

**Attachment 6. Monitoring, Assessment, and Performance
Measures**

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Acronyms

AFY	acre-feet per year
AVA	American Viticulture Area
Basin Plan	Water Quality Control Plan for the Central Coastal Basin
BMP	Best Management Practices
CBSM	Community Based Social Marketing
CCWA	Central Coast Water Authority
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CIP	Capital Improvement Projects
CN	Composite Runoff Curve Number
Conservation Districts	Coastal San Luis and Upper Salinas Las Tablas Resource Conservation Districts
County	San Luis Obispo County, County of San Luis Obispo
CSA 16	County Service Area No. 16
CSD	Community Services District
CWC	California Water Code
DACs	Disadvantaged Communities
Delta	California Bay-Delta
District	San Luis Obispo County Flood Control and Water Conservation District
DPHS	Department of Public Health and Safety
DWR	California Department of Water Resources
EIR	Environmental Impact Report
GIS	Geographic Information Systems
GPCD	gallons per capita per day
GPD	gallons per day
GPM	gallons per minute
GWMP	Groundwater Management Plan
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
IRWMP, IRWM Plan	San Luis Obispo County Integrated Regional Water Management Plan
LRM	Load Reduction Modeling
MGD	million gallons per day
MHI	median household income
MOU	Memorandum of Understanding
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
Paso Basin	Paso Robles Groundwater Basin
ppm	parts per million
PRGBMP	Paso Robles Groundwater Basin Management Plan

Acronyms, Continued

Proposal, SLO Proposal	San Luis Obispo Regional Integrated Water Management Proposal
PVC	polyvinyl chloride
RCD	Resource Conservation District
Region	San Luis Obispo County IRWM Region
Regional Agency	San Luis Obispo County Flood Control and Water Conservation District
RMS	Resource Management Strategies
RWMG	Regional Water Management Group
RWQCB	Central Coast Regional Water Quality Control Board
SEP	Supplemental Environmental Project
SMCSD	San Miguel Community Services District
SSCSD	San Simeon Community Services District
STAC	Stakeholder and Technical Advisory Committee
SWP	State Water Project
SWP	Statewide Priorities (only in Attachment 9)
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Loads
UCCE	U.C. Cooperative Extension
USFWS	U.S. Fish and Wildlife Service
WRAC	Water Resources Advisory Committee
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

Chapter 1. INTRODUCTION

Attachment 6 describes the performance measures that will be used to quantify and verify the performance of each of the projects included in the San Luis Obispo Regional Integrated Water Management Proposal (SLO Proposal). It includes a discussion of the monitoring system to be used to verify projects' performance with respect to the project benefits and objectives identified in the SLO Proposal. Where the data will be collected and the types of analyses to be used is described for each project and a discussion of how monitoring data will be used to measure the performance in meeting the overall goals and objectives of the Plan is also included. The Project Performance Measures Tables for each of the proposal's three projects are attached and serve as a preview of the information that would go into monitoring plans for the projects.

The planned monitoring, assessment and performance measures demonstrate that the Proposal will meet its intended goals, achieve measurable outcomes, and provide value to the State of California. Planned monitoring programs for surface water and groundwater will comply with all State of California requirements for the California Statewide Groundwater Elevation Monitoring Program, Surface Water Ambient Monitoring and Groundwater Ambient Monitoring and Assessment Programs as applicable. Monitoring programs are also being coordinated through the IRWM plan update process to identify regional data gaps and reduce duplicate efforts.

1.1 STATEWIDE MONITORING PROGRAMS

1.1.1 California Statewide Groundwater Elevation Monitoring

In November 2009, California Legislature passed SBX7 6, which establishes collaboration between local monitoring parties and the California Department of Water Resources (DWR) to collect groundwater elevations statewide and that this information be made available to the public. In accordance with SBX7 6, the DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) program which establishes a permanent, locally-managed system to monitor groundwater elevations in California's alluvial groundwater basins and subbasins identified in DWR Bulletin 118.

The San Luis Obispo County Flood Control and Water Conservation District (District) intends to participate in the CASGEM program by working cooperatively with the DWR and other stakeholders to identify potential Monitoring Entities for each basin and subbasin, to develop and implement monitoring programs as required by the CASGEM program, and to perform other functions as required by SBX7 6. The Board acted on December 14, 2010 to approve and formally notify the DWR that the District will participate in the CASGEM program. All groundwater monitoring programs that are included as monitoring measures for the Proposal will comply with CASGEM Program requirements.

1.1.2 Surface Water Ambient Monitoring Program (SWAMP)

All surface water monitoring programs that are included as monitoring measures for the Proposal will comply with Surface Water Ambient Monitoring Program (SWAMP) data formatting, as detailed on the Marine Pollution Studies Laboratory at Moss Landing Marine Laboratories website¹. The use of SWAMP data formatting will ensure that water quality information collected by the project proponents can be included in the SWAMP database to enhance data sharing across the state.

1.1.3 Groundwater Ambient Monitoring and Assessment (GAMA)

All groundwater monitoring programs that are included as monitoring measures for the Proposal will comply with Groundwater Ambient Monitoring and Assessment (GAMA) Program requirements as detailed on the State Water Resources Control Board Water Quality Website². Participation in the GAMA voluntary program will ensure that groundwater quality information collected by the project proponents can be used to better understand and protect the state's groundwater resources.

¹ Surface Water Ambient Monitoring Program. "SWAMP v2.5 Database". 2013. <
<http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/database-management-systems/swamp-25-database>>

²Groundwater Ambient Monitoring & Assessment Program. 2013. <
<http://www.waterboards.ca.gov/gama/>>

Chapter 2. PROJECT MONITORING, ASSESSMENT AND PERFORMANCE MEASURES

The purpose of section is to provide a summary of the performance monitoring activities for each of the San Luis Obispo Regional Integrated Water Management Proposal projects.

