UPPER FEATHER RIVER IRWM

PROJECT INFORMATION FORM

Please submit by 5:00 p.m. on August 3, 2015, to UFR.contact@gmail.com

Please provide information in the tables below:

I. PROJECT PROPONENT INFORMATION

Agency / Organization	Gold Mountain Community Service District (GM CSD)
Name of Primary Contact	Ivan Gossage, General Manager
Name of Secondary Contact	Rich McLaughlin, Board President
Mailing Address	150 Pacific Street, Portola, CA 96122
E-mail	gossageivan@gmail.com rich.mclaughlinGMCSD@gmail.com
Phone	(530) 832-5945
Other Cooperating Agencies / Organizations / Stakeholders	
Is your agency/organization committed to the project through completion? If not, please explain	Yes. Project is included in our long-term capital plan.

II. GENERAL PROJECT INFORMATION

Project Title	MS-8: GM CSD Water Reclamation Facility
Project Category	☐ **Agricultural Land Stewardship** ☐ **Floodplains/Meadows/Waterbodies** ☒ **Municipal Services** **Water Supply/Water Quality** **Community Water/Wastewater** ☐ **Tribal Advisory Committee** ☐ **Uplands/Forest**
Project Description (Briefly describe the project, in 300 words or less)	**Background.** Gold Mountain was developed in the 1990's with a limited wastewater supply, insufficient to meet long-term plans of the community. All 408 home sites were sold prior to the original developer declaring bankruptcy and prior to installation of promised infrastructure improvements. The community reorganized into a public community service district (CSD) in 1996 with essentially zero initial funding. Through sound fiscal management, establishing a practical rate structure, and investing in professional engineering studies, the CSD developed a master plan for wastewater and domestic water management. The CSD master plan is based on trigger points in long-term service requirements that will

	call for improvements to wastewater handling capacity and effluent quality, as well as for domestic water supply, storage and distribution improvements to complete required infrastructure. **Description.** The existing wastewater system in the CSD is comprised of individual Septic Tank Effluent Pumping (STEP) at each home site, which pump effluent into a common low pressure wastewater main feeding two community leach fields for disposal. The CSD needs to install a modern Water Reclamation treatment and pumping facility to reclaim wastewater for irrigation at a golf course and to increase water reserves available to fight wildfilres within the Gold Mountain CSD service area. Reclaiming treated effluent to the golf course will reduce the depletion of groundwater resources that are shared by the CSD and Golf Course operator; and improve the water quality of the effluent being discharged into the groundwater by the CSD. This project will significantly increase the quality of wastewater to the leach fields, as well as provide additional filtration of the treated wastewater effluent for reclaim to a golf course or use in fire fighting in the area.
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The project site is located approximately 4.5 miles SW of the intersection of State Route 70 and Highway A15 in Portola, CA. The middle fork of the Feather River is located approximately 800 feet NW of the project site.
Latitude:	39° 45’ 58.5” N
Longitude:	120° 32’ 09.29” W

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

For each of the objectives addressed by the project, provide a one to two sentence description of how the project contributes to attaining the objective and how the project outcomes will be quantified. If the project does not address *any* of the IRWM plan objectives, provide a one to two sentence description of how the project relates to a challenge or opportunity of the Region.

Upper Feather River IRWM Objectives:	**Will the project address the objective?**	**Brief explanation of project linkage to selected Objective**	**Quantification** (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	■ Yes ☐ N/A	Wastewater reclamation will reduce demand on community wells allowing for more efficient recharging of our shared fractured granite aquifers.	Ground water pumping can be reduced 43,000 gallons per day or more.
Reduce potential for catastrophic wildland fires in	■ Yes	A secondary effect of this project is to provide a new source of	Thousands of acres of wild land

