MF-1

KERN IRWMP

Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to:
KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:

County of Kern

Agency / Organization / Individual Address:

2700 M St., Suite 570,Bakersfield, Ca. 93301-2370

Possible Partnering Agencies:

Tehachapi-Cummings County Water District, City of Tehachapi, Golden Hills CSD, Golden Hills Sanitation Company,

Name:

Charles Lackey

Title:

Director of Engineering, Surveying and Permit Services

Telephone:

(661) 862-5100

Fax:

(661) 862-5101

Email:

chuckl@co.kern.ca.us

Website:

Project Name:

GHSC Force Main Installation Project

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	35.153242	**Project Longitude:**	118.494853

Location Description:	Golden Hills and City of Tehachapi service areas.

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☒ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
☐ Agency ☒ Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Tehachapi-Cummings County Water District
- Golden Hills CSD
- Golden Hills Sanitation Company
- City of Tehachapi

Project Status (e.g., new, ongoing, expansion, new phase):

New

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

Currently, the Golden Hills Sanitation Company (GHSC) operates a WWTP that produces a daily flow of approximately 25,000 per day. The plant has several operational issues and is not producing a high quality recyclable effluent. The WWTP has not been effectively maintained and is ending the life cycle of its operational capacity.

The WWTP also has some violations from the RWQCB regarding the current and former reclamation activities associated with operations. This force main project would allow for the abandonment of the current WWTP and for the current reclamation activities as well.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

Construction of a pump station and an 8-inch diameter force main from the intersection of Woodford –Tehachapi Rd and Weston Ave. to convey the current GHSC influent to the City of Tehachapi's WWTP for sanitary treatment and reclamation. This force main project would allow for the abandonment of the current GHSC WWTP.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

• Tom Sawyer Lake
• Tehachapi Basin
•
•

Please identify up to three available documents which contain information specific to the proposed project:

• County of Kern, GHSC WWTP Options Report
•
•

Is the proposed project an element or phase of a regional or larger program?	☐ Yes ☒ No
If yes, please identify the program	_____
Design life of the Project	
Proposed Construction/Implementation Start Date:	_____
Proposed Construction/Implementation Completion Date	_____
Ready for Construction Bid	☐ **Yes** ☒ **No** ☐ **NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**In Process**	**(mm/dd/yyyy)**
Land Acquisition/ Easements		**(mm/dd/yyyy)**
Preliminary Plans		**(mm/dd/yyyy)**
CEQA/NEPA		**(mm/dd/yyyy)**
Permits		**(mm/dd/yyyy)**
Construction Drawings		**(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project readiness-to proceed.

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

Project Benefits:

Abandonment of the existing GHSC WWTP.

Improvements in the treatment and reclamation activities for the sewage from the GHSC service area.

Stabilized rates for service for the residents in the GHSC service area.

Please describe the dominant existing land use type for the proposed project location.

Residential, Rural

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location	
Upstream:	Residential
Downstream:	Residential

Does the project address any known environmental justice issues?		
☐ **Yes**	☐ **No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Does the project include disadvantaged community participation?		
☒ **Yes**	☐ **No**	☐ **Not Sure**
If yes, please identify the group or organization: _____		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	Force Main
Design operational treatment capacity (million gallons/day)	.025MGD
Targeted Contaminants (Check all that apply):	
☐ Chloride ☐ Nitrogen Compounds ☐ Coliform Bacteria ☐ Other (describe): _____	
Flood Management Benefit Information	
Maximum volume of temporary storage of storm runoff (acre-feet)	_____
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project ($/year)	_____
Acreage required for project implementation	_____

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply or Demand Reduction		
☐ Groundwater	☐ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☐ Conservation/ water use efficiency	☐ Ocean desalination
☐ Transfer	☐ Other (describe): _____	
Type of enhanced supply or demand reduction: _____		
Annual Yield of Supply (acre-feet): _____		
Availability by Water-Year Type (acre-feet per year):		
Average Year _____		
Dry Year _____		
Wet Year _____		
Availability by Season (check all that apply):		
☐ Summer	☐ Fall	☐ Spring ☐ Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?		
☐ Yes	☐ No	☐ Not Sure

For projects that include detention and groundwater recharge, please complete the following:

How many acres of land drain into this detention basin? (acres)	_____
Detention Basin area (acres)	_____
Detention basin max. operational depth (ft.)	_____
% of basin covered by wetlands	_____
Soil type	_____
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	_____
Estimated basin annual inflow (acre-feet/year)	_____
Estimated basin annual outflow (acre-feet/year)	_____

RESOURCE STEWARDSHIP BENEFITS
Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	_____
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	_____
Equestrian Trail Acres	_____
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	**4,200,000**
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	
Funding Certainty & Longevity	**Part of conceptual project**
Operations & Maintenance Cost *(per year)*	**50,000**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	**Residents rate structure**
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	**Part of conceptual project**

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft		No	
2. Pursue and implement cost effective water use efficiency programs		No	
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed		No	
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon		No	
5. Increase/augment water supplies to meet region demands		No	
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon		No	
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon		No	
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		Existing WWTP would be abandoned.
4. Increase the use of alternate energy sources (e.g. solar)		No	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		Existing WWTP would be abandoned.
6. Increase the use of recycled water for direct reuse within the Kern Region		No	
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes		Permitting activities and considerations.

8. Increase pool of qualified candidates to operate water and wastewater systems	No	
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	Yes	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	Yes	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	Yes	
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, "aesthetic" projects) throughout the planning horizon	Yes	Treated effluent would be used at the City's current ag opearations.
6. Coordinate and enhance aquatic pest control efforts from this point forward	Yes	Mosquito/Pest abatement at Tom Sawyer Lake
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the local rivers and streams by applying appropriate measures from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	No	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	Yes	Permitting and land use activities.
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	Yes	
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as local rivers and streams and the Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	Yes	

8. Preserve and improve ecosystem/watershed health throughout the planning horizon	Yes	
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	Yes	Tom Sawyer Lake odor issues.
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	

MF-2

KERN IRWMP

Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to:
KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:
Tehachapi-Cummings County Water District

Agency / Organization / Individual Address:
P.O. Box 326, Tehachapi, CA 93581

Possible Partnering Agencies:
City of Tehachapi, Golden Hills Community Services District, Bear Valley CSD, Stallion Springs CSD

Name:
John Martin

Title:
General Manager

Telephone:
661-822-5504

Fax:
661-822-5122

Email:
jmartin@tccwd.com

Website:
www.tccwd.com

Project Name:
Tehachapi Regional Water Conservation Program

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	35.101775	**Project Longitude:**	-118.537204

Location Description:	TCCWD headquarters office.

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☐ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
☒ Agency ☒ Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- City of Tehachapi, Jon Curry, Utilities Manager
- Golden Hills CSD, Bill Fisher, General Manager
- Bear Valley CSD, Clint Stewart, Superintendent of Public Works
- Stallion Springs CSD, Mary Beth Garrison, General Manager

Project Status (e.g., new, ongoing, expansion, new phase):

New

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

In 2011 the five participating agencies completed the first Tehachapi Regional Urban Water Management Plan (TRUWMP). The plan sets for conservation goals for compliance with the State's 20x2020 plan. The five agencies have established both individual agency goals and regional goals for per-capital water consumption for 2015 and 2020. Only one of the five agencies is currently a member of the California Urban Water Conservation Council (Bear Valley CSD) and the other four agencies do not have comprehensive water use efficiency programs.

If the project is not done, the agencies might not achieve their goals, which would result in their disqualification from future grant opportunities.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

This project will create a regional water conservation program, operated by the Tehachapi-Cummings County Water District, the water wholesaler in Tehachapi and the importer of State Water Project water. Each of the agencies will contract with TCCWD for the services so as to improve their odds of achieving the per-capita water consumption goals in the TRUWMP. The agencies will participate financially for that portion of the project not covered by a grant.