Project 1. City of Paso Robles Nacimiento Water Treatment Plant

The City of Paso Robles Nacimiento Water Treatment Plan will introduce 2.4 MGD of high quality, potable water to the City of Paso Robles users by utilizing the existing, but previously unused, 4,000 AFY entitlement to Nacimiento Reservoir water. The new supply will offset pumping from the overdrafted Paso Robles groundwater basin.

1.0 Project Goals

Primary Project Goal:

- Provide up to 2.4 million gallons per day (mgd) of additional treated Lake Nacimiento water supply for potable use within the City of Paso Robles during the peak summer demand period.

Secondary Project Goal:

- Reduce use of Paso Robles Groundwater Basin wells during peak summer water demand periods when the Nacimiento Water Treatment Plant is operating.

1.1 Performance Measures

Performance measures will be used to quantify and verify the success of the Nacimiento Water Treatment Project in meeting the primary and secondary goals. The following performance measures have been selected for each respective project goal:

Goal: Provide up to 2.4 million gallons per day (mgd) of additional treated Lake Nacimiento water supply for potable use within the City of Paso Robles during peak summer water demand periods

Performance Measure: This goal is achieved by operating the plant at an average daily level of at least 90% of design capacity (2.16 MGD) or greater, during the peak summer demand months of June – September (when plant is operational). The performance indicator is treated water production as measured by flow meters at the water treatment plant. The reports that will be used to monitor performance are the monthly water production records that are now annually provided to DWR and the County of San Luis Obispo.

Goal: Reduce use of Paso Robles Groundwater Basin (Paso Basin) wells during peak summer water demand periods when the Nacimiento Water Treatment Plant is operating.

Performance Measure: Every unit of water supplied by the Nacimiento Water Treatment Plant is equivalent to a unit of groundwater that does not have to be pumped from the Paso Robles groundwater basin to meet the same demand. Thus, the performance measure for the primary goal can be translated to measure the secondary goal. Every unit of water measured at the treatment plant is assumed to be an equivalent unit of water not pumped from the groundwater basin.

The groundwater conditions of the Paso Basin will continue to be monitored by the County.

Table 2-1. Project Performance Measures for the City of Paso Robles Lake Nacimiento Water Treatment Plant Project

Project Goals	Desired Outcomes	Performance Indicators	Targets	Measurement Tools and Methods
Provide up to 2.4 million gallons per day (mgd) of additional treated Lake Nacimiento water supply for potable use	Operate the plant at an average daily level of 90% of design capacity or greater, during the peak summer demand months. (when operational)	Treated water production at the water treatment plant as measured by flow meters at the plant.	Operate the treatment plant on average, 90 percent of the design capacity (2.16 MGD) or greater, during peak summer demand months of June-September (when operational)	Monthly water production records by production source, as provided in annual reports provided to DWR and San Luis Obispo County.
Reduce use of Paso Robles Groundwater Basin wells during peak summer water demand periods when the Nacimiento Water Treatment Plant is operating.	Operate the City of Paso Robles groundwater wells only as needed to supplement the Lake Nacimiento water supply, during the peak summer demand	Same as above	Same as above	Same as above

Project 2. Attiyeh Ranch Conservation Easement

2.0 Monitoring, Assessment, and Performance Measures

The purpose of the Attiyeh Ranch Conservation Easement is to preserve the Attiyeh Ranch and prevent the conversion of rangeland, grazing land and grassland to nonagricultural uses; to protect the long-term sustainability of livestock grazing and the benefits that occur from livestock grazing; and to ensure continued wildlife, water quality, watershed and open-space benefits from livestock grazing on the 8,305 acre ranch. Further, it is the purpose of the conservation easement to ensure the Attiyeh Ranch will be retained forever in its agricultural and natural condition and to prevent uses within the ranch that will significantly impair or interfere with the open space, agricultural, and natural habitat values of the ranch. The conservation easement will confine the use of the ranch to such activities, including, without limitation, those involving livestock grazing, habitat protection, education and other compatible uses.

2.0.1 Project Goals

Goal #1: Environmental Stewardship Benefits:

- Conserve 8,305 acres of natural resources in northern San Luis Obispo County.
- Protect wildlife migration corridors through the Central Coast.

Goal #2: Community/Social Benefits:

- Expand public recreational opportunities at Nacimiento Reservoir.
- Protect the scenic open space character surrounding Nacimiento Reservoir.

Goal #4: Water Supply:

- Prevent increased water losses over Nacimiento Reservoir's spillway.

2.0.2 Monitoring Programs

The Land Conservancy of San Luis Obispo (LCSLO) has adopted a Conservation Easement Monitoring Policy and Procedure which clearly define the goals and objectives of easement monitoring and the exact procedures that are used during easement monitoring^{3,4}. The policy has been reviewed and approved by LCSLO's Board of Trustees and is reviewed every five (5) years. The procedure is revised as needed with review and approval by the Conservation Director.

The Policy includes the purpose, frequency, qualifications of the monitor, method, documentation and recordkeeping for the monitoring of conservation easements. The LCSLO

³ The Land Conservancy of San Luis Obispo County. "Conservation Easement Monitoring Policy." 2010.

⁴ The Land Conservancy of San Luis Obispo County. "Conservation Easement Monitoring Procedure." 2010.

will implement these policies and procedures for the monitoring and measurement of the Attiyeh Ranch Conservation Easement project benefits.