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
the Region.	☐ N/A	water for wildland firefighting and irrigation of public areas in the community. Both uses complement our aggressive hazardous fuel reduction program.	will benefit by the reduced wildfire potential.
Build communication and collaboration among water resources stakeholders in the Region.	■ Yes ☐ N/A	Reclaiming community wastewater and reusing for irrigation on public areas and the private golf course represents significant collaboration between the CSD, the HOA, and commercial entities in the district.	Many community members, businessmen and women and resource managers will work together.
Work with DWR to develop strategies and actions for the management, operation, and control of SWP facilities in the Upper Feather River Watershed in order to increase water supply, recreational, and environmental benefits to the Region.	☐ Yes ■ N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	■ Yes ☐ N/A	This project represents a very pro-active action to contribute in a positive way to regional water supply management and long-term water quality.	Many State and local water management officials interact together.
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	☐ Yes ■ N/A		
Address economic challenges of municipal service providers to serve customers.	■ Yes ☐ N/A	Project solves a major challenge for the CSD by providing a long-term solution for wastewater management.	Small CSD's must overcome daunting economic challenges.
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	■ Yes ☐ N/A	Project will significantly improve effluent quality through advanced wastewater treatment and reclamation to further protect the aquifer that supports the community.	Groundwater sources serving 1,290 acres of the CSD community will benefit from wastewater reclamation.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	**Quantification** (e.g. acres of streams/wetlands restored or enhanced)
Address water resources and wastewater needs of DACs and Native Americans.	■ Yes ☐ N/A	The GM CSD falls entirely within the greater Eastern Plumas County disadvantaged community.	All people benefit directly when water resources are protected.
Coordinate management of recharge areas and protect groundwater resources.	■ Yes ☐ N/A	High quality treatment and reclamation of wastewater for irrigation use is an important component of managing our recharge capability and protecting ground water resources.	As much as 360 acre-feet annually can be delivered to reclamation use protecting ground water sources.
Improve coordination of land use and water resources planning.	■ Yes ☐ N/A	The GM CSD shares an aquifer with private golf course operators (private wells). Coordination of scarce resources is critical to the success of both entities.	Golf course water demands will be less on the local aquifer if the project is implemented.
Maximize agricultural, environmental and municipal water use efficiency.	■ Yes ☐ N/A	Reclaiming wastewater for use on natural and developed landscape environments will have a significant positive effect on our community water use efficiency.	More than 150 acres of open space and landscape environment will be benefited.
Effectively address climate change adaptation and/or mitigation in water resources management.	■ Yes ☐ N/A	Wastewater reclamation is a key component of the CSD's overall drought strategy to reduce demand on our wells offsetting potential negative impacts from climate change.	Declining water levels in community wells will abate with better resource management.
Improve efficiency and reliability of water supply and other water-related infrastructure.	■ Yes ☐ N/A	Reclaiming community wastewater will materially improve aquifer reliability and enhance overall water supply and delivery efficiency.	2,300,000 gallons of treated WW can be used to replace well water demands annually.
Enhance public awareness and understanding of water management issues and needs.	■ Yes ☐ N/A	While a secondary benefit, this project will have a direct impact on both our community and commercial awareness of the importance.	Info on the project and water conservation will be provided to hundreds of community members through the HOA.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Address economic challenges of agricultural producers.	☐ Yes ■ N/A		
Work with counties/ communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	■ Yes ☐ N/A	The GM CSD is fully prepared to work with the IRWM and the county to administer any resultant grant and see this project through to completion. We are prepared to resource accordingly.	Numerous project stakeholders will be able to participate in developing and implementing this important IRWM project.

If no objectives are addressed, describe how the project relates to a challenge or opportunity for the Region:

The GM CSD sees wide benefits to this project across the spectrum of Municipal Service Group IRWM objectives. The foremost benefit of this project is long-term water conservation which is critical to the growing region of Eastern Plumas County. Other important benefits include protection of groundwater sources, more efficient use of groundwater resources, installation of sustainable infrastructure and green systems, preparation for climate change impacts and protecting the Feather River.

IV. PROJECT IMPACTS AND BENEFITS

Please provide a summary of the expected project benefits and impacts in the table below or check N/A if not applicable; **do no leave a blank cell.** Note that DWR encourages multi-benefit projects.

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	■ N/A	
b. Disadvantaged Communities[1]	☐ N/A	The GM CSD falls entirely within a greater Eastern Plumas County disadvantaged community.
c. Environmental Justice[2]	■ N/A	
d. Drought Preparedness	☐ N/A	Project will reduce the demand on community wells which are experiencing slow degradation as the drought continues. Wastewater reclamation will allow a more efficient recharge to our shared fractured granite aquifer.

e. Assist the region in adapting to effects of climate change[3]	☐ N/A	As Eastern Plumas County has shifted to a recreational based economy, the demand for parks and golf courses is incongruent with the need to conserve water. Wastewater reclamation will become an important component in adapting to climate change.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	■ N/A	
g. Other expected impacts or benefits that are not already mentioned elsewhere	☐ N/A	The project presents an opportunity to inform the community about the importance of the management of water resources and allows members of the community to participate in protecting important natural resources, sustaining infrastructure systems and improving the environment and quality of life.