If the grant is awarded, the four agencies that are not CUWCC members will join (pending approval by their duly elected boards and councils). They will then begin implementing the Best Management Practices and follow all performance and reporting requirements. Since each of the agencies does not have sufficient need to hire a full-time water conservation coordinator, the TCCWD will hire two full-time employees to run the program and allocate time and resources to the other four agencies. It is important to offer full-time positions, otherwise the requisite knowledge and experience can not be obtained.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Tehachapi Basin West
- Tehachapi Basin East
- Cummings Basin
- Brite Basin

Please identify up to three available documents which contain information specific to the proposed project:

- Tehachapi Regional Urban Water Management Plan
- Best Management Practices of the California Urban Water Conservation Council
- Greater Tehachapi Area Specific and Community Plan

Is the proposed project an element or phase of a regional or larger program? ☒ Yes ☐ No

If yes, please identify the program	Tehachapi Regional Urban Water Management Plan
Design life of the Project	3 years of implementation and 20 years of benefits
Proposed Construction/Implementation Start Date:	7/1/2013
Proposed Construction/Implementation Completion Date	6/30/2016
Ready for Construction Bid	☐ **Yes** ☐ **No** ☒**NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**In process**	**09/30/2012** **(mm/dd/yyyy)**
Land Acquisition/ Easements	**N/A**	**(mm/dd/yyyy)**
Preliminary Plans	**N/A**	**(mm/dd/yyyy)**
CEQA/NEPA	**N/A**	**(mm/dd/yyyy)**
Permits	**N/A**	**(mm/dd/yyyy)**
Construction Drawings	**N/A**	**(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project readiness-to proceed.

All of the agencies have expressed an interest in participating in the project. It has come before the Tehachapi Water Availability Preservation Committee on numerous occasions for discussion and was chosen as one of the top five projects for the community. However, the agencies are reluctant to proceed without grant money. Once those funds are assured, the project can be put together in six months.

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

The project provides the following benefits:

Lower per-capita water consumption compared with no program.

A comprehensive uniform conservation program for the greater Tehachapi area. The high degree of structure of the CUWCC BMPs ensures that goals will be achieved and that there will be no backsliding by any of the agencies.

Improved water supply reliability due to the lower urban demand resulting from the project.

Reduced costs for each agency to operate water conservation programs due to economies of scale and shared costs.

Additional grant opportunities in the future because the 20x2020 goals will be achieved.

Please describe the dominant existing land use type for the proposed project location.

Urban. Primarily residential with commercial in various locations, primarily within the City of Tehachapi, and a small amount of industrial. The areas surrounding the four urban agencies is primarily agricultural, but this project does not address agricultural water use efficiency.

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location
Upstream: Forest
Downstream: Open space

Does the project address any known environmental justice issues?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Does the project include disadvantaged community participation?		
☒ **Yes**	☐ **No**	☐ **Not Sure**
If yes, please identify the group or organization: City of Tehachapi		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	_____
Design operational treatment capacity (million gallons/day)	_____
Targeted Contaminants (Check all that apply):	
☐ Chloride ☐ Nitrogen Compounds ☐ Coliform Bacteria ☐ Other (describe): _____	
Flood Management Benefit Information	
Maximum volume of temporary storage of storm runoff (acre-feet)	_____
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project ($/year)	_____
Acreage required for project implementation	_____

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply or Demand Reduction		
☒ Groundwater	☐ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☒ Conservation/ water use efficiency	☐ Ocean desalination
☐ Transfer	☐ Other (describe): _____	
Type of enhanced supply or demand reduction: 1,000 AFY		
Annual Yield of Supply (acre-feet): _____		
Availability by Water-Year Type (acre-feet per year):		
Average Year	1,000	
Dry Year	1,000	
Wet Year	1,000	
Availability by Season (check all that apply):		
☒ Summer	☒ Fall	☒ Spring ☒ Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?		
☒ Yes	☐ No	☐ Not Sure

For projects that include detention and groundwater recharge, please complete the following:

How many acres of land drain into this detention basin? (acres)	_____
Detention Basin area (acres)	_____
Detention basin max. operational depth (ft.)	_____
% of basin covered by wetlands	_____
Soil type	_____
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	_____
Estimated basin annual inflow (acre-feet/year)	_____
Estimated basin annual outflow (acre-feet/year)	_____

RESOURCE STEWARDSHIP BENEFITS
Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	_____
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	_____
Equestrian Trail Acres	_____
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	**$750,000**
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	**Grant.** **Water rates levied by the participating agencies.**
Funding Certainty & Longevity	**The participating agencies have the ability to increase rates to pay for the program.**
Operations & Maintenance Cost *(per year)*	**$250,000**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	**Water rates levied by the participating agencies.**
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	**The participating agencies have the ability to increase rates to pay for the continuation of the program after the three-year grant period.**

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft		No	
2. Pursue and implement cost effective water use efficiency programs	Yes		That is what this project is all about.
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed		No	
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon		No	
5. Increase/augment water supplies to meet region demands		No	
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon	Yes		If we can reduce our water demand, we will have additional opportunities to sell surplus water to agencies that need it.
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon		No	
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		There is a water-energy nexus by which reducing water use also reduces energy use.
4. Increase the use of alternate energy sources (e.g. solar)		No	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		One of the BMPs is a water audit, and the participating agencies will need to keep their systems in good repair to keep losses less than 10%
6. Increase the use of recycled water for direct reuse within the Kern Region		No	
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes		Reducing water demand increases reliability of the limited supply.

8. Increase pool of qualified candidates to operate water and wastewater systems	Yes	The hiring of two trained and qualified water conservation practictioners. They must be certified by AWWA.
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	No	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	Yes	If water demand goes down, the City of Tehachapi will be able to use the wells with the highest quality water and leave the marginal wells for peaking.
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	Yes	See comment for WQ3 above.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, "aesthetic" projects) throughout the planning horizon	No	
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	No	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	Yes	Conceptually, reducing urban use frees up water for agricultural use. The community has a broad-based opinion that agriculture should be preserved in Tehachapi.
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	Yes	As the TRUWMP is updated every five years, this issue will be explored. It will also be considered in the updates of the Greater Tehachapi Area Specific and Community Plan.
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	Water conservation education in schools is one of the BMPs that must be implemented in the program.
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with	Yes	Water conservation is good stewardship of environmental resources.

habitat conservation plans and other ongoing planning efforts from this point forward		
8. Preserve and improve ecosystem/watershed health throughout the planning horizon	No	
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	No	
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	

MF-3

KERN IRWMP

Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to:
KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:
Tehachapi-Cummings County Water District

Agency / Organization / Individual Address:
P.O. Box 326, Tehachapi, CA 93581

Possible Partnering Agencies:
City of Tehachapi, Tehachapi Unified School District, Tehachapi Valley Recreation and Parks District

Name:
John Martin

Title:
General Manager

Telephone:
661-822-5504

Fax:
661-822-5122

Email:
jmartin@tccwd.com

Website:
www.tccwd.com

Project Name:
Public facility distribution line and nitrate removal program

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	35 7.617N	**Project Longitude:**	118 26.267W

Location Description:	City of Tehachapi – Snyder Well and portions of Jacobsen Middle School, Dennison Road and D Street.

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☐ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
☒ Agency ☒ Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- City of Tehachapi, Jon Curry, Utilities Manager
- Tehachapi Unified School District, Lisa Gilbert, Superintendent
- Tehachapi Valley Recreation and Parks District, James Wood, General Manager
-

Project Status (e.g., new, ongoing, expansion, new phase):

New

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The State Department of Public Health has recommended that the City of Tehachapi disconnect its Snyder Well from their distribution system, changing the status from standby to inactive. This well produces water that does not meet the MCL for nitrates. The well is high-volume and the City hopes to be able to use it again someday.

This project would connect the existing well to TCCWD's existing non-potable pipeline, enabling the water to be used on farms and the Tehachapi High School, which already receives water from TCCWD's pipeline and TVRPD's Morris Park (to be developed, but property already purchased). The proposed pipeline could be routed through the Jacobsen Middle School property, to enable that facility to receive this water for their athletic fields, thereby reducing the amount needed from the City's other potable wells.

Pumping the well will reduce the water's nitrate content over the years, so that the well will be able to be used in the City's system sometime in the future.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The Tehachapi-Cummings County Water District will extend its existing 10" water line from the intersection of Valley Blvd and Dennison Road north to the Jacobsen Middle School's north boundary approximately 1,380'. The pipe will run west on Jacobsen Middle School property approximately 1,900' to the City's Snyder Well at the intersection of Snyder and D Street. The pipeline will then be extended in the City of Tehachapi's street right-of-way west in D Street approximately 2,050' to Central Park.

