



## Strategic Plan

February 2017



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**Come take a wastewater treatment plant tour  
or visit our wildlife water reclamation area.**

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## **DIRECTORY OF OFFICIALS**

### **GOVERNING BOARD OF DIRECTORS**

Russ Greenfield, President  
Megan Clark, Vice President  
Rabi Elias, Director  
Judy Schriebman, Director  
Craig K. Murray, Director

### **DISTRICT MANAGEMENT**

Mark R. Williams, General Manager  
Michael Cortez, P.E. District Engineer  
Mel Liebmann, Plant Manager  
Susan McGuire, CPA Administrative Services Manager  
Greg Pease, Collection System/Safety Manager

### **CONSULTANT**

Brent H. Ives, Consultant/Project Manager

## INTRODUCTION

A Strategic Plan is a top level planning document for an organization to set clear direction over all operational aspects of its mission. Upon adoption it serves as a framework for decision making over a five-year period. It is a disciplined effort to produce fundamental decisions that shape what a district plans to accomplish by selecting a rational course of action. This Strategic Plan (Plan) update incorporates an assessment of the present state of Las Gallinas Valley Sanitary District (District) operations; required gathering and analyzing information; goal setting; and making decisions for the future. Time has been taken to gather input from various sources to add to the veracity of the plans herein. The Plan seeks to strengthen and build upon opportunities while addressing areas of concern.

This Plan also identifies actions, activities, and planning efforts that are currently active and needed for continued success in operations and management of the District, and provides for periodic reviews and updates.

## DEFINITIONS

1. **Mission Statement:** A declaration of an organization's purpose, why the organization exists. Ideally, all activities of the District should be in support of the Mission Statement.
2. **Vision Statement:** A statement that articulates where the organization would like to be over the term of the Plan. It should outline important aspects of the organization as described within the planning term. The Vision should create strategy and tactics in order to be met.
3. **Core Values:** Guides what we value when faced with options and alternatives for our future. We use these as decision filters each time we make decisions as a District.
4. **Strategic Elements:** These are the broad, primary areas of District operations, planning, and management that need to be addressed and are supported by Strategic Goals to ensure optimum progress.
5. **Strategic Goals:** Strategic Actions are specific and measurable activities or targets that address the strategic elements. Day-to-day actions and projects (not covered in detail in the Strategic Plan) will be designed so that the Strategic Goals are accomplished.

## PLAN DEVELOPMENT AND ON-GOING PLANNING PROCESS

In 2007, the Board of Directors retained BHI Management Consulting to facilitate and coordinate the initial Strategic Plan development. District Board members completed a questionnaire to allow for a better focus on the planning effort. The following items were discussed: mission statement, core values, District strengths, weaknesses, opportunities and threats, current and future issues and important future projects.

A Board/Key Staff workshop was conducted to develop the following plan elements: strategic elements; write objective and strategy statements for each strategic element and initial work on Strategic Goals. A steering committee, consisting of the Key Staff, worked with BHI to complete the list of Strategic Goals in support of the Vision and Strategic Elements and refine the Plan prior to presentations to the full Board for initial review and final approval.

A key part of an enduring Strategic Planning process is to conduct an annual review and update of the Plan. These reviews allow for maintenance of the Plan so that it reflects the actual progress, current operational conditions and needs of the District. The reviews will be documented and followed up with by either a plan supplement or an updated plan. A five-year planning horizon will be maintained. This document represents the update process in February 2016.

## **MISSION STATEMENT, VISION STATEMENT, CORE VALUES**

### **Our Mission**

The Mission of the Las Gallinas Valley Sanitary District is to protect public health and our environment, providing effective wastewater collection, treatment, and recycling services.

### **Our Vision**

Recognizing that sanitation and wastewater treatment is vital to protecting the public health, the District will:

- manage our treatment and collection infrastructure in a planned and sustainable way;
- strive toward beneficial recycling of wastewater, biosolids and other resources using safe and effective processes and systems to achieve our zero waste vision;
- collaborate with neighboring agencies to achieve efficiencies for the public;
- cooperate with stakeholders to leverage opportunities for protecting the bay and regional water resources for the people we serve;
- maintain a safe, high quality workplace to promote a sustainable, motivated, long-term and cohesive workforce;
- increase public participation, acceptance and understanding of what we do;
- responsibly manage the refuse franchise;
- maintain our zero spill goal;
- consider climate change, sea level rise and flooding when developing and designing new projects;
- reduce our impact on natural resources;
- optimize and promote the use of recycled water; and
- collaborate with public and private parties to improve watersheds within the District's boundaries.

**Our Core Values**

- Does it reflect our commitment to the public health and to the environment?
- Will it support high quality customer service and public outreach and education?
- Does it enhance our infrastructure, facility maintenance and system reliability?
- Does it seek opportunities to reuse resources where possible?
- Will it support best workforce practices?
- Does it establish equitable, reasonable, and necessary rates by responsible use of the public's funds now and in the future?
- Does it build on and leverage our network of Partners and regulatory authorities?
- Will it support our ability to govern as a Board team with honesty, transparency, and respect?
- Does it support domestically produced products where possible?
- Will it support our commitment to practical innovative methods and resource recovery?

**STRATEGIC ELEMENTS AND GOALS**

Strategic Elements and Strategic Goals represent the vital areas of the District's operation, planning, and management. Strategic Elements are derived from the foundational Mission and Vision statements of the District. They are linked to action through Strategic Goals within the five-year period that serve to assure that important areas of the District are well supported and moved forward per Board direction. Strategic Elements and supportive Strategic Goals, along with action dates within the planning period, are presented in tabular form in Table 1.

**The strategic elements are:**

- 1.0 Financial Management
- 2.0 Personnel/Organization
- 3.0 Administrative Management
- 4.0 Public Health/Environment
- 5.0 Infrastructure
- 6.0 Partnerships and Public Relations
- 7.0 Regulatory Relations
- 8.0 Awards and Recognition

## 1.0 FINANCIAL MANAGEMENT

### Element Objective and Strategy

Our objective is to manage public funds to assure financial stability, prudent rate management and demonstrate responsible stewardship in the context of regulatory requirements. The District will assure that broad financial resources are considered and available to fund current and future demands.