[1] A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (http://featherriver.org/maps/) .
[2] Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.
[3] Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.

DWR encourages multiple benefit projects which address one or more of the following elements (PRC §75026(a). Indicate which elements are addressed by your project.

a. Water supply reliability, water conservation, water use efficiency	■ Yes ☐ N/A	g. Drinking water treatment and distribution	☐ Yes ■ N/A
b. Stormwater capture, storage, clean-up, treatment, management	☐ Yes ■ N/A	h. Watershed protection and management	■ Yes ☐ N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	☐ Yes ■ N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	■ Yes ☐ N/A
d. Non-point source pollution reduction, management and monitoring	☐ Yes ■ N/A	j. Planning and implementation of multipurpose flood management programs	☐ Yes ■ N/A
e. Groundwater recharge and management projects	■ Yes ☐ N/A	k. Ecosystem and fisheries restoration and protection	☐ Yes ■ N/A
f. Water banking, exchange, reclamation, and improvement of water quality	■ Yes ☐ N/A		

V. RESOURCE MANAGEMENT STRATEGIES

For each resource management strategy (RMS) employed by the project, provide a one to two sentence description in the table below of how the project incorporates the strategy. A description of the RMS can be found in Volume 2 of the 2013 California Water Plan (http://featherriver.org/2013-california-water-plan-update/).

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	☐ Yes ■ No	
Urban water use efficiency	■ Yes ☐ No	Reclaiming wastewater for irrigation use decreases demand on wells and contributes to the long-term health of the aquifer.
Improve Flood Management		
Flood management	☐ Yes ■ No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	■ Yes ☐ No	Providing operational ability to irrigate a golf course with recycled water rather than ground water.
System reoperation	■ Yes ☐ No	Improvement of existing operations and management procedures to meet water needs more efficiently and reliably.
Water transfers	☐ Yes ■ No	
Increase Water Supply		
Conjunctive management	■ Yes ☐ No	Recharging groundwater storage using recycled water maximizes the availability and reliability of community water supplies.
Precipitation Enhancement	☐ Yes ■ No	
Municipal recycled water	■ Yes ☐ No	Project involves reclaiming domestically produced wastewater and recycling it for irrigation with a resulting significant reduction well production.
Surface storage – regional/local	☐ Yes ■ No	
Improve Water Quality		
Drinking water treatment and distribution	☐ Yes ■ No	
Groundwater remediation/aquifer remediation	■ Yes ☐ No	Reducing demand on community wells will result in more efficient aquifer recharge and long-term remediation.
Matching water quality to water use	■ Yes ☐ No	Using reclaimed water for irrigation is a sound practice and reduces demand for fresh water production from community wells.
Pollution prevention	■ Yes ☐ No	The project reduces the possibility of ground water contamination from leached water and eliminates the future possibility of leach field failure as the system ages. If the system fails the wastewater could contaminate local surface waters.

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Salt and salinity management	☐ Yes ■ No	
Urban storm water runoff management	☐ Yes ■ No	
Practice Resource Stewardship		
Agricultural land stewardship	☐ Yes ■ No	
Ecosystem restoration	☐ Yes ■ No	
Forest management	☐ Yes ■ No	
Land use planning and management	☐ Yes ■ No	
Recharge area protection	■ Yes ☐ No	Wastewater reclamation through additional treatment reduces the amount of lesser-treated water returning to the aquifer. Increasing the treatment of wastewater improves the quality of water returned to the ground to recharge the aquifer.
Sediment management	☐ Yes ■ No	
Watershed management	■ Yes ☐ No	Using reclaimed water will reduce pressure on the shared aquifer thereby improving ground water retention and storage
People and Water		
Economic incentives	☐ Yes ■ No	
Outreach and engagement	■ Yes ☐ No	Convincing the community at large that the use of recycled water for irrigation is a safe and efficient practice improves the public's awareness of water issues and the important need for long-term new solutions.
Water and culture	■ Yes ☐ No	As stated above, changing public attitudes towards water recycling has cultural impacts as to how the public views the use and conservation of this important resource.
Water-dependent recreation	■ Yes ☐ No	In the case of the GM CSD, the local commercial golf course is the primary recreational resource in the community. This project will use the reclaimed water as an important source for golf course irrigation, which will assist in "keeping the course green" for recreational purposes.
Wastewater/NPDES	☐ Yes ■ No	