The School District and the Park District will be responsible for tying in their systems and facilities.

The City will assist TCCWD in the installation of the valves and controls at the Snyder Well.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Tehachapi Groundwater Basin
- Feather River (indirectly)
-
-

Please identify up to three available documents which contain information specific to the proposed project:

- City of Tehachapi as-built drawings for Snyder well and appurtenances
- TCCWD as-built drawings for Dennison pipeline
-

Is the proposed project an element or phase of a regional or larger program?	☒ Yes ☐ No
If yes, please identify the program	Tehachapi Regional Urban Water Management Plan and the Tehachapi Source Water Protection

	Plan
Design life of the Project	50 years
Proposed Construction/Implementation Start Date:	5/1/2014
Proposed Construction/Implementation Completion Date	8/31/2014
Ready for Construction Bid	☐ **Yes** ☒ **No** ☐ **NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**Not initiated**	**(mm/dd/yyyy)**
Land Acquisition/ Easements	**Not initiated**	**(mm/dd/yyyy)**
Preliminary Plans	**Not initiated**	**(mm/dd/yyyy)**
CEQA/NEPA	**Not initiated**	**(mm/dd/yyyy)**
Permits	**Not initiated**	**(mm/dd/yyyy)**
Construction Drawings	**Not initiated**	**(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project readiness-to proceed.

N/A

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

The project will:

Remove nitrates from groundwater in an area of high-concentration (affects three wells in total).

Enable the City to keep an important asset rather than abandon it.

Provide appropriate quality water for irrigation uses. The City's potable wells will not be needed for the irrigated areas of the schools or parks.

Provide an additional well for TCCWD to recover artificially recharged State Water Project water banked in Tehachapi Basin via existing recharge ponds.

Reduce the cost of irrigation water for the schools and parks.

Reduce costs by enabling the City to operate some of its other wells off-peak, which also provides benefits to the electricity grid. Tehachapi is the State's leading renewable energy area, primarily from wind, which have the problem of not producing electricity that meets the demand curve. By running wells at night, the City will promote the use of excess wind power generated during the night. This has the result of conserving fossil fuels.

Please describe the dominant existing land use type for the proposed project location.

Public schools, public streets and public parks.

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location
Upstream: N/A
Downstream: N/A

Does the project address any known environmental justice issues?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Does the project include disadvantaged community participation?		
☒ **Yes**	☐ **No**	☐ **Not Sure**
If yes, please identify the group or organization: City of Tehachapi		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	Nitrate removal via application on vegetation (sod, trees and crops)
Design operational treatment capacity (million gallons/day)	720,000
Targeted Contaminants (Check all that apply):	
☐ Chloride ☒ Nitrogen Compounds ☐ Coliform Bacteria ☐ Other (describe): _____	
Flood Management Benefit Information	
Maximum volume of temporary storage of storm runoff (acre-feet)	N/A
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project ($/year)	_____
Acreage required for project implementation	_____

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply or Demand Reduction		
☒ Groundwater	☒ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☒ Conservation/ water use efficiency	☐ Ocean desalination
☒ Transfer	☒ Other (describe): Conjunctive use and groundwater banking	
Type of enhanced supply or demand reduction: Groundwater production and reduced demand on SWP imports during dry years		
Annual Yield of Supply (acre-feet): 150		
Availability by Water-Year Type (acre-feet per year):		
Average Year	150	
Dry Year	150	
Wet Year	150	
Availability by Season (check all that apply):		
☒ Summer	☒ Fall	☒ Spring ☐ Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?		
☒ Yes	☐ No	☐ Not Sure

For projects that include detention and groundwater recharge, please complete the following:

How many acres of land drain into this detention basin? (acres)	N/A
Detention Basin area (acres)	
Detention basin max. operational depth (ft.)	
% of basin covered by wetlands	
Soil type	
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	
Estimated basin annual inflow (acre-feet/year)	
Estimated basin annual outflow (acre-feet/year)	

RESOURCE STEWARDSHIP BENEFITS
Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	
Treatment wetland area (acres)	
Riparian habitat area (acres)	
Non-developed open space area (acres)	25
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	
Multiple Sport Athletics Acres	50
Other Recreation Acres	10
Pedestrian Trail Acres	
Equestrian Trail Acres	
Other Passive Activity	
Other Acres (describe)	
Description	
Total Project area (acres)	85

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	**$800,000 to $1,000,000**
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	**Grant through Kern IRWMP** **Financing through CSDA Finance Corp** **Property tax revenues (portion of general 1% county rate)**
Funding Certainty & Longevity	**None of the funding sources have been obtained.**
Operations & Maintenance Cost *(per year)*	**$10,000**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	**TCCWD water rates.**
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	**These types of operating costs are already included in the TCCWD budget. This item will be added to the rate calculation prior to the costs being incurred.**

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	Yes		TCCWD has adequate percolation ponds in Tehachapi Basin, but needs more recovery wells to facilitate its recovery of Article 21 water. This well's production could supplant SWP imports in drought years.
2. Pursue and implement cost effective water use efficiency programs		No	
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed		No	
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon	Yes		See comments on item WS1 above.
5. Increase/augment water supplies to meet region demands	Yes		Currently this well's produces no water. It's production will supplant the City's potable groundwater water currently being delivered to schools and parks.
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon	Yes		This well will provide more recovery capacity for TCCWD, thereby enhancing our banking and recover of Article 21 water and SWP Table A water.
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon	Yes		TCCWD will be able to recover more Article 21 water, therefore, enhance the amount that can be banked.
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		If the demand of the schools and parks is removed from the City's obligation, it will be able to operate more wells on off-peak pumping schedules.
4. Increase the use of alternate energy sources (e.g. solar)		No	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		Part of the project will be the replacement of the well's backflow prevention device. It will be upgraded to an air-gap style.

6. Increase the use of recycled water for direct reuse within the Kern Region	No	
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes	This well will remain in production, rather than being abandoned. Since the other City wells will not be needed for water to the schools or parks, its water supply reliability is enhanced.
8. Increase pool of qualified candidates to operate water and wastewater systems	No	
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	No	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	Yes	Removing nitrates from groundwater improves water quality. The City of Tehachapi is a disadvantaged community.
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	Yes	Extracting nitrates at Snyder Well will improve groundwater quality at two nearby City wells that have moderate nitrates, but are still in compliance.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, "aesthetic" projects) throughout the planning horizon	Yes	Water from Snyder Well can't be legally distributed to the City's customers, but it can be used for parks, athletic fields and farms.
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	No	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	No	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	Yes	Because a portion of the City's current demand for schools and parks will be eliminated, their supply can be dedicated to strictly potable uses.
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	The four agencies plan to have informational meetings at the schools to explain the project and its benefits.

7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	No	
8. Preserve and improve ecosystem/watershed health throughout the planning horizon	No	
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	No	
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	

MF-4

KERN IRWMP

Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to:
KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:
Bear Valley Community Services District

Agency / Organization / Individual Address:
Bear Valley CSD

Possible Partnering Agencies:

Name:
Clinton R. Stewart

Title:
Supt. of Public Works

Telephone:
661-821-4428

Fax:
661-821-0180

Email:
cstewart@bvcsd.com

Website:

Project Name:
Radio Nuclides Treatment Project

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	35 10.353N	**Project Longitude:**	118 36.565W

Location Description:	This project is located in Bear Valley Springs a part of the Mountain and Foothills section of the Kern IRWMP

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☐ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
X Agency X Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

-
-
-
-

Project Status (e.g., new, ongoing, expansion, new phase):

New proposal

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

Water production from Bear Valley wells is being affected by high Radio Nuclide readings in several wells that highly influence the ability of Bear Valley water systems to meet the needs of the community. Imported water used to enhance that supplied by Bear Valley wells is expensive and being imported through an adjudicated basin and `could be reduced or cut off at any time in the future. It is imperative that Bear Valley CSD do everything possible to reduce its dependence on outside water sources and this project will accomplish a great part of that goal. The treatment is planned for four existing wells that we are currently unable to use due to Radio Nuclide levels.

