



CITY OF CLOVERDALE RECYCLED WATER PLANNING PROGRAM

WaterSMART: Water Recycling and Desalination Planning Grant

FOA: R23AS00076

February 28, 2023

Applicant Information: City of Cloverdale  
124 N. Cloverdale Boulevard  
Cloverdale, Ca 95425  
Phone: (707) 894-2521

Project Contact: David Kelley, City Manager  
Phone: (707) 894-2521  
Email: [dkelley@ci.cloverdale.ca.us](mailto:dkelley@ci.cloverdale.ca.us)

This page left blank intentionally.

TABLE OF CONTENTS

List of Figures..... ii  
    Location Map ..... ii  
List of Acronyms..... ii  
1 TECHNICAL PROPOSAL AND EVALUATION CRITERIA ..... 1  
    1.1 EXECUTIVE SUMMARY..... 1  
    1.2 PROJECT LOCATION ..... 2  
    1.3 TECHNICAL PROJECT DESCRIPTION..... 2  
        1.3.1 Background ..... 2  
        1.3.2 Goals and Objectives ..... 3  
        1.3.3 Detailed Scope of Work Approach..... 3  
    1.4 EVALUATION CRITERIA..... 6  
        1.4.1 Evaluation Criterion 1 – Project Planning and Analysis ..... 6  
        1.4.2 Evaluation Criterion 2— Stretching Water Supplies ..... 11  
        1.4.3 Evaluation Criterion 3 - Environment and Water Quality ..... 15  
        1.4.4 Evaluation Criterion 4— Department of the Interior Priorities ..... 16  
        1.4.5 Evaluation Criterion 5— Watershed Perspective and Stakeholder  
        Involvement..... 19  
2 PROJECT BUDGET ..... 21  
    2.1 Funding Plan and Letters of Commitment..... 21  
    2.2 Budget Proposal..... 22  
    2.3 Budget Narrative ..... 22  
3 ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE..... 23  
4 Required Permits or Approvals ..... 25  
5 Letters of Support..... 25  
6 Overlap or Duplication of Effort Statement..... 25  
7 Conflict of Interest Disclosure ..... 25  
8 Official Resolution ..... 25  
9 Sam.gov Registration ..... 27  
10 References..... 30  
Attachment A – Project Location Map ..... 31  
Appendix A: Letters of Support ..... 33

## List of Figures

---

### Location Map

## List of Acronyms

---

AF	Acre-feet
AFY	Acre-feet per year
ATSDR	Agency for Toxic Substances and Disease Registry
CDC	Centers for Disease Control
CEQA	California Environmental Quality Act
EPA	U.S. Environmental Protection Agency
GPCD	Gallons Per Capita, Per Day
MGD	Million Gallons Per Day
NCRPP	North Coast Resource Partnership Plan, Phase IV
NEPA	National Environmental Policy Act
USBR	United States Bureau of Reclamation
USGS	United States Geological Survey
UWMP	Urban Water Management Plan

# 1 TECHNICAL PROPOSAL AND EVALUATION CRITERIA

## 1.1 EXECUTIVE SUMMARY

**Date:** 2/28/2023

**Applicant:** City of Cloverdale

Applicant City, County, State: Cloverdale, Sonoma County, CA

**Project Location:** The project is located within the City of Cloverdale, California in Sonoma County at the Cloverdale Wastewater Treatment Facility. The future recycled water pipelines will be within the City of Cloverdale at a location identified through an alternatives analysis. Neither the existing treatment facility, nor future proposed pipelines are located on a Federal facility.

**Project Name:** City of Cloverdale Recycled Water Planning Program

**Project Duration:** 24 months

**Estimated Project Completion (mm/yy):** October 2025

**Funding Group:** Tier 1

**Grant Funding Requested:** \$577,500

**Non-Federal Matching Funds:** \$577,500

**Project Summary:** The City of Cloverdale (City) Recycled Water Planning Program aims to improve the City's water supply resiliency by utilizing recycled water from its Wastewater Treatment Facility (WWTF) to supply an estimated 260 acre-feet of recycled water annually. The planning project will consist of a feasibility study, basis of design and pre-design report, and public outreach engagement. The feasibility study will focus on agricultural sites and existing large landscaped areas that are candidates for utilizing recycled water. Public and stakeholder outreach will be an important part of this project. The City will hold public meetings and prepare and distribute outreach materials to foster support of using recycled water as a sustainable option to enhance water supply reliability and combat the escalating impacts of drought.

This project is not located on a Federal facility.

## 1.2 PROJECT LOCATION

A map of the City’s service area that includes the WWTF location and displays Center for Disease Control Social Vulnerability Index for the community served is included as Attachment 1.

## 1.3 TECHNICAL PROJECT DESCRIPTION

### 1.3.1 Background

The City of Cloverdale is located in Sonoma County at the north end of the Alexander Valley, bordering the Russian River. Cloverdale covers approximately 2.5 square miles with an estimated 2020 population of 9,213 people. The City’s service area includes residential, commercial and industrial land use. Its water production and delivery system receive water from a well field utilizing groundwater under the direct influence of surface water from the Russian River as well as a Water Treatment Plant providing treated water from the Russian River. The City does not receive water from any other source and does not provide water to any major water users outside of its service area.

The climate of the City’s service area is characterized as Mediterranean, with cool winters and hot, dry summers. Temperatures average 61 degrees Fahrenheit annually and can range from the upper 30s during winter months, to high 90s in the summer months. Temperatures may even reach over 100 degrees Fahrenheit in summer months. High temperatures combined with low precipitation in this region can affect water demands significantly during this time. Rainfall averages 43 inches annually and historically occurs between October and April.

Table 1 shows the projected water consumption through 2040 by various water use types in the City.

**Table 1. Water Use by Customer Type**

Water Use Type	Actual (mg)	Projected (mg)			
	2020	2025	2030	2035	2040
<b>Single Family</b>	240	299	317	320	328
<b>Multi-Family</b>	31	40	42	42	43
<b>Commercial</b>	55	77	82	82	84
<b>Agricultural Irrigation</b>	30	40	43	43	44
<b>Other Potable (Fire)</b>	6	3	3	3	3
<b>Industrial</b>	7	9	10	10	10
<b>Apparent Losses</b>	24	64	68	69	70
<b>Total</b>	<b>393</b>	<b>532</b>	<b>565</b>	<b>570</b>	<b>583</b>
<b>Population</b>	<b>9,213</b>	<b>12,440</b>	<b>13,195</b>	<b>13,320</b>	<b>13,635</b>

There are currently 3,329 municipal potable customer connections to the City's water distribution system. All of the connections in the City's system are metered, and it is anticipated that approximately 177 more connections will be added to the system by 2035. Most of the water demand is residential and accounts for approximately 69% of the total water demand. Commercial/industrial/institutional (CII) use consume about 17% of the system water supply. Agricultural use accounts for approximately 8 percent.

### Sewer Collection and Wastewater Services

The City provides wastewater services to approximately 3,300 customers and maintains over 37 miles of wastewater mains and one lift station. The City must transport, store, and treat an average of approximately 192 million gallons (mg) of wastewater each year. The wastewater sewer system is comprised of approximately 32.3 miles of piping, one wastewater treatment facility (WWTF), and 850 manholes. Sewer pipes range in size from 6 to 27 inches in diameter and are made from clay, concrete, ductile iron and polyvinyl chloride. The City operates one lift station at Shahan Drive and North Cloverdale Boulevard that serves about 50 homes. The lift station uses two three-horsepower pumps on a float system that can move 10,000 gallons of effluent per day under peak conditions.