Other RMS addressed and explanation: Education: the project offers an opportunity to inform the community of water resource management. Planning for Sustainability: the project helps to build sustainable systems and project elements. Operational Strategies: the project improves operational efficiency and enhances operational performance strategies.

VI. PROJECT COST AND FINANCING

Please provide any estimates of project cost, sources of funding, and operation and maintenance costs, as well as the source of the project cost in the table below.

PROJECT BUDGET

Project serves a need of a DAC?: ■ Yes ☐ No
Funding Match Waiver request?: ☐ Yes ■ No

	Category	Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	**Direct Project Administration**	$0	$20,000	$0	$20,000
b.	**Land Purchase/Easement**	$0	$0	$0	$0
c.	**Planning/Design/Engineering / Environmental**	$110,000	$57,500	$0	$167,500
d.	**Construction/Implementation**	$1,280,000	$0	$0	$1,280,000
e.	**Environmental Compliance/ Mitigation/Enhancement**	$0	$15,000	$0	$15,000
f.	**Construction Administration**	$108,000	$0	$0	$108,000
g.	**Other Costs**	$0	$0	$0	$0
h.	**Construction/Implementation Contingency**	$260,000	$0	$0	$260,000
i.	**Grand Total (Sum rows (a) through (h) for each column)**	$1,758,000	$92,500	$0	$1,850,500

j.	**Can the Project be phased?** ☐ **Yes** ■ **No** If **yes**, provide cost breakdown by phases			
		Project Cost	**O&M Cost**	**Description of Phase**
	Phase 1	$1,850,000	$120,000	Planning/Design/Construction
	Phase 2			
	Phase 3			
	Phase 4			

k.	**Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).**	Increased cost O&M will be included in sewer user fees.
l.	**Has a Cost/Benefit analysis been completed?**	☐ **Yes** ■ **No**
m.	**Describe what impact there may be if the project is not funded (300 words or less)**	Without outside funding this project will not be implemented in the conceivable future. Existing primary wastewater sub-surface effluent disposal fields will remain in service. The disposal fields may be near their service life. The topography and geography of the CSD severely limits the expansion of leach field capacity. The fields do not have the capacity to service project buildout. If the fields reach their service life or otherwise become overwhelmed there is a risk

		the wastewater will surface and runoff into local ephemeral streams that are tributary to the Feather River. An opportunity to protect water resources may be lost.

*List all sources of funding: *We could contribute matching funds from our reserves. If that is insufficient, the district currently has no debt, but incurring long-term debt may be a necessary consideration.*

Note: See Project Development Manual, Exhibit B, for assistance in completing this table (http://featherriver.org/documents/).

VIII. PROJECT STATUS AND SCHEDULE

Please provide a status of the project, level of completion as well as a description of the activities planned for each project stage. If unknown, enter **TBD**.

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	☐	■ Yes ☐ No ☐ N/A	Site review complete. Pipe route analyzed.		
b. Final Design	■	☐ Yes ■ No ☐ N/A	Select treatment process and equipment; prepare construction drawings, specifications and bidding documents.	12/15	6/15
c. Environmental Documentation (CEQA / NEPA)	☐	☐ Yes ■ No ☐ N/A	Submit application for Project Exemption.	12/15	3/16
d. Permitting	☐	☐ Yes ■ No ☐ N/A	Special Use Permit. RWQ Report of Waste Discharge and preliminary Engineering Report.	12/15	4/16
e. Construction Contracting	☐	☐ Yes ■ No ☐ N/A	Project Bidding and Award.	6/16	8/16
f. Construction Implementation	☐	☐ Yes ■ No ☐ N/A	Construction and Construction Administration.	9/16	7/17
Provide explanation if more than one project stage is checked as current status			A preliminary schematic design/plan for the project has been developed. All other design work is on hold pending project funding.		

