



featherriver.org

UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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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 | Plumas County Department of Public Works – Engineering |
| Name of Primary Contact | Robert A. Perreault , Jr., Director of Public works |
| Name of Secondary Contact | Robert Thorman, Engineering Technician II |
| Mailing Address | 1834 East Main Street, Quincy, CA 95971 |
| E-mail | bobperreault@countyofplumas.com |
| Phone | (530) 283-6222 |
| Other Cooperating Agencies / Organizations / Stakeholders | NA |
| Is your agency/organization committed to the project through completion? If not, please explain | Yes |

II. GENERAL PROJECT INFORMATION

| | |
|---|--|
| Project Title | MS-19: North Valley Road Bridge Erosion |
| Project Category | <input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input checked="" type="checkbox"/> Municipal Services <input type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest |
| Project Description (Briefly describe the project, in 300 words or less) | Significant bank erosion has occurred upstream and downstream from the North Valley Road bridge on Indian Creek and is in need of erosion protection by means of rip rap to reduce the turbidity of the stream from erosion. |
| Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address): | North Valley Road bridge over Lights Creek. |
| Latitude: | 40 degrees 06' 03" N |
| Longitude: | 120 degrees 50' 22" 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. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A | Restore hydrologic function by reducing stream bank erosion and turbidity in Indian Creek. | Reduces significant erosion and turbidity. |
| Reduce potential for catastrophic wildland fires in the Region. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Build communication and collaboration among water resources stakeholders in the Region. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| 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. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Address economic challenges of municipal service providers to serve customers. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A | Restore clarity of stream by reducing erosion and turbidity. Reducing erosion and turbidity in Indian Creek also translates into reduced turbidity in the Middle Fork of the Feather River. | Reduces significant erosion in Indian Creek and turbidity in both Indian Creek and the Middle Fork of the Feather River |

| 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. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Coordinate management of recharge areas and protect groundwater resources. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Improve coordination of land use and water resources planning. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Maximize agricultural, environmental and municipal water use efficiency. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Effectively address climate change adaptation and/or mitigation in water resources management. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Improve efficiency and reliability of water supply and other water-related infrastructure. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Enhance public awareness and understanding of water management issues and needs. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Address economic challenges of agricultural producers. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | | |
| Work with counties/communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A | Plumas County Department of Public Works is committed to the successful implementation of this project. We will ensure the staff capacity exists to administer and implement the grant project. | |

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

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 not 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 | <input checked="" type="checkbox"/> N/A | |
| b. Disadvantaged Communities¹ | <input type="checkbox"/> N/A | The project is located in a severely disadvantaged community tract and would benefit the community by enhancing water quality in Lights Creek which runs through the community. |
| c. Environmental Justice² | <input checked="" type="checkbox"/> N/A | |
| d. Drought Preparedness | <input checked="" type="checkbox"/> N/A | |
| e. Assist the region in adapting to effects of climate change³ | <input checked="" type="checkbox"/> N/A | |
| f. Generation or reduction of greenhouse gas emissions (e.g. green technology) | <input checked="" type="checkbox"/> N/A | |
| g. Other expected impacts or benefits that are not already mentioned elsewhere | <input type="checkbox"/> N/A | Benefit of reduced erosion and turbidity in the creek and tributaries. |
| <p>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/).</p> <p>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.</p> <p>³ Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.</p> | | |

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 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | g. Drinking water treatment and distribution | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A |
| b. Stormwater capture, storage, clean-up, treatment, management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | h. Watershed protection and management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A |
| c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A |
| d. Non-point source pollution reduction, management and monitoring | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | j. Planning and implementation of multipurpose flood management programs | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A |
| e. Groundwater recharge and management projects | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A | k. Ecosystem and fisheries restoration and protection | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A |
| f. Water banking, exchange, reclamation, and improvement of water quality | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Urban water use efficiency | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Improve Flood Management | | |
| Flood management | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Reduced erosion in creeks results in less sediment in rivers and better flood management. |
| Improve Operational Efficiency and Transfers | | |
| Conveyance – regional/local | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| System reoperation | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Water transfers | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Increase Water Supply | | |
| Conjunctive management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Precipitation Enhancement | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Municipal recycled water | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Surface storage – regional/local | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |

| Resource Management Strategy | Will the Project incorporate RMS? | Description of how RMS to be employed, if applicable |
|---|---|--|
| Improve Water Quality | | |
| Drinking water treatment and distribution | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Groundwater remediation/aquifer remediation | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Matching water quality to water use | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Pollution prevention | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Salt and salinity management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Urban storm water runoff management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Practice Resource Stewardship | | |
| Agricultural land stewardship | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Ecosystem restoration | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Forest management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Land use planning and management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Recharge area protection | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Sediment management | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Reduced sediment in creeks & rivers |
| Watershed management | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| People and Water | | |
| Economic incentives | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Outreach and engagement | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Water and culture | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Water-dependent recreation | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Wastewater/NPDES | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |

Other RMS addressed and explanation:

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?: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | | |
| Funding Match Waiver request?: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 | \$20,000 | | | \$20,000 |
| b. | Land Purchase/Easement | | | | |
| c. | Planning/Design/Engineering / Environmental | \$25,000 | | | \$25,000 |
| d. | Construction/Implementation | \$490,000 | | | \$490,000 |
| e. | Environmental Compliance/Mitigation/Enhancement | \$10,000 | | | \$10,000 |
| f. | Construction Administration | \$75,000 | | | \$75,000 |
| g. | Other Costs | | | | |
| h. | Construction/Implementation Contingency | \$50,000 | | | \$50,000 |
| i. | Grand Total (Sum rows (a) through (h) for each column) | \$670,000 | | | \$670,000 |
| j. | Can the Project be phased? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, provide cost breakdown by phases | | | | |
| | | Project Cost | O&M Cost | Description of Phase | |
| | Phase 1 | | | | |
| | 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). | | Funding for O&M of this project will come from the Plumas County Department of Public Works budget. | | |
| l. | Has a Cost/Benefit analysis been completed? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| m. | Describe what impact there may be if the project is not funded (300 words or less) | | Continued bank erosion and water turbidity | | |
| *List all sources of funding. 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 | <input checked="" type="checkbox"/> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | Upon execution of grant agreement | 1 month after funding agreement |
| b. Final Design | <input type="checkbox"/> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | 2 months after funding secured | 4 months after funding secured |
| c. Environmental Documentation (CEQA / NEPA) | <input type="checkbox"/> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | 4 months after funding secured | 7 months after funding secured |
| d. Permitting | <input type="checkbox"/> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | 7 months after funding secured | 8.5 months after funding secured |
| e. Construction Contracting | <input type="checkbox"/> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | 8.5 months after funding secured | 9 months after funding secured |
| f. Construction Implementation | <input type="checkbox"/> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | 9 months after funding secured | 12 months after funding secured |
| Provide explanation if more than one project stage is checked as current status | | | | | |

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 |
| b. List technical reports and studies supporting the feasibility of this project. | NA |
| c. Concisely describe the scientific basis (e.g. how much research has been conducted) of the proposed project in 300 words or less. | For the protection of aquatic species and habitat, sediment loads (TSS, turbidity, etc.) in streams and rivers are regulated by the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and by established TMDLs. This project will reduce sediment inputs to local waterways in support of compliance with the Basin Plan and established TMDLs. |
| d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.). | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please describe. |
| e. Are you an Urban Water Supplier¹? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A |
| f. Are you are an Agricultural Water Supplier²? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A |
| g. Is the project related to groundwater? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin. |
| <p>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.</p> <p>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.</p> | |

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-19: North Valley Road Bridge Erosion

Project applicant: Plumas County Department of Public Works- Engineering

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

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

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.)

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

By reducing erosion and sedimentation, the creek will be capable of carrying increased flood waters.

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 project when completed will reduce the erosion and sedimentation in creek.

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

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GHG Emissions Analysis

Project Construction Emissions

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 ₂ e |
|-------------------------------|------------------------|--------------------------------|---------------------------|
| Excavators | 1 | 5 | 2 |
| Tractors/Loaders/Bac khoes | 2 | 5 | 3 |
| Dumpers/Tenders | 1 | 5 | 0 |
| Off-Highway Trucks | 1 | 5 | 6 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| Total Emissions | | | 11 |

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

| Total Number of Round Trips | Average Trip Distance (Miles) | Total MTCO ₂ e |
|-----------------------------|-------------------------------|---------------------------|
| 10 | 30 | 0 |

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 ₂ e |
|---------------------------|--------------------------|--|---------------------------|
| 5 | 10 | 60 | 1 |

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

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

MS-19: North Valley Road Bridge Erosion

Project Operating Emissions

The project requires energy to operate. If yes:

| Annual Energy Needed | Unit | Total MTCO ₂ e |
|----------------------|---------------------|---------------------------|
| | kWh (Electricity) | 0 |
| | Therm (Natural Gas) | 0 |

The project will generate electricity. If yes:

| Annual kWh Generated | Total MTCO ₂ e |
|----------------------|---------------------------|
| | 0 |

*A negative value indicates GHG reductions

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

| Acres Protected from Wildfire | Total MTCO ₂ e |
|-------------------------------|---------------------------|
| | 0 |

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

| Acres of Protected Wetlands | Total MTCO ₂ e |
|-----------------------------|---------------------------|
| | 0 |

*A negative value indicates GHG reductions

The project will include new trees. If yes:

| Acres of Trees Planted | Total MTCO ₂ e |
|------------------------|---------------------------|
| 0 | 0 |

*A negative value indicates GHG reductions

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

GHG Emissions Summary

| | |
|---|------------------------|
| Construction and development will generate approximately: | 13 MTCO ₂ e |
| In a given year, operation of the project will result in: | 0 MTCO ₂ e |