Our system currently imports about 45% of its water from the Cummings Valley Basin and that water is actually purchased water from the State Water Project water that is pumped into the area by Tehachapi Cummings County Water District and used to recharge the Cummings Basin as a transfer media from which Bear Valley CSD can then pump water from BVCSD owned wells in Cummings Valley. As this occurs in an adjudicated basin, Bear Valley is considered an exporter of water and has no overlying rights to export water from the basin. This source could be affected by any of several scenarios including loss of State Water Project water to Cummings Valley, or overdraft of the adjudicated basin.

It is the best interest of all parties from the State to the local level for Bear Valley to maximize production from its wholly owned sources within Bear Valley. This project would increase the production of water from within Bear Valley to approximately 70% -80% of its total current needs and under controlled circumstances could be counted on to support Bear Valley's ability to supply 100% of their water needs.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The proposed process is a filtration process where all water is passed through a media that removes radioactive materials from the water and hold them in the media until they can be removed through a proprietary process by a private provider. The equipment is provided by the private provider and managed by them also. Filter media changes and handling are provided by the same company under a ten year contract. **This equipment would be located at 4 individual sites within Bear Valley and require construction of additional protective buildings at each site.** **A proposal for this project has been provided by WATER REMEDIATION TECHNOLOGY, LLC (WRT)**

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

• Bear Valley/ Cummings Valley Basin
•
•
•

Please identify up to three available documents which contain information specific to the proposed project:

• **Enforcement letters from the California Department of Public Health**
• **Proposal from WRT**
• **Title 22 of the California Code Regulations**

Is the proposed project an element or phase of a regional or larger program?	☐ Yes X No
If yes, please identify the program	_____
Design life of the Project	_____ **30 years**
Proposed Construction/Implementation Start Date:	_____**as soon as funding is available**
Proposed Construction/Implementation Completion Date	_____**Unknown**
Ready for Construction Bid	**X Yes** ☐ **No** ☐**NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**Currently available**	**09/01/2011**
Land Acquisition/ Easements	**Currently owned**	
Preliminary Plans	**Stock plans based on current data**	**09/01/2011**
CEQA/NEPA		
Permits		
Construction Drawings	**Preliminary only**	**09/01/2011**

For projects that do not include construction, please briefly describe the project readiness-to proceed.

This equipment is stock packages from the manufacturer WRT and currently available requiring only a prepared location and installation. Site preparation requires construction of a protective building and concrete slab on current sites.

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

These four wells have the ability to produce in excess of 250 acre feet of water per year and are currently unusable due to the radio-nuclide levels. This is about 25% of the total current Bear Valley basin production and would provide a significant impact on the system. Allowing much more flexibility in our well production schedule and the ability of the basin aquifers to meet the needs of our community.

By increasing the flexibility of our pumping assignments to the individual wells we may be able to enhance the production of other wells through better management.

Please describe the dominant existing land use type for the proposed project location.

These are nearly all rural home sites and the wells are existing wells on easements or properties directly owned by BVCSD.

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location
Upstream: rural home sites
Downstream: rural home sites

Does the project address any known environmental justice issues?		
☐ **Yes**	**X No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☐ **Yes**	**X No**	☐ **Not Sure**

Does the project include disadvantaged community participation?		
☐ **Yes**	**X No**	☐ **Not Sure**
If yes, please identify the group or organization: _____		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	_____WRT Z-92
Design operational treatment capacity (million gallons/day)	_____.25 MGD
Targeted Contaminants (Check all that apply):	
☐ Chloride ☐ Nitrogen Compounds ☐ Coliform Bacteria ☐ Other (describe): _____ **Uranium and Radium**	
Flood Management Benefit Information	
Maximum volume of temporary storage of storm runoff (acre-feet)	_____
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project ($/year)	_____
Acreage required for project implementation	_____

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply or Demand Reduction		
X Groundwater	☐ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☐ Conservation/ water use efficiency	☐ Ocean desalination
X Transfer	☐ Other (describe): _____	
Type of enhanced supply or demand reduction: **Increased usable local production and reduction of SWP demand.**		
Annual Yield of Supply (acre-feet): **1200 AF**		
Availability by Water-Year Type (acre-feet per year):		
Average Year	**_____1200**	
Dry Year	**_____1200**	
Wet Year	**_____1200**	
Availability by Season (check all that apply):		
X Summer	X Fall	X Spring X Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?		
X Yes	☐ No	☐ Not Sure

For projects that include detention and groundwater recharge, please complete the following:

How many acres of land drain into this detention basin? (acres)	_____
Detention Basin area (acres)	_____
Detention basin max. operational depth (ft.)	_____
% of basin covered by wetlands	_____
Soil type	_____
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	_____
Estimated basin annual inflow (acre-feet/year)	_____
Estimated basin annual outflow (acre-feet/year)	_____

RESOURCE STEWARDSHIP BENEFITS
Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	_____
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	_____
Equestrian Trail Acres	_____
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	**$300,000 buildings and construction** **$350,000 equipment and installation/training**
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	**Grants**
Funding Certainty & Longevity	
Operations & Maintenance Cost *(per year)*	**$75,000**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	**Annual water enterprise fund budget**
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	**Contingent of grant**

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	YES		Reduce dependence on state water project water purchased from Tehachapi Cummings County Water District through the Cummings Valley adjudicated basin.
2. Pursue and implement cost effective water use efficiency programs		NO	Bear Valley already pursues highly effective water conservation programs
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed		NO	
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon		NO	
5. Increase/augment water supplies to meet region demands	YES		Helps to balance regional demand by increasing production of Bear Valley Basin and relieving stress on use of Cummings valley Basin.
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon	YES		By reducing demand on SWP waters
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon		NO	
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	YES		Increased deliveries of water from Cummings Valley are less efficient than pumping within Bear Valley
4. Increase the use of alternate energy sources (e.g. solar)		NO	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions			
6. Increase the use of recycled water for direct reuse within the Kern Region		NO	
7. Optimize local management of water resources to improve water supply reliability	YES		Optimizes local supply and therefore reliability of water source by reducing

over the planning horizon		dependence of SWP water and interbasin transfers.
8. Increase pool of qualified candidates to operate water and wastewater systems	NO	
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	NO	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	NO	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	NO	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	YES	Will improve local supply and act as a test bed for Radio nuclides treatment for other users in the region.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, “aesthetic” projects) throughout the planning horizon	NO	
6. Coordinate and enhance aquatic pest control efforts from this point forward	NO	
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	NO	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	NO	
3. Identify and promote the regeneration and restoration of native riparian habitat	NO	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	NO	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	NO	
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	YES	Increase awareness of water treatment opportunities and how water quality often controls system financial demand.
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing	NO	

planning efforts from this point forward		
8. Preserve and improve ecosystem/watershed health throughout the planning horizon	NO	
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	NO	
2. Reduce the effects of poor quality runoff throughout the planning horizon	NO	
3. Identify and promote innovative flood management projects to protect vulnerable areas	NO	
4. Plan new developments to minimize flood impacts from this point forward	NO	

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KERN IRWMP
Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to:
KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:
Tehachapi-Cummings County Water District

Agency / Organization / Individual Address:
P.O. Box 326
Tehachapi, CA 93561

Possible Partnering Agencies:
Stallion Springs Community Services District
Bear Valley Community Services District
California Correctional Institute, Tehachapi

Name:
Thomas Neisler

Title:
General Manager

Telephone:
661-822-5504

Fax:
661-822-5122

Email:
tneisler@tccwd.com

Website:
www.tccwd.com

Project Name:
Cummings Basin Westerly Recharge Project

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	35. 06' 38.11" N	**Project Longitude:**	-118. 35' 49.05" W

Location Description:	(1) Parcel 1 of Parcel Map No. 2461, being a portion of the S ½ of the SE ¼ of Section 25, T. 32 S., R. 31 E. MDB&M in the County of Kern.