2.0.3 Performance Measures

Performance measures will be used to quantify and verify the success of the project in meeting goals. The following performance measures have been selected for each respective project goal:

Goal: Conserve 8,305 acres of natural resources in northern San Luis Obispo County.

Performance Measure: This goal is achieved by upholding the terms of the recorded conservation easement that encumbers the entire ranch. The Land Conservancy’s Conservation Easement Monitoring Policy and Procedure is the monitoring program used to evaluate this performance measure. Following procedure, a monitoring checklist is developed that lists the prohibited uses of the ranch. Prohibited uses that would impact the natural resources and scenic open space on the ranch are as follows:

- Waste dumps or dumping of any kind.
- Alteration of the land surface through grading, soil dumping, or trenching except as necessary for road and irrigation maintenance.
- Surface or subsurface mineral development or mining of any kind, including hydraulic fracturing (or “fracking”).
- Commercial signs and billboards.
- Cutting and removal of native vegetation, except for continued reasonable land management purposes and as necessary for fire protection, control of diseased growth, and human safety.
- Division, subdivision, or partitioning of the ranch.
- Construction of buildings, structures, or other improvements, except for as supporting normal and customary agricultural activities on the property, to maintain existing structures, or to develop minimally invasive renewable energy sources.
- Coverage of land by concrete, asphalt, or other material that doesn’t constitute natural cover for the land except for as allowed for improvements as described above.
- Use of off-road vehicles on the property for recreational purposes.
- Construction of a golf course or greenhouses.
- Commercial feedlots.
- Installation of new above-ground utility systems.

The ranch is monitored once annually or more often if circumstances arise, to ensure terms of the easement are upheld. Photo monitoring points are established prior to the conservation easement recordation during the baseline report site visit. The photo monitoring point locations are distributed throughout the ranch to allow staff to monitor the entire property. Photographs are taken at the same locations each year to identify changes on the ranch over time. A

monitoring report is developed after each monitoring visit. Any potential easement violations are addressed immediately with the landowner for resolution.

Goal: Protect wildlife migration corridors through the Central Coast.

Performance Measure: This goal is achieved by upholding the terms of the recorded conservation easement that encumbers the entire ranch. Wildlife migration corridors are protected through the Attiyeh Ranch through the conservation of natural resources and natural habitats, and the prohibition of subdivision and development on the ranch. The Land Conservancy’s Conservation Easement Monitoring Policy and Procedure is the monitoring program used to evaluate this performance measure. Following procedure, a monitoring checklist is developed that lists prohibited uses of the ranch. Prohibited uses on the ranch that could impact wildlife corridors are as follows:

- Waste dumps or dumping of any kind.
- Alteration of the land surface through grading, soil dumping, or trenching except as necessary for road and irrigation maintenance.
- Surface or subsurface mineral development or mining of any kind, including hydraulic fracturing (or “fracking”).
- Commercial signs and billboards.
- Cutting and removal of native vegetation, except for continued reasonable land management purposes and as necessary for fire protection, control of diseased growth, and human safety.
- Division, subdivision, or partitioning of the ranch.
- Construction of buildings, structures, or other improvements, except for as supporting normal and customary agricultural activities on the property, to maintain existing structures, or to develop minimally invasive renewable energy sources.
- Coverage of land by concrete, asphalt, or other material that doesn’t constitute natural cover for the land except for as allowed for improvements as described above.
- Use of off-road vehicles on the property for recreational purposes.
- Construction of a golf course or greenhouses.
- Commercial feedlots.
- Installation of new above-ground utility systems.

The ranch is monitored once annually or more often if circumstances arise, to ensure terms of the easement are upheld. Photo monitoring points are established prior to the conservation easement recordation during the baseline report site visit. The photo monitoring point locations are distributed throughout the ranch to allow staff to monitor the entire property. Photographs are taken at the same locations each year to identify changes on the ranch over time. A monitoring report is developed after each monitoring visit. Any potential easement violations are addressed immediately with the landowner for resolution. Additionally, a wildlife camera will be placed along a wildlife

corridor through the ranch to monitor wildlife species on the ranch.

Goal: Expand public recreational opportunities at Nacimiento Reservoir.

Performance Measure: This goal is achieved by conducting three docent-led hikes each year, for the public on the Attiyeh Ranch. There is no monitoring program established to document this performance measure. The performance measure will be monitored by The Land Conservancy staff documentation of each hike event. The date, number of participants, hike route, and hike duration will be tracked and reported following each hike. The press release or announcement for the hike will be retained for reporting as well. Public feedback will be acquired using questionnaires distributed at the hike and summarized in the report.

Goal: Protect the scenic open space character surrounding Nacimiento Reservoir.

Performance Measure: This goal is achieved by upholding the terms of the recorded conservation easement that encumbers the entire ranch. The Land Conservancy's Conservation Easement Monitoring Policy and Procedure is the monitoring program used to evaluate this performance measure. Following procedure, a monitoring checklist is developed that lists the prohibited uses of the ranch. Prohibited uses that would impact the natural resources and scenic open space on the ranch are as follows:

- Waste dumps or dumping of any kind.
- Alteration of the land surface through grading, soil dumping, or trenching except as necessary for road and irrigation maintenance.
- Surface or subsurface mineral development or mining of any kind, including hydraulic fracturing (or "fracking").
- Commercial signs and billboards.
- Cutting and removal of native vegetation, except for continued reasonable land management purposes and as necessary for fire protection, control of diseased growth, and human safety.
- Division, subdivision, or partitioning of the ranch.
- Construction of buildings, structures, or other improvements, except for as supporting normal and customary agricultural activities on the property, to maintain existing structures, or to develop minimally invasive renewable energy sources.
- Coverage of land by concrete, asphalt, or other material that doesn't constitute natural cover for the land except for as allowed for improvements as described above.
- Use of off-road vehicles on the property for recreational purposes.
- Construction of a golf course or greenhouses.
- Commercial feedlots.
- Installation of new above-ground utility systems.