### **1.3.2 Goals and Objectives**

The goal of this proposed planning activity is to reduce the impacts of drought upon the City's water supply by using recycled water to augment and offset potable water supplies for beneficial non-potable water uses.

The objectives to achieve this goal include: 1) identify recycled water uses and users, 2) evaluate treatment alternatives, 3) identify environmental impacts, 4) engage stakeholders and the community, and 5) complete an economic analysis that includes energy efficiency.

### **1.3.3 Detailed Scope of Work Approach**

The City of Cloverdale (City) wastewater treatment and disposal facilities have been designed to serve the incorporated community of Cloverdale. This city-owned wastewater treatment facility (WWTF) utilizes a biological treatment system with secondary treatment. The facility is designed for an average dry weather flow of 1.0 million gallons per day. The treatment plant facilities consist of headworks, aeration ponds, storage ponds, chlorination equipment, effluent pumping facilities and effluent outfall to seven on-site infiltration ponds. The WWTF is located on the western bank of the Russian River and all treatment facilities have been constructed above base-flood-elevation (BFE) that produces disinfected secondary wastewater and discharges treated wastewater to percolation ponds adjacent to the Russian River.

The City proposes to plan for and implement a recycled water project (Project) to improve its water supply resiliency. Under its planning effort, the City proposes to:

- **Prepare a Feasibility Study to evaluate the potential for implementation of a recycled water project;**
- **Prepare a basis of design and predesign report for a recycled water treatment and distribution system; and,**
- **Conduct outreach and engage local and regional stakeholders.**

The City is interested in recycling its wastewater to beneficially reuse the water, provide a new water supply that will offset demands on the City's potable water supply, and improve drought resiliency by offsetting water diversion from the drought-impacted Russian River. To maximize the opportunities for recycled water use within the City, the City would need to add treatment facilities to produce recycled water that meets the State of California's requirements for disinfected tertiary recycled water (referred to in this proposal as recycled water) and install a distribution system that would deliver recycled water to customers for non-potable use. Possible recycled water use includes landscape irrigation, agricultural irrigation, construction use, fill stations, and other uses as approved in the State of California's Title 22 regulations.

#### **Task 1: Feasibility Study**

The City will prepare a feasibility study to evaluate the potential for a recycled water project. The feasibility study will adhere to the *Requirements for a Water Reclamation, Recycling or Desalination Feasibility Study Report* per the Reclamation Manual Directives and Standards Title XVI Water Reclamation and Reuse Program and Desalination Construction Program Feasibility Study Review Process. The feasibility study will include the following:

- Recycled water demand assessment. Potential use sites and their associated demands will be assessed. The assessment will focus on potential agricultural sites that may be interested in recycled water and existing and planned large landscape areas.
- Distribution system alignment alternatives. Alternatives will be developed to target potential high recycled water use sites while optimizing the distribution system. A preliminary hydraulic assessment will be prepared for purposes of sizing the distribution system and identifying pumping and storage needs.
- Recycled water treatment alternatives. New treatment system options will be identified that will meet filtration and disinfection requirements to meet Title 22.
- Cost estimates for alternative treatment and distribution system options. The cost estimates will include construction, operations and maintenance, repair and replacement, and life-cycle costs.



- Economic analysis. The cost effectiveness of this project will be considered, along with the benefits that it provides. Possible funding options will be identified.
- Environmental considerations and potential effects. The project's potential impacts to the environment, endangered or threatened species, public health and safety, natural resources, regulated waters, or cultural resources will be discussed.
- Legal and institutional requirements. Any legal or institutional requirements and challenges to implementing the project will be identified.
- Financial capability of the City and project schedule. A schedule will be developed, along with the City's plan for funding the project. The City's willingness and intent for funding the construction and annual operation, maintenance, and replacement costs will be discussed.

### **Task 2: Basis of Design/Predesign Report**

After completion of the feasibility study, the City plans to advance towards project implementation by preparing a Basis of Design and Predesign Report (Report). The conceptual project alternatives identified in the Feasibility Study will be considered in further detail to develop recycled water treatment and distribution system design and service criteria. This report will describe treatment and distribution system phasing. Regulatory and permitting requirements will be discussed in greater detail, and a refined implementation schedule will be developed.

The Report is anticipated to provide sufficient detail to support future preparation of CEQA and NEPA assessments. The Report is expected to result in 25 percent design of both the recycled water treatment plant and the distribution systems, including pumping and storage facilities.

### **Task 3: Outreach and Stakeholder Engagement**

The proposed project will require public outreach and stakeholder engagement to encourage support for implementation. The community that the City serves and the Russian River Watershed water users have been adversely affected by recent multi-year droughts, when curtailment of water supply have occurred. While this project presents water supply resiliency for the community and the region, it also comes with a financial burden and a new regulatory requirement inherent with this type of alternative water supply. Early outreach is necessary to educate the public and stakeholders, in the value of recycled water and its safety and reliability as a water supply. Acceptance of recycled water as another water supply is key to successful Project implementation.

The City will prepare and distribute outreach materials, conduct public meetings, and meet with key stakeholders. Outreach will be conducted through the City's website, its newsletter publication, at community events, and public meetings. City representatives anticipate meetings with key stakeholders, including anticipated users, resource agencies, environmental organizations, and tribes.

## 1.4 EVALUATION CRITERIA

### 1.4.1 Evaluation Criterion 1 – Project Planning and Analysis

#### *Subcriterion No.1a-Water Recycling Needs and Opportunities*

##### **1. Describe the problems and needs in the project area.**

The City of Cloverdale (City) has experienced severe drought impacts over the last several years, including the mandatory curtailment of the City's water supply in 2021. On April 21, 2021, Governor Newsom declared a state of emergency in Mendocino and Sonoma counties due to dry conditions in the Russian River watershed. During the curtailment, the City was restricted to 55 gallons per capita per day (GPCD), well below the current water demand of 125 GPCD. The City was also required to provide monthly reports of water supply diversions due to drought conditions in the Russian River watershed. The City successfully petitioned to increase the limitation to 104 GPCD, however this curtailment still created an urgent need for the City to evaluate potential alternative sources of water beyond water conservation. Two-thirds of the 1,600 Russian River water right holders, including farmers, ranchers, vineyard operators, rural residents, and municipal suppliers were curtailed during the most recent drought. Had Lake Mendocino reached a lower emergency stage, more water would have been curtailed and the City would have been limited to only 55 GPCD.

Prior to the 2021 curtailment, the City completed a Drought Risk Assessment in its 2020 Urban Water Management Plan, which outlines the water shortage conditions that may be experienced over the next five years. In the assessment, the City estimated that it had sufficient water supplies even during dry conditions and only originally anticipated a shortfall of 10% of the City's average water usage. Under such conditions, the City would implement Stage 1 of its Water Shortage Contingency Plan triggering increased water conservation by customers. If dry conditions were to become more severe and additional demand reductions were needed, the City has six total water shortage action levels. Based on the City's pre-1914 water rights (i.e. the most senior of all water rights), the City did not anticipate needing to implement any water shortage stages beyond Stage 1.

The City's vulnerability to drought is expected to worsen due to climate change as the region continues to face historically low rainfall and water storage levels. The City has made great efforts to reduce its water use and demand. In 2020 alone, the City exceeded its target of 20% reduction in water use compared to use in 2019. However, the City could fall subject to another mandatory curtailment due to Sonoma County being currently classified as a D1 moderate drought (according to drought.gov) despite the record levels of rainfall in early 2023.

