-specific values; Potential overlap with other benefits, such as water quality improvements and recreation benefits.
Increased Quantity or Quality of Recreation or Public Access	_____	Number of recreation days, by type of activity	_____	$128 per camping day, $54 per fishing day, $28 per hiking day, $33 per motorboating day, $61 per mountain biking day, $79 per picnicking day, $25 per sightseeing day, $33 per swimming day, $89 per wildlife viewing day.
Improved Fish Passage	_____	Number of fish per year; Percent population increase; Density (fish/m^2) Amount (e.g., miles) of new spawning habitat available; Other description of expected effects on fish populations, if none of the	_____	Project and species-specific values; Potential overlap with other benefits, such as water quality improvements and recreation benefits.

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Potential Benefits	Physical Amt of Benefit	Suggested Physical Units	Economic Value (estimate)	Suggested Economic Units If project-specific units are used, provide source or other documentation of value at the end of each subsection.
		above are available.		
Habitat Restoration	_____	Acres of habitat, by type	_____	$120 per acre per year (riparian habitat) $2,000–$4,000 per acre per year (wetland habitat); Project-specific values may also be appropriate.
Invasive Plant Removal	_____	Acres of habitat improved	_____	$120 per acre per year (riparian habitat) $2,000–$4,000 per acre per year (wetland habitat); Project-specific values may also be appropriate.
Flood Control	_____	Area and type of land protected; Change in flood probabilities	_____	Project specific. See also Flood Damage Reduction, above.
Reduction in Shellfish Closures	_____	Number of days per year of reduced closures; Change in quantity of commercial shellfish production; Change in shellfish-related recreation days	_____	Project specific
Decreased Operation and Maintenance Costs	_____	Project specific	_____	Project specific: Avoided costs associated with labor and capital for operations and maintenance.
Avoided Costs of Road Maintenance	_____	Miles of road	_____	Project specific: Average road maintenance costs per mile including labor and capital.
Enhanced Fire-Fighting Capabilities	_____	Area protected per year; Avoided costs associated with other sources of water; Avoided costs of delays associated with responding to fires	_____	Project specific
Reduced Risk of Wildfire	_____	Amount of fuel load reduced; predicted reduction in annual fire risk	_____	Project specific; Non Monetized
Project specific units and source of value (Other Benefits): _____				
Community and Social Benefits				
Education or Technology Benefits	_____	Number of people reached; Description of effects of technology (e.g., saved labor, better accuracy, etc.)	_____	Project specific; Not monetized
Avoided Public Water Resources Conflicts	_____	Describe and quantify the conflicts	_____	Project specific; Not monetized
Social Health and Safety	_____	Describe the effects in the project benefit notes	_____	Project specific; Not monetized
Project specific units and source of value (Community & Social Benefits): _____				

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Potential Benefits	Physical Amt of Benefit	Suggested Physical Units	Economic Value (estimate)	Suggested Economic Units If project-specific units are used, provide source or other documentation of value at the end of each subsection.
Climate Change Amelioration				
Carbon Emissions Reductions from Reduced Electricity Use	_____	Reduction in emissions of CO_2 equivalent (CO2E) per year, in tons. Reduced electricity use per year in kWh. To calculate emissions for the project area, go to http://oaspub.epa.gov/powpro/ept_pack.charts	_____	**$15 per ton of carbon dioxide equivalent** (increases at a real rate of 2.5% per year)
Carbon Emissions Reductions from Other Reduced Energy Use	_____	Reduction in emissions of CO_2 equivalent (CO2E) per year, in tons. Reduced energy use per year (e.g., gallons of diesel fuel). To calculate emissions reductions from different energy sources, go to http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results	_____	**$15 per ton of carbon dioxide equivalent** (increases at a real rate of 2.5% per year)
Carbon Sequestration	_____	Number of trees planted, by type; Volume of CO_2 sequestered per year (in tons); May use the Tree Carbon Calculator to estimate carbon dioxide sequestration from tree planting projects: http://www.fs.fed.us/ccrc/tools/ctcc.shtml	_____	**$15 per ton of carbon dioxide sequestered** (increases at a real rate of 2.5% per year); If estimates are not available but an estimate of number of trees planted is available, use the following value estimates: $0.64 for per hardwood planted per year; $0.49 per conifer planted per year; (average annual value of carbon sequestered by a tree with a moderate growth rate over 50 years, discounted at a rate of 3%);
Project specific units and source of value (Climate Change): _____				

- Discuss the Project Cost Analysis in regards to Benefits including alternative methods identified.
- Add additional information as needed to the *Project Justification & Technical Basis Notes* text box found at the end of this section of the application.