The ranch is monitored once annually or more often if circumstances arise, to ensure terms of the easement are upheld. Photo monitoring points are

established prior to the conservation easement recordation during the baseline report site visit. The photo monitoring point locations are distributed throughout the ranch to allow staff to monitor the entire property. Photographs are taken at the same locations each year to identify changes on the ranch over time. A monitoring report is developed after each monitoring visit. Any potential easement violations are addressed immediately with the landowner for resolution.

Goal: Prevent increased sedimentation in the Nacimiento Reservoir.

Performance Measure: This goal is achieved by upholding the terms of the recorded conservation easement that encumbers the entire ranch. The Land Conservancy’s Conservation Easement Monitoring Policy and Procedure is the monitoring program used to evaluate this performance measure. Following procedure, a monitoring checklist is developed that lists the prohibited uses of the ranch. Prohibited uses that would impact soil erosion on the ranch are as follows:

- Alteration of the land surface through grading, soil dumping, or trenching except as necessary for road and irrigation maintenance.
- Surface or subsurface mineral development or mining of any kind, including hydraulic fracturing (or “fracking”).
- Cutting and removal of native vegetation, except for continued reasonable land management purposes and as necessary for fire protection, control of diseased growth, and human safety.
- Construction of buildings, structures, or other improvements, except for as supporting normal and customary agricultural activities on the property, to maintain existing structures, or to develop minimally invasive renewable energy sources.
- Coverage of land by concrete, asphalt, or other material that doesn’t constitute natural cover for the land except for as allowed for improvements as described above.
- Use of off-road vehicles on the property for recreational purposes.
- Commercial feedlots.

The ranch is monitored once annually or more often if circumstances arise, to ensure terms of the easement are upheld. Photo monitoring points are established prior to the conservation easement recordation during the baseline report site visit. The photo monitoring point locations are distributed throughout the ranch to allow staff to monitor the entire property. Photographs are taken at the same locations each year to identify changes on the ranch over time. A monitoring report is developed after each monitoring visit. Any potential easement violations are addressed immediately with the landowner for resolution.

Goal: Prevent increased water losses over Nacimiento Reservoir’s spillway.

Performance Measure: This goal is achieved by upholding the terms of the recorded conservation easement that encumbers the entire ranch. The Land Conservancy’s Conservation Easement Monitoring Policy and Procedure is the monitoring program used to evaluate this performance measure. Following procedure, a monitoring checklist is developed that lists the prohibited uses of the ranch. Prohibited uses that would impact water runoff on the ranch are as follows:

- Alteration of the land surface through grading, soil dumping, or trenching except as necessary for road and irrigation maintenance.
- Surface or subsurface mineral development or mining of any kind, including hydraulic fracturing (or “fracking”).
- Cutting and removal of native vegetation, except for continued reasonable land management purposes and as necessary for fire protection, control of diseased growth, and human safety.
- Division, subdivision, or partitioning of the ranch.
- Construction of buildings, structures, or other improvements, except for as supporting normal and customary agricultural activities on the property, to maintain existing structures, or to develop minimally invasive renewable energy sources.
- Coverage of land by concrete, asphalt, or other material that doesn’t constitute natural cover for the land except for as allowed for improvements as described above.
- Use of off-road vehicles on the property for recreational purposes.
- Construction of a golf course or greenhouses.
- Commercial feedlots.
- Installation of new above-ground utility systems.

The ranch is monitored once annually or more often if circumstances arise, to ensure terms of the easement are upheld. Photo monitoring points are established prior to the conservation easement recordation during the baseline report site visit. The photo monitoring point locations are distributed throughout the ranch to allow staff to monitor the entire property. Photographs are taken at the same locations each year to identify changes on the ranch over time. A monitoring report is developed after each monitoring visit. Any potential easement violations are addressed immediately with the landowner for resolution.

San Luis Obispo Regional Integrated Water Management Proposal
Attachment 6 – Monitoring, Assessment, and Performance Measures
Project 3. Livestock and Land Program

Table 2-2. Project Performance Measures for the Attiyeh Ranch Conservation Easement.

Project Goals	Desired Outcomes	Performance Indicators	Targets	Measurement Tools and Methods
Conserve natural resources and wildlife habitat in northern San Luis Obispo County.	Protect the oak woodlands, chaparral, valley grassland, riparian, freshwater wetlands, and scenic open space on the Attiyeh Ranch.	Natural habitat remains unaltered.	No conservation easement violations	1. Recorded conservation easement. 2. Baseline Documentation Report. 3. Annual Conservation Easement Monitoring Report.
Protect wildlife migration through the Central Coast.	Preserve wildlife corridors on the Attiyeh Ranch.	Wildlife observations.	No conservation easement violations	1. Recorded conservation easement. 2. Baseline Documentation Report. 3. Annual Conservation Easement Monitoring Report. 4. Record faunal species list using wildlife cameras.
Expand public recreational opportunities at Nacimiento Reservoir.	To increase awareness of open spaces and natural resource conservation.	Public hikes on the Attiyeh Ranch.	Conduct three docent-led hikes on the Attiyeh Ranch, annually.	1. General recordkeeping and reporting.
Protect the scenic open space character surrounding the Nacimiento Reservoir.	Prevent subdivision and development on the Attiyeh Ranch.	Attiyeh Ranch landscape remains unaltered.	No conservation easement violations	1. Recorded conservation easement. 2. Baseline Documentation Report. 3. Annual Conservation Easement Monitoring Report.
Prevent increased sedimentation in the Nacimiento Reservoir	Prevent land uses on the ranch that would exacerbate soil erosion.	Maintain existing sediment budget on the Attiyeh Ranch.	No conservation easement violations	1. Recorded conservation easement. 2. Baseline Documentation Report. 3. Annual Conservation Easement Monitoring Report.
Prevent increased water losses over Nacimiento Reservoir's spillway.	Prevent land uses on the ranch that would increase water runoff.	Maintain existing Nacimiento Reservoir water levels, as impacted by Attiyeh Ranch.	No conservation easement violations	1. Recorded conservation easement. 2. Baseline Documentation Report. 3. Annual Conservation Easement Monitoring Report.

