



ATTACHMENT 6

MONITORING, ASSESSMENT, AND
PERFORMANCE MEASURES



COSUMNES, AMERICAN, BEAR & YUBA RIVER
INTEGRATED REGIONAL WATER MANAGEMENT

ATTACHMENT 6 MONITORING, ASSESSMENT, AND PERFORMANCE MEASURES

The CABY IRWMP Prop 84 Implementation Grant Proposal includes 19 projects that are the result of integrated and collaborative planning throughout the CABY region and by all CABY members. Each of the projects represented in this proposal strongly emphasize and represent the CABY stakeholders' programmatic approach to investing in small, disadvantaged, and/or rural communities, and have specific objectives related to improving the quality of life within these communities. The CABY region is unique in its history, having evolved from booming gold rush communities in the 1800s to small, very remote populations today. The infrastructure inherited from the gold rush boom is quite often still in place and still used as integral components of the communities' water supply system.

There are substantial economies of scope and scale to be gained through a commitment to intra-regional cooperation. These include sharing of data and best management practices, development of replicable materials and programs for distribution region-wide (examples include the development of a Drought Action Plan template that emphasizes integrated resource planning, as well as stakeholder involvement through each step). The small, rural communities represented by the CABY region in this proposal share disadvantaged status, as well as a strong commitment to implementing water conservation best management practices to do their part for the State. Given the lack of economic resources in the region, sharing information and working collaboratively on common products is an efficient method for accomplishing the goals of water use efficiency, infrastructure planning and update, drought preparedness, and environmental flow contributions. The implementation of this suite of projects will protect water resources in the CABY region, and result in community economic vitality and the enhancement of environmental flows within the region.

The nineteen CABY IRWMP Implementation Grant Proposal projects include (listed under project location/sponsor):

- Nevada City:
 - Gracie Road Intertie
 - South Pine Distribution System Improvement
 - Park Avenue Distribution System Improvement
 - Prospect Street Distribution System Improvement
 - Altitude Valves and Integrated SCADA System on Storage Tanks
 - Leak Detection and Repair
 - Water Meters on City Facilities

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- Integrated Water Shortage Contingency and Comprehensive Drought Preparedness Program (including: Water Shortage Response Feasibility Study and Action Plan; Integrated Capital Improvement Needs Assessment; Customer-based Conservation Implementation; Plumbing Fixture Retrofit Program Implementation (kits); and Comprehensive Drought Preparedness Plan)
- Washington County Water District:
 - Maybert Road Distribution Line Improvements
 - Relief Hill Road – Flow Control Pressure Improvements
 - Level-Control Altitude Valves on Storage Tank
 - Leak Detection and Repair
 - System-Wide Installation of Water Meters
 - Integrated Water Shortage contingency and Comprehensive Drought Preparedness Program (including: Water Shortage Response Feasibility Study and Action Plan; Integrated Capital Improvement Needs Assessment; Customer-based Conservation Implementation; Plumbing Fixture Retrofit Program Implementation (kits); Comprehensive Drought Preparedness Plan; and Organizational Needs Assessment)
- Grizzly Flats Community Services District:
 - Reservoir Lining
 - Leak Detection and Repair
 - Integrated Water Shortage Contingency and Comprehensive Drought Preparedness Program (including: Customer-based Conservation Implementation; Plumbing Fixture Retrofit Program Implementation (kits and toilet rebates); and Comprehensive Drought Preparedness Plan)
- Placer County Water Agency:
 - Leak Detection and Repair
 - Plumbing Fixture Retrofit Program Implementation (kits)
- American Rivers:
 - CABY Water Trust

The following discussion provides a description of the monitoring systems that will be used to verify project performance. Following this discussion are the Project Performance Measures tables for each project in the CABY IRWMP Implementation Grant Proposal.

MONITORING AND ASSESSMENT SYSTEMS

As discussed in the introduction, the projects identified by the CABY members have focused on small, rural, and/or disadvantaged communities. This focus resulted in the identification of a similar project implementation need in each of the communities, to varying degrees. Consequently, they are grouped according to project type below, as the monitoring measures will be the same throughout the CABY area, on projects of the same type.

Leak Detection Projects

Includes: Nevada City, Washington County Water District, Grizzly Flats CSD, and Alta/Colfax

As this project implementation is actually an act of monitoring the water systems of the communities participating, the monitoring for the project will be the ongoing meter reading of system meters to detect whether unexpected water use has occurred and/or is occurring.