### 1.1 Optimize Financial Processes to Reduce Financial Errors and Optimize Financial Opportunities

Staff will develop sound financial policies and procedures that incorporate checks and balances. Staff will conduct internal procedure audits to identify opportunities to improve error identification. Staff will seek opportunities to maximize investments and take advantage of cost saving opportunities. The District has implemented numerous cost saving measures including rehabilitating instead of replacing the intermediate clarifiers; hiring a District Engineer to reduce consultant cost, minimizing fines, managing utility cost by reducing treatment plant power consumption by approximately 40% and through the District's photovoltaic panels and replacing the non-emissions compliant cogeneration engine which will provide the treatment plant's power needs; and maintaining a lean and highly productive staff. The District has evaluated various financing options for financing the construction of the wastewater treatment biological plant upgrades and determined a bond is the most cost effective option because State Revolving Fund loans are currently not available.

### 1.2 Seek Appropriate Grant Funding

The District has successfully secured federal and state grant funding for projects since 2005 and will continue to do so for future projects. District staff will attend training that will provide them with the necessary tools to secure grant funds. This training will enable staff to obtain additional grant funding.

#### Grants Received or Secured

- PG&E 50% participation grant for the Phase I & II Photovoltaic Systems Installation
- \$1,518,000 State and Federal funding for the construction of its recycled water plant in 2013.
- \$1,315,483 California Energy Commission Grant secured for the Biogas Energy Recover System in 2015

#### Grant Applications Underway

- \$1,000,000 WaterSmart grant for the Recycled Water Plant Upgrade
- \$550,000 (up to) PG&E Energy Efficiency by Design grant for the Secondary Plant Upgrade Project

### **1.3 Conduct Financial Audit**

District will utilize a qualified certified public accounting firm to perform an annual financial audit. In 2012, the Board approved a new auditing firm to conduct the annual financial audit for the next five years. The audit which will be conducted in 2016 will be the final year of the existing agreement. Staff has issued a request for proposal in early 2017 to procure future services.

### **1.4 Perform Rate Analysis/Rate Increase**

Staff developed a five-year budget in 2015 which includes the anticipated projects, operation, maintenance, and bond payment costs and sought to assure rate equity. A study of capital facilities charge was conducted during 2015 which set a new rate sewer connection fee and provides for an automatic increase based on the annual Engineering News Record inflation amount.

### **1.5 Reserves**

The District requires reserves for operations and capital needs. Reserves provide financing safeguards and are available for extraordinary expenses and to fund cash flow. The Board adopted a reserve policy in 2009 with a target of \$7 million. The balance as of December 31, 2016 is \$5,628,389. Staff will periodically analyze the required reserves.

### **1.6 Unfunded Liabilities for Pensions and Other Post-Employment Benefits**

The Board, as part of the five year rate plan adopted in June 2015, included funding beginning in 2018/2019 to pay down the unfunded pension liabilities and other post-employment benefits to reduced future costs to ratepayers.

### **1.7 Purchasing Policy and Procedures Manual**

Staff will develop an in-depth purchasing policy and procedure manual that will outline clear policies and procedures for the procurement of products and services in a timely and cost effective manner utilizing, whenever possible, local vendors and suppliers from sustainable sources.

**1.8 Financial Policy Review and Update**

Staff will review the Finance policies periodically and revise as necessary to meet District needs and regulatory requirements.

## 2.0 PERSONNEL/ORGANIZATION

### Element Objective and Strategy

Our objective is to preserve a safe, challenging and productive work environment that promotes pride in our employees. We will do this by offering competitive compensation and benefits, communicating effectively, insisting on a safe workplace, providing training and opportunities, and utilizing sound and supportive management practices and policies.

### 2.1 Perform an Organizational Analysis For All Organizational Elements of the District

This analysis will assess all organizational elements for proper and efficient leveling of staff, operational communications, and proper standards of operation, best practices, organizational policies, proper succession and organizational structure. Further, the assessment will include a deliberate workforce succession analysis in order to develop a succession plan. Methods will be proposed to ensure appropriate organizational depth in critical functional areas, determine if specialized information is held by singular employees, and explore methods to share and transfer that knowledge and information. Staff is preparing a succession plan for critical positions.

### 2.2 Organizational Chart Review

The District Management Team will periodically evaluate the organization structure to insure a productive working environment. The evaluation will be presented to the Board of Directors for their review and approval during the annual strategic plan process. The District created and filled, with an existing employee, a lead operator position to increase efficiency and manage workload.

### 2.3 Plan Staff Development

A formal staff development program will continue to be implemented using a manual consisting of updated job descriptions, in-house training programs, training modules and other developmental tools. Staff will be clear on expectations of positions and be provided the necessary skills, knowledge and abilities to perform at expected levels. Policy statements will be developed for Board adoption to promote and support continuous learning while providing clarity with regard to the scope and intent of the staff development program. This investment in our workforce will contribute to high quality and efficient services. During the last two years, job descriptions have been revised and updated. Staff will develop an Operator in Training (OIT) program for the Board to consider in 2018.

## **2.4 Perform Periodic Compensation and Classification Reviews**

The compensation and benefit review was conducted in 2014 to ensure that the District staffing and productivity goals are met as well as to protect the District ratepayers. Policy statements will be developed for Board adoption to clearly identify the economic indicators, relevant information, comparable agencies, and target levels within the salary ranges identified and appropriate salary review schedule. In 2014, the District negotiated a 5 year contract with Operating Engineers Local 3 and five year contracts with non-represented employees. As part of the negotiations, salaries for several positions were adjusted to reflect current total compensation for comparable agencies.

## **2.5 Enhance Workplace Safety**

District staff and consultants will implement all OSHA requirements applicable to the District. Staff will identify hazards and seek funding where needed to rectify the condition. Staff will receive training beyond what is mandated by OSHA to insure injuries are minimized. Staff will provide the necessary equipment to safely complete the task at hand. Staff will develop and utilize Standard Operating Procedures. Staff and consultants have populated the lockout/tagout procedure software and procedures for staff use.

## **2.6 Job Description Updates**

District staff will update job descriptions prior to negotiations in order to assure accuracy and proper job requirements. The update will include minimum job position qualifications. Staff has updated the job descriptions for the majority of the positions. These descriptions were updated during 2015 to include comprehensive physical job requirements.