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☐ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
☒ Agency ☒ Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Stallion Springs Community Services District
- Bear Valley Community Services District
- California Correctional Institute, Tehachapi
- Various Agricultural Irrigators, Potentially: SunSelect Produce, Inc., Millenium Pacific Inc., Grimmway Farms

Project Status (e.g., new, ongoing, expansion, new phase):

New phase

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The project is needed because Cummings Basin's current recharge capability is insufficient to meet the current and future demand for the conjunctive use programs operated there. There is a risk that the Basin could be damaged if the facilities to artificially recharge the groundwater are inadequate for the future level of pumping from the Basin. If the project is not built, TCCWD may be unable to provide enough imported recharge supply to the Basin to accommodate the municipal and agricultural purveyors. As climate change precipitates wider variance in annual SWP allocations, it becomes imperative to take advantage of every drop of water in surplus years. TCCWD is actively banking water in-district and out of district to meet demand during drought and insufficient allocation years. This project will allow TCCWD to meet demand with banked water during periods of shortage. Our current recharge capability is inadequate to meet this need.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

Cummings Basin is an adjudicated basin under the Kern County Superior Court and is supervised by the Watermaster, Tehachapi-Cummings County Water District. In addition to the intensive agricultural use of the basin, three municipal water purveyors currently use the basin for conjunctive use programs. Under the programs, TCCWD spreads imported SWP water for subsequent extraction by the three purveyors, thereby avoiding the need for expensive surface water treatment plants. Water demand for these municipal uses is forecast to grow. Existing spreading ponds are insufficient for growth of this program. More acreage for spreading of imported water is needed.

TCCWD has three spreading areas in Cummings Basin: (1) Chanac Creek (northeast portion), (2) 19-acres at the corner of Bear Valley Road and Highway 202 and (3) Cummings Ponds. Chanac Creek is currently not used because of the additional lift required to move water to that facility and the higher losses experienced. 19-acres is the main spreading works where 75% of the water is recharged. Cummings Pond receives 25% of the water and is less efficient than 19-acres. The project, Cummings Basin Westerly Recharge, is located approximately in the center of the basin and proximate to the most intense groundwater pumping. Preliminary investigation suggests that the site soil characteristics are ideal for recharge and similar to the very efficient 19-acre site.

This project consists of purchasing approx. 15 acres from Stallion Springs CSD, grading the site to a depth of 5-6’ and constructing equalization berms and weirs to maintain water levels, constructing approx. 450’ of 8” waterline to provide supply to the ponds.

These improvements will enable TCCWD to (1) spread more imported water for beneficial use of the municipal purveyors as their demand increases, (2) provide additional banked supply to allow agricultural customers to establish dedicated Banked Water Reserve Accounts (3) bank additional supplies of imported water in wet years, which will improve operational flexibility and protect against drought, (4) maintain the recharge areas better, as the existence of multiple areas will allow one to be taken off line for maintenance while the others remain in use, and (5) more evenly distribute recharge water in the Basin.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Cummings Valley Groundwater Basin (DWR #5-27)
- Chanac Creek (eastern portion)
-
-

Please identify up to three available documents which contain information specific to the proposed project:

• Cummings Basin Recharge Facility Evaluation, GEI Consultants, Sept. 9, 2011
• Summary Appraisal Report, Merriman Hurst & Assoc., Apr. 12, 2012 (outdated)
• Cummings Basin Groundwater Model Update, Fugro Consultants, March 2015

Is the proposed project an element or phase of a regional or larger program?	☒ Yes ☐ No
If yes, please identify the program	TCCWD groundwater banking for multiple public agencies and agricultural users
Design life of the Project	50 years
Proposed Construction/Implementation Start Date:	03-01-2020
Proposed Construction/Implementation Completion Date	10-31-2020
Ready for Construction Bid	☐ **Yes** ☒ **No** ☐ **NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**In process**	**02/04/19**
Land Acquisition/ Easements	**In process**	**02/20/19**
Preliminary Plans	**Not initiated**	
CEQA/NEPA	**Not initiated**	
Permits	**Not initiated**	
Construction Drawings	**Not initiated**	

For projects that do not include construction, please briefly describe the project readiness-to proceed.

This project includes construction.

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

The project primarily benefits the three municipal water purveyors because it enables them to receive sufficient quantities of imported SWP water to meet their water demand growth forecast without the need to construct expensive surface water treatment facilities. However, the project also benefits the basin generally by increasing water levels in the basin, which provides lower pumping costs for all groundwater users in the basin. It also allows the district to take delivery of flood-stage water (Article 21 and/or Lower Kern River water) when available, which augments the total supply available. Finally, since the project will enable the district to put water into the basin more quickly and in greater quantities, it will be able to achieve its water banking targets more quickly, which could possibly allow it to exchange water with other districts during dry years.

Having access to additional quantities of imported SWP water will alleviate demand to pump native groundwater from Cummings Basin. This basin is currently in overdraft and the Watermaster is working to reduce consumption to within sustainable limits. This project is a major component of this effort.

Please describe the dominant existing land use type for the proposed project location.

Agriculture.

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location
Upstream: Agriculture
Downstream: Agriculture

Does the project address any known environmental justice issues?		
☐ **Yes**	☒ **No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☐ **Yes**	☐ **No**	☒ **Not Sure**

Does the project include disadvantaged community participation?		
☐ **Yes**	☐ **No**	☒ **Not Sure**
If yes, please identify the group or organization: California Correctional Institute, Tehachapi		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	None
Design operational treatment capacity (million gallons/day)	None
Targeted Contaminants (Check all that apply):	
☐ Chloride ☐ Nitrogen Compounds ☐ Coliform Bacteria ☐ Other (describe): _____	
Flood Management Benefit Information	
Maximum volume of temporary storage of storm runoff (acre-feet)	75
Maximum increased conveyance capacity (cubic feet/second)	0
Estimated area benefiting from flood damage reduction (acres)	0
Estimated level of flood protection resulting from project implementation	0
Estimated annual value of flood damage reduction provided by project ($/year)	0
Acreage required for project implementation	15

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply or Demand Reduction		
☒ Groundwater	☐ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☐ Conservation/ water use efficiency	☐ Ocean desalination
☐ Transfer	☐ Other (describe): _____	
Type of enhanced supply or demand reduction: Groundwater banking of imported SWP supply and Article 21, Turnback Pool and Lower Kern River high-flow water.		
Annual Yield of Supply (acre-feet): 4,000		
Availability by Water-Year Type (acre-feet per year):		
Average Year	4,000	
Dry Year	4,000	
Wet Year	4,000	
Availability by Season (check all that apply):		
☒ Summer	☒ Fall	☒ Spring ☒ Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?		
☒ Yes	☐ No	☐ Not Sure

For projects that include detention and groundwater recharge, please complete the following:

How many acres of land drain into this detention basin? (acres)	500
Detention Basin area (acres)	15
Detention basin max. operational depth (ft.)	5
% of basin covered by wetlands	0
Soil type	SP – Sand and SM – Silty Sand
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	Infiltration
Estimated basin annual inflow (acre-feet/year)	4,000
Estimated basin annual outflow (acre-feet/year)	0

RESOURCE STEWARDSHIP BENEFITS
Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	_____
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	_____
Equestrian Trail Acres	_____
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	**$1,500,000 - $1,750,000**
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	**Water rates**
Funding Certainty & Longevity	**Permanent funding source**
Operations & Maintenance Cost *(per year)*	**$20,000**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	**Water rates**
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	**Permanent funding source**

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	Yes		As a Member Unit of the Kern County Water Agency, TCCWD collaborates with other water districts to maximize water supplies to the region and eliminate overdraft. Project provides additional in-district storage and greater flexibility.
2. Pursue and implement cost effective water use efficiency programs		No	
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed	Yes		This is the primary purpose of this project. The proposed recharge site is prime recharge area.
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon	Yes		All of the municipal water delivered from Cummings Basin is via conjunctive use and the municipal agencies are the primary beneficiaries of this project.
5. Increase/augment water supplies to meet region demands	Yes		If TCCWD had more recharge capacity, we could receive more surplus water when available in wet years to be stored in the Basin and recovered in dry years.
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon	Yes		If the water banking goals are met or are ahead of schedule we could make surface water available in dry years to other agencies.
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon	Yes		The project will be able to capture small amounts of storm flows, as the proposed ponds will be able to hold 75 AF of water and infiltration will be 0.5 – 1.0 feet/day.
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		Additional recharge capacity will enable us to keep all of the conjunctive use recharge water within pressure zone 1, which will reduce energy usage for pumping to pressure zone 2 (reservoir level).
4. Increase the use of alternate energy sources (e.g. solar)		No	
5. Replace aging infrastructure to reduce system water losses, improve operational	Yes		Additional recharge basins will relieve current necessity to use 19-acre facility to

efficiencies, and reduce service interruptions		maximum capacity. Eventually, 19-acre facility will fail if operated at max. capacity.
6. Increase the use of recycled water for direct reuse within the Kern Region	No	
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes	Our Tehachapi Regional Urban Water Management Plan recommends that all municipal water purveyors have a banked water reserve account of 5-years of SWP demand. This project will allow us to progress toward that goal.
8. Increase pool of qualified candidates to operate water and wastewater systems	No	
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	No	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	No	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	No	
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, "aesthetic" projects) throughout the planning horizon	No	
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	No	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	Yes	Additional banked reserves will allow for more informed estimates of available water supply for planning as well as additional emergency supply.
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	Yes	Additional banked reserves will allow for more informed estimates of available water supply for planning as well as additional emergency supply.