The proposed Recycled Water Planning Program would be instrumental in combating the effects of drought and climate change by identifying the following: anticipated uses of

recycled water, potential recycled water use customers, and estimate demands for recycled water customers and future customers. Based on current and projected water use, an estimated 30 percent of the City's water demands could be met with recycled water and, if recycled water is utilized, could significantly reduce the strain on the Russian River. This study is a necessary step for the City to protect the Russian River and improve drought resiliency by offsetting potable water use.

## **2. Describe the current and projected water supplies and demands in the project area; include a discussion on supply and demand imbalances.**

The City of Cloverdale (City) diverts water from the Russian River using seven shallow wells along the west bank of the river near the City's water treatment plant (WTP). Under ideal conditions, not all seven wells need to operate simultaneously to provide sufficient supply, allowing the wells to be rotated and their operational life extended. The City has also taken measures to reduce the maximum day demand by instituting water conservation measures during the peak water demand months and construction of additional well capacity to compensate for reduction in well yield in times of low flow. Reduced yield is not currently a serious threat to water supply. Flow in the Russian River is maintained by mandatory releases of water from Lake Mendocino. The City's minimum available water supply is based on a combination of natural water flow and these mandated releases. As the flow is reduced, the City's supply may become constrained. Extended drought conditions could affect flow, as could changes in PG&E's Potter Valley Project (PVP), which is a hydroelectric project that diverts Eel River water into Lake Mendocino via the East Fork of the Russian River. As of early 2021, Lake Mendocino was projected to go dry in 20 percent of water years, with insufficient supplies to meet demand in the remaining 80 percent of water years. This supply insufficiency is because the lake does not have "carry over" storage and must rely on winter rains and PVP water to fill in the vast majority of years. During the summer of 2021, the City and 900 water right holders' water supplies were curtailed until October 2021 when a significant amount of rainfall occurred.

The Russian River has also been deemed an impaired water body due to excessive sedimentation and excessive temperature, but the impairments are not expected to have a major impact on the water quality for the City's supply because of the treatment provided at the WTP. Despite the City's successful implementation of water conservation programs such as the "Cash for Grass" rebate and high-efficiency fixture installation resulting in a 25% reduction of the City's potable water demands and Sonoma County's urban conservation programs, some agricultural lands have had to be fallowed during periods of extended drought in order to preserve sufficient supply for the City.

The City relies solely on the Russian River for its water supply and therefore may be subject to constraints due to climate change. As the City continues to grow, increased water usage will require increased water supply. Lower flows in the river due to climate

change can result in lower groundwater elevation and may limit the production capacity of the City’s wells. Although the City is likely to be able to meet demands due to its senior water rights, the changing climate and most recent droughts have shown that having senior water rights does not prevent water supplies from being curtailed. The following water supply reliability table from the City’s UWMP predicts a 10% shortage during dry years, however this table may not accurately reflect future conditions based on recent climate impacts that occurred after the UWMP was created.

**Table 2: Water Supply Reliability Table**

Dry Year Supply and Demand Comparison				
Year	2025	2030	2035	2040
<b>Water Supply (MG)</b>	477	506	510	523
<b>Water Demand (MG)</b>	532	565	570	583
<b>Difference</b>	<b>-55</b>	<b>-59</b>	<b>-60</b>	<b>-61</b>
	10%	10%	11%	10%

NOTE: Though the City can use its senior water right to supply water equal to its demand, it is assumed that the City will reduce its supply during dry year conditions to support regional supply reliability efforts. In order to eliminate the supply shortfall, the City will implement the necessary stages of its Water Shortage Contingency Plan.

Source: City of Cloverdale 2020 Urban Water Management Plan, Page LD-4.

Recycled water will provide a new water supply to augment the City’s existing and projected water supply needs, reducing the need for new potable water wells and/or surface water diversions. The recycled water will also not further strain water supplies for the watershed and those reliant upon the watershed for their water supply. In fact, the percolation ponds may benefit the groundwater supply by recharging the groundwater basin.

**Subcriterion No.1b-Evaluation of Project Alternatives**

**1. Describe the objectives that all alternatives will be designed to meet. What other water supply alternatives and project alternatives will be investigated?**

Influent flows from the collection system within the City are processed at the WWTF by passing through mechanical screens to remove solids from the waste stream. The wastewater then flows into the first of two aeration ponds. The first pond consists of equipment including air infusion through bubble diffusers. The wastewater then flows into the second aeration pond which contains six surface floating aerators. Combined, these

two ponds inject oxygen into the wastewater to aid in the biologic process of breaking down components of wastewater. From the second pond, water flows into a settling pond, which allows the heavier suspended solids to fall to the bottom of the pond. The wastewater is then transmitted to a chlorine contact point and then disbursed into one of seven possible percolation ponds. According to the City's Sewer Master Plan, the WWTF has an average daily dry weather capacity of 1.0 million gallons per day (MGD), a peak dry weather capacity of 2.20 MGD and a peak wet weather capacity of 8.25 MGD. The current facility has demonstrated the ability to handle loads experienced in an average day scenario as well as a peak loading scenario.

All of the alternatives will be designed to meet the following objectives:

- Meet Title 22 standards for disinfected tertiary recycled water
- Maximize the quantity of recycled water uses and users
- Minimize environmental impacts
- Gain support from stakeholders and the community at-large
- Maximize cost effectiveness (while aiming to achieve maximum energy efficiency)

To identify alternatives that meet these objectives, the following steps will be taken:

- Evaluate recycled water treatment alternatives to investigate and evaluate new treatment system options that will meet filtration and disinfection requirements to meet Title 22 standards.
  - Develop distribution system alignment alternatives loped to target potential high recycled water use sites while optimizing the distribution system. A preliminary hydraulic assessment will be prepared for purposes of sizing the distribution system and identifying pumping and storage needs.
  - Assess recycled water demands and identify potential use sites. The assessment will focus on potential agricultural sites, existing and planned large landscape areas, commercial properties, right of ways, and filling stations.
  - Explore storage solutions and alternatives, including wetlands, to temporarily store tertiary effluent and recycled water storage tanks.
- 2. Describe how the planning activities will develop project alternatives (water supply sources, reuse strategies, or treatment technologies) that have been or will be investigated.**

The water supply source is the effluent from the WWTF. No other water sources will be explored. The Planning activities to develop the project alternatives will be as follows:

- Review and assess the existing treatment facilities and effluent quality, as well as previous reports to identify advanced treatment alternatives.
- Identify preferred new wastewater treatment filtration and disinfection facilities and/or upgrade requirements for advanced wastewater treatment including energy efficiency upgrades including installation of renewable energy.
- Develop water reuse strategies that includes public outreach and education, identification of recycled water users, and evaluation of groundwater recharge opportunities through pond percolation.
- Develop a planning level conceptual cost estimate for each phase. These estimates will include construction, operation and maintenance, repair and replacement, and life-cycle costs.
- Prepare schematic layout of proposed treatment facilities within the existing footprint of the WWTF.

**3. Provide a general description of the selected project, including project features, benefits, anticipated costs, and analyses conducted.**

This planning study will include a recycled water demand assessment to identify potential recycled water use sites and estimate demands. The assessment will focus on first identifying potential existing and future sites in the vicinity of the proposed recycled water storage and pumping facilities and then expanding into adjacent areas within City limits. The assessment will focus on potential agricultural sites where recycled water may be used for irrigation, existing large landscape areas that can be converted to irrigation with recycled water, and landscaping areas for future planned development where recycled water could be used for irrigation. Additional potential recycled water uses, such as cooling tower use and other industrial uses, will also be identified.