## **2.7 Performance Review System Update**

District staff has updated the performance review system in 2015 to provide clear, objective and meaningful evaluation of staff.

## **2.8 Succession Plan Development**

Identify critical staff positions and develop cross training programs to ensure smooth transition of duties due to personnel turnover. Develop timelines for training of new staff to take over duties of existing staff.

### **3.0 ADMINISTRATIVE MANAGEMENT**

#### **Element Objective and Strategy**

Our objective is to provide supportive and effective policies, procedures and practices for operations at all levels to ensure that the District operates in an open and effective manner. Our strategy is to regularly monitor and enhance these policies to assure operational efficiencies and address emerging needs.

#### **3.1 Develop and Approve Staff Policies**

A District Personnel Policy and Procedures manual was approved by staff and adopted by the Board on October 9, 2014. The policies are updated as required by changes in statutes and best practices

#### **3.2 Manage Board Policies**

The Board accomplished a major update and revision process of Board policies in 2009. They will be subsequently reviewed and updated as needed in the future. Staff will perform an audit of the policies in 2017 to determine if they are being followed and bring items back to the Board where practice and policy differ.

#### **3.3 Annual Planning Using This Strategic Plan**

To remain effective and relevant, the Strategic Plan, once adopted, will require annual review and updating. At a special Board workshop, publicly advertised in the first quarter of each calendar year, the General Manager will review with the Board, the District's Mission, Vision and the Board's core values and status of the Plan, along with an update for the new fifth year, to maintain its rolling five-year scope.

#### **3.4 Review and Management of Contracts**

Staff will evaluate the most effective use of outside resources on an annual basis. Staff, along with District counsel, will review contract terms annually to ensure that they meet the District's standards for risk protection.

#### **3.5 Technology Planning and Implementation**

Staff developed a plan to procure and rotate technology in an efficient and effective manner that allows us to deploy the appropriate resources for the level of work performed in a cost effective manner. The use of digital scanning will be utilized to preserve the integrity of historical plans, contracts and agreements as well as provide the ability to archive current documents for easy retrieval. An evaluation of the use of existing printers and copiers was conducted in 2016 with changes in hardware implemented to control costs and effectively manage the devices.

### 3.6 Real Property Management

District staff will develop a program to identify and document real property and fee interests in District assets including easements. Staff will organize existing information into an easily managed database in order to allow management of the District's real estate interests and utilization in an optimal manner for its benefit. Information will be integrated with the District's Geographical Information System. This will include utilization of a consultant to identify and verify District easements.

## **4.0 PUBLIC HEALTH/ENVIRONMENT**

### **Element Objective and Strategy**

Our objective is to place public health and the environment as highest priorities. Our strategy is to continually assess all District processes and operations to ensure that we maintain, utilize and fulfill this public trust.

### **4.1 Manage System Failure Response and Cleanup Plan**

Staff has identified known and previously unidentified system failure liabilities through continuous monitoring and inspection. Staff has developed a response plan to include early identification, notification and procedures to minimize the impact of an event and follow up critique of the event. The policy contains mock training events that will include emergency response elements and first responders to refine the system failure response and cleanup plan. In 2015 a safety consultant developed emergency procedures for the District's 28 sewage pump stations.

### **4.2 Identify Opportunities to Reduce Plant Discharge to the Bay**

The staff will continually seek opportunities to increase recycling of plant effluent. This includes participation in the North Bay Water Reclamation Authority Regional recycling effort and seeking new opportunities within the District to expand the existing MMWD water recycling distribution system to include District facilities. In 2012, the District constructed a recycled water plant to serve the North Marin Water District's Hamilton area and possibly MMWD. In 2016, the plant supplied 47 million gallons of recycled to North Marin Water District. The District supplied 195.3 million gallons of treated wastewater to the MMWD recycled water plant where it was treated to recycled water standards and distributed within the District by MMWD.

### **4.3 Support Wildlife Habitat**

Staff will identify current and potential opportunities to improve natural habitat within the District. The opportunities will be primarily focused on areas located at, or bordering District property, where habitat restoration or creation goals are clear, pertinent and do not conflict with important plant operations. The District Board is actively participating in the North Bay Watershed Association and Gallinas Watershed Council. In addition, the District has committed funding for the Marin County Gallinas Creek and Miller Creek Watershed study.

### **4.4 Reduce Sanitary Sewer Overflows**

In line with our Zero Spill Goals, District staff is continually identifying methods to reduce both District and private sanitary sewer overflows. The staff has implemented a geographic information system (GIS) in order to be able to schedule maintenance and identify trouble spots where sanitary sewer overflows are problematic and recommend

either increased maintenance or line rehabilitation. The sewer system replacement goal will be to replace sewerage pipe in excess of 75 years old. District staff will continue its public outreach program in order to reduce the discharge items that can cause sewer overflows. The District will increase oversight of its Fats, Oils & Grease program. In 2017 the Board will consider a lateral inspection ordinance which will require industrial and commercial customers to repair or replace their lateral if certain criteria are met such as sale, lateral failure or major remodeling. District staff and consultants will develop a program to address sewer lateral yard drainage from homes in the Santa Venetia area. District staff continues to improve the reliability of the District's sewage pump stations by improving maintenance and repair programs. The District has implemented several sewage pump station capital improvement programs designed to improve efficiency and reliability through the installation of new technology such as Supervisory Control and Data Acquisition Systems (SCADA). The 2008 Sewer System Management Plant Capacity Assessment identified several potential sewer system bottle necks. In 2014, a large portion of the lower Marinwood trunk sewer, identified in the 2008 Assessment, was replaced. The Terra Linda Trunk study identified options to eliminate the exposed sewer main crossing Gallinas Creek, provide larger lines for flow equalization and provide sufficient sewer capacity to eliminate sewer spills at the Las Gallinas Avenue and Manuel T. Freitas siphon. The consultant is currently designing a new John Duckett Pump Station to eliminate the exposed Gallinas Creek crossing and to address capacity issues identified in the study. In 2015, the District installed a relief sewer which to reduce or eliminate sewer spills caused by the Manuel T. Freitas siphon restriction. During the 2016/2017 winter storm events, the relief sewer operated several times and proved to be a huge success as there were no siphon spills.