In every case, the monitoring will consist of meter reading to detect and identify degraded pipe sections creating chronic leaks, as well as unexpected, large scale leaks. Appropriate action will be taken if a leak is detected. If a line segment becomes degraded to the point of needing replacement, the work task will be placed into the Capital Improvement Plan for planned financial investment. If the break is an emergency, it will be repaired as needed.

Please note that WC will be installing meters as part of this proposal. They will install meters and then immediately begin leak detections, so that the meters may be used to identify possible leaks.

Pipe Repair, Replacement, and Interties

Includes: Nevada City and Washington County Water District

There is no effective way to monitor subsurface pipes, with the exception of the meter reading defined in the leak detection strategy (above). The same monitoring that is being used for leak det. Will be used to monitor pipe repair, replacement, and interties. In the community of Washington County Water District, where the line will be installed above ground due to engineering and financial necessity, the entire length of the line is walked monthly and the meters (to be installed as a component of this proposal) will be read weekly.

Altitude Valves

Includes: Nevada City and Washington County Water District

For the City of Nevada City, the altitude valves and storage tanks will be on a SCADA system, which automatically monitors for inadequate system performance. The monitoring of the SCADA system will occur with annual software updates, quarterly system performance checks, and daily spot testing.

The Washington County Water District does not have a SCADA system in place, so altitude valve monitoring will be done based on the characteristics of the installed valves and will become part of regular district operations and maintenance.

Meter installation

Includes: Nevada City and Washington County Water District

Meters will be read bi-weekly, calibrated annually (more frequently as required). Any deficiencies in meter performance will be identified and the meter will be repaired or replaced.

Integrated Water Shortage contingency and Comprehensive Drought Preparedness Program

Includes: Nevada City, Washington County Water District, Grizzly Flats Community Services District, and Alta/Colfax

Evaluation of pre- and post-project water uses will help to determine impact of program on consumer behavior. In addition to this, the attendance at each event (drought and educational workshop) will be recorded, along with post-event surveys.

The presence of a drought plan cannot be monitored, but project participants and the CABY staff will monitor whether implementation of the drought plan is effective. The drought plan will include a performance evaluation and automatic update function if it is found not to answer organizational needs in a drought. The plan itself will include measures to assess performance and guide plan updates as required.

Capital Improvement Plan

Includes: Nevada City and Washington County Water District

A Capital Improvement Plan cannot be monitored, as it's financially driven. However, an annual evaluation will be made of the CIP automatically when the organizations are planning for the next year. In this way, CABY will be able to monitor if/when recommendations and improvements are made.

Retrofits

Includes: Nevada City, Washington County Water District, Grizzly Flats Community Services District, and Alta/Colfax

There is no effective way to monitor whether people retain fixtures and use them. However, on systems with customer meters installed and tracking customer water use, drops in overall water use will be apparent.

Organizational Assessment

Includes: Washington County Water District

The Washington County Water District is a small, rural, and severely disadvantaged community in Nevada County. In order to monitor the implementation of the organization audit done as a component of this grant proposal, the Nevada county Department of Environmental Health (NCDEH) will participate in and monitor the outcomes of the organizational assessment. NCDEH will work with District to identify and implement options to continuously improve District function and operation as per to measures identified in organizational assessment. This process will include an annual assessment so that District can evaluate their progress.

Reservoir Lining

Includes: Grizzly Flats Community Services District

The projected life of the GFCSD reservoir lining 50 years. The District has already developed a detailed monitoring and evaluation program for the reservoir, based on a 5-year inspection increment and in compliance with potable water supply conveyance and storage guidelines and requirements as set forth by the CA Department of Public Health and the State Water Quality Control Board.

As part of that monitoring plan, divers will evaluate both the condition of the liner and the extent of sedimentation and debris accumulation every 5 years, and will develop remedial actions based on the findings of the investigation. As the liner ages, it will require increased maintenance and, potentially, repair. It is likely that this degradation will increase markedly in the last 10 years of the projected life of the lining. However, the aggressive monitoring program developed by GFCSD will minimize degradation and decline in performance and extend the life of the lining substantially.