Other Project Data

- Select All the expected benefits that apply to your project.
- Select the other sensitive habitat areas your project benefits.
- List any other benefits that apply to your project; including benefits to sensitive areas including:

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    - Critical Coastal Areas (CCA) http://www.coastal.ca.gov/nps/cca-nps.html
    - Marine Protected Areas (MPA) http://oceanservice.noaa.gov/ecosystems/mpa/
    - Areas of Special Biological Significance(ASBS) http://www.swrcb.ca.gov/water_issues/programs/ocean/asbs.shtml
- To view the locations of sensitive habitats (CCA, MPA, ASBS , Wilderness Lands and Endangered Species Act Critical Habitat Areas); and impaired waterbodies (303d Listed) in the North Coast region, go to http://www.northcoastresourcepartnership.org/app_pages/view/7718
- Select the Statewide Priorities that apply to your project. For more information about Statewide Priorities, see the IRWM Program Guidelines (http://water.ca.gov/irwm/grants/p84implementation.cfm)

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Attachment A

Resolution No. _____

Date: _____

RESOLUTION OF _____

ADOPTING THE NORTH COAST INTEGRATED REGIONAL WATER MANAGEMENT PLAN

WHEREAS, in the past 12 years, the California electorate approved three general obligation bonds including Propositions 50, 84, 1E and 1 that have provided more than $12 billion for water-related projects in California for projects that are included in Integrated Regional Water Management (IRWM) Plans; and

WHEREAS, the development of a regional coalition to organize and promote local and regional projects for funding has proven to be effective in obtaining funding from these bond measures directing more than $55 million to water related projects located in the North Coast Region over the past 10 years; and

WHEREAS, a concerted effort by North Coast IRWM Plan participants and interested stakeholders has resulted in the completion of Phase I, II & III of the North Coast IRWM Plan that have been adopted by seven partner counties in 2005, 2007 and 2014; and

WHEREAS, the North Coast Integrated Regional Water Management Plan has identified $435 million funding in needs for capital projects that will improve water supply reliability, protect and improve water quality, increase water use efficiency and reuse, and protect and restore threatened and endangered aquatic species; and

WHEREAS, local and regional water suppliers across California face significant financial challenges due to effort to replace aging water infrastructure, meet increasingly difficult regulatory compliance standards, adapt to climate change, and increase water reuse and improve groundwater management; and

WHEREAS, projects to implement water-related efforts throughout the North Coast Region are eligible for grant funding from the Proposition 84 IRWM Program; and

WHEREAS, projects that complement the North Coast IRWM Plan have been reviewed and ranked by the North Coast Technical Peer Review Committee and approved by the North Coast Policy Review Panel; and

WHEREAS, all persons desiring to be heard and provide comment at the North Coast Policy Review Panel meetings and via the North Coast IRWM Planning website were given the opportunity to present their views and all written communications regarding the plan were publically presented.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors/Tribal Council of the _____ hereby find, determine and declare as follows:

1. All of the above recitals are true and correct.

2. Phase III of the North Coast Integrated Regional Water Management Plan, _[date]____ is adopted.

APPROVED AND ADOPTED by the Board of Supervisors/Tribal Council of the _____, at a regular meeting of said Board/Council, held on the _[date]_____ by the following vote.

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Attachment B

The work tables below outline potential benefits of project implementation in the North Coast region. The first column identifies the benefit. The second and third columns provide guidance on how to quantify the benefit in biophysical units. The last three columns provide guidance on how to translate the biophysical effect into an economic value. To help you think about the benefit from an economic perspective, the table provides examples drawn from past projects on the North Coast.

For some benefits, the economic value can be quantified in monetary terms. Where feasible, suggested dollar values are provided to use in the calculation. These dollar values are drawn from economic studies of projects in California can are generally applicable to projects in Northern California. In many cases, only site-specific information can be used to quantify the economic benefit and no general unit value is given. The table provides suggestions for the types of local data that are useful to describe the benefit in monetary terms. For other benefits, the economic value may not be quantifiable in monetary terms, but can be described qualitatively.