6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	We will publicize the project in the Tehachapi News, on tccwd.com and other outlets. We will provide educational signage.
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	Yes	Although not the focus of this project, we would certainly be open to coordinate this project with plans for habitat conservation. The land in question will be protected from development in perpetuity.
8. Preserve and improve ecosystem/watershed health throughout the planning horizon	No	
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	No	
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	

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KERN IRWMP

Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to: KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:

Frazier Park Public Utility District

Agency / Organization / Individual Address:

Frazier Park Public Utility District
P.O. Box 1525
Frazier Park, CA 93225

Possible Partnering Agencies:

State: State Water Resources Control Board, Department of Water Resources
Federal: United States Forest Service, United States Geological Service
County: Kern County, Kern County IRWMP
Local: Frazier Park Public Utility District, Lake of the Woods Mutual Water Company, LOW Mobile Home Park
Nonprofit: Self-Help Enterprises

Name:

Jonnie Allison

Title:

Manager

Telephone: (661) 245-3734

Fax: (661) 245-3472

Email:

Website:

http://www.frazierparkwater.com/

Project Name:

Cuddy Valley Water Supply Evaluation

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	34 49' 11.29"	**Project Longitude:**	118 57' 9.29"

Location Description:	The Cuddy Valley Project area is located 30 miles south of Bakersfield along Frazier Mountain Park Road, within the Cuddy valley drainage basin from Frazier Mountain on the South and Tecuya Ridge of the San Emigdio Mountains on the north; from 2 miles west of I5 to one mile west of Lake of the Woods.

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☐ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
☒ Agency ☒ Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Frazier Park Public Utility District
- Lake of the Woods Mutual Water Company
- Lake of the Woods Mobile Home Park
- Emily Wainwright (property owner)
- Kern County Integrated Regional Water Management Program
- County of Kern
- United States Forest Service
- United States Geological Service
- Self-Help Enterprises

Project Status (e.g., new, ongoing, expansion, new phase):

Ongoing

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The Frazier Park and Lake of the Woods water systems and communities are rural, low-income communities located along Frazier Mountain Park Road in the San Emigdio Mountains of Kern County, just north of Ventura and Los Angeles Counties. These rural communities contain about 3,800 people, many small businesses, a school, park, fire station and Community centers are served with water from individual wells to systems including the Frazier Park Public Utility District, Lake of the Woods Mutual Water Company, Lake of the Woods Mobile Home Park and other small water systems. The community water systems have 1,750 services located in the mountains and valley along both sides of Frazier Mountain Park Road. The Frazier Park Public Utility District, Lake of the Woods Mobile Home Park and Lake of the Woods Mutual Water Company have all experienced loss of water supply during the recent drought. The water systems of Frazier Park Public Utility District water supply comes from mountain springs and local wells. One well, constructed in 1955, has only an 8 foot cement sanitary seal, has lost 30% of its' water production during the 2012/14 drought and must be replaced. The Lake of the Woods Mutual Water Company has lost 70% of its well production is on mandatory water restrictions and must haul over 25% of its water during the summer months. Efforts to develop replacement wells in 2013 led to 4 dry holes. Many of its' waterlines are old, rusted, leaky, undersized water lines that lose about 85,000 gallons of water each day and due to their small size and condition, lack the ability to support metered services. The LOW Mutual Water Company has recorded at least 35 water line breaks in 2014 to the water distribution system. The Lake of the Woods Mobile Home Park has experienced a significant drop in the water level in their one well. The Frazier Park and Lake of the Woods water systems have obtained State funds and been collaborating on developing an entity to provide a regional water supply. This funding requires that adequate water supplies be located but cannot pay for the costs of test wells and other physical work needed to document supply. Landowners between these two systems are willing to allow for test well drilling on their property without charge; the District has undeveloped springs and the Mutual has water rights to four springs, but the water systems lack the money to pay for the engineering and construction work to evaluate these and potential water sources. Lack of IRWMP funding to adequately document the Cuddy Valley area water supply will leave these communities and water systems without a means to obtain funds to develop new water supplies, leaving many of the systems with potential supply failures and require continued water restrictions and water hauling.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The project will fund the development of 3 test wells, evaluation of spring supplies and locate possible water supplies for construction and development. The work will be bid out and constructed under review from the District and the Project engineer.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Cuddy Creek
- Tulare Groundwater Basin
- Dark Canyon drainage area
- Cold Springs Canyon drainage area

Please identify up to three available documents which contain information specific to the proposed project:

- Frazier Park - Lake of the Woods Regional Pre-Planning Project
- Lake of the Woods - USDA Preliminary Engineering Report
- Frazier Park - USDA Preliminary Engineering Report

Is the proposed project an element or phase of a regional or larger program?	☒ Yes ☐ No
If yes, please identify the program	Frazier Park - Lake of the Woods Pre-Planning Project
Design life of the Project	40 years
Proposed Construction/Implementation Start Date:	2015
Proposed Construction/Implementation Completion Date	2015
Ready for Construction Bid	☐ **Yes** ☐ **No** ☐ **NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**Complete**	**(mm/dd/yyyy)**
Land Acquisition/ Easements	**In Process**	**(mm/dd/yyyy)**
Preliminary Plans	**Not Initiated**	**(mm/dd/yyyy)**
CEQA/NEPA	**In Process**	**(mm/dd/yyyy)**
Permits	**Not initiated**	**(mm/dd/yyyy)**

Construction Drawings	**Not Initiated**	**(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project readiness-to proceed.

N/A, Project includes construction

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

This Project will benefit Disadvantaged Communities of 3,800 people by:

- Documentation of a regional water supplies
- Initiate regional water supply cooperation
- Allow for application of construction funds to develop regional water supplies to restore locally impacted water supplies
- Possible consolidation of area water systems & additional staffing.

Please describe the dominant existing land use type for the proposed project location.

Forest, stream, rural residential, commercial and streets

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location
Upstream: Vacant rural land & National forest
Downstream: Vacant rural land & National forest

Does the project address any known environmental justice issues?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Does the project include disadvantaged community participation?		
☒ **Yes**	☐ **No**	☐ **Not Sure**
If yes, please identify the group or organization: Residents of Frazier Park, Lake of the Woods,Self-Help Enterprises		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	

Design operational treatment capacity (million gallons/day)	
Targeted Contaminants (Check all that apply):	
☐ Chloride ☐ Nitrogen Compounds ☒ Coliform Bacteria ☒ Other (describe): Flouride	
Flood Management Benefit Information N/A	
Maximum volume of temporary storage of storm runoff (acre-feet)	_____
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project ($/year)	_____
Acreage required for project implementation	_____

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply		
☒ Groundwater	☐ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☒ Conservation/ water use efficiency	☐ Ocean desalination
☐ Transfer	☐ Other (describe): _____	
Type of enhanced supply: New water supplies (well, springs)		
Annual Yield of Supply (acre-feet): AcFt		
Availability by Water-Year Type (acre-feet per year):		
Average Year	AcFt	
Dry Year	AcFt	

Wet Year	AcFt		
Availability by Season (check all that apply):			
☒ Summer	☒ Fall	☒ Spring	☒ Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?			
☐ Yes	☒ No	☐ Not Sure	

For projects that include detention and groundwater recharge, please complete the following: N/A