The steps to complete this task include:

- i. Identify and map (using GIS) potential customers by confirming existing irrigation customers in the project area, reviewing the City’s planned development for the project area, and reviewing satellite images using Google maps.
- ii. Identify potential agricultural users.
- iii. Review three years of customer water use data and irrigation meter data from three years (2019-2021) for sites identified in this task.
- iv. Develop estimated outdoor water use for planned development.
- v. Estimate average recycled water demands for other uses that are identified.
- vi. Calculate peak delivery requirements.

- vii. Evaluate energy efficiency and renewable energy upgrades to the WWTF, including but not limited to solar energy, battery back-up, and wind energy.

**4. Include a preliminary schedule showing major tasks, milestones, and dates for the planning, design, and construction activities related to the project.**

The following schedule shows the major tasks and milestones for the proposed planning program. The planning program does not include any construction or ground disturbing activities.

<b>Table 3. Preliminary Milestone Schedule</b>		
<b>Task</b>	<b>Start Date</b>	<b>End Date</b>
<b>Task 1. Feasibility Study</b>	<b>8/1/2023</b>	<b>7/31/2024</b>
1.1: Draft Feasibility Study	8/1/2023	4/30/2024
1.2: Final Feasibility Study	5/1/2024	7/31/2024
<b>Task 2. Basis of Design/Predesign Report</b>	<b>8/1/2024</b>	<b>10/1/2025</b>
<b>Task 3. Stakeholder and Community Engagement</b>	<b>8/1/2023</b>	<b>10/1/2025</b>

**1.4.2 Evaluation Criterion 2— Stretching Water Supplies**

**1. Describe the potential for the project to reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies.**

When the project is implemented, new commercial and industrial customers will have access to recycled water supply reducing their need for potable water for uses only requiring non-potable water. This planning Project will also evaluate use of recycled water filling stations to make recycled water available for customers in the City not connected to the recycled water system to further reduce the demand for potable water.

The City’s WWTF has the potential to produce up to an estimated 260 acre-feet of recycled water per year, which would offset potable water use by an equivalent amount. This amount was calculated based on the average WWTF influent during the dry season, which is 400,000 gallons per day for 6 months. The feasibility study will evaluate tertiary treatment operations and adjust to support potential users to maximize the number of recycled water users and uses such that the demand for potable water can be reduced to the greatest possible extent.

**3. Describe the potential for the project to alleviate pressure on existing water supplies and/or facilities. Please describe the existing water supplies, identify the supplies and/or facilities that will be impacted and explain how they will be impacted by the Project, including quantifications where applicable.**

The City of Cloverdale's primary source of water is groundwater under the direct influence of surface water from the Russian River. Flow in the Russian River is maintained by mandatory releases of water from Lake Mendocino as part of fisheries maintenance. Discharges into Lake Mendocino via an inter-basin diversion, the Potter Valley Project (PVP), continue to decline due to climate change (Jasperse et al, 2020) and change in ownership in the PVP. Currently, releases from Lake Mendocino into the Russian River are required to achieve a flow of 125 cubic feet per second (cfs) in an average year or 75 cfs in a dry year (Jasperse et al, 2020). The City owns and operates a wastewater treatment facility (WWTF) that produces disinfected secondary wastewater and discharges the treated effluent to percolation ponds located adjacent to the Russian River. Since there is currently no recycled water use within the City's service area, the City's total water demands are equal to the potable and raw water demands. The City does not currently purchase or import water and has no plans to do so in the future. This planning program will help alleviate demand on the Russian River by utilizing recycled water in lieu of potable City water for irrigation of large, landscaped areas and agricultural lands. With the WWTF's potential to produce up to an estimated 260 acre-feet of recycled water per year, demands on the Russian River would be reduced by an equivalent amount.

**4. Describe the potential for the project to make water available to address a specific concern. Explain the specific concern and its severity. Also explain the role of the project being investigated in addressing that concern and the extent to which the project will address it.**

The current climate changes causing increased temperature, longer drought conditions, and smaller snowpacks are increasing the occurrence of wildfires in California, which increases the need for water to attack fires in the region. The proposed Project promotes the use of recycled water for the irrigation of agricultural and landscaped areas, which in turn will increase the amount of water available for fireflow to support wildfire suppression.

Water supply shortage – The changing climate is resulting in longer and more severe drought conditions. Warming temperatures increase the severity of California's natural drought cycle, which most greatly impacts areas that depend on surface water flows (California Natural Resources Agency, et. al, 2020). The 2020 Water Resilience Portfolio stated historical hydrological patterns can no longer serve water managers as a trustworthy guide around which to plan, and climate science and projections have become



increasingly important. Future conditions will continue to change and require ongoing adjustment and adaptation of water management (California Natural Resources Agency, et. al, 2020). A 2018 USGS study characterizing drought in the Russian River Watershed concluded that, despite the previous drought ending in the 2016-17 water year when reservoirs were full throughout the state, additional water supply and landscape replenishment of up to three average years of precipitation was needed to return to normal, non-drought conditions.

This reality became very apparent in 2021 when the State of California issued a curtailment mandate upon the City of Cloverdale (City) to limit water demands to no more than 55 gallons per capita, per day (GPCD), despite having pre-1914 water rights that the City previously thought ensured that such a curtailment would not occur. As mentioned previously, the City was able to petition and receive approval to increase this limitation to 104 GPCD to meet minimum public health and safety needs. The 104 GPCD represents a 14% reduction from the average water use in 2020, and a 35% reduction from 2019 water use. The UWMP was written based on data from 2015-2019 and did not anticipate such a severe drought that would result in the City's water supply being curtailed. The proposed recycled water planning program will result in an estimated reduction in potable water use by 30% when fully implemented. The future implementation of this new water supply will reduce demand for potable water and provide a new water source for agricultural users, who are frequently the first to have their water supplies curtailed.

Heightened Competition for Water Supplies – The Russian River Watershed extends 128 miles with a total area of 1,485 square miles. This watershed provides water to 400,000 people located in the counties of Sonoma and Mendocino, along with many parks, vineyards, dairies, and natural habitats. The Russian River is the primary source of drinking water for the region, including areas beyond the watershed, such as Petaluma and Sonoma Valley, which are served by the Sonoma County Water Agency aqueduct. In addition to surface water resources, the watershed encompasses nine groundwater basins. Both flood control and water supply goals are met by the watershed's 60 State-recognized dams. Furthermore, the Russian River is the second largest river in the greater San Francisco Bay Area, and it supports several threatened and endangered animal species and approximately 30 threatened and endangered plant species. In response to emergency drought conditions persisting throughout the Russian River watershed, and insufficient supply to meet the needs of all water right holders, the State Water Resources Control Board (SWRCB) issued "Notices of Unavailability" to water right holder in the watershed and curtailed water diversions for junior water right holders on May 25, 2021. Under the California priority-based water rights system, if there is insufficient water supply to support all water rights, junior water right holders with rights secured post-1914 are ordered to limit or stop their water diversion first. In July 2021, water right holders with pre-1914 water rights, such as the City, were also curtailed.

Availability of alternative supplies – The City does not have any alternative water supplies.

Water Supply Reliability – Historically, the City has not had concerns over water supply reliability given its senior water rights and the historically available water supplies from the Russian River Watershed. The changing climate, resulting in more severe and persistent drought conditions, has caused a deficit in the water supplies in the watershed, as determined by the USGS as discussed previously. The City does not have interconnections with other water suppliers and has already successfully reduced water demands by 20% through water conservation rebate programs. The 2021 curtailment is a primary reason the City is interested in completing planning activities (i.e. laying the foundation for the design and construction of upgrading the City’s WWTF and creating a recycled water distribution system) that will lead to a recycled water supply and, thereby, improve water supply reliability.