#### **4.5 Reduce Effluent Metals**

District staff will seek technologies and fine tune District treatment processes to reduce plant effluent metals. The rehabilitated and updated primary clarifiers have been placed in service and reduces effluent metals during wet weather events. To address the Regional Quality Control Board's effluent copper cease and desist order, staff have implemented a cost effective polymer addition program that has successfully lowered effluent copper levels. An amalgam ordinance and program was adopted in the spring of 2010. The District will encourage other agencies to participate in the development of the countywide plan to implement an amalgam separator program at dental offices to reduce the level of mercury discharged to the bay. A Secondary Expansion study has been completed. The study identified options to provide full secondary (biological) treatment during wet weather event peak flows of up to 18 million gallons per day and a 1.2 million flow equalization basin to store flow in excess of 18 million gallons. The biological treatment plant upgrade is under design. The treatment plant upgrade to activated sludge will significantly reduce plant effluent metals and eliminate the need to continuously feed polymer to the secondary clarifiers during the discharge season.

#### **4.6 Reduce Plant Effluent Contaminants**

District staff will seek opportunities to participate in studies related to emerging contaminants. The District will continue to educate our customers about the proper disposal of unused medicine which will help to reduce the release of pharmaceuticals to the environment. District staff will encourage the proper disposal of medicine. Board and staff will make use of advocacy opportunities to reduce, restrict or ban the use of problematic contaminants through CASA and other political channels. District staff will seek opportunities to pilot test technologies designed to reduce or eliminate emerging contaminants. District staff will seek opportunities to adjust plant processes to optimize the removal of emerging contaminants and utilize new technologies that can eliminate or reduce emerging contaminants. This includes the expansion of the District's recycled water plant to treat more of the District's plant effluent to Title 22 recycled water quality standards for reuse. The Secondary Expansion mentioned previously, will provide full biological treatment during wet weather events peak flows of up to 18 million gallons per day. The plant upgrade will reduce effluent Emerging Contaminants.

#### **4.7 Achieve Carbon Neutrality**

District staff will seek opportunities to become carbon neutral. The District's solar array produces 850,000 kWh resulting in the avoidance of 890,680 lbs. of CO<sub>2</sub> emissions annually. Continue to seek opportunities to reduce our impacts on natural resources by utilizing additional solar, wind and biogas technologies. One primary focus, among others, will be on identifying methods to reduce District vehicle emissions. The District will take steps to make accomplishments in this area well known to the public. The District is considering working with a private company to install a floating 1-megawatt photovoltaic system on one of the District's plant effluent storage ponds. The District has also hired consultants to investigate opportunities to expand our onsite green energy power generation resulting in the export of green energy to the grid. The District completed a study to expand photovoltaic power generation by installing a covered parking photovoltaic power generation system. In 2015 the District completed design and began construction of the Biogas Energy Recovery System to replace the co-generation unit which will be operational in 2017. The facility includes a vehicle fueling station for new Collection System trucks that will utilize methane gas generated as a beneficial byproduct of the wastewater treatment process. Efforts will continue to identify additional opportunities for green energy.

#### **4.8 Biosolids Program**

The District produces 5,400 pounds of anaerobically digested class "B" biosolids per day if dried to a moisture content of 30% (consistency of moist soil). We are fortunate to utilize an onsite biosolids pasture injection system that has a low carbon footprint and does not require the construction of an extensive biosolids treatment facility. The

District's biosolids pasture injection system does not use chemicals or require excessive labor to operate. The District will monitor the emerging technologies to best manage its biosolids.

#### **4.9 Sewer Laterals**

In 2012 the District implemented its Private Sewer Lateral Rehabilitation Assistance Program, which allows property owners within the District to replace their laterals with an advance from the District. The advance is repaid through a special assessment over a period of up to 10 years at a low interest rate. Since inception, 113 property owners have taken advantage of the program resulting in \$720,366 being disbursed as of December 31, 2016. In 2017 the Board will consider approving a sewer lateral inspection ordinance. The ordinance will require the inspection and testing of sewer laterals in the occurrence of specific triggers. The ordinance will also require the repair or replacement of laterals that fail testing or inspection. Tightly sealed laterals prevent I&I to the collection system and plant, allowing the collection system and plant to operate effectively, efficiently, safely and economically.

#### **4.10 Reduce Light Pollution**

The District will make an effort to reduce or eliminate extraneous light, especially upward light, while putting the safety of all plant employees first. The final phase was completed in 2016.

## 5.0 INFRASTRUCTURE

### Element Objective and Strategy

Our objective is to plan, build and maintain safe and reliable sewage treatment, collection and recycled water infrastructure for current and future customers. We will make informed decisions, use quality materials, employ practical and innovative methods, optimize water storage for reuse, recycle treated wastewater and continue and enhance preventative maintenance programs.

### 5.1 Upgrade Treatment Plant in a Planned and Sustainable Way

The District completed a \$4.2 million dollar upgrade for the Primary Clarification System Improvement Project (PCSIP) in 2012. The District also completed the construction of a readily expandable \$8.6 million dollar recycled water plant in 2012. In 2013, the waste gas burner was replaced. In 2016, the grit classifier replacement project was completed. Additional projects underway are the digester mixing system, and cogeneration heating and power generation/vehicle biogas system. The Secondary Expansion mentioned previously will provide full biological treatment during wet weather events peak flows up to 18 million gallons per day. The plant expansion will reduce effluent Emerging Contaminants and Metals. Considerable staff time and effort will be devoted to the significant issues presented by such projects over the next several years.

### 5.2 Recycled Water Expansion

During 2016, the District's recycled water facility produced 47 million gallons (138.7 acre/ft.) of recycled water for the North Marin Water District's Hamilton Area recycled water distribution system. The facility is under design to be expanded to its maximum design filtration capacity of 5.4 mgd. The capacity upgrade will replace the MMWD recycled water facility which has reached the end of its useful life. The District will manage the beneficial use of nutrients in recycled water. The District will continue to explore opportunities for additional use of recycled water.