How many acres of land drain into this detention basin? (acres)	
Detention Basin area (acres)	
Detention basin max. operational depth (ft.)	
% of basin covered by wetlands	
Soil type	
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	
Estimated basin annual inflow (acre-feet/year)	
Estimated basin annual outflow (acre-feet/year)	

RESOURCE STEWARDSHIP BENEFITS

Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	0
Treatment wetland area (acres)	0
Riparian habitat area (acres)	0
Non-developed open space area (acres)	0
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	
Multiple Sport Athletics Acres	
Other Recreation Acres	
Pedestrian Trail Acres	
Equestrian Trail Acres	

Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	$1,202,265
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	**State:** Drinking Water State Revolving Pre-Planning Funds, $202,265 Department of Water Resources: IRWMP funds $1,000,000 **Federal:** **County:** DAC IRWMP application funds
Funding Certainty & Longevity	Drinking Water State Revolving Pre-Planning Funds obtained
Operations & Maintenance Cost *(per year)*	**$----------NA**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	System users after construction phase
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	In water systems' budget & future budgets

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	Yes		Location and future installation of regional water supplies, infrastructure replacement and meter installation will restore water supply and eliminate water losses.
2. Pursue and implement cost effective water use efficiency programs	Yes		Water supply location & future installation of regional water supplies will restore water supply and increase supply efficiency.
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed		No	
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon		No	
5. Increase/augment water supplies to meet region demands	Yes		Water supply location & future installation of regional water supplies will restore water supply and increase supply efficiency.
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon		No	
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon		Yes	Water supply location & future installation of regional water supplies will restore water supply and increase supply efficiency.
3. Increase distribution efficiencies and reduce energy usage over the planning horizon		No	Water supply location & future installation of regional water supplies will restore water supply and increase supply and system efficiency.
4. Increase the use of alternate energy sources (e.g. solar)		No	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		Water supply location & future installation of regional water supplies will restore water supply and increase supply efficiency.

6. Increase the use of recycled water for direct reuse within the Kern Region	No	
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes	Water supply location & future installation of regional water supplies will restore water supply and increase supply efficiency.
8. Increase pool of qualified candidates to operate water and wastewater systems	No	
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	Yes	Future replacement of old poorly sealed wells with a new wells will prevent and mitigate contamination of the water supply.
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	Yes	Water supply location & future installation of regional water supplies will restore water supply and increase supply efficiency will restore water supply for these DACs.
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	Yes	The replacement of failing well will restore water supply and maintain water quality for the community.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, “aesthetic” projects) throughout the planning horizon	No	
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	Yes	Spring development can enable better access for water supplies for wildlife and plants within and near riparian habitats.
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	No	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	Yes	The Project will improve area water supplies.
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	Community meetings to discuss Project & operations will educate system users on local water supply, issues and needs.

7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	Yes	Environmental mitigation will take place prior and during construction & operations.
8. Preserve and improve ecosystem/watershed health throughout the planning horizon	Yes	Water supply location & future installation of regional water supplies will restore water supply and improve ecosystem/watershed health by providing more supply for wildlife & plants.
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	Yes	Water supply evaluation will locate and help develop construction mitigation measures to reduce/eliminate runoff during and after construction.
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	Yes	The regional water supply evaluation will help the future Project to be developed to comply with Kern County Floodplain guidelines.

MF-7

KERN IRWMP
Integrated Regional Water Management Plan

Project Submittal Form

To the extent possible this form should be electronically filled out and e-mailed to:
KernIRWMP@kcwa.com.

Part 1. Lead Implementing Agency/Organizational Information

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual:
Golden Hills Community Services District (GHCSD)

Agency / Organization / Individual Address:
21415 Reeves Street, Tehachapi, CA 93561

Possible Partnering Agencies:
Tehachapi-Cummings County Water District, City of Tehachapi

Name:
Bill Fisher

Title:
General Manager

Telephone:
(661) 822-3064

Fax:
(661) 822-8284

Email:
bfisher@ghcsd.com

Website:
www.ghcsd.com

Project Name:
Groundwater Conjunctive Use Project – Phase 2

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude:	35d06'49" N	**Project Longitude:**	118d25'06" W

Location Description:	The proposed Project site is located south of East Abajo Avenue and north of Highline Road. The western terminus for the proposed Project is at Dennison Road and the eastern terminus approximately one quarter mile from Steuber Road.

Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.

☐ Agency ☐ Project	Greater Bakersfield
☐ Agency ☐ Project	Kern County
☐ Agency ☐ Project	Kern County Water Agency
☐ Agency ☐ Project	Kern Fan
☐ Agency ☐ Project	Kern River Valley
☒ Agency ☒ Project	Mountains/Foothills
☐ Agency ☐ Project	North County
☐ Agency ☐ Project	South County
☐ Agency ☐ Project	West Side

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Tehachapi-Cummings County Water District
- City of Tehachapi

Project Status (e.g., new, ongoing, expansion, new phase):

New Phase

Part 2. Project Need

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The GHCSD provides domestic water to the community of Golden Hills located west of the City of Tehachapi. The District proposes to install a new well and pipeline connecting the well to an existing drinking water transmission pipeline that currently serves the GHCSD service area. The District's primary need for the proposed Project is to provide an additional water supply well to help meet peak water demands that occur principally during the summer months. The District can meet current water demands with its existing water wells; however, if its largest water well is non-functioning the District would not be able to meet peak demands. The California Department of Public Health (CDPH) requires that water systems have the ability to meet maximum day demand with the highest capacity well out of service, for systems that rely solely upon groundwater (Section 64554(c) of the California Waterworks Standards).

Since 1998, the District in coordination with TCCWD has pursued obtaining its groundwater supply in the area near the proposed Project. In 2001, the TCCWD adopted a Negative Declaration for the Antelope Dam Conjunctive Use Project (State Clearinghouse No. 2001111047). This project consisted of constructing a groundwater well (i.e. the Morris Park Well as shown on **Figure 2)** and transmission pipeline to deliver drinking water to GHCSD. The District obtains groundwater through conjunctive use, meaning that GHCSD purchases State Water Project (SWP) water from TCCWD that is recharged in the Antelope Dam recharge area (located up-gradient of the Morris Park Well) for later extraction by GHCSD.

In 2003, the GHCSD received a construction grant funded by the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act (Proposition 13) and the construction of the Morris Park Well and transmission pipeline was completed in 2006. As described in the application, it was anticipated that the Morris Park Well would have a capacity of 1,000 gallons per minute (gpm); when the well was constructed, it could only reliably produce 400 gpm. Additionally, the grant funded a 12-inch diameter transmission pipeline to deliver water from the well to the District; however, the District supplemented the funding to upsize the pipeline to 18-inches in diameter to provide additional capacity for future wells in the area as discussed in progress reports to the California Department of Water Resources (DWR). The Project also included the construction of an emergency connection with the City of Tehachapi that can provide an emergency water supply source to the City of Tehachapi under the terms of the Emergency Connection of Water Systems Agreement.

Additionally, the Morris Park Well and the proposed new well are located in the recommended area of the groundwater basin to prevent imbalances in the basin. The *Tehachapi Groundwater Basin Study Final Report* by Fugro West, Inc., dated June 2009 included the following statement:
…locating high production wells in areas southeast and east of the City of Tehachapi and north of the Antelope Basin appears to mitigate against significant declines in groundwater levels that could occur if these wells were located in the western and southwestern areas of the Basin [in the southern areas of GHCSD].

The proposed well is located in the area identified by the Fugro Report. Additionally, the well is located so that it may draw from recharge from the Antelope Dam and the Blackburn Dam recharge area.

It is important to note that like the Morris Park Well, GHCSD will only extract water from the groundwater basin at the new well to the extent that (a) TCCWD has previously recharged surface water at Antelope Dam on behalf of GHCSD or (b) GHCSD is extracting its adjudicated water rights. Additionally, the City and the District are contemplating a more regional approach to water system planning and better utilization of local resources to improve the reliability and minimize costs to the ratepayers. The water produced by the Project could be used to supplement both City and District water supplies.

Part 3. Project Description

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The proposed Project would include the construction and operation of a new water well and associated water connection pipeline along the existing 30 foot wide TCCWD easement along a farm road, which is a dirt road used primarily by farming vehicles and equipment. A small maintenance building would also be constructed adjacent to the new well.