CABY Water Trust

Sponsored by American Rivers

As this project is implementing a program that will increase the flow in rivers where willing sellers agree to convey their water right into the CABY Water Trust, it is difficult to monitor for the life of the project. Success, for this project, is based on the increase in water dedicated to the environment throughout the CABY region. A spreadsheet of water trusts acquired will be kept, however, and a record of the water right purchased. In this way, progress may be monitoring according to the goals of the project.

The monthly and quarterly reports that American Rivers will submit on behalf of the CABY Water Trust will be detailed assessments of the project's status, milestones achieved, and any problems encountered, and therefore will also be used to refine the project in an adaptive management style.

PERFORMANCE MEASURES

The state of California has consistently required project sponsors to develop performance measures to assist both the state and the sponsor in tracking (or measuring) the achievement of desired outcomes. The goals of this project performance monitoring and assessment are to provide a framework for assessment and evaluation of project performance, to identify measures that can be used to monitor progress toward achieving project goals, to provide a tool for grant recipients and managers to monitor and measure project progress, and to guide final project performance reporting to fulfill grant agreement requirement.

The state requires that each project prepare a table that addresses six specific categories: goals, desired outcomes, output indicators, outcome indicators, measurement tools and methods, and targets.

- **Goals:** Statements of desired conditions. Goals articulate the ultimate intention of the project.
- **Desired Outcomes:** Outcomes are the results, impacts, or consequences of project activities. The desired outcomes are the activities or effects that will, in the aggregate, meet the project goals.
- **Output Indicators:** Output indicators track project deliverables and/or intermediate project milestones. Output indicators are quantifiable, can be counted or demonstrate effort, but do not of themselves indicate improvement between pre- and post-project conditions. These may include number of workshop attendees, number of leaks identified, etc.
- **Outcome Indicators:** Outcome indicators are measures to evaluate changes that are a direct result of the project. These may include tons of sediment reduced, percentage of people with increased knowledge, etc.
- **Measurement Tools and Methods:** Measurement tools and methods are specific tools, approaches, or methods that will serve to quantify and/or qualify project outcomes.
- **Targets:** Targets are specific numbers or quantities that the project will meet. Some examples of targets may be 30 gallons saved, five workshops held, etc.

The following tables present an initial draft of performance measures for the projects presented in the CABY IRWMP Implementation Grant Proposal.

Leak Detection: Nevada City (NC), Washington County Water District (WC), Alta and Colfax (AC), and Grizzly Flats (GF)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Decrease system water loss	Avoided water treatment plant expansion	<ol style="list-style-type: none"> 1. Number of leaks repaired 2. Decrease in real water losses 	<ol style="list-style-type: none"> 1. % reduction of amount of apparent and real water losses 	<ol style="list-style-type: none"> 1. Meters at water treatment plant 2. American Water Works Association Water Loss Control Committee (AWWA/ WLCC) Water Audit Software v2.0 	<ol style="list-style-type: none"> 1. Measurable reduction in Real Water Losses 2. Decreased volume of water treated
	Increased water supply reliability	<ol style="list-style-type: none"> 1. Number of leaks identified 2. Number of leaks repaired 3. Decrease in real water losses 	<ol style="list-style-type: none"> 1. Percent reduction of unaccounted for water loss 2. Quantity of water loss through individual leaks calculated 	<ol style="list-style-type: none"> 1. Meters at water treatment plant 2. AWWA/ WLCC Water Audit Software v2.0 3. Datalogger acoustic readings 	<ol style="list-style-type: none"> 1. Measurable reduction in Real Water Losses 2. All leaks greater than 5 gallons per minute repaired

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	Less real water loss through targeted repair of detected leaks	<ol style="list-style-type: none"> 1. Number of leaks identified 2. Number of leaks repaired 2. Decrease in real water losses 	<ol style="list-style-type: none"> 1. Percent reduction of unaccounted for water loss 	<ol style="list-style-type: none"> 4. Guttermann Zonescan software 	
Increased knowledge and understanding of system efficiency	Accurate infrastructure planning	Comprehensive GIS-based map, including all detected leaks	<ol style="list-style-type: none"> 1. Updated and refined system replacement planning (CIP) 2. Efficient water infrastructure planning 	<ol style="list-style-type: none"> 1. GIS maps are complete and include a leak location overlay 2. Compare new information to original CIP 	<ol style="list-style-type: none"> 1. More accurate information to factor into overall replacement and repair strategy as informed by actual field controllers 2. Increased familiarity with area infrastructure acoustic characteristics (increasing effectiveness of ongoing leak detection activities)