Project 3. Livestock and Land Program

The Coastal San Luis and Upper Salinas Las Tablas Resource Conservation Districts (Conservation Districts) are implementing The Livestock and Land Program to address natural resource concerns faced by livestock owners by providing education, technical assistance and cost share for implementation of management measures. Water quality improvements will be achieved by giving livestock owners the tools to complete water quality site assessments and to implement Best Management Practices (BMPs) near listed waterways. The behavioral and management practice changes achieved by this program will provide immediate and lasting water quality and watershed improvements by reducing the off-site mobilization of manure, urine and sediments from livestock facilities. The program will make significant progress toward watershed goals listed in Total Maximum Daily Loads (TMDLs) and watershed plans.

3.0 Project Goal

Goal #1: Pollutant Load Reduction: Achieve immediate and lasting reductions in nutrient sediment and pathogen pollution to surface waters through the implementation of BMPs on livestock facilities located on priority areas/impaired waterbodies in San Luis Obispo County.

3.1 Performance Measures

Performance measures will be used to quantify and verify the success of the project in meeting goals. The following performance measures have been selected for the project goal:

Goal: Achieve immediate and lasting reductions in nutrient sediment and pathogen pollution to surface and ground waters through the implementation of BMPs on livestock facilities located on priority areas/impaired waterbodies in San Luis Obispo County.

Performance Measure:

1. Have at least 10 unique individuals, with an estimated goal of 25 unique individuals, attend each training.
2. Have 25% of attendees who do not become Implementation Sites implement at least one (1) BMP on their property.
3. Have 20% of training recipients (approx. 4 persons) complete a written site plan for their property.
4. Assist a minimum of ten (10) technical training participants, not selected for Implementation Sites, in completing Water Quality Site Plans.
5. Receive at least 5 applications from livestock owners to become Implementation Sites.
6. Contract with at least one (1) property owner by the end of the second project year to complete a written site plan, implement priority BMPs on their property, and to commit to sharing their work with others in the community for a minimum of five (5) years.
7. On the Implementation Sites where BMPs are installed, achieve 75% reduction in sources vulnerable to transport (sediment and pathogens) into surface waters from projects that divert water from or remove pollutant sources.
8. Overall, where BMPs are installed there will be a 30% reduction in potential pollutant loads.

Table 2-3. Project Performance Measures for the Livestock and Land Program.

Project Goals	Desired Outcomes	Performance Indicators	Targets	Measurement Tools and Methods
<p>Goal #1: Achieve immediate and Lasting reductions in nutrient sediment and pathogen pollution to surface and ground waters through the implementation of BMPs on livestock facilities located on priority areas/impaired waterbodies in San Luis Obispo County.</p>	<ol style="list-style-type: none"> 1. Increase the number of livestock owners/ facilities who implement BMPs to decrease nutrient, sediment and/or pathogen pollution leaving their property. 2. Increase the number of livestock facility owners who have a written site plan addressing water quality concerns for their property. 3. Increase livestock owners/facilities awareness of local resources available to them for assistance with BMP implementation and technical assistance. 4. If possible, create a network of livestock properties who have implemented BMPs so that people who are interested in implementing BMPs on their property can see first-hand how they work and hear testimony from their peers on the success/ challenges of the projects. 	<p>Have at least 10 unique individuals, with an estimated goal of 25 unique individuals, attend each training. Have 25% of attendees who do not become Implementation Sites implement at least one (1) BMP on their property. Have 20% of training recipients complete a written site plan for their property. Assist a minimum of ten (10) technical training participants, not selected for Implementation Sites, in completing Water Quality Site Plans. Receive at least 5 applications from livestock owners to become Implementation Sites. Contract with at least one(1) property owners by the end of the second fiscal year to complete a written site plan, implement priority BMPs on their property, and to commit to sharing their work with others in the community for a minimum of five (5) years. On the Implementation Sites where BMPs are installed, achieve a 75% reduction in sources vulnerable to transport into surface waters from water diversion projects. Overall, where BMPs are installed there will be a 30% reduction in potential pollutant loads at Implementation Sites.</p>	<ol style="list-style-type: none"> 1. Increase community and facility awareness through program outreach. 2. Increase the number of livestock owners who have a written site plan for their property by having at least one (1) implementation site participant and 10 Technical Training participants. 3. Track that 25% of our Technical Assistance Recipients complete one BMP on their property. 	<ol style="list-style-type: none"> 1. Opinion, awareness, skill, and behavior assessment surveys will be conducted before and after all trainings. 2. Pledges to implement BMPs using new materials and knowledge will be signed and collected from participants. 3. If possible, follow-up surveys of ALL attendees completed at least 9 months after the trainings are complete to determine implementation of BMPs and completion of written site plans. 4. Photo documentation on 10% of BMPs reported in survey process. 5. Photo documentation will be completed at each technical training. 6. Each Implementation Site owner will be required to complete a Water Quality Site Plans to address all aspects of their operation and their impact on water quality. 7. Before and after photo documentation will be conducted at each Implementation Site. 8. Collect information to be used in calculating load reductions in the Load Reduction Model from BMP installations at all Implementation Sites. 9. If possible, collect information to be used in calculating load reductions for all training attendees who were not selected as Implementation Sites but reported installing a BMP.