IX. PROJECT TECHNICAL FEASIBILITY

Please provide any related documents (date, title, author, and page numbers) that describe and confirm the technical feasibility of the project. See www.featherriver.org/catalog/index.php for documents gathered on the UFR Region.

a. List the adopted planning documents the proposed project is consistent with or supported by (e.g. General Plans, UWMPs, GWMPs, Water Master Plan, Habitat Conservation Plans, TMDLs, Basin Plans, etc.).	Water Quality Control Plan for the Sacramento and San Joaquin River Basins Water Quality Order No. 97-10-DWQ-XXXX GW CSD Wastewater Treatment and Disposal System (in discovery)
b. List technical reports and studies supporting the feasibility of this project.	Master Plan Report for GM CSD 2007 Disposal Field Seepage Investigation October 2014 GM Leachfield Capacity Study 2015
c. Concisely describe the scientific basis (e.g. how much research has been conducted) **of the proposed project in 300 words or less.**	GM CSD personnel have collected many years of data from both the wastewater and water operations. Soils investigations have been conducted to evaluate wastewater disposal field performance and infiltration rates. Extensive research on reclamation system compatible with the district's STEP primary treatment systems has been completed. Wastewater disposal capacity analysis has been conducted. Numerous domestic water well exploratory test wells have been drilled and tested. Pumping testing have been conducted on the domestic water supply wells serving the CSD.
d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).	■ Yes ☐ No ☐ N/A If yes, please describe. Modern technologies, including new energy efficient equipment and processes, that will enhance project sustainability are proposed. The project will utilize natural green processes to manage storm water runoff at the reclamation site.
e. Are you an Urban Water Supplier[1]?	☐ Yes ■ No ☐ N/A
f. Are you are an Agricultural Water Supplier[2]?	☐ Yes ■ No ☐ N/A
g. Is the project related to groundwater?	■ Yes ☐ No ☐ N/A If yes, please indicate which groundwater basin. Groundwater basin undefined; however project is located in Hydro Unit Number 518.3 of the Basin Plan.

[1] Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.
[2] Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.

Climate Change – Project Assessment Checklist

This climate change project assessment tool allows project applicants and the planning team to assess project consistency with Proposition 84 plan standards and RWMG plan assessment standards. The tool is a written checklist that asks GHG emissions and adaptation/resiliency questions.

Name of project: MS-8: Water Reclamation Facility

Project applicant: Gold Mountain Community Service District

GHG Emissions Assessment

Project Construction Emissions

(If you check any of the boxes, please see the attached worksheet)

- ☒ The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- ☒ The project requires materials to be transported to the project site.
- ☒ The project requires workers to commute to the project site.
- ☐ The project is expected to generate GHG emissions for other reasons.
- ☐ The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

Operating Emissions

(If you check any of the boxes, please see the attached worksheet)

- ☒ The project requires energy to operate.
- ☐ The project will generate electricity.
- ☐ The project will proactively manage forests to reduce wildfire risk.
- ☐ The project will affect wetland acreage.
- ☐ The project will include new trees.
- ☒ Project operations are expected to generate or reduce GHG emissions for other reasons.

Adaptation & Resiliency Assessment

Water Supply

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water supply vulnerability issues:

- ☐ Not applicable
- ☒ Reduced snowmelt
- ☒ Unmet local water needs (drought)
- ☐ Increased invasive species

Currently all district waste water is treated in two large community drain fields. All water used to district landscaping currently comes from our domestic water system. In addition, the district's largest customer is a golf resort with an 18 hole golf course. While the resort has its own private wells for golf course irrigation, those wells tap into the same aquifers as those tapped by the district's two domestic wells. The district's planned water reclamation facility will produce a source of irrigation water for both district landscaping and for golf course irrigation which will significantly reduce pressure on the districts domestic water supply as well as the underlying aquifers. Water conservation measures enacted this year have already had a demonstrable effect the aquifer, water reclamation will help to continue to reduce pressure on the watershed.

Water Demand

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water demand vulnerability issues:

- ☐ Not applicable
- ☒ Increasing seasonal water use variability
- ☐ Unmet in-stream flow requirements
- ☐ Climate-sensitive crops
- ☒ Groundwater drought resiliency
- ☐ Water curtailment effectiveness

The district serves a large number of seasonal residents and water use goes up accordingly in the May to September time frame. The new water reclamation project will reduce pressure on the current system by reducing pressure on district wells as well as private customer wells. Reducing well demand during the drier months when irrigation requirements are at their peak will allow the aquifers to more efficiently recharge during these drier periods.