The recycled water planning program will identify future recycled water uses and users, which will reduce competition for water supplies during future droughts that are anticipated to continue to impact the City’s and watershed’s water supplies.

**5. Describe the potential for the project to help create additional flexibility to address drought. Will water made available by the project being investigated continue to be available during periods of drought? To what extent is the water made available by the project being investigated more drought resistant than alternative water supply options? Explain.**

Increasing impacts from longer and more severe droughts due to climate change further threaten the river ecosystem, as well as the economic viability of the region and health and safety of communities dependent on the river. On April 21, 2021, Governor Newsom declared a drought emergency in Sonoma County due to dry conditions in the Russian River watershed. Water shortages are requiring many communities to curtail their withdrawals from the river to conserve reduced river volumes. Additionally, wildfire threats further stress the City’s water supply, a significant source of water for firefighting in the region. These conditions are expected to worsen as climate change impacts increase.

The benefits associated with the recycled water project will be further explored during the proposed planning scope once grant funds are secured. The primary benefit will be the reduction in raw water being extracted from the Russian River Watershed allowing greater volumes of water to remain in-stream which will offer the Russian River Watershed greater flexibility to provide habitat benefits and/or make additional water available for other water right holders.

The City’s WWTF has the potential to produce up to an estimated 260 acre-feet of recycled water per year, based on the historic average WWTF influent during the dry season of 400,000 gallons per day. There is a possibility that influent to the WWTF may be reduced as indoor water conservation occurs during periods of extended drought. If

the influent to the WWTF is reduced, then the quantity of recycled water the City can produce and distribute will be reduced accordingly.

### **1.4.3 Evaluation Criterion 3 - Environment and Water Quality**

#### **1. Describe the potential for the project to improve the quality of surface water or groundwater.**

Increased temperatures due to warming climates and lower water levels may have a negative impact on water quality because of warmer temperatures and fewer winter nights with freezing conditions. Less freezing and colder temperatures may result in less natural control of agricultural pests and disease vectors, which in turn effects agricultural practices.

Using recycled water to augment water supplies for the City and providing an alternative water supply to growers in the summer months improves surface water quality in the Russian River by reducing the need for commercial fertilizers and pesticides by agricultural users. The use of recycled water will also reduce concentrations of contaminants by increasing the quantity of both groundwater and surface water by offsetting potable water demands from these sources.

#### **2. Describe the potential for the project to improve effluent quality beyond levels necessary to meet State or Federal discharge requirements.**

By upgrading the City's WWTF from a disinfected secondary to a disinfected tertiary level, nutrient removal will occur which will help reduce nitrogen loading into the City's effluent discharge ponds. While the current WWTF meets State and Federal discharge requirements, the new WWTF effluent will have improved water quality which will exceed existing discharge requirements. Additional treatment processes at the WWTF may include microfiltration, sand filtration, membrane bioreactors (MBR), cloth disc filters, and/or UV disinfection. The City's current NPDES permit does not allow discharge to the Russian River, however with this added level of treatment the City would be permitted to discharge to the Russian River. In 2017, storms came close to causing a breach of ponds to discharge secondary treated wastewater to the river. There is a continued and increasing risk of these discharge ponds spilling over to the river during storm events. Once the WWTF is producing tertiary treated water, the water quality concern of the WWTF effluent reaching the Russian River will be alleviated.

#### **3. Describe the potential for the project to improve flow conditions in a natural stream channel.**

The future implementation project may improve instream flow conditions in the Russian River by reducing the amount of water drawn from the Watershed system. A reduction in

the quantity of water diverted leads to changes to upstream reservoir releases in order to ensure adequate cold water baseflows in the river to support anadromous fish habitat.

**4. Describe the potential for the project to restore or enhance habitat for non-listed fish and wildlife species.**

Increased water quantities that will remain in the Russian River as a result of the Project will provide additional flows for aquatic species and migrating birds.

Sonoma County is a rest stop for over 300 species of migrating birds. This is due to its central location in one of the busiest traditional migratory flight paths, the Pacific Flyway. Each year, at least a billion birds pass through this flyway, but this number is only a fraction of what it was a decade ago. Habitat loss, water shortages and climate change all threaten the birds of the Pacific Flyway. Based on a study by Audubon, a National Society that protects birds and their habitats, there are currently 31 high vulnerability species that spend the winter in Sonoma County.

**5. Describe the potential for the project to provide water or habitat for federally listed threatened or endangered species.**

The Russian River supports threatened and endangered salmon species, including Chinook, Coho, and Steelhead, as well as the endangered California tiger salamander, California red-legged frog, Baker's larkspur, marbled murrelet, northern spotted owl, and approximately 30 threatened and endangered plant species. Portions of the watershed are impaired by sediment, phosphorus, mercury, pathogens, high water temperature, and inadequate dissolved oxygen. Concentrations of these contaminants will be reduced, and temperature levels decreased as water volumes are increased by using the recycled water to augment water supplies for the City and agricultural users.

The Recycled Water Planning Program has the potential to enhance the Russian River watershed and protect the threatened and endangered species it supports by alleviating water demand from the Russian River— list above mentioned endangered and threatened species.

**1.4.4 Evaluation Criterion 4— Department of the Interior Priorities**

**1. Climate Change**

**Please describe how the project will address climate change, including the following:**

- **Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.**

The Recycled Water Feasibility study will address several impacts of climate change, including: water shortages, drought, wildfires, and a threatened river ecosystem. The City

of Cloverdale and Sonoma County have experienced a severe multi-year drought with two years of very low rainfall and reservoirs rapidly diminishing. The benefits of this feasibility study include improving drought and wildfire resiliency through offsetting potable water use and groundwater pumping. By implementing recycled water program, the City and surrounding areas will reduce reliance on the Russian River, which has suffered in recent years from abnormally dry conditions.

- **Does this proposed project strengthen water supply sustainability to increase resilience to climate change?**

Yes. The proposed project will focus on agricultural sites that may be interested in utilizing recycled water, as well as large, landscaped areas that can be converted to recycled water irrigation. This shift to recycled water use will conserve potable water, reduce demands from the Russian River and support water supply sustainability in the region to increase resilience to climate change.

- **Does the proposed project contribute to climate change resiliency in other ways not described above?**

Yes. The City and surrounding areas are vulnerable to wildfires. Sonoma County has been burned by five major fires in the last decade while drought conditions also continue to worsen. A wildfire in the Russian River Watershed would greatly impact Russian River water quality and could also be detrimental to critical infrastructure. This project would contribute to climate change resiliency by making offset potable water available for firefighting support for local fire departments as well as Cal Fire in the surrounding region.

- **Disadvantaged or Underserved Communities:**

- **Will the proposed project serve or benefit a disadvantaged or historically underserved community?**

28 percent of the City's population meets the definition of a disadvantaged community, based on having a median household income (MHI) less than 80 percent of the average California MHI.

- **Please describe in detail how the community is disadvantaged based on a combination of variables**

Social Vulnerability refers to a community's capacity to respond when confronted by hazardous events ranging from natural to human caused disasters. The CDC/Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index Map depicts the overall Social Vulnerability Index (SVI) score, Socioeconomic Status, Household Characteristics, Racial and Ethnic Minority Status, and Housing Type & Transportation score. The overall SVI score is a result of sixteen census-derived factors. These factors are summarized in the table below for the City to provide a comprehensive assessment of the City's disadvantaged/social vulnerability status. Overall the City has a high level of vulnerability based on its SVI score.