### 5.3 Recycled Water Storage

The District participated in the NBWRA Phase 2 study which is developing storage for recycled water. The initial study is complete. The Board has decided not to proceed with the design and construction of additional recycled water storage due to the cost and the current lack of recycled water demand and distribution difficulties.

### 5.4 Optimize Energy

District staff has significantly reduced the treatment plant's power consumption. The Board recognized that staff had implemented several power saving measures and

therefor reduced the size of the treatment plant's photovoltaic system. In conjunction with a cogeneration system, the system was sized to produce 82% of the treatment plant's power needs. The power consumption of the District's new state of the art Recycled Water Plant was not included in the sizing of the treatment plant photovoltaic system. However, further plant power optimization measures have resulted in the export of power to the grid. In 2015, the District received \$22,887 from Marin Clean Energy for the District's export of power to the grid from the reclamation area (phase I) and treatment plant (phase II) photovoltaic systems. The District is replacing the treatment plants mercury vapor plant lighting with LED light fixtures that are 40% more efficient and reduce light pollution. Several plant improvement projects, such as the grit system upgrade, will reduce power consumption significantly. The cogeneration/vehicle biogas facility project will increase the use of biogas which would otherwise be wasted. During project design and equipment replacement, staff will seek opportunities to install more energy efficient equipment. These measures have reduced our impact on natural resources.

### **5.5 Identify System Vulnerability and Deficiency**

To identify facilities that are vulnerable to failure, lack sufficient capacity or are a potential safety hazard, District staff and consultants completed a District system vulnerability study in conjunction with rate studies. Upon completion of the study, staff developed an implementation schedule for Board approval. The resultant projects are included in the annual budget pursuant to the implementation schedule. During project design, the impacts of Sea Level Rise will be considered.

### **5.6 Implement District Wide Maintenance and Predictive Maintenance Programs**

The District's collection system maintenance program is a tremendous success. The District is in the process of implementing new GIS software that will further enhance the District's collection system maintenance program; it should be completed in 2017. Implementation of the plant and pump station maintenance / repair database has been completed. Optimization of the collection system, pump station and plant data bases is an ongoing effort. District staff or vendors will perform predictive maintenance in order to prevent catastrophic equipment failure. The predictive maintenance program will focus primarily on scheduled thermal imaging of electrical equipment, but may also include some vibration and oil analyses. District staff will also consider the development of standard operating procedures for maintenance activities.

### **5.7 Enhance Security at Plant and Other District Facilities**

Staff will develop a security plan that identifies the condition of District security facilities, and other security measures and improvements, which incorporate the use of SCADA to discourage, and/or identify, individuals who may attempt to gain unauthorized access to District facilities. Some of the new security measures will be installed in 2016. Staff

will investigate possible grant funding for the new Operations Control Center as it relates to the operations control center.

**5.8 Replace/Upgrade Cogeneration System**

The District's digester gas cogeneration engine is being replaced as part of the Biogas Energy Recovery System project which will be completed in 2017.

## **6.0 PARTNERSHIPS AND PUBLIC RELATIONS**

### **Element Objective and Strategy**

Our objective is to establish beneficial relationships with the community and other agencies. We will do this by establishing and improving strategic ties, conducting public outreach, participating in professional associations and conducting our business in a proactive, receptive, and ethical manner.

### **6.1 Improve Partnering with Neighboring Water Related Agencies**

The District has an ongoing recycled water partnership with MMWD and North Marin Water District (NMWD). District staff and the Board are developing an agreement to provide MMWD with recycled water by expanding the District's existing recycled water plant.

### **6.2 Develop Environmental and Educational Partnerships**

In order to further improve the District's public outreach, education and environmental awareness, District staff will seek opportunities to enhance partnerships with local groups such as LAFCO, NBWA, STRAW, NBWRA, Point Blue, GWC, and MCWS. The Operation Control Center will provide a location for public outreach, education and environmental awareness to occur.

### **6.3 Participate in the Regional Recycling and Storage Efforts**

The District participates in a regional NBWRA recycled water effort to take advantage of the potentially positive aspects related to utilizing reclaimed water in place of potable water to insure rate payers have a more sustainable water source. District staff and consultants have secured federal and state funding to expand the District's recycled water plant. The District is seeking opportunities to expand recycled water use. The Board participates in the Marin County Hazardous & Solid Waste Management Joint Powers Authority (JPA). Through the JPA, the District furthers the ability of its residents and businesses to reduce and recycle their solid waste and safely dispose of hazardous materials.

### **6.4 Develop Local Community Partnerships with Jurisdictions and Property Owners**

District staff will proactively reach out to groups and individuals to make them aware of many of the good neighbor offerings that the District provides. District staff has submitted articles to be placed in the North San Rafael Coalition of Residents and Santa Venetia Communicator newsletter. The local Audubon and other members of the public utilize District reclamation areas for activities such as bird watching and exercising.

**6.5 Improve Communications and Relationship with County Staff and the Supervisor of District One**

The District has ongoing interactions with County Health Department, County Sherriff's Department (EOC), Department of Public Works and Planning Department. Staff will seek to have ongoing meetings with the County Supervisor, Department of Public Works or Planning staff.

**6.6 Improve Communications and Relationship with City of San Rafael**

The District has ongoing interactions with City Department of Public Works and Planning. Staff will seek to have meetings with Department of Public Works staff.

## 7.0 REGULATORY RELATIONS

### Element Objective and Strategy

Our objective in this area is to maintain cooperative relationships with our regulators. We will do this by meeting or exceeding current legal and regulatory requirements, maintaining strong communication and instilling confidence in our methods and results.

### 7.1 Reduce Sewer Overflows

Through the variety of different efforts mentioned previously within this document, including our maintenance program, sanitary sewer replacement/rehabilitation, lateral rehabilitation/replacement program, improved sewage pump station reliability and public outreach, sanitary sewer overflows are low. The District's lateral assistance program (see 4.9) reduces private and public sewer overflows. A sewer lateral inspection ordinance will be considered by the Board in 2017 as part of the District's sewer system infiltration and inflow/sewer overflow reduction program.