WATER SUPPLY BENEFITS					
Potential Benefit	**Physical Amt of Benefit**	**Suggested Physical Units**	**Estimated Economic Value**	**Suggested Economic Units**	**Example of Applying Economic Units**
Increased Instream Flow for Environmental Purposes		Gallons per year; Gallons per minute; Acre-feet per year		**$80–$120 per acre-foot per year**[1] This value represents the market prices paid in California water markets for water in 2013. This value should be applied to the increase in the volume of water that is left instream to support ecological functions. The value of this benefit accumulates over time. A higher value may be appropriate if water is being made available for San Francisco Bay area ($160-$250) or Central Valley ($80-$280) users.	A project helps a farmer install drip irrigation equipment. The farmer is then able to reduce withdrawals from the river by one acre-foot per year, which leaves more water instream to protect habitat for salmon and other species. The value of the benefit is $80 per year, for as many years as the water is guaranteed to remain as instream flow.
Increased Instream Flow for Agricultural Purposes		Gallons per year; Gallons per minute; Acre-feet per year		**$80–$120 per acre-foot per year**[1] This value represents the market prices paid in California water markets for water in 2013. This value should be applied to the increase in the volume of water available to agricultural users. The value of this benefit accumulates over time. A higher value may be appropriate if water is being made available for San Francisco Bay area ($160-$250) or Central Valley ($80-$280) users.	A project covers irrigation ditches, which reduces evaporation by one acre-foot per year. This water is available to irrigate more acreage than before. The value of this benefit is $57 per year, for as many years as the water is available to meet agricultural demands.
Increased Instream Flow for Municipal Purposes		Gallons per year; Gallons per minute; Acre-feet per year		**$80–$120 per acre-foot per year** This value represents the market prices paid in California water markets for water in 2013. This value should be applied to the increase in the volume of water available to municipal users. The value of this benefit accumulates over time. A higher value may be appropriate if water is being made available for San Francisco Bay area	A project provides rebates for water-efficient toilets, which reduces per-capita water use and overall water use by one acre-foot per year. This water is available to meet municipal demands from population growth than before. The value of this benefit is $121 per year, for as many years as the water is

[1] West Water Research. 2013. *2013 California Spot Market Price Forecast.*

WATER SUPPLY BENEFITS					
Potential Benefit	**Physical Amt of Benefit**	**Suggested Physical Units**	**Estimated Economic Value**	**Suggested Economic Units**	**Example of Applying Economic Units**
Change in Timing and Volume of Instream Flow		Cubic feet per second (cfs) over a particular period (document evidence of scarcity during this period)		**Project specific / Not monetized** Water that provides an increased instream flow during periods of scarcity is particularly valuable. Other benefit categories (e.g., increased instream flow for environmental purposes) already capture some of the benefit associated with increased instream flows. To the extent that increased instream flows occur during periods of scarcity, those values may underestimate the true value of this flow.	A project provides rain tanks that allow a farmer to collect water during the wet season and replace irrigation withdrawals during summer months. This would increase the river's flow during typically drier periods, when water is more scarce and additional flows are more critical for maintaining fish habitat. The exact value of this additional flow, above the average value provided for instream flow for environmental purposes, may not be known, but its importance should be described.
Increased Water Supply Reliability		Number of household customers; Reduction in frequency of water shortages (e.g., once in five years, once in ten years); Reduction in magnitude of shortage (e.g., 10% reduction, 20% reduction)		**$19–$27 per household per month**[2] These values represent how much households are willing to pay to avoid specific types of water shortages. At the low end, respondents said they were willing to pay about $19 per month to avoid a 10% shortage that occurs once every 10 years. At the high end, they were willing to pay about $27 per month to avoid a 50% shortage that occurs once every 20 years. The lower value is appropriate for improvements in reliability in situations where shortage is likely to occur infrequently and/or for short periods of time. The higher value is appropriate for improvements in reliability in situations where shortage occurs frequently and/or for longer periods of time.	A project that installs low-flow appliances results in a decrease in per-capita water demand. This reduces the likelihood the water utility must enforce water rationing, mandating a 10 percent reduction in water consumption when droughts occur, which is about once every 10 years in the watershed this utility depends on. This utility serves 500 customers, so the value of this benefit is about $9,500 per month or $114,000 per year. This is a tricky benefit to quantify. Project-specific conditions should be taken into account and may affect values considerably.

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[2] Barakat & Chamberlin, Inc. 1994. The Value of Water Supply Reliability: Results of a Contingent Valuation Survey of Residential Customers. August.

WATER SUPPLY BENEFITS					
Potential Benefit	**Physical Amt of Benefit**	**Suggested Physical Units**	**Estimated Economic Value**	**Suggested Economic Units**	**Example of Applying Economic Units**
Increased Groundwater Recharge		Percent increase; Gallons per year; Acre-feet per year		**Project Specific/Not monetized** The benefits that arise from groundwater recharge may be addressed by other benefit categories (e.g., increased instream flow for multiple purposes, improved habitat, avoided costs, etc.) If other categories don't cover the benefit, describe specifics here.	A project diverts stormwater to constructed wetlands, increasing recharge to the aquifer. This may produce a wide range of benefits, including increased instream flows, avoided pumping costs, avoided costs of adapting to subsidence, etc. Where possible, address this effect in these other, direct, benefit categories.
Avoided Water Supply Purchases		Volume of water purchased per year (or at the frequency purchases would be avoided);		**Project specific: $ per unit of raw water purchased per year** This value depends on the types and costs of avoided water purchases. It's best to rely on information from the project area. If water would have been purchased yearly, the benefit accrues annually. If it's every 5 or 10 years, value accrues periodically over time.	A project decreases water demand by installing low-flow appliances. This decrease in water demand means that the community no longer has to purchase $100,000 worth of water from a neighboring water district each year. The value of this benefit is $100,000 per year. It could potentially increase over time if water supply purchases would have increased.
Avoided Water Supply Projects		Description of the avoided project, including physical benefits, and timing of actions		**Project specific: Cost of avoided project(s), including capital, replacement, and operations & maintenance costs, as applicable.** This benefit is equal to the costs of other potential future projects aimed at increasing/improving water supplies that are avoided as a result of the project.	A project covers a reservoir, decreasing evaporation. Since more water is available from the reservoir, a planned expansion that would have cost $500,000 no longer has to take place. The value of this benefit would a one-time avoided cost of $500,000. If the reservoir expansion would have cost $500 per year more to maintain, the annual avoided cost would be $500 dollars, and is additional to the one-time capital cost.