<b>Table 4: CDC/ATSDR Social Vulnerability Index Nationwide Comparison 2020</b>	
<b>SVI Theme</b>	<b>Level of Vulnerability</b>
Overall SVI Score	0.8601 - High Level
Socioeconomic Status Score	0.7129 - Medium to High Level
Household Characteristics Score	0.7388 - Medium to High Level
Racial & Ethnic Minority Score	0.6381 - Medium to High Level
Housing Type & Transportation	0.955 - High Level

Source: [CDC/ATSDR Social Vulnerability Index \(SVI\) | Place and Health | ATSDR](#)

**2. Tribal Benefits:**

- **Does the proposed project directly serve and/or benefit a Tribe?**  
 Yes, the proposed planning project directly serves and benefits the Cloverdale Rancheria of Pomo Indians of California, a federally recognized tribe of Pomo Indians in California. The Cloverdale Rancheria (Tribe) is a democratic, self-governing Tribe with nearly 500 members residing within the City of Cloverdale.
- **Will the project improve water management for an Indian Tribe?**  
 Yes, the primary purpose of these planning activities is to improve water management of the City’s water supplies. The Tribe will benefit from these actions and the future implementation project as recipients of water and future recycled water from the City.
- **Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?** Yes. The Cloverdale Rancheria is in the process of planning the development of a destination resort, convention center, and casino in the southern portion of the City service area. The planning scope of work will include investigation of conveying recycled water to the future resort and casino for landscape irrigation. This new water supply will promote the economic growth opportunities for the Tribe by offsetting the use of potable water supplies for agricultural and landscape irrigation throughout the City’s service area and by providing a less expensive source of water for their non-potable use.

#### 1.4.5 Evaluation Criterion 5 — Watershed Perspective and Stakeholder Involvement

**1. Will the proposed project implement a regional or state water plan or an integrated resource management plan? Explain.**

Yes, this project will implement the Sustainability Outlook Pilot Project: Russian River Watershed. This study was established by the California Department of Water Resources (DWR) to explore how water resources management concepts described in the California Water Plan Update 2018 (Update 2018) could be applied at the system scale for the Russian River. The goal of this study was to identify and promote changes that would enable integrated projects with multiple benefits that would increase sustainability and resiliency of the Russian River.

The state's Recycled Water Policy (2013) supports increased capture and use of recycled water from municipal wastewater sources that meets the definition in Water Code Section 13050(n): "Recycled water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource."

Regionally, this recycled water planning project supports the following 2020 North Coast Resource Partnership Plan, Phase IV Goals:

Goal #2 – Ecosystem Conservation and Enhancement, Objective 6 by enhancing watershed functions.

Goal #4 – Beneficial Uses of Water, Objectives 8 and 10, by ensuring water supply reliability and minimizing impacts to sensitive resources and protecting groundwater resources from over-drafting, respectively.

Goal #5 – Climate Adaptation & Energy Independence, Objective 11 by addressing climate change effects and vulnerabilities to the water supply caused by drought.

**2. Will the proposed project help meet the water supply needs of a large geographic area, region, or watershed? Explain.**

The Russian River Watershed supports 400,000 people, vineyards, tribes, farmers, businesses, recreation, and habitats as discussed in previous sections. The City of Cloverdale has senior water rights to the water from the watershed; therefore, actions to reduce demands for this water supply increases the amount of water available for other water right holders in the watershed and is particularly beneficial to junior water right holders who are the first to have water supplies curtailed during drought conditions.

**3. Will the proposed project promote collaborative partnerships to address water-related issues? Explain. Describe stakeholder involvement in the project planning process.**

Public perception of recycled water is one of the main barriers communities face when attempting to implement a reuse project. To help overcome this barrier, effective public education and outreach communication materials are essential. The City will be responsible for implementing the Project and will engage stakeholders via outreach during the Project and/or as part of outreach sharing the Project results. Stakeholder organizations include the Russian River Watershed Association, representing the following member agencies: City of Cloverdale, City of Cotati, City of Healdsburg, City of Santa Rosa, City of Sebastopol, City of Ukiah, County of Mendocino, County of Sonoma, Sonoma County Water Agency and the Town of Windsor; Resilient Cloverdale, CloveReady and the Cloverdale Chamber of Commerce. The City will also conduct phone meetings with potential recycled water customers to gauge interest in recycled water use and will meet in-person with potential customers to discuss recycled water interest.

The City's outreach will include the development of materials and an outreach plan to provide the public information about the safety of recycled water and educate the community about how water reuse supports climate adaptation, water supply resiliency and benefits the Russian River Watershed.



## 2 PROJECT BUDGET

### 2.1 Funding Plan and Letters of Commitment

No other federal funds have been received as of the date of this proposal.

The City is also pursuing grant funds from the State of California Water Recycling Feasibility Planning Grant Program. When secured, these funds will be used to pay for the non-federal cost share. If the City does not receive the state grant funds and/or the non-federal cost share exceeds the state funds awarded, the City will provide the additional cost share using wastewater and/or water enterprise funds.

Table 1: Summary of Non-Federal and Federal Funding Sources

Funding Source	Amount
Non-Federal Entities	
1. California Water Recycling Planning Grant	\$500,000
2. City of Cloverdale	\$ 77,500
3. Other	0
Non-Federal Subtotal	\$577,500
REQUESTED Reclamation Funding	\$577,500

Table 2: Total Project Cost Table

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal Funding	\$577,500
Costs to be paid by the applicant	\$ 77,500
Other: State Grant Funds	\$500,000
Non-Federal Subtotal	\$577,500
TOTAL PROJECT FUNDING	\$1,155,000

## 2.2 Budget Proposal

BUDGET ITEM DESCRIPTION	COMPUTATION		TOTAL COST
	\$/Unit	QTY	
Salaries and Wages			
N/A			
Fringe Benefits			
N/A			
Travel			
N/A			
Equipment			
N/A			
Supplies and Materials			
N/A			
Contractual/Construction			
Feasibility Study	LS	1	\$275,000
Basis of Design/Predesign – Treatment Plant Upgrade	LS	1	\$600,000
Basis of Design/Predesign – Pipeline	LS	1	\$130,000
Public Outreach/Stakeholder Engagement	LS	1	\$ 50,000
Grant Administration	LS	1	\$ 100,000
Other Expense:			
N/A			
Total Direct Costs			\$1,155,000
Indirect Costs:			0
TOTAL ESTIMATED PROJECT COSTS			\$1,155,000

## 2.3 Budget Narrative

See Attachment B for the Budget Narrative.

### 3 ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

**Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.**

The proposed project is a planning effort to evaluate and determine the feasibility of upgrading the existing wastewater treatment facility to treat effluent to Title 23 regulations for a new recycled water supply, identify recycled water uses and users, and develop conceptual design and cost estimates for the future construction of such treatment works and conveyance pipelines. The City is requesting funding for this planning effort that will also include completing a CEQA and NEPA environmental review in preparation for the future construction project.

No known impacts to air quality, animal habitat, water quality, or biological resources are related to the proposed activities, and no ground disturbing activities will be conducted.

**Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?**

No, it is not anticipated that any species would be affected by any activities associated with the proposed project.

**Are there wetlands or other surface waters inside the project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.**

The Russian River is located within the project boundaries and adjacent to the existing wastewater treatment facilities. The planning project will assess potential impacts associated with a future construction project and define mitigation actions.