### 7.2 Infiltration and Inflow Reduction Program

Fifty-five percent of District's sewer system has been in service for over 55 years. Thirty-four percent of the District's sewer system has been in service for over 35 years. The District experiences high rates of infiltration during wet weather events that place excessive hydraulic loads on the sewage collection system and treatment plant. As a result, the District has taken measures to control and reduce Infiltration and Inflow. These measures include identification and removal of illegal inflow (draining storm water directly into the sewer system) through smoke testing. The District has an active sewer replacement that eliminates ground water from entering the sewer system. The District's sewer lateral program discussed in section 4.9 also reduces Infiltration and Inflow. Utilizing a flow monitoring consultant, the District performed collection system flow monitoring in the Terra Linda area. As a result of the findings, approximately 2,263 ft. of sewer main pipe will be replaced as part of a District sewer replacement project that will be completed in 2017. The project includes private lower laterals when approved by the property owners. Additional sewer system flow monitoring will be completed in the future.

### 7.3 Sanitary Sewer Management Plan (SSMP)

The District staff completed the SSMP in 2010 and it is updated annually. Staff will manage the Plan in accordance with all requirements.

### 7.4 Eliminate Primary Sewage Blending

Blending has taken center stage in all permit renewals. A "No Feasible Alternative" report was completed, which will enable the District to allow sufficient time to design,

seek funding and construct plant process changes necessary to treat all flows with biological treatment. District staff has implemented process changes that have increased biological treatment plant capacity from 5.8 mgd to 8.5 mgd. The Secondary Expansion mentioned previously will expand biological treatment capacity to 18 mgd and provide a 1.2 million gallon storage basin to store flows in excess of 18 million gallons. The plant expansion will reduce effluent Emerging Contaminants. District staff will seek further opportunities to increase biological treatment capacity to reduce primary blending until the secondary plant upgrades are complete. Staff will also take steps to reduce I & I into the system.

#### **7.5 Maintain Lowest Possible Violations**

Effluent violations reductions can be directly correlated to maintaining high quality, well-trained staff and well-maintained equipment. The District must continue its program of replacing its severely worn and outdated equipment. District staff will provide an equipment replacement and facility improvement plan to outline areas for maintenance and improvements as required to maintain our low number of effluent violations.

#### **7.6 Reduce Plant Effluent Discharge to the Bay**

Through the increased recycling efforts mentioned in section 6.2 and the reduction of I & I, the District will reduce discharge to the Bay. I & I reduction was evaluated as part of the District's sewer system infiltration and inflow / sewer overflow reduction program. The Board approved the final staff/consultant recommendation. District staff and consultants will also provide recommendations to address sewer main and lateral inflow from Santa Venetia.

#### **7.7 Regulatory Communications**

Staff and Board members will seek opportunities to attend workshops and meetings that involve regulators. Staff will continue to advise regulators of operational and process modifications and issues that arise through required reports and correspondence.

## 8.0 AWARDS AND RECOGNITION

### Element Objective and Strategy

Our objective in this area is to design and operate systems to meet or exceed best practices in our industry and to seek appropriate recognition in operations, public education and outreach, administration and financial management.

### 8.1 Awards and Recognition Received

The District has received the following awards:

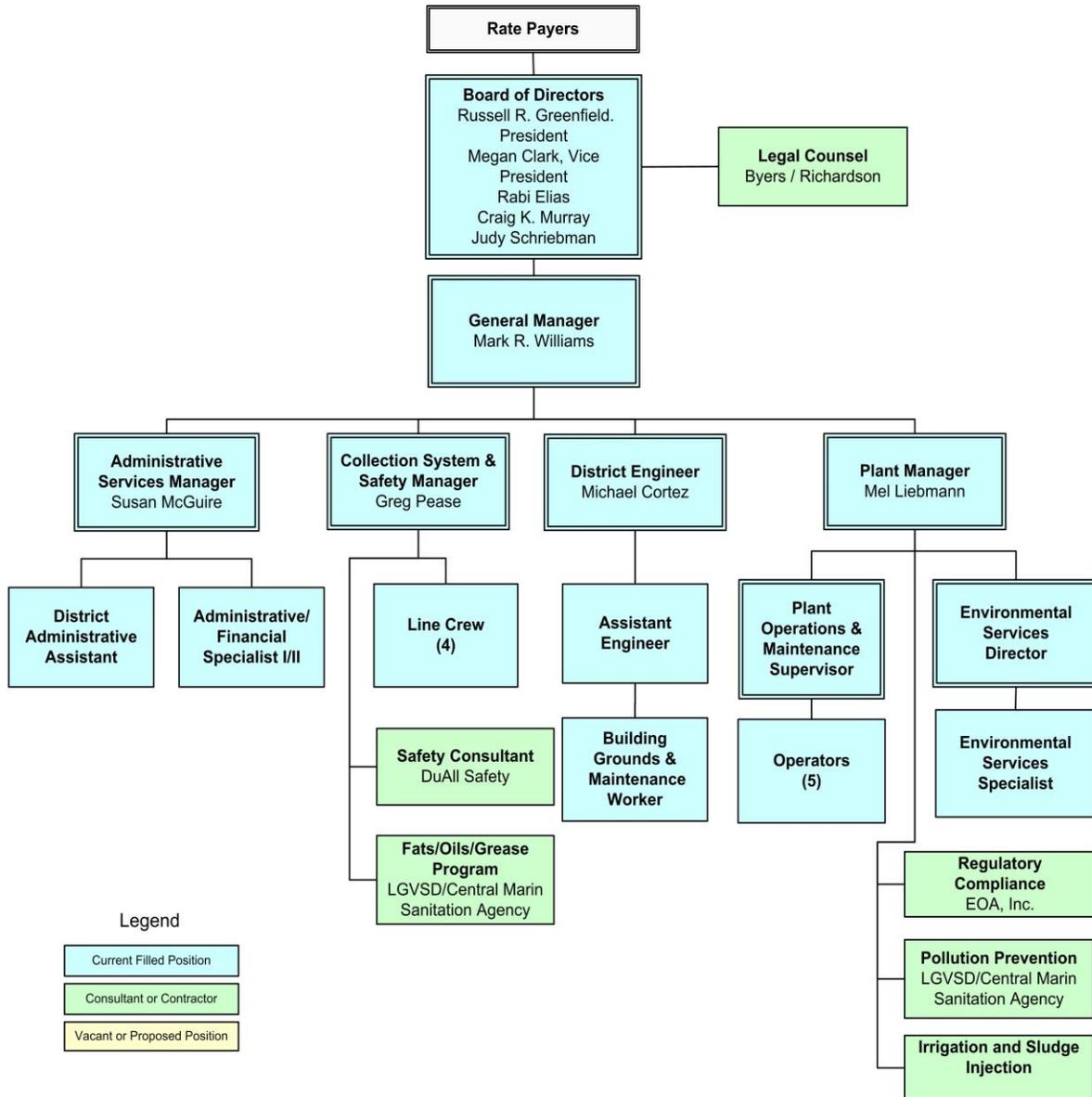
- California Sanitation Risk Management Authority (CSRMA) for Workers' Compensation recognizes agencies that strive to maximize employee safety and minimize insurance claims costs by sponsoring the following awards:
  - Excellence Award in the Small Agency Category 2012/13 program year.
  - Superstar Award: Received for 2009/10, 2005/06, 2003/04, and 2004/05 program years.
- California Water Environment Association (CWEA)
  - Statewide Awards
    - Public Education: Received for 2012 and 2009.
    - Collection System of the Year Award: Small System Category (2-249 miles): Received for 2010.
  - CWEA Redwood Empire Section Awards
    - Public Education Received for 2016, 2015, 2014, 2013, 2012, 2011, and 2008.
    - Collection System of the Year Award: Small System Category (2-249 miles): Received for 2016, 2012, 2010 and 2008.
    - Engineering Achievement Award: Received for 2006.
- Certificate of Achievement for Excellence in Financial Reporting issued by the Government Finance Officers Association: Received for the 2016, 2015, 2014, 2013 and 2012 reporting years.
- District Transparency Certificate of Excellence issued by the Special Districts Association: Received in July 2013 and 2015
- Safety Achievement Record: Current period without any lost time accidents is 122 days as of January 29, 2017; prior record was 579 days as of September 29, 2016.