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WATER SUPPLY BENEFITS					
Potential Benefit	**Physical Amt of Benefit**	**Suggested Physical Units**	**Estimated Economic Value**	**Suggested Economic Units**	**Example of Applying Economic Units**
Avoided Water Shortage Costs *See also* Avoided Water Supply Purchases, Increased Water Supply Reliability		Gallons per year; Acre-feet per year; Percent change in frequency /severity of water shortages		**Project specific: Avoided costs associated with water shortages** The value of this benefit may already be included elsewhere (e.g., avoided water supply purchases, increased water supply reliability). To the extent that the project's capacity to reduce costs attributable to water shortages has not already been captured, it could be included here.	A community increases the efficiency of municipal water use resulting in a decrease in water demand. This decrease in water demand results in an avoided water shortage each summer. Historically, the community had incurred costs of $100,000 during its annual water shortage, from lost business opportunities. This project would have an annual benefit of $100,000.
Avoided Electric Costs		Energy units (kWh) per year; Acre-feet of water pumped per year		**Project specific: $ per kWh per year** If a project specific change in electricity use is available, it can be multiplied by local electricity prices to estimate the value of the benefit. (PG&E current rates for different customers can be found at: http://www.pge.com/nots/rates/tariffs/rateinfo.shtml)	A project decreases leakage from irrigation piping resulting in a decrease in energy used to pump water for irrigation. The value of the benefit would be equal to the avoided electricity costs.
Avoided Costs Associated with Emergency Repairs		Project Specific		**Project specific: Avoided costs associated with labor and capital to make the emergency repair.** Insofar as the avoided costs have not been included elsewhere, they can be included here. To the extent that the project avoids costs associated with emergency repairs, the value of those costs may be included as a benefit.	For the past 10 years, emergency crews have been called on to repair an old water pipe, on average, every two years. A project that replaces that pipe would provide a benefit equal to the average annual costs of those avoided repairs.
Revenue from Water Sales to New Customers		Gallons per year; Acre-feet per year		**Project specific: $ amount of net increase in revenue**	A utility fixes leaky distribution pipes, which allows it to sell more water to meet demands it currently cannot meet without developing new supplies. The benefit is equal to revenue earned from the additional water sales.

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WATER QUALITY BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Applying Economic Units**
Sediment Reduction		Tons per year		**Project specific/Up to $11 per ton of sediment**[3] This value represents the sum of several avoided costs associated with reducing sedimentation (e.g., avoided reservoir dredging, avoided flood damage, avoided sediment filtration costs). The actual value likely is less than $11 per ton, and depends on the types of downstream users likely to benefit.	A project involves planting 100 trees in a previously barren riparian area resulting in reduced sediment from erosion. The project reduces sedimentation to the stream by one ton per year. The annual value of the benefit is $11 per year. *Alternately, the water treatment plant downstream can document that it will spend $1,000 less per year on treatment supplies to remove the sediment. The benefit in that case will be $1,000 per year. This is a hypothetical, project-specific benefit.*
Decreased Water Temperature		Avoided project; Change in maximum daily temperature, by day		**Project specific** To avoid double counting of habitat benefits, the value of this benefit is equal to the costs of other potential future projects aimed at reducing water temperature that are avoided due to this project's impact. If there are not potential avoided future projects, this benefit may still have biophysical value, but does not necessarily provide an economic benefit.	A project involves planting 100 trees along a stream These trees shade the stream and decrease the water temperature. Due to lower water temperatures from this project, another future project costing $100,000 is no longer necessary. This benefit has a one-time value of $100,000.
Increased Dissolved Oxygen (DO)		Avoided project; Change in DO concentration		**Project specific** To avoid double counting, the value of this benefit is equal to the costs of other potential future projects aimed at increasing DO concentrations that are avoided due to this project's impact. If there are not potential avoided future projects, this benefit may still have biophysical value, but does not necessarily provide an economic benefit.	A project involves planting 100 trees between a farm and a stream. The decrease in nutrient runoff from the farm improves dissolved oxygen concentrations in the stream. Due to the improved dissolved oxygen concentrations from this project, another future project costing $100,000 is no longer necessary. This benefit has a one-time value

[3] Hansen, L. and M. Ribaudo. 2008. Economic Measures of Soil Conservation Benefits: Regional Values for Policy Assessment. U.S. Department of Agriculture. Technical Bulletin No. 1922.