Project 4. Shandon State Water Turnout Project

County is proposing to construct a water turnout facility that will connect the water distribution system for County Service Area 16 (CSA 16) in Shandon to the existing State Water Project Coastal Branch, Phase II pipeline (48-inch, steel) near the intersection of San Juan Road and Toby Way in Shandon. The Shandon State Water Turnout Project will allow CSA 16 to access and distribute its State Water allocation of 100 acre-feet per year that was obtained in 1992.

The Shandon State Water Turnout Project will import State Water into the community of Shandon. This new water supply source will improve regional water supply reliability and security by reducing pumping from the Paso Basin, which has reached its yield and whose water levels have been declining. It will also diversify Shandon's water portfolio so that it has a source other than groundwater, which is susceptible to drought impacts, declining water levels and well contamination.

4.0 Project Goals

The specific goals of the Shandon State Water Turnout Project are as follows:

Goal #1 – Additional Water Supply/Groundwater Pumping Reduction: The project will provide 100 AFY of State Water to CSA 16, reducing CSA 16's need to pump 100 AFY of groundwater from the Paso Basin.

Goal #2: Reduced Energy Consumption: CSA 16's average annual groundwater pumping of 149 acre-feet will be reduced by 100 acre-feet (67%). It is anticipated that CSA 16's 90,000 Kwh average annual energy consumption from pumping, will also be reduced by approximately 67% to 30,000 Kwh.

4.1 Monitoring Programs

In order to ensure that project goals are achieved and performance measures are met, two existing monitoring programs will be utilized:

- State Water Delivery Monitoring Program
- Electrical Consumption Monitoring Program

4.1.1 State Water Delivery Monitoring Program

The Shandon State Water Turnout Project will include installation of a flow meter and connection of controls equipment to the Central Coast Water Authority (CCWA) State Water Supervisory Control and Data Acquisition (SCADA) system. CCWA currently uses its SCADA system to monitor and record State Water delivery flows measured by flow meters at all turnout facilities along the Coastal Branch of the State Water Project pipeline. CCWA totals these flows on a monthly basis and produces monthly and annual reports stating the volumes of State Water delivered to each turnout facility. Once constructed, State Water deliveries to the Shandon State Water Turnout will be included in these reports. These reported delivery volumes will be used to indicate how much additional water supply is delivered to Shandon on a regular basis. Since these State Water deliveries will be used in lieu of groundwater, they will also represent the amount of water that is not being pumped from the Paso Robles groundwater basin.

4.1.2 Electrical Consumption Monitoring Program

As part of PG&E’s billing program, PG&E places meters at individual facilities to monitor and record the energy usage of that facility. Meters are read on a monthly basis and energy consumption is reported in the monthly electrical bill. Each of the two CSA 16 well pumps has a PG&E meter that monitors their energy consumption. The monthly PG&E electrical bills provided for each well meter will be utilized to produce an annual report of energy consumption needed for groundwater pumping. Past PG&E bills will be utilized to establish an annual energy consumption baseline for energy use prior to the implementation of the Shandon State Water Turnout Project. Each year the annual energy consumption will be compared to the energy consumption baseline to assess reduction of energy usage. Adjustments will be made to account for years where CSA 16’s water demands significantly vary from the average water demand used to establish the energy consumption baseline.

4.2 Performance Measures

The following performance measures have been selected for each respective project goal:

Goal:	Additional Water Supply/Groundwater Pumping Reduction
Performance Measure:	Deliver 100 AFY of State Water (new water supply) and, thus, also reduce Paso Basin groundwater pumping by 100 AFY.
Goal:	Reduced Energy Consumption
Performance Measure:	Reduce energy consumption for groundwater pumping by roughly 67% or 60,000 Kwh.

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 Attachment 6 – Monitoring, Assessment, and Performance Measures
 Project 4. Shandon State Water Turnout Project

Table 2-4. Project Performance Measures for Shandon State Water Turnout Project

Project Goals	Desired Outcomes	Performance Indicators	Targets	Measurement Tools and Methods
Additional Water Supply / Groundwater Pumping Reduction	Provide a new water supply and reduce Paso Basin groundwater pumping.	State Water delivery flows measured by Turnout facility flow meter.	Provide new 100 AFY water supply and reduce Paso Basin pumping by 100 AFY.	Existing monthly and annual State Water delivery reporting program by Central Coast Water Authority
Reduced Energy Consumption	Reduce energy consumption	Groundwater wells energy usage measured by PG&E meters versus historic PG&E records	Reduce energy consumption needed to pump groundwater by 67% or 60,000 Kwh	Monthly PG&E meter reading program and reporting via electric bill.

Project 5. San Miguel Critical Water System Improvements

This \$950,000 grant application is seeking funding for six of the highest priority, critical water supply projects. The San Miguel Community Services District (SMCSD or District) needs to implement all six of these identified projects in the immediate future, or they will be faced with continued deterioration of an already deficient water system, and may not be able to support even limited beneficial growth. The majority of the District's residents are low-income households, meeting the criteria as a Disadvantaged Community (DAC). These projects help meet the critical water supply and water quality needs of the DAC.