Water Quality

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water quality vulnerability issues:

- ☐ Not applicable
- ☒ Increasing catastrophic wildfires
- ☐ Eutrophication (excessive nutrient pollution in a waterbody, often followed by algae blooms and other related water quality issues)
- ☐ Seasonal low flows and limited abilities for waterbodies to assimilate pollution
- ☐ Water treatment facility operations
- ☒ Unmet beneficial uses (municipal and domestic water supply, water contact recreation, cold freshwater habitat, spawning habitat, wildlife habitat, etc.)

Using reclaimed water for irrigation use will reduce pressure on limited water storage reserves and enhance the community's ability to prevent catastrophic fires.

The Gold Mountain community is a slow growth community, but nevertheless the district must plan for long term water production and delivery to meet a number of beneficial uses including domestic water supplies, recreational contact uses (pools and engineered aquatic habitats) which will see increased demand as the community grows. By providing reclaimed water for golf course and engineered habitat requirements in the dry months limits pressure on the aquifer during these critical months.

Flooding

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority flooding vulnerability issues:

- ☒ Not applicable
- ☐ Aging critical flood protection
- ☐ Wildfires
- ☐ Critical infrastructure in a floodplain
- ☐ Insufficient flood control facilities

Ecosystem and Habitat

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority ecosystem and habitat vulnerability issues:

- ☐ Not applicable
- ☐ Climate-sensitive fauna or flora
- ☒ Recreation and economic activity
- ☐ Quantified environmental flow requirements
- ☐ Erosion and sedimentation
- ☐ Endangered or threatened species
- ☐ Fragmented habitat

The seasonal nature of the Gold Mountain community results in significantly increased pressure on the watershed during the summer months. Current limited water production capacity results in relatively full time well production during the summer months. Reclaiming a significant percentage of waste water and applying it to irrigation will greatly reduce pressure on the district's systems and in turn will significantly reduce pressure on our fragile fractured granite aquifers during the dry months.

Hydropower

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority hydropower vulnerability issues:

- ☒ Not applicable
- ☐ Reduced hydropower output

MS-8: GM CSD Water Reclamation Facility

GHG Emissions Analysis

Project Construction Emissions

Y The project requires non-road or off-road engines, equipment, or vehicles to complete. If yes:

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total $MTCO_2e$
Excavators	1	15	7
Cement and Mortar Mixers	1	4	0
Cranes	1	2	2
Tractors/Loaders/Backhoes	2	15	8
Dumpers/Tenders	1	5	0
			0
			0
			0
			0
			0
		Total Emissions	**17**

Y The project requires materials to be transported to the project site. If yes:

Total Number of Round Trips	Average Trip Distance (Miles)	Total $MTCO_2e$
8	120	**1**

Y The project requires workers to commute to the project site. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total $MTCO_2e$
4	100	120	**16**

N The project is expected to generate GHG emissions for other reasons. If yes, explain:

N The project does not have a construction phase and/or is not expected to generate GHG emissions d
construction phase.

MS-8: GM CSD Water Reclamation Facility

Project Operating Emissions

Y The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total $MTCO_2e$
438,000	kWh (Electricity)	**86**
	Therm (Natural Gas)	**0**

N The project will generate electricity. If yes:

Annual kWh Generated	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

Y The project will proactively manage forests to reduce wildfire risk. If yes:

Acres Protected from Wildfire	Total $MTCO_2e$
2	**-13**

*A negative value indicates GHG reductions

N The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total $MTCO_2e$
	0

*A negative value indicates GHG reductions

N The project will include new trees. If yes:

Acres of Trees Planted	Total $MTCO_2e$
0	**0**

*A negative value indicates GHG reductions

Y Project operations are expected to generate or reduce GHG emissions for other reasons. If yes, explain:

Wastewater treatment operations are sources of GHGs such as CO2 and N2O. Modern, efficent and natural processes will be employed as part of the proposed project to reduce GHGs.

GHG Emissions Summary

Construction and development will generate approximately:	34 $MTCO_2e$
In a given year, operation of the project will result in:	73 $MTCO_2e$