WATER QUALITY BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Applying Economic Units**
					of $100,000.
Bacteria/ Contaminant Reduction		Avoided project; Change in bacteria/ contaminant concentration		**Project specific** To avoid double counting of habitat- and recreation-related benefits, the value of this benefit is equal to the costs of other potential future projects aimed at decreasing bacteria/contaminant concentrations that are avoided due to this project's impact. If there are not potential avoided future projects, this benefit may still have biophysical value, but does not necessarily provide an economic benefit.	A project involves planting 100 trees between a livestock operation and a stream. The decrease in runoff from the feedlot reduces bacteria concentrations in the stream. Due to the improved bacteria concentrations from this project, a future project costing $100,000 is no longer necessary. This benefit has a one-time value of $100,000.
Additional Water Quality Projects Avoided		Avoided projects		**Project specific** To avoid double counting of habitat- and recreation-related benefits, the value of this benefit is equal to the costs of other potential future projects aimed at improving water quality that are avoided due to this project's impact.	If the project improves water quality in other ways, it provides a benefit by improving aquatic habitat and recreational opportunities. To avoid double counting, the value of habitat- and recreation-related benefits are calculated elsewhere. To the extent that this project can replace other efforts aimed at improving water quality, it provides an additional benefit equal to the costs of avoided projects.
Avoided Water Treatment Costs		Gallons per year; Acre-feet per year		**Project specific: Difference in water treatment costs per unit of water per year** If a local value for water treatment costs is available, multiply it by the relevant quantity to estimate the annual benefit.	A project involves lining a reservoir that holds municipal drinking water, resulting in improved water quality and decreased treatment costs for the water supply. The value is the difference between what the utility paid to treat the water before the project and after the project.

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WATER QUALITY BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Applying Economic Units**
Avoided Culvert Failures		Number of culvert failures avoided		**Project specific: Cost of avoided culvert failures** Use local values describing historical costs associated with culvert failures to estimate the value of reducing future culvert failures. These might include costs of: fixing/ replacing pipes at emergency rates; flood damage to land owners; and user delays for motorists. This is a one-time value applied when the culvert would likely have failed.	A project involves excavating and reinstalling one culvert that is at a risk of immediate failure. Culvert failures in the area have cost an average of $10,000 per failure in emergency repairs and localized damage to roads and structures. This one-time value can be applied to describe the benefit of this project.
Flood Damage Reduction		To determine flood damage reduction benefits, see specific instructions below.		**Project specific** Calculate expected annual damage using relevant model, such as U.S. Army Corps of Engineers HEC-Flood Damage Assessment or the Flood Rapid Assessment Model (F-RAM).	If the project decreases the frequency and/or magnitude of potential future flood events, it provides a benefit equal to the value of avoided flood damages. The economic costs associated with expected annual damage may include avoided physical damage; avoided costs associated with loss of functions such as income and wages; avoided emergency response and cleanup; and avoided, but unquantifiable, public safety and health impacts.

OTHER ECOSYSTEM SERVICE BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Calculating Economic Value**
Fishery Improvement *See also* Increased Instream Flow for Environmental Purposes; Habitat Restoration		Number of fish per year; Percent population increase; Density (fish/m^2)		**Project and species-specific values; Partially captured by other benefits** Some of the value of this benefit is captured in the value of increased instream flow for environmental purposes. If the project makes targeted efforts to improve fish populations, there are several species-specific values applicable from the literature that reflect the commercial, recreation, and existence values of improved fish populations. These values are dependent on site conditions and are not straightforward calculations.	A project installs 50 pieces of large woody debris in a river resulting in a 5% increase in local salmon and steelhead populations over 30 years. The value of this salmon-specific benefit is based on the commercial, recreation, and existence value of this increase in fish populations.
Increased Quantity or Quality of Recreation or Public Access		Number of recreation days, by type of activity		**$128 per camping day,** **$54 per fishing day,** **$28 per hiking day,** **$33 per motorboating day,** **$61 per mountain biking day,** **$79 per picnicking day,** **$25 per sightseeing day,** **$33 per swimming day,** **$89 per wildlife viewing day.**[4] These represent the net value associated with a day spent participating in different recreational activities (not including the costs of participating in the activity). Generally, increases in quality of recreational opportunities are not easily quantifiable, but should be discussed qualitatively.	A project creates a new hiking trail along a river. This new trail attracts more individuals to hike in the area and encourages people who already hike in the area to take more hiking trips. Recreation managers in the area count an average of 10 hikers per day using the trail. Assuming all of these people would not have gone hiking but for this new trail, the value associated with the trail is approximately $280 per day or about $100,000 per year. It is important to recognize that some of these people may have hiked elsewhere, so they would have benefited from their hiking trip either way. For this reason, it is easy to overestimate this benefit, so care should be taken to clearly document assumptions.
Improved Fish Passage *See also* Fishery Improvement; Increased Instream Flow for		Number of fish per year; Percent population increase; Density (fish/m^2)		**Project and species-specific values; Partially captured by other benefits** Avoid double counting with the value of increased instream flow for environmental purposes (and, if calculated, the improvement in fisheries). If the project makes targeted efforts to improve fish populations, there are several species-specific	A project installs an additional culvert under a roadway resulting in 5 stream miles of new steelhead rearing habitat. This is expected to increase steelhead populations in the watershed by 10 percent over 10 years. The value of this salmon-specific benefit is based on the commercial, recreation, and existence value of this increase in fish