TABLE 1 – FIVE-YEAR “PLAN-AT-A-GLANCE”

| STRATEGIC ELEMENT                    | STRATEGIC GOAL                                                                                   | TIMEFRAME |
|--------------------------------------|--------------------------------------------------------------------------------------------------|-----------|
| <b>1.0 Financial Management</b>      | 1.1 Optimize Financial Processes to Reduce Financial Errors and Optimize Financial Opportunities | Ongoing   |
|                                      | 1.2 Seek Appropriate Grant Funding                                                               | Ongoing   |
|                                      | 1.3 Conduct Financial Audit                                                                      | Annually  |
|                                      | 1.4 Perform Rate Analysis/Rate Increase                                                          | Completed |
|                                      | 1.5 Reserves                                                                                     | Ongoing   |
|                                      | 1.6 Unfunded Liabilities for Pension and Other Post Employment Benefits                          | Ongoing   |
|                                      | 1.7 Purchasing Policy and Procedures Manual                                                      | 2017-18   |
|                                      | 1.8 Financial Policy Review and Update                                                           | 2017      |
| <b>2.0 Personnel/Organization</b>    | 2.1 Perform an Organizational Analysis for All Organizational Elements of the District           | Ongoing   |
|                                      | 2.2 Organizational Chart Review                                                                  | Annually  |
|                                      | 2.3 Plan Staff Development                                                                       | Ongoing   |
|                                      | 2.4 Perform Periodic Compensation and Classification Reviews                                     | 2018      |
|                                      | 2.5 Enhance Workplace Safety                                                                     | Ongoing   |
|                                      | 2.6 Job Description Updates                                                                      | Ongoing   |
|                                      | 2.7 Performance Review System Update                                                             | Completed |
| <b>3.0 Administrative Management</b> | 3.1 Develop and Approve Staff Policies                                                           | Annually  |
|                                      | 3.2 Manage Board Policies                                                                        | Ongoing   |
|                                      | 3.3 Annual Planning Using this Strategic Plan                                                    | Annually  |
|                                      | 3.4 Review and Management of Contracts                                                           | Ongoing   |
|                                      | 3.5 Technology Planning and Implementation                                                       | Ongoing   |
|                                      | 3.6 Real Property Management                                                                     | Ongoing   |
| <b>4.0 Public Health/Environment</b> | 4.1 Manage System Failure Response and Cleanup Plan                                              | Ongoing   |
|                                      | 4.2 Identify Opportunities to Reduce Plant Discharge to the Bay                                  | Ongoing   |
|                                      | 4.3 Support Wildlife Habitat                                                                     | Ongoing   |
|                                      | 4.4 Reduce Sanitary Sewer Overflows                                                              | Ongoing   |
|                                      | 4.5 Reduce Effluent Metals                                                                       | 2020      |
|                                      | 4.6 Reduce Plant Effluent Contaminants                                                           | 2020      |
|                                      | 4.7 Achieve Carbon Neutrality                                                                    | Ongoing   |
|                                      | 4.8 Biosolids Program                                                                            | Ongoing   |
|                                      | 4.9 Continue Lateral Program                                                                     | Ongoing   |