**When was the water delivery system constructed?**

The wastewater treatment plant was built in 1996.

There currently are no recycled water pipelines that have been constructed.

**Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state**

**when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.**

No, the project will not result in any modifications or effects to individual features of an irrigation system with headgates, canals, or flumes.

**Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.**

No buildings, structures, or features associated with the proposed project are listed or eligible for listing on the National Register of Historic Places.

**Are there any known archaeological sites in the proposed project area?**

There are no known archaeological sites that would be affected by the proposed project. However, this planning project will assess potential impacts associated with a future construction project and define mitigation actions.

**Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?**

The proposed project will have no impact on low or minority populations. The future construction project is intended to offer customers, recycled water as an alternative to offset potable water demands and provide a reliable, sustainable water supply to support agricultural use.

The future implementation project will benefit all populations, with the greatest benefit to low/fixed income or minority populations, by improving water management and reducing water waste, which reduces the need for the City to seek more water supplies.

**Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?**

The proposed project will not limit access to, or ceremonial use of Indian sacred sites or result in other impacts on tribal lands as the infrastructure to be improved are not located within such areas.

**Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?**

No, the proposed future construction project will specifically prohibit the use of invasive species for any landscape improvements and/or restoration associated with construction.

## 4 Required Permits or Approvals

No permits or approvals from outside agencies are required for the proposed planning project. Permits for the future construction project will be identified under the proposed project scope of work.

The City has selected and approved a contract for an engineering firm to develop the Recycled Water Planning Program upon receipt of grant funds.

## 5 Letters of Support

Letters of Support from the following organizations are included under Appendix A.

- **Russian River Watershed Association** representing seven cities located in the counties of Mendocino and Sonoma, plus the Sonoma County Water Agency and the counties of Mendocino and Sonoma.
- **Cloverdale Chamber of Commerce** and **Resilient Cloverdale** representing the businesses and community organizations within the City of Cloverdale.

## 6 Overlap or Duplication of Effort Statement

This funding request will support the completion of a recycled water planning program that will assess the feasibility, cost effectiveness, and complete the basis of design for the future upgrade of the City's existing WWTF to treat wastewater to Title 22 standards and determine preliminary pipeline alignment alternatives. The Federal funds, if awarded, will not duplicate other federal grant funds received in the past or by the City of Cloverdale.

The City is also pursuing grant funds from the State of California Water Recycling Feasibility Planning Grant Program. When secured, these funds will be used to pay for the non-federal cost share. If the City does not receive the state grant funds and/or the non-federal cost share exceeds the state funds awarded, the City will provide the additional cost share using wastewater enterprise funds.

## 7 Conflict of Interest Disclosure

The City of Cloverdale is not aware of any potential conflict of interest associated with this funding request or for the proposed project.

## 8 Official Resolution

The resolution will be presented to the City of Cloverdale City Council on March 8, 2023, authorizing the city manager to submit grant applications and execute an agreement with Reclamation for the implement of the proposed project. The resolution agrees to use the

funds identified in this funding plan for the proposed project. The adopted resolution will be submitted to USBR within 60 days.

## 9 Sam.gov Registration

The Sam.gov Registration status is active with an expiration date of August 3, 2023. The city will continue to update and main an active registration status. See enclosed verification of the City's registration status.



# CLOVERDALE, CITY OF

Unique Entity ID <b>W27VRJGLG3S8</b>	CAGE / NCAGE <b>5EME8</b>	Purpose of Registration <b>All Awards</b>
Registration Status <b>Active Registration</b>	Expiration Date <b>Aug 3, 2023</b>	
Physical Address <b>124 N Cloverdale BLVD Cloverdale, California 95425-3352 United States</b>	Mailing Address <b>112 Broad ST Cloverdale, California 95425-3313 United States</b>	

## Business Information

Doing Business as <b>(blank)</b>	Division Name <b>Cloverdale Police Department</b>	Division Number <b>(blank)</b>
Congressional District <b>California 02</b>	State / Country of Incorporation <b>(blank) / (blank)</b>	URL <b>(blank)</b>

## Registration Dates

Activation Date <b>Aug 5, 2022</b>	Submission Date <b>Aug 3, 2022</b>	Initial Registration Date <b>Apr 15, 2009</b>
---------------------------------------	---------------------------------------	--

## Entity Dates

Entity Start Date <b>May 7, 1866</b>	Fiscal Year End Close Date <b>Jun 30</b>
---	---

## Immediate Owner

CAGE <b>(blank)</b>	Legal Business Name <b>(blank)</b>
------------------------	---------------------------------------

## Highest Level Owner

CAGE <b>(blank)</b>	Legal Business Name <b>(blank)</b>
------------------------	---------------------------------------

## Executive Compensation

Registrants in the System for Award Management (SAM) respond to the Executive Compensation questions in accordance with Section 6202 of P.L. 110-252, amending the Federal Funding Accountability and Transparency Act (P.L. 109-282). This information is not displayed in SAM. It is sent to USAspending.gov for display in association with an eligible award. Maintaining an active registration in SAM demonstrates the registrant responded to the questions.

## Proceedings Questions

Registrants in the System for Award Management (SAM.gov) respond to proceedings questions in accordance with FAR 52.209-7, FAR 52.209-9, or 2. C.F.R. 200 Appendix XII. Their responses are displayed in the responsibility/qualification section of SAM.gov. Maintaining an active registration in SAM.gov demonstrates the registrant responded to the proceedings questions.

## Exclusion Summary

Active Exclusions Records?

**No**

## SAM Search Authorization

I authorize my entity's non-sensitive information to be displayed in SAM public search results:

**Yes**

## Entity Types

### Business Types

Entity Structure <b>U.S. Government Entity</b>	Entity Type <b>US Local Government</b>	Organization Factors <b>(blank)</b>
Profit Structure <b>(blank)</b>		



**Socio-Economic Types**

Check the registrant's Repts & Certs, if present, under FAR 52.212-3 or FAR 52.219-1 to determine if the entity is an SBA-certified HUBZone small business concern. Additional small business information may be found in the SBA's Dynamic Small Business Search if the entity completed the SBA supplemental pages during registration.

**Government Types**

U.S. Local Government

Municipality

City

**Financial Information**

Accepts Credit Card Payments

**No**

Debt Subject To Offset

**No**

EFT Indicator

**0000**

CAGE Code

**5EME8****Points of Contact****Electronic Business**

♀  
Susie Holmes, Finance Director

124 N Cloverdale Bl  
Cloverdale, California 95425  
United States

**Government Business**

♀  
Linda Webb, Police Records Manager

112 Broad ST.  
Cloverdale, California 95425  
United States

**Past Performance**

♀  
Chris Parker, SERGEANT

112 Broad ST.  
Cloverdale, California 95425  
United States

**Service Classifications****NAICS Codes**

Primary	NAICS Codes	NAICS Title
<b>Yes</b>	<b>922120</b>	<b>Police Protection</b>
	<b>488119</b>	<b>Other Airport Operations</b>

**Disaster Response**

This entity does not appear in the disaster response registry.

## 10 References

“2020 Urban Water Management Plan,” City of Cloverdale, adopted 2021.

Jasperse, J., Ralph, F. M., Anderson, M., Brekke, L., Malasavage, N., Dettinger, M. D., Forbis, J., Fuller, J., Talbot, C., Webb, R., & Haynes, A. “Lake Mendocino Forecast Informed Reservoir Operations Final Viability Assessment”. UC San Diego. December 2020.