[4] Loomis, J. 2005. Updated Outdoor Recreation Use Values on National Forests and Other Public Lands. U.S. Forest Service. General Technical Report PNW-GTR-658.

OTHER ECOSYSTEM SERVICE BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Calculating Economic Value**
Environmental Purposes; Habitat Restoration				values applicable from the literature that reflect the commercial, recreation, and existence values of improved fish populations. These values are dependent on site conditions and are not straightforward calculations.	populations.
Habitat Restoration *See also* Fishery Improvement; Increased Instream Flow for Environmental Purposes		Acres of habitat type		**$120 per acre per year (riparian habitat)**[5] **$2,000–$4,000 per acre per year (wetland habitat)**[6]**; Project-specific** These values represent estimates of the total annual economic value associated with riparian and wetland habitat. Other values may be available from the literature to apply to other habitat types and may differ considerably from these values (e.g., upland forest ecosystems, scrubland, etc.).	A project involves removing an abandoned development alongside a river. In the process, trees are planted and the native riparian conditions are restored, increasing riparian habitat by one acre. The value of that new habitat would be $120 per year.

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[5] Chaibai, A., C. Travisi, H. Ding, et al. 2009. Economic Valuation of Forest Ecosystem Services' Methodology and Monetary Estimates. Fondazione Eni Enrico Mattei Working Paper No. 2009.12.

[6] Woodward, W. and Y. Wui. 2001. "Economic Value of Wetland Services: A Meta-Analysis." Ecological Economics. 37:257-270.

OTHER ECOSYSTEM SERVICE BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Calculating Economic Value**
Invasive Plant Removal		Acres of habitat improved		**$120 per acre per year (riparian habitat)[6]** **2,000–$4,000 per acre per year (wetland habitat)[7]** To the extent that a project improves the functionality of habitat, it provides benefits proportional to the incremental improvement of the habitat. To avoid double-counting, habitat restoration benefits should not be claimed on the same land that receives benefits for removing invasive plants.	A project removes invasive blackberries from one acre of a riparian area, resulting in better growing conditions for native vegetation and improved wildlife habitat. Biologists estimate the changes improve the productivity of the landscape for supporting native species, from about 50 percent of optimal function to 100 percent of optimal function. The value of the benefit would be equal to half of the value associated with riparian habitat, or about $60 per year.
Flood Control *See also* Flood Damage Reduction		Area and type of land protected; Change in flood probabilities		**Project specific** In order to avoid double counting with previous flood-related benefits, the value of this benefit should be equal to historical costs associated with past floods minus those costs already accounted for in other benefit categories.	If the project decreases the frequency and/or magnitude of potential future flood events, it provides additional benefits beyond those estimated by F-RAM. These benefits are equal to avoided future flood-related costs (e.g., avoided displacement, avoided injuries, avoided municipal opportunity costs, avoided flood preparation costs).
Reduction in Shellfish Closures		Number of days per year of reduced closures; Change in quantity of commercial shellfish production; Change in shellfish-related recreation days		**Project specific** The value of this benefit relies on the type of shellfish closure, its duration, and its total effect on commercial shellfish production and recreational shellfish activity.	Historically, high bacteria levels in a river have resulted in annual closures in a nearby shellfish-producing area. A project effectively reduces bacteria levels resulting in no more shellfish closures. The value of the value of the benefit is equal to the value of commercial and recreational shellfish activities adversely affected by the closure.