| STRATEGIC ELEMENT                            | STRATEGIC GOAL                                                                                     | TIMEFRAME |
|----------------------------------------------|----------------------------------------------------------------------------------------------------|-----------|
|                                              | 4.10 Reduce Light Pollution                                                                        | 2016      |
| <b>5.0 Infrastructure</b>                    | 5.1 Upgrade Treatment Plant in a Planned and Sustainable Way                                       | 2013-20   |
|                                              | 5.2 Recycled Water Expansion                                                                       | 2018      |
|                                              | 5.3 Recycled Water Storage                                                                         | Completed |
|                                              | 5.4 Optimize Energy                                                                                | Ongoing   |
| <b>5.0 Infrastructure (cont'd)</b>           | 5.5 Identify System Vulnerability and Deficiency                                                   | Ongoing   |
|                                              | 5.6 Implement District Wide Maintenance and Predictive Maintenance Programs                        | Ongoing   |
|                                              | 5.7 Enhance Security at Plant and Other District Facilities                                        | 2019      |
|                                              | 5.8 Replace/Upgrade Cogeneration System                                                            | 2017      |
| <b>6.0 Partnerships and Public Relations</b> | 6.1 Improve Partnering with Neighboring Water Related Agencies                                     | Ongoing   |
|                                              | 6.2 Develop Environmental and Educational Partnerships                                             | Ongoing   |
|                                              | 6.3 Participate in the Regional Recycling and Storage Efforts                                      | Ongoing   |
|                                              | 6.4 Develop Local Community Partnerships with Jurisdictions and Property Owners                    | Ongoing   |
|                                              | 6.5 Improve Communications and Relationships with County Staff and the Supervisor of District One. | Ongoing   |
|                                              | 6.6 Improve Communications and Relationships with the City of San Rafael.                          | Ongoing   |
| <b>7.0 Regulatory Relations</b>              | 7.1 Reduce Sewer Overflows                                                                         | Ongoing   |
|                                              | 7.2 Infiltration and Inflow Reduction Program                                                      | Ongoing   |
|                                              | 7.3 Sanitary Sewer Management Plan                                                                 | Annually  |
|                                              | 7.4 Eliminate Primary Sewage Blending                                                              | 2020      |
|                                              | 7.5 Maintain Lowest Possible Violations                                                            | Ongoing   |
|                                              | 7.6 Reduce Plant Effluent Discharge to the Bay                                                     | Ongoing   |
|                                              | 7.7 Regulatory Communications                                                                      | Ongoing   |
| <b>8.0 Awards and Recognition</b>            | 8.1 Awards and Recognition Received                                                                | Ongoing   |

**ORGANIZATION CHART**



## GLOSSARY OF TERMS AND ACRONYMS

In order to help the reader better understand the terms and abbreviations used in this document, management is providing a list of acronyms and their definitions.

| ACRONYM        | FULL NAME                                                                      | DEFINITION                                                                                                                                                                                                                                                                                                                              |
|----------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CSRMA</b>   | <b>California Sanitation Risk Management Association</b>                       | A joint powers authority which provides broad coverage and risk management services to its members who are primarily local government agencies that provide water and wastewater services.                                                                                                                                              |
| <b>CWEA</b>    | <b>California Water Environment Association</b>                                | A not-for-profit association of 9,000-plus professionals in the wastewater industry. We are committed to keeping California's water clean. We train and certify wastewater professionals, disseminate technical information, and promote sound policies to benefit society through protection and enhancement of our water environment. |
| <b>FOG</b>     | <b>Fats, Oils and Grease</b>                                                   | Substances than can cause overflows of sanitary sewer systems if not disposed of properly.                                                                                                                                                                                                                                              |
| <b>GIS</b>     | <b>Geographic Information System</b>                                           | A system designed to capture, store, manipulate, analyze, manage, and present all types of geographic data.                                                                                                                                                                                                                             |
| <b>GFOA</b>    | <b>Government Finance Officers Association of the United States and Canada</b> | An organization with a mission to enhance and promote the professional management of governments for the public benefit.                                                                                                                                                                                                                |
| <b>GWC</b>     | <b>Gallinas Watershed Council</b>                                              | A group of concerned citizens who live and work in Las Gallinas Valley and are committed to using the Watershed Approach to protect and manage the environment.                                                                                                                                                                         |
| <b>I&amp;I</b> | <b>Infiltration and Inflow</b>                                                 | Infiltration is groundwater entering sanitary sewers through defective pipe joints and broken pipes. Inflow is water entering sanitary sewers from inappropriate connections such as roof drains, cellar drains, and yard drains.                                                                                                       |
| <b>LAFCO</b>   | <b>Local Area Formation Commission</b>                                         | Political subdivisions of the State of California and provide regional growth management services in overseeing the formation and development of local governmental agencies in all 58 counties                                                                                                                                         |

| ACRONYM           | FULL NAME                                               | DEFINITION                                                                                                                                                                                                                                        |
|-------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MCWS</b>       | <b>Miller Creek Watershed Stewards</b>                  | A group of concerned citizens that desired to establish a community based group that plays a role in determining the future of the Miller Creek Watershed.                                                                                        |
| <b>MGD</b>        | <b>Million Gallons per Day</b>                          | Measurement unit used for calculating volume of wastewater treated at the plant.                                                                                                                                                                  |
| <b>MMWD</b>       | <b>Marin Municipal Water District</b>                   | Water agency for Marin County serving areas south of Ignacio.                                                                                                                                                                                     |
| <b>NBWA</b>       | <b>North Bay Water Reuse Authority</b>                  | A coordinated regional group of water and sanitation agencies in Sonoma, Marin, and Napa Counties to offset portable water demand by promoting water reuse for agriculture, urban, and environmental uses.                                        |
| <b>NMWD</b>       | <b>North Marin Water District</b>                       | Water agency for Marin County serving areas north of Ignacio and some coastal communities.                                                                                                                                                        |
| <b>Point Blue</b> | <b>Point Blue Conservation Science</b>                  | Point Blue Conservation Science, founded as the Point Reyes Bird Observatory (PRBO), is a California-based wildlife conservation and research non-profit organization.                                                                            |
| <b>OSHA</b>       | <b>Occupational Safety and Health Administration</b>    | An agency of the United States Department of Labor whose mission is to "assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance". |
| <b>SCADA</b>      | <b>Supervisory Control and Data Acquisition Systems</b> | A type of industrial control system. Industrial control systems are computer-controlled systems that monitor and control industrial processes that exist in the physical world                                                                    |
| <b>SSMP</b>       | <b>Sewer System Management Plan</b>                     | A report that documents a program to properly operate and maintain a sanitary sewer system.                                                                                                                                                       |

| ACRONYM | FULL NAME                                   | DEFINITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRAW   | Students and Teachers Restoring a Watershed | <p>The STRAW Project coordinates and sustains a network of committed teachers, students, restoration specialists, landowners and managers, and other community members to implement a minimum of 40 planting days annually on “shovel-ready” habitat restoration projects in most watersheds within the North Bay BAIRWMP region. STRAW supports teachers from the North Bay, East Bay and West Bay BAIRWMP regions in conducting project-based environmental education curriculum. STRAW features professionally designed and implemented habitat restoration projects integrated with an innovative and time-tested education program that provides water quality benefits, habitat improvement and positive impacts on economic, social and environmental sustainability.</p> |