Richards, David. (2021). *Does Nutrient-Rich Effluent from Wastewater Treatment Facilities Improve Food Resources for Migratory Birds in Farmington Bay Wetlands, Great Salt Lake?*. 10.13140/RG.2.2.12435.35364.

“How Climate Change Will Affect Birds in Your Area.” Audubon, [www.audubon.org/climate/survivalbydegrees/county?zipcode=95425](http://www.audubon.org/climate/survivalbydegrees/county?zipcode=95425).

City of Cloverdale Sewer System Master Plan Update, June 2009

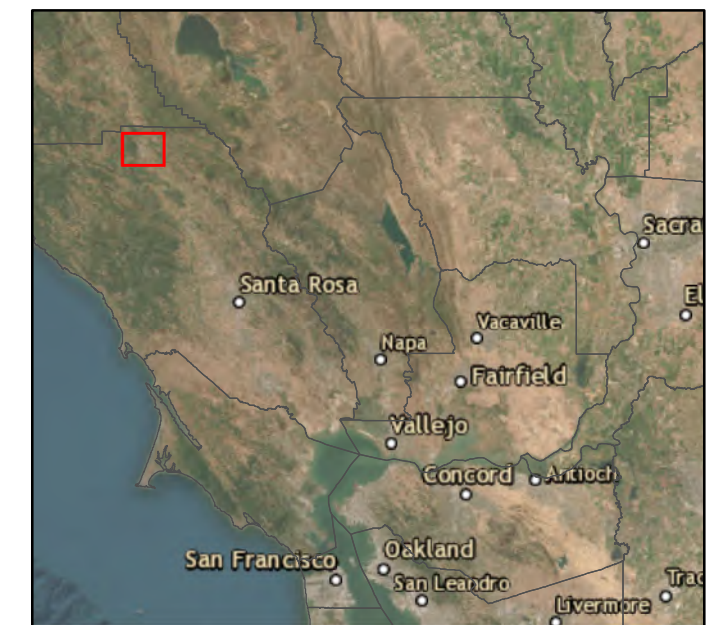
“North Coast Resource Partnership Plan, Phase IV”. North Coast Resource Partnership, January 2020.

## Attachment A – Project Location Map

WEST\_YOST - N:\Clients\485 City of Cloverdale\60-22-07 RW Feasibility Study\GIS\WAKO\ACmap\_Cloverdale.mxd - nhtompson - 2/27/2023



- Notes:
1. Social Vulnerability is a community or census tract's ability to prevent human suffering and financial loss in a disaster. The Social Vulnerability Index (SVI) compares the social vulnerability of a census tract to all tracts in the U.S using a percentile ranking from 0 to 1.
  2. A percentile ranking represents the proportion of tracts (or counties) that are equal to or lower than a tract (or county) of interest in terms of social vulnerability. Data is classified into quartiles from lowest to highest social vulnerability.
  3. SVI Data Source: Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry/Geospatial Research, Analysis, and Services Program. CDC/ATSDR Social Vulnerability Index Interactive Map 2020 Database US.
  4. City boundary source: City of Santa Rosa GIS Online Viewer.



Appendix A: Letters of Support



February 27, 2023

SENT VIA: EMAIL

WaterSMART: Water Recycling and Desalination Planning Grant Program  
US Bureau of Reclamation Financial Assistance Division

Jim Keiffer, Division Manager  
[bor-sha-fafoa@usbr.gov](mailto:bor-sha-fafoa@usbr.gov)

**MEMBER AGENCIES**

- City of Cloverdale
- City of Cotati
- City of Healdsburg
- City of Santa Rosa
- City of Sebastopol
- City of Ukiah
- County of Mendocino
- County of Sonoma
- Sonoma County Water Agency
- Town of Windsor

SUBJECT: Support for the City of Cloverdale's Recycled Water Planning Program

Dear Grant Program Review Committee:

Serving as Executive Director for the Russian River Watershed Association (RRWA), I am writing to express my enthusiastic support of the application submitted by the City of Cloverdale to the US Bureau of Reclamation for the Recycled Water Planning Program.

**ANDY RODGERS**  
Executive Director

300 Seminary Avenue  
Ukiah, CA 95482  
(707) 508-3670  
[info@rrwatershed.org](mailto:info@rrwatershed.org)  
[www.rrwatershed.org](http://www.rrwatershed.org)

The RRWA is a coalition of ten public agencies in Sonoma and Mendocino Counties that have come together to coordinate regional programs in the Russian River Watershed for clean water, habitat restoration, and watershed enhancement. The RRWA provides support to communities throughout the watershed and works to enhance awareness of special studies and water resource programs funded through grants.

This planning program is the necessary next step for the City of Cloverdale to implement advanced wastewater treatment and produce recycled water for beneficial non-potable reuse. These benefits include:

- Improving resiliency against drought and wildfire through offsetting potable water use and groundwater pumping,
- Enhancing and protecting the Russian River Watershed by reducing the amount of water drawn from the drought-impacted Russian River,
- Enhancing and protecting the Cloverdale Area of the Alexander Valley Groundwater Basin by reducing groundwater pumping and permitting in-lieu recharge of the groundwater basin, compatible with groundwater protection goals, and
- Reducing the risk of unplanned discharges of secondary treated effluent into the Russian River during severe storm events.

Results of the proposed planning program will help advance water stewardship by enhancing watershed health and improve water supply management and sustainability efforts for the benefit of the City of Cloverdale's residents, businesses, the Cloverdale Rancheria tribe, local agriculture, and other stakeholders who depend on the Russian River Watershed.

Thank you in advance for considering grant funding for this important project. Please feel free to contact me if you have any questions, at [cleanwater@rrwatershed.org](mailto:cleanwater@rrwatershed.org) or 707.508.3670.

Sincerely,

Andy Rodgers, Executive Director  
Russian River Watershed Association



February 28, 2023

SENT VIA: EMAIL

WaterSMART: Water Recycling and Desalination Planning Grant Program  
US Bureau of Reclamation Financial Assistance Division  
Jim Keiffer, Division Manager  
bor-sha-fafoa@usbr.gov

SUBJECT: Letter of Support for the City of Cloverdale's Recycled Water Planning Program

Dear WaterSMART: Water Recycling and Desalination Planning Grant Program Review Committee:

Serving as Director of Resilient Cloverdale and the Cloverdale Chamber of Commerce, I am writing to express my support of the application submitted by the City of Cloverdale to the US Bureau of Reclamation for the City of Cloverdale Recycled Water Planning Program.

The leadership and member organizations of Resilient Cloverdale are committed to advancing the resilience of Cloverdale and the surrounding community by making smart mitigation, preparedness, response and recovery investments at the individual, organizational and community levels.

This recycled water planning program is a requisite preparatory step for the City of Cloverdale to implement advanced wastewater treatment and produce recycled water for beneficial non-potable reuse. The implementation of this planning project will improve water supply sustainability and resiliency through offsetting potable water use and groundwater pumping, as well as enhance and protect the Russian River Watershed and the drought-impacted Russian River. These outcomes support Resilient Cloverdale's priorities of advancing the City's overall readiness by investing in systems, relationships, and resources in an equitable and inclusive manner regardless of operating conditions.

Thank you in advance for considering grant funding for this important project. Please feel free to contact me if you have any questions, at [neena@cloverdalechamber.com](mailto:neena@cloverdalechamber.com) or 707.894.4470.

Sincerely,

*Neena Hanchett*

Neena Hanchett  
Executive Director  
Cloverdale Chamber of Commerce