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	<p>Avoided catastrophic failures</p>	<ol style="list-style-type: none"> 1. Fully updated system in Zonescan software 2. Number of leaks detected that could have potentially resulted in significant damage and/or water loss. 	<ol style="list-style-type: none"> 1. High-volume leaks (greater than 5 gallons per minute) repaired 	<ol style="list-style-type: none"> 1. Datalogger acoustic readings 2. Guttermann Zonescan software 3. GIS system map with data logger records and leak detection overlay 	<ol style="list-style-type: none"> 1. Operation and maintenance records indicate a 30% reduction in O&M problems
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Distribution System Improvements and Pressure Management: Nevada City (NC), Washington County Water District (WC), and Alta and Colfax (AC)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Improved water systems	Decreased water loss, and increased water quality within the distribution system	1. Complete the South Pine distribution system improvement 2. Complete the Park Avenue distribution system improvement 3. Complete the Prospect Street distribution system improvement 4. Complete the Maybert Road distribution system improvement	1. Decreased system leakage and losses due to operational shortcomings 2. Improved system capacity due to new, unobstructed pipes	1. Treatment plant output meter 2. Visual inspection	1. System improvements installed by fall 2012 2. Operation and maintenance records indicate a 30% reduction in O&M problems

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Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
	Improved water pressure in the distribution system	Complete the Relief Hill Road pressure improvements	<ol style="list-style-type: none"> 1. Improvements in pressure throughout the system 2. Improved water quality due to increased pressure 	<ol style="list-style-type: none"> 1. Pressure measurements throughout the system 2. Visual inspection 	<ol style="list-style-type: none"> 1. System improvements installed by fall 2012

Altitude Valves: Nevada City (NC) and Washington County Water District (WC)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Improved water systems	Decreased water loss, and increased water quality within the distribution system	1. Installed altitude valves 2. Provide for remote monitoring capability through the installation of SCADA on storage tanks (NC)	1. Decreased system leakage and losses due to operational overflows 2. Improved potable water system tracking	1. Treatment plant output meter 2. SCADA records (NC) 3. Visual inspection	1. System improvements installed by fall 2012

Meter Installation: Nevada City (NC) and Washington County Water District (WC)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Decrease customer water demand	1. Meters installed on all customer service lines (WC) 2. Meters installed on all City facilities (NC)	1. Meters are in place 2. Volumetric billing is set up in the billing system 3. Customers are aware that they will be billed for their total water use	1. Water use drops 2. People/facilities pay for what they use 3. Organizational revenue is more stable (WC)	1. Facility meters 2. Water treatment plan meter 3. Customer bills	1. System improvements installed by fall 2012 2. Water use on metered services drops by 15% as compared to previous year's billing period

Gracie Street Intertie: Nevada City

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
<p>Complete the Gracie Street Intertie to prepare for severe water shortages</p>	<p>1. Prepare for water shortages</p> <p>2. Create redundancies for emergency water supply</p> <p>3. Create adequate supply for fire emergency needs</p>	<p>1. Gracie Street intertie completed</p> <p>2. Emergency supply is available and accessible</p>	<p>1. Emergency supply is available</p> <p>2. Turning the intertie switch “on” results in additional water supplies flowing</p>	<p>1. Intertie completed – visual inspection</p> <p>2. Intertie switch for “on” and “off” works</p>	<p>1. Greater water supply flexibility and reliability in times of shortage</p>

Reservoir Lining: Grizzly Flats

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Increase water supply reliability and flexibility	Increase storage capacity	<ol style="list-style-type: none"> 1. Reservoir lined 2. Pump station installed 2. SCADA equipment installed 	<ol style="list-style-type: none"> 1. Percent reduction of seepage from reservoir 2. Percent increase in active storage 	<ol style="list-style-type: none"> 1. Water required to maintain reservoir at desired level 	<ol style="list-style-type: none"> 1. 1.7 AF increase in overall storage capacity
	Ensure adequate emergency fire fighting reserve over time	<ol style="list-style-type: none"> 1. Reservoir lined 2. Pump station installed 3. Modification of reservoir outlet elevation 	<ol style="list-style-type: none"> 1. Percent increase in overall storage 2. Percent reduction of seepage from reservoir 	<ol style="list-style-type: none"> 1. Water required to maintain reservoir at desired level 	<ol style="list-style-type: none"> 1. 3.07 AF available at any given time
	Increase active storage	<ol style="list-style-type: none"> 1. Pump station construction and installation 2. Modification of reservoir outlet elevation 	<ol style="list-style-type: none"> 1. Percent increase of active storage 2. Increased ability to meet demand (firm yield) 3. Ability to access previously unavailable water (i.e., dead storage and flow-constrained) 	<ol style="list-style-type: none"> 1. Compare pre-project level of dead storage to post-project levels of dead storage, flow constrained water, and active storage 2. Compare pre- and post-project ability to maintain firm yield 	<ol style="list-style-type: none"> 1. 5.07 AF increase of active storage 2. 33.5% increase in active storage