5.0 Project Goals

The specific goals of the San Miguel Community Services District Critical Water System Improvements Project are as follows:

- Goal #1 –Provide adequately disinfected and safe drinking water for the Disadvantaged Community of San Miguel.
- Goal #2 – Provide adequate water storage and pressure needed to meet CDPH standards and provide adequate fire protection flows for the Disadvantaged Community of San Miguel.
- Goal #3 – Provide adequate water supply and reliability for the Disadvantaged Community of San Miguel.

5.1 Monitoring Programs

The San Miguel Community Services District (SMCSD), as a potable water supplier to the community of San Miguel, inspects, tests, and reports to the California Department of Public Health (CDPH) monthly and annually as required by all potable water supply regulations.

5.2 Performance Measures

Performance measures will be used to quantify and verify the success of the project in meeting goals. The following performance measures have been selected for each respective project goal:

- **Goal:** Goal #1 –Provide adequately disinfected and safe drinking water for the Disadvantaged Community of San Miguel.
- **Performance Measure:** Water quality and compliance with drinking water quality regulations will be measured through continued monthly and annual water sampling as required by CDPH.

- **Goal:** Goal #2 – Provide adequate water storage and pressure needed to meet CDPH standards and provide adequate fire protection flows for the Disadvantaged Community of San Miguel.
- **Performance Measure:** Water storage needs were calculated and identified in 2002 during the Water Master planning effort and are already completed. For pressure, field flow testing measurements and follow up hydraulic modeling will be performed upon completion of the SLT tank construction, and 12th/K Street water main upgrades to determine that adequate flows have been achieved.
- **Goal:** Provide adequate water supply and reliability for the Disadvantaged Community of San Miguel.
- **Performance Measure:** Performance for supply will be measured through the completion of a new water well siting study and identification of a suitable location for at least one new municipal water supply well, in addition to rehabilitating the improvements at Well 3. Performance for reliability will be acceptance by CDPH of an updated permit the District will submit following the emergency backup power project at Wells 3 and 4.

Table 2-5. Project Performance Measures for the San Miguel Community Services District Critical Water System Improvements Project.

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
Provide adequately disinfected and safe drinking water for the Disadvantaged Community of San Miguel.	<ul style="list-style-type: none"> Ensures consistent compliance with CDPH Drinking Water Supply Regulations. Safe and wholesome drinking water supply for community 	<ul style="list-style-type: none"> Water supply meets chlorine residual, and coliform testing criteria (<2.2 MPN). 	<ul style="list-style-type: none"> Consistent compliance with State water quality standards 	<ul style="list-style-type: none"> Chlorine Residual Analyzer to measure chlorine in water supply. Bacteriological testing by CA certified laboratory confirming water meets coliform criteria. 	<ul style="list-style-type: none"> Few to zero customer complaints. No waterborne illnesses resulting from SMCS D-provided water supply
Provide adequate water storage and pressure needed to meet CDPH standards and provide adequate fire protection flows for the Disadvantaged Community of San Miguel.	<ul style="list-style-type: none"> Water system operating pressures above 40 psi for customers during normal operations; meet minimum 20 psi fire flow pressure residual pressure during fire flows. Sufficient water storage for fire flow, operational storage, and emergency storage. 	<ul style="list-style-type: none"> Water system pressure readings to verify service pressure requirements and residual fire pressure are met. Calculated water storage requirements in adopted water master plan. 	<ul style="list-style-type: none"> Zero to no customer complaints of low pressure. Adequate fire flow during fire events, and/or as observed during field fire flow testing (for calibrating water model) [already completed as part of water model calibration for water master plan] 	<ul style="list-style-type: none"> Field pressure readings to verify system delivery pressures. Fire flow tests to verify minimum 20 psi residual pressures met [done part of prior water modeling calibration effort]. 	<ul style="list-style-type: none"> Zero to no customer complaints of low pressure. Adequate fire flow during fire events, and/or as observed during field fire flow testing (for calibrating water model) [already completed as part of water model calibration for water master plan]
Provide adequate water supply and reliability for the Disadvantaged Community of San Miguel.	<ul style="list-style-type: none"> Reliable water supply with no disruptions to community during day to day and emergency situations (such as earthquake, fire, etc.) 	<ul style="list-style-type: none"> No documented instances of water supply shortfall. Water supply system operational to supply consistent water supply to community. No well supply shutdowns due to mechanical failures or water quality violations. 	<ul style="list-style-type: none"> No documented instances of water supply shortfall. Water always delivered in compliance with State drinking water standards. 	<ul style="list-style-type: none"> Daily, weekly, monthly, and annual reports to CDPH Annual consumer confidence reports supporting compliance with State drinking water standards. 	<ul style="list-style-type: none"> Annual consumer confidence reports supporting compliance with State drinking water standards. Uninterrupted water service to customers.

Project 6. San Simeon Supplemental Water Feasibility Study and Design Project

The San Simeon Supplemental Water Feasibility Study and Design Project (Feasibility Study) is submitted under the Expanded Project Eligibility allowance based on the DAC status of the San Simeon Community Services District (SSCSD) service area and the critical water supply, water quality, and water system improvements needed to provide safe, reliable drinking water and fire protection. SSCSD is pursuing a \$700,000 supplemental water supply project to increase safe sustainable water supplies from the small Pico Creek Valley groundwater basin which is dependent on the local watershed to recharge and protect the basin each year, especially during extended drought conditions.

SSCSD currently serves an area of approximately 100 acres with approximately 320 dwelling units and a population of approximately 460 persons. The median household income (MHI) is \$43,092, and thereby qualifies the SSCSD as a State designated Disadvantaged Community.