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OTHER ECOSYSTEM SERVICE BENEFITS					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Calculating Economic Value**
Decreased Operation and Maintenance Costs		Project specific		**Project specific: Avoided costs associated with labor and capital for operations and maintenance.** If the project decreases any operation and/or maintenance costs not accounted for in other benefit categories, count those benefits here. The value of the benefit is equal to the avoided operation and maintenance costs per year.	A project upgrades a municipal reservoir, resulting in a reduction in treatment and conveyance costs of $50,000 per year. Insofar as these values have not been accounted for elsewhere, the value of this benefit is $50,000 per year.
Avoided Costs of Road Maintenance		Miles of road;		**Project specific: Average road maintenance costs per mile including labor and capital.** In order to avoid double-counting with previous maintenance-related benefits, the value of this benefit should reflect only those avoided costs not yet accounted for.	A project re-grades a segment of roadway, decreasing annual costs associated with runoff and erosion. Historically, an average of $5,000 was spent addressing problems related to poor grade. The improvements reduce the annual maintenance efforts by half for 10 years. The value of this benefit is equal to $2,500 per year over 10 years.
Enhanced Fire-Fighting Capabilities		Area protected per year; Avoided costs associated with other sources of water; Avoided costs of delays associated with responding to fires		**Project specific** FEMA has developed a benefit-cost model that uses project-specific characteristics to estimate the value of avoided costs associated with natural disasters such as fires. If the project improves fire-fighting capabilities, it provides a benefit equal to the avoided costs associated with bringing in water from other sources to fight fires, the costs of delays in responding to fires, and fire-related damage.	A project increases the annual storage capacity of a pretreatment reservoir and reduces annual water demand, expanding the community's capacity to provide water for fighting wildfires in the region. The benefit is equal to the costs of fighting fire associated with hauling water from farther away, and potentially the damage avoided from being able to respond to fires more quickly. If these benefits are difficult to quantify monetarily, describe qualitatively.
Reduced Risk of Wildfire		Amount of fuel load reduced; predicted reduction in annual fire risk		**Project specific; Non Monetized** This benefit may be difficult to quantify. Factors to consider include probability of large fire and changes in potential damage costs, fire fighting costs, insurance costs, etc.	A project thins forests, reducing the risk of a catastrophic wildfire. The benefit is equal to the reduced annual probability of fire times the costs associated with fighting fires, the costs of delays in responding to fires, and fire-related damage.
COMMUNITY and SOCIAL BENEFITS					

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Potential Benefit	Physical Amount of Benefit	Suggested Units	Estimated Economic Value	Potential Economic Units	Example of Calculating Economic Value
Education or Technology Benefits		Number of people reached; Description of effects of technology (e.g., saved labor, better accuracy, etc.)		**Project specific; Not monetized** This benefit may be difficult to quantify in monetary terms. If the project provides opportunities for people to enhance their education or to develop, test, or document a new technology in a way that should result in water supply, water quality, or flood reduction benefits it results in a benefit associated with education or technology.	A project uses youth volunteers from the local community to conduct stream restoration. The students learn about the river's ecosystem. This represents an investment in the region's human capital, which may improve the individual success of the students and the community's capacity to address related issues in the future.
Avoided Public Water Resources Conflicts		Describe and quantify the conflicts		**Project specific; Not monetized** This benefit may be difficult to quantify in monetary terms. Evidence of an effect may be illustrated through reduced litigation costs or reduced enforcement or regulatory costs.	A project provides opportunities for public collaboration around water conservation efforts. This allows stakeholders to share information, identify and agree on problem definitions, and address issues before they rise to official levels. This may avoid short-run costs and builds a region's social capital, which may increase its capacity to address similar problems more efficiently and cost-effectively in the future.
Social Health and Safety		Describe the effects		**Project specific; Not monetized** These types of benefits are difficult to quantify in monetary terms. If the project reduces the public's exposure to water-related hazards not captured by the benefit categories above, it might provide additional benefits to social health and safety.	A project reinforces a critical water main whose failure, given a seismic event, would disrupt the fire-fighting capacity of the community. The benefit is reduced risk of incurring emergency costs and improved resilience if disruptions occur.