Integrated Water Shortage Contingency and Comprehensive Drought Preparedness Program; Customer-based Conservation Implementation & Plumbing Fixture Retrofit Program Implementation (kits and toilets): Nevada City (NC), Washington County Water District (WC), and Grizzly Flats (GF)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Decrease overall customer water demand	Perform residential water surveys	1. Number of residential surveys performed 2. Number of recommendations made 3. Number of recommendations implemented	1. Measurable difference in water use pre- and post-survey 2. Percent of recommendations implemented 3. Evaluation of water survey recommendations	1. Pre- and post-survey meter readings (for participants and non-participants) 2. Pre- and post-survey participant evaluation	1. 100 water surveys performed 2. 15% of recommendations implemented by participants 3. Average 12% decrease in water use per household (after implementation of recommendations)

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Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
	Implement plumbing retrofits and toilet rebates ¹	1. Number of retrofit kits distributed 2. Number of toilet rebates awarded	1. Number of retrofit kits properly installed 2. Measurable difference in water use pre- and post-survey 3. Number of toilets installed properly with old toilets disposed of	1. Visual inspection of fixture installation (kits and toilets) 2. Pre- and post-implementation meter readings/water use as measured at the home	1. Retrofit kits handed out 2. Average household water savings of 4,015 gallons in first year after retrofit kit installation 3. Average toilet savings of 15,000 gallons in first year after toilets are installed
	Increase in customer conservation awareness	1. Number of surveys offered to customers 2. Education strategy developed 3. Number of educational materials purchased	1. Percent increase in customers contacted 2. Percent of surveys completed by customers 3. Change in customer attitude	1. Customer participation in programs and workshops 2. Pre- and post program surveys 3. Water treatment plant output meter	1. Increase community awareness of conservation by 30% as measured by the public surveys 2. At least 50% of the community attends at least one

¹ Plumbing retrofit kits will be dispersed by all communities (NC, WC, GF, and AC); toilet rebates done by GF only.

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Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
		<p>4. Web page developed</p> <p>5. Number of workshops offered in the community</p>	<p>and behavior</p> <p>4. Implementation of education strategy</p> <p>5. Amount of materials distributed in community</p> <p>6. Web page available for customer reference</p> <p>7. Rate of participation in water use efficiency workshops</p>	<p>4. Number of hits on web page</p> <p>5. # of retrofit kits distributed</p>	<p>water conservation activity or workshop</p>

**Integrated Water Shortage Contingency and Comprehensive Drought Preparedness Program;
 Comprehensive Drought Preparedness Plan & Water Shortage Response Feasibility Study and Action Plan:
 Nevada City (NC), Washington County Water District (WC), and Grizzly Flats (GF)**

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Increase water supply reliability and flexibility	1. Prepare for water shortages 2. Include customers in drought preparedness through stakeholder education	1. Work with a public stakeholder group and water agency staff to complete a Water Shortage Response Feasibility Study and Action Plan 2. Work with a public stakeholder group and water agency staff to complete a Comprehensive Drought Preparedness Plan (NC and WC only)	1. Preferred strategies are identified for customer education and outreach 2. Drought/water shortage stages identified (NC and WC only) 3. Contingency plans identified (NC and WC only)	1. Presence of the two plans 2. Customer participation in plan preparation	1. A stakeholder group is established to participate in creating the plans 2. The Water Shortage Response Feasibility Study and Action Plan and the Comprehensive Drought Preparedness Plan are complete by the end of 2012