New Well and Maintenance Building

The new well would be located near the southwest corner of the GHCSD owned parcel (APN 223-500-29). Along with the new production well, the District would also construct a small maintenance building. The components of the Project would include a production well, a well pump, pipes, valves, a meter, chlorination equipment (storage and injection), electrical service, a transformer, a motor control cabinet, a backup generator, minimal site grading, associated appurtenances, and the connection pipeline. The maintenance building would have an approximate building/concrete slab footprint of 600 square feet as is typical for GHCSD well sites.

The well will be constructed with a maximum well depth of 600 feet to ensure a reliable water supply. The target production capacity for the well is up to 1,000 gallons per minute.

Connection Pipeline

The District proposes to have an 18-inch diameter pipeline installed within the existing TCCWD pipeline easement. The pipeline will be constructed in accordance with TCCWD requirements. Because the pipeline will be located within TCCWD's easement, the pipeline will be owned and operated by TCCWD but water conveyance rights will be retained by GHCSD.

The pipeline is approximately 5,000 linear feet (LF) in length and would start at the new well site proceed west and connect at an existing tee on the west side of South Dennison Road. The existing TCCWD easement is 30-foot wide and contains an existing 21-inch diameter irrigation (untreated) water pipeline. Open-cut trenching would be utilized for the pipeline installation except for the pipeline crossing Dennison Road which must be encased in a steel sleeve that will be bored and jacked under the road way. The pipeline trench would range from 4-6 feet deep and approximately 6 feet wide. Upon installation of the pipeline, the trench would be backfilled; the work area would be contoured back to its original slope.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Tehachapi Groundwater Basin
- California Aqueduct

Please identify up to three available documents which contain information specific to the proposed project:

• GHCSD Steuber Well Project CEQA Document • Steuber Well Bidding Documents

Is the proposed project an element or phase of a regional or larger program?	☒ Yes ☐ No
If yes, please identify the program	Antelope Dam Conjunctive Use Program
Design life of the Project	50 years
Proposed Construction/Implementation Start Date:	When funding is available
Proposed Construction/Implementation Completion Date	4-5 months after implementation start date
Ready for Construction Bid	☒ **Yes** ☐ **No** ☐ **NA**

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	**Completed**	**November 2010**
Land Acquisition/ Easements	**Completed**	**December 2010**
Preliminary Plans	**Completed**	**March 2014**
CEQA/NEPA	**Completed**	**March 2014**
Permits	**N/A**	
Construction Drawings	**In Progress**	

For projects that do not include construction, please briefly describe the project readiness-to proceed.

Part 4. Project Benefits

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

The proposed Project has the following benefits:

- Increased deliveries of contracted surface water supplies for recharge into groundwater storage utilizing existing TCCWD conveyance and recharge facilities and the construction of a recovery well and transmission main for the subsequent extraction of stored groundwater for delivery to the GHCSD.
- Less dependence on wells with water quality issues including arsenic, nitrates, and manganese.
- Provides a temporary water supply well for use by TCCWD in this current drought year to help meet their customer water demands.
- Provides an additional water supply source to meet peak water demands during summer months and reduce peak period electrical use.
- Provides additional water supply capacity to increase the ability of delivering water to the City of Tehachapi in case of emergency.

Please describe the dominant existing land use type for the proposed project location.

Agricultural

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location
Upstream: N/A
Downstream: N/A

Does the project address any known environmental justice issues?		
☐ **Yes**	☒ **No**	☐ **Not Sure**

Is the project located within or adjacent to a disadvantaged community?		
☒ **Yes**	☐ **No**	☐ **Not Sure**

Does the project include disadvantaged community participation?		
☐ **Yes**	☒ **No**	☐ **Not Sure**
If yes, please identify the group or organization: _____		

Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.

WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS

Water Quality Benefit Information	
Treatment technologies	_____
Design operational treatment capacity (million gallons/day)	_____
Targeted Contaminants (Check all that apply):	
☐ Chloride ☒ Nitrogen Compounds ☐ Coliform Bacteria ☒ Other (describe): Arsenic	
Flood Management Benefit Information – N/A	
Maximum volume of temporary storage of storm runoff (acre-feet)	_____
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project ($/year)	_____
Acreage required for project implementation	_____

WATER SUPPLY BENEFITS

Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.

Enhanced Water Supply or Demand Reduction Benefit Information		
Source of Increased Supply or Demand Reduction		
☒ Groundwater	☐ Groundwater treatment	☐ Increased surface water storage
☐ Recycled water	☐ Conservation/ water use efficiency	☐ Ocean desalination
☐ Transfer	☐ Other (describe): _____	
Type of enhanced supply or demand reduction: Conjunctive use of groundwater supply		
Annual Yield of Supply (acre-feet): 400.		
Availability by Water-Year Type (acre-feet per year):		
Average Year	200	
Dry Year	0	
Wet Year	600	
Availability by Season (check all that apply):		
☐ Summer	☒ Fall	☒ Spring ☒ Winter
Does the project have the potential to displace demands on the Bay/Delta/Estuary?		
☐ Yes	☒ No	☐ Not Sure

For projects that include detention and groundwater recharge, please complete the following:

How many acres of land drain into this detention basin? (acres)	Existing Basin
Detention Basin area (acres)	29
Detention basin max. operational depth (ft.)	
% of basin covered by wetlands	0
Soil type	Alluvial fan
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	_____
Estimated basin annual inflow (acre-feet/year)	Basin can recharge 50 AF/day
Estimated basin annual outflow (acre-feet/year)	_____

RESOURCE STEWARDSHIP BENEFITS
Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	29 acres
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	_____
Equestrian Trail Acres	_____
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	29 acres

Part 5. Project Cost Estimate

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Approximate Total Cost *(If project costs are variable, please include lower and upper range estimates.)*	**Estimated cost: $1,330,000**
Funding Source *(If multiple sources, list each source and the percent or amount funded by each)*	**25% local cost share**
Funding Certainty & Longevity	
Operations & Maintenance Cost *(per year)*	**$50,000**
Operations & Maintenance Funding Source(s) *(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)*	**Annual Budget**
Operations & Maintenance Funding Certainty *(i.e., already included in organization's budget, contingent upon grant, etc.)*	**Included in Budget**

Part 6. Regional Objectives

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective? Yes	No	Comments/Explanation
Increase Water Supply (WS)			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	Yes		The proposed project will increase the amount of groundwater stored in the Tehachapi Basin in wet years and allow for more TCCWD water to be available for the overdrafted Cummings Basin especially in dry/drought years.
2. Pursue and implement cost effective water use efficiency programs		No	
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed	Yes		Additional recharge acreage can be added by delivering SWP water to the Blackburn detention dam
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon	Yes		The project further implements the water banking program established in the Antelope Conjunctive use Project
5. Increase/augment water supplies to meet region demands	Yes		The new well will augment the water supply capacity for GHCSD, TCCWD, and potentially the City of Tehachapi.
Improve Operational Efficiency (OE)			
1. Increase transfers and exchanges flexibility over the planning horizon		No	
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon		No	
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		Water well supplements water and fire flow deliveries to southern area of District with commercial properties.
4. Increase the use of alternate energy sources (e.g. solar)		No	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		The project will help provide redundancy to GHCSD's aging water wells. The project will also result in less on peak pumping.
6. Increase the use of recycled water for direct reuse within the Kern Region		No	

7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes	Conjunctive use is a critical component of local management of the groundwater basin.
8. Increase pool of qualified candidates to operate water and wastewater systems	No	
Improve Water Quality (WQ)		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	Yes	Project will provide additional source water for blending with District's 'C' Well that has elevated arsenic contamination.
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	No	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	Yes	The project will result in less dependence on GHCSD wells with water quality issues including arsenic, nitrates, and manganese.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, "aesthetic" projects) throughout the planning horizon	No	
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
Promote Land Use Planning and Resource Stewardship (LU)		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	No	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	No	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	No	
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	GHCSD has been successful in communicating water resource issues through the Antelope Conjunctive Use Project and will expand public education with this Project.
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern	No	

River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward		
8. Preserve and improve ecosystem/watershed health throughout the planning horizon	Yes	Additional surface water will be delivered to the recharge areas thereby improving ecosystem health.
Improve Regional Flood Management (FM)		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	No	
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	