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CLIMATE CHANGE MITIGATION					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Calculating Economic Value**
Carbon Emissions Reductions from Reduced Electricity Use		Reduction in emissions of CO2 equivalent (CO2E) per year, in tons. Reduced electricity use per year in kWh. To calculate emissions for the project area, go to http://oaspub.epa.gov/powpro/ept_pack.charts		**$15 per ton of carbon dioxide equivalent** (increases at a real rate of 2.5% per year)[7] Reducing emissions has a benefit equal to the value of these avoided costs. If the weight of avoided carbon dioxide equivalent is known, apply the first value to the weight of avoided emissions. If only the amount of avoided electricity is known, apply the second value ($22 per MWh) to the amount of avoided electricity. The value of this benefit accumulates annually.	A project reduces leakage from irrigation piping resulting in a reduction in electricity used to pump and convey water for irrigation. The reduction in energy use results in a reduction in electricity generation, which reduces greenhouse gas emissions by one ton of CO2 equivalent per year. The value of the benefit is $15 for the first year, increasing by 2.5 for every year thereafter.
Carbon Emissions Reductions from Other Reduced Energy Use		Reduction in emissions of CO2 equivalent (CO2E) per year, in tons. Reduced energy use per year (e.g., gallons of diesel fuel). To calculate emissions reductions from different energy sources, go to http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results		**$15 per ton of carbon dioxide equivalent** (increases at a real rate of 2.5% per year)[8] Reducing emissions has a benefit equal to the value of these avoided costs. If only the amount of energy is known, convert the energy to carbon dioxide equivalent, and multiply by the value above. Additional resources for these calculations are available at http://www.eia.gov/oiaf/1605/emission_factors.html	A project reduces the need to transport water by truck, resulting in a decrease in diesel used for transportation, which reduces greenhouse gas emissions by one ton of CO2 equivalent per year. The value of the benefit is $15 for the first year, increasing by 2.5 for every year thereafter.
Carbon		Number of trees planted, by type;		**$15 per ton of carbon**	A project involves

[7] California Environmental Protection Agency, Air Resources Board. 2014. *California Air Resources Board Quarterly Auction 6, February 2014: Summary Results Report.* Retrieved April 29, 2014, from http://www.arb.ca.gov/cc/capandtrade/auction/february-2014/results.pdf; Nordhaus, W. 2008. A Question of Balance: Weighing the Options on Global Warming Policies. New Haven: Yale University Press.; U.S. Department of Energy, Energy Information Administration. 2007. Appendix F. Electricity Emission Factors. Retrieved on October 29, 2012 from www.eia.gov/oiaf/1605/emission_factors.html.

[8] California Environmental Protection Agency, Air Resources Board. 2014. *California Air Resources Board Quarterly Auction 6, February 2014: Summary Results Report.* Retrieved April 29, 2014, from http://www.arb.ca.gov/cc/capandtrade/auction/february-2014/results.pdf; Nordhaus, W. 2008. A Question of Balance: Weighing the Options on Global Warming Policies. New Haven: Yale University Press.

CLIMATE CHANGE MITIGATION					
Potential Benefit	**Physical Amount of Benefit**	**Suggested Units**	**Estimated Economic Value**	**Potential Economic Units**	**Example of Calculating Economic Value**
Sequestration		Volume of CO2 sequestered per year (in tons) May use the Tree Carbon Calculator to estimate carbon dioxide sequestration from tree planting projects: http://www.fs.fed.us/ccrc/tools/ctcc.shtml		**dioxide sequestered** (increases at a real rate of 2.5% per year)[9] If estimates of carbon sequestration are not available but an estimate of number of trees planted is available, use the following value estimates: $0.64 for per hardwood planted per year; $0.49 per conifer planted per year; These values represent the average annual value of carbon sequestered by different kinds of trees, assuming a moderate growth rate over 50 years, discounted at a rate of 3 percent.	planting 1,000 coniferous trees along a riparian area. As these trees grow they sequester and store carbon dioxide. This benefit is roughly equivalent to $490 per year.

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[9] California Environmental Protection Agency, Air Resources Board. 2014. *California Air Resources Board Quarterly Auction 6, February 2014: Summary Results Report.* Retrieved April 29, 2014, from http://www.arb.ca.gov/cc/capandtrade/auction/february-2014/results.pdf; Nordhaus, W. 2008. A Question of Balance: Weighing the Options on Global Warming Policies. New Haven: Yale University Press.; U.S. Department of Energy, Energy Information Administration. 1998. *Method for Calculating Carbon Sequestration by Trees in Urban and Suburban Settings*. Retrieved April 29, 2014, from http://202.116.32.252:8080/maths/uploadfile/2013/1204/20131204110004766.pdf

BENEFICIAL USES OF WATER FOR ALL BENEFIT TYPES		
Note: These descriptions provide information that helps inform the economic value of the benefit categories listed above, but the economic value for these categories is not calculated independently.		
Potential Benefit	**Suggested Units**	**Description**
Enhancement of Beneficial Uses	Number of downstream water bodies affected	
Enhancement of Beneficial Uses	Water body names and volumes	
Enhancement of Beneficial Uses	Percentage of each water body affected	
Enhancement of Beneficial Uses	Beneficial uses affected by project	
Enhancement of Beneficial Uses	Change in beneficial use activity expected for the affected portion of each water body	
Enhancement of Beneficial Uses: Sport Fishing	Increase in sport fishing days per year	
Enhancement of Beneficial Uses: Water Contact Recreation	Increase in open days per year	
Enhancement of Beneficial Uses: Wildlife Habitat	Acres of riparian habitat restored per year	
Enhancement of Beneficial Uses	Number of downstream water bodies affected	
Enhancement of Beneficial Uses	Water body names and volumes	

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