Integrated Water Shortage Contingency and Comprehensive Drought Preparedness Program; Integrated Capital Improvement Needs Assessment: Nevada City (NC) and Washington County Water District (WC)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Increase organizational capacity	Establish a Capital Improvement Plan (CIP)	<ol style="list-style-type: none"> 1. Complete a needs assessment for City into next 20 years 2. Financial needs are analyzed for implementation of these infrastructure and planning projects 3. Drought planning is integrated into CIP 	<ol style="list-style-type: none"> 1. Projects are prioritized into the next 20 years and demonstrate gradual development and replacement 2. A financial plan for how projects in the next 5-10 years is identified 3. Comprehensive preparedness for drought 	<ol style="list-style-type: none"> 1. CIP is written 2. Companion fiscal plan is in place 3. Drought considerations are present in the CIP 	<ol style="list-style-type: none"> 1. Complete CIP by end of 2012 2. Complete companion fiscal plan by end of 2012

Integrated Water Shortage Contingency and Comprehensive Drought Preparedness Program; Organizational Needs Assessment: Washington County Water District

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Increase organizational capacity	Implement an organizational audit/assessment	<ol style="list-style-type: none"> 1. District is able to ensure water source, treatment, storage, and distribution 2. Increased managerial capacity 3. Predictable and trackable financial planning and records 	<ol style="list-style-type: none"> 1. Decreased catastrophic losses and increased water supply/treatment predictability 2. Consistently attract and elect a full Board of Directors 3. Identify and adhere to a consistent billing schedule 4. Predict costs through the creation and annual evaluation of a CIP 	<ol style="list-style-type: none"> 1. Completed audit/evaluation document 2. Transferrable workbook allowing other small water systems to complete a similar audit process, incorporating the best ideas and practices available 	<ol style="list-style-type: none"> 1. Completed and implementable organizational audit 2. Completed “small system audit” workbook 3. Workbook shared with other IRWM groups around the state

CABY Water Trust: Sponsored by American Rivers

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Identify and implement methods to acquire water trusts	New/improved methods (regionally) of water trust acquisitions	<ol style="list-style-type: none"> 1. Report on opportunities and constraints (pre-acquisition) 2. Progress report on success and recommended best management practices 	<ol style="list-style-type: none"> 1. Number of stakeholders that agree to method 2. Percent success of new method 	<ol style="list-style-type: none"> 1. Surveys completed by stakeholders 2. Water trust acquisition method is implemented and success analyzed 	<ol style="list-style-type: none"> 1. Local suppliers and communities agree chosen method for water trust acquisition 2. Acquire at least one water trust within the first two years of implementation
Build community capacity and awareness	<ol style="list-style-type: none"> 1. Successful outreach/ collaboration with stakeholders 2. Aware of local community impacts 	<ol style="list-style-type: none"> 1. Different styles/methods of public outreach materials produced 2. Number of public education and outreach materials distributed 3. Number of public trainings held 	<ol style="list-style-type: none"> 1. Percent increase awareness and interest among stakeholders (pre- and post-training surveys) 2. Number of project participants 	<ol style="list-style-type: none"> 1. Number of outreach materials distributed 2. Pre- and post-training surveys 	<ol style="list-style-type: none"> 1. Recruit traditional and non-traditional stakeholders to participate in water trust activities 2. Hold at least two public trainings

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
Develop and implement institutional arrangements for launching CABY Water Trust	CABY Water Trust Board of Directors recruited and established	1. Institutional structure selected 2. Board selected 3. Governing principles written	1. Active Board of Directors 2. Documents establishing institutional structure are complete	1. Sign-in sheets and minutes from Board meetings 2. Completion of legal documents establishing CABY Water Trust	1. Water Trust institutional structure complete by December 2012 2. Water Trust Board established by Spring 2013
	Water Trust cases prepared	1. Number of willing sellers identified 2. Completed template for acquisition agreement 3. Completed legal evaluation 4. Finalized Appraisal Methodology 5. Fair market value of identified water rights determined	1. Percent increase of willing water rights sellers over those interested pre-project 2. Increase in materials available to complete water rights transfer, including CEQA process 3. Agreements signed by willing sellers	1. Tracking mechanism for willing sellers, including date of exhibited interest 2. Completed materials (acquisition agreement template, legal evaluation, appraisal methodology, CEQA outline) 2. Signed agreements	1. Two willing sellers identified 2. All materials necessary for water rights transfer completed

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Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools & Methods	Targets
		6. Agreement of price and details of transfer 7. CEQA process outlined			