100 percent of the SSCSD water demand is supplied from underflow wells along Pico Creek based on a 140 Acre-foot per year (AFY) water right for diversion of Pico Creek. As documented in the groundwater basin report, the safe yield from the underlying Pico Creek Groundwater Basin is estimated to be 120 AFY. Of this amount, Hearst Ranch wells extract an average of 16 AFY, leaving SSCSD 104 AFY available for extraction from their two public water supply wells. Dry months and dry hydrologic periods further reduce the available supply to an estimated 90 AFY.

Feasibility studies have not been performed over the entire watershed to see if there are “low-hanging fruit” opportunities to incrementally and cost effectively replace lost supplies; estimated, in this proposal, to be 50 AFY. As part of any study to introduce new water supplies to the existing (or planned, in the case of a recycled water source) water distribution system, a system model study will be needed to identify capital improvements to convey the water and meet peak hour and fire flow demand requirements.

This project is proposing to assist the disadvantaged community of San Simeon by bringing their critical supplemental water supply needs to the point of resolution where financing can be pursued for construction of the best alternative.

6.0 Project Goals

The primary technical goal of the Feasibility Study is to find supplemental water supplies to increase SSCSD’s safe and sustainable water supplies to average 140 AFY, their existing surface water entitlement. The Feasibility Study will recommend a comprehensive set of actions designed to supplement the available water supplies while simultaneously reducing subsurface and wave action salinity exposure, enhancing drinking water quality, and improving the vitality of the groundwater basin and overall watershed management. Initial baseline performance

monitoring will be conducted in the study phase to better quantify benefits upon project implementation. It is the goal that this program is viewed as self-mitigating and will allow regulatory and permitting agencies to issue multi-year permits for the efficient implementation of the beneficial program components.

The specific goal of the Feasibility Study is as follows:

Goal #1 – Identify, evaluate, recommend and design the preferred (most feasible) alternative for delivering a safe and reliable average water supply of 140 AFY to the DAC of San Simeon.

6.1 Monitoring Programs

As a study, there are no existing monitoring programs that are in place to measure project performance. All performance monitoring will be newly developed to measure the benefits of this Feasibility Study and to demonstrate to DWR that the study will meet its intended goals, achieve measurable outcomes, and provide value to the State of California.

6.2 Performance Measures

The following performance measures have been selected for the project goal:

- | | |
|-----------------------------|--|
| Goal: | Identify all feasible water supply alternatives. |
| Performance Measure: | The goal is achieved by verifying that all feasible water supply alternatives have been considered, including alternative groundwater supply locations, new recycled water supplies, or new supplemental surface water supplies. |
| Goal: | Evaluate and recommend the most feasible water supply alternatives. |
| Performance Measure: | The goal is achieved by verifying that all water supply alternatives have been adequately evaluated and all feasibility issues have been considered including technical feasibility, water rights limitations, drought tolerance and supply reliability, environmental restrictions, and financial requirements. |
| Goal: | Design the recommended alternative. |
| Performance Measure: | The goal is achieved by verifying that the recommended alternatives are 100% designed, bid documents are prepared, and project financing alternatives are identified. |

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 Project 6. San Simeon Supplemental Water Feasibility Study and Design Project

Table 2-6. Project Performance Measures for San Simeon Supplemental Water Feasibility Study and Design Project

Project Goals	Desired Outcomes	Performance Indicators	Targets	Measurement Tools and Methods
Identify, Evaluate, Recommend and Design a Water Supply Alternative that delivers 140 AFY of sustainable and reliable water supply for SSCSD	100% design on recommended water supply alternative	1. Comprehensive list of alternative water supplies available to SSCSD 2. Feasibility analysis of alternatives water supplies available to SSCSD 3. 100% design on recommended alternative	1. Final Feasibility Report 2. 100% Design Documents and Engineers Estimate for water supply project	1. Final Feasibility Report and approved by SSCSD Board of Directors 2. Acceptance of 100% design documents by SSCSD

Project 7. IRWM Implementation Grant Administration

San Luis Obispo County Flood Control and Water Conservation District (District) will be the grant administrator and fiscal agent for the Proposition 84 IRWM Implementation Grant, if awarded. The purpose of this grant administration project is to essentially maintain compliance with the Grant Agreement, and monitor and report on the progress of the grant-funded projects.

This Monitoring, Assessment and Performance attachment is to note the District's goal to maintain compliance with the Grant Agreement in performing its role as grant administrator.

7.0 Project Goals

The primary goal of the Feasibility Study is to ensure that the grant-funded Proposal maintains compliance with the Grant Agreement. This is achieved by staying in communication with DWR throughout the duration of the grant program, such as with quarterly report and invoices, project completion reports, and other grant related administration tasks. Each project will create components of these submittals, however as grant administrator, the District will ensure that submittals are achieved on time and in compliance with Grant Agreement requirements. The specific goal of the IRWM Implementation Grant Administration is as follows:

Goal #1 – Maintain compliance with the Grant Agreement.

7.1 Monitoring Programs

The District will monitor the completion of the projects by submitting the quarterly reports, quarterly invoices, project completion reports, post completion reports and grant completion report.

7.2 Performance Measures

The following performance measures have been selected for the project goal:

Goal:	Maintain compliance with the Grant Agreement.
Performance Measure:	The goal is achieved by submitting quarterly invoices and reports on time, ensuring that Project Completion Reports, Post Completion Reports, and Grant Completion Report are submitted.

Table 2-7. Project Performance Measures for IRWM Implementation Grant Administration Project

Project Goals	Desired Outcomes	Performance Indicators	Targets	Measurement Tools and Methods
Maintain compliance with the Grant Agreement.	Administer grant program in compliance with Grant Agreement.	Compliance with the Grant Agreement.	Accepted Grant Completion Report.	Compliance and acceptance of quarterly report, quarterly invoices, project completion reports, post completion reports, and grant completion report.