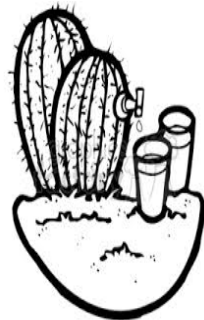


# **5 YEAR STRATEGIC ACTION PLAN**

## **CANEBRAKE CANYON**

### **WATER DISTRICT**



**January 17, 2019**

**Board Of Directors:**

**Jerry Bucheit – President**

**Robert Mooney – Vice President**

**Kathy Steurman – Chief Financial Officer**

**Joe Adams – Equipment Manager**

**Bruce Woodruff – Operations Manager/Facilities Manager**

CANEBRAKE CANYON WATER DISTRICT  
5 YEAR STRATEGIC ACTION PLAN  
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January 19, 2019

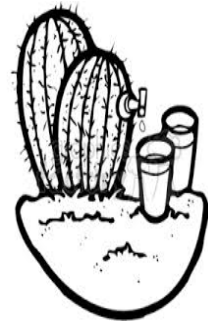


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## **INTRODUCTION**

Water is Canebrake's most precious resource, and without a steady supply this tiny desert community would not exist.

The district is comprised of 84 services as of this date, with almost 30,000 lineal feet of piping in place.

The purpose of this Strategic Plan is to highlight those new priorities that need to be addressed over the next five years.

A fixed customer base with little growth opportunity makes it difficult to generate the revenue needed to maintain and renew system infrastructure and resources. Canebrake is limited physically by CA State park lands and BLM wilderness so the possibility of adding new customers is very remote so the existing customer base must bear the cost of operations and improvements.

A key characteristic and important tradition of CCWD is the volunteer support provided by community members to perform tasks large and small required to keep the water flowing. Volunteers help keep the cost of operating the district low.

## **OUR VISION**

CCWD provides high quality water through an efficient and reliable and modern system. Our innovative and dedicated board members, volunteers, employees and subcontractors maximize human and technological resources, while working with the community to provide superior service to our customers and supporting the environment for a sustainable future.

## **OUR MISSION**

To deliver value to the customers we serve by providing safe, reliable, economical and environmentally sustainable water services

## **OUR VALUES**

- **Innovation:** We will creatively seek to improve the services we provide.
- **Responsibility:** We will be accountable for our conduct in serving our customers, employees and community.
- **Safety:** We will ensure individual safety and the safety of our coworkers and the public, without compromise.
- **Integrity:** We will be honest and ethical in all of our interactions.
- **Community:** We will be actively engaged in promoting prosperity, environmental values and public health in the community we serve.
- **Respect:** We will be considerate, aware and caring.
- **Leadership:** We will take a proactive role in water Management.
- **Transparency:** We will ensure the decisions and investments we make are clearly communicated and easily understood

## **OUR GOALS**

During our strategic planning process, we identified critical water resource issues to address over the next five years. These issues are presented in the next section. In order to address these issues, we have identified six goals that will help improve internal operations and specific program areas.

The six goals are listed below in no priority order:

**Goal #1:** Replace Infrastructure (See Appendix A)

**Goal #2:** Increase Revenue and Reserves (See Appendix B)

**Goal #3:** Define an emergency action plan (See Appendix C)

**Goal #4:** Provide Excellent Customer Service and Community Outreach (See Appendix D)

**Goal #5:** Perform Cost of Service Studies (see Appendix E)

**Goal #6:** Ensure Water Source is Sustainable and Environmentally Sound (see Appendix F)

## **APPENDIX A: MAINTAIN AND IMPROVE DELIVERY INFRASTRUCTURE**

### **Provide adequate reserves of water for customer use**

#### **Daily evaluation of tank levels to determine pumping requirements**

This task defines the actions required to maintain adequate levels of water in the storage tanks to endure adequate supply for the current level of residency. This task should address seasonal and day by day variations in need. This task is largely completed by the legacy operations.

#### **Perform required maintenance, including repairs of leaks**

Replace broken valves and pipes as needed

This task defines in writing the process for repairing broken valves and/or pipes. This task may largely be completed by the legacy operations.

#### **Perform periodic maintenance on wells, pumps and tanks**

This task defines in writing the process for performing periodic maintenance on the wells, pumps, and tanks. This task may largely be completed by the legacy operations.

#### **Perform periodic maintenance on heavy equipment**

This task defines in writing the process for performing periodic maintenance on the district's heavy equipment, including the dump truck, backhoe, bull dozer, and generator. This task may largely be completed by the legacy operations.

### **Define standards for delivery system infrastructure equipment**

#### **Define standards for pipes, fittings, and valves**

This task is to define in writing material standards for CCWD pipes, fittings, and valves based on accepted industry standards for water systems. This definition should include size definitions for main and secondary distribution pipes. Consideration should be made of the pressure differences due to gravity in the various locations in Canebrake.

#### **Acquire and maintain stock of standard pipes, fittings, and valves**

This task is to define in writing the level of stock to be maintained in inventory based on typical repair requirements. This stock does not include the materials needed for infrastructure renewal.

## **APPENDIX A**

### **Develop plan to replace annually a portion of the delivery system infrastructure - Define sections for annual replacement**

This task is to define a plan and general schedule to renew sections of the delivery system infrastructure. The sections should be defined geographically and by length, and note any special considerations that might add time or cost to the renewal.

### **Define replacement process to ensure water access is maintained**

This task is to define in writing how water delivery will be maintained to customers with minimum disruption. The task will also define the prior notification process to customer of any disruption of service.

### **Automate the tank level management and pump control**

Define requirements for tank level management and pump control

This task is to document requirements for automating tank level management and pump control with the objective to be able to read tank levels remotely and control pump operation via internet. This document should include cost estimates for equipment and installation, and an estimate of the systems life so planning for replacement can be made.

### **Acquire and install automated management system**

This task is to acquire and install the automated management system. Periodic maintenance activities and costs should be assumed.

## **APPENDIX B: INCREASE REVENUE**

### **Periodic Cost of Living Increases enough to support objectives**

The combined COSS should indicate the rate level required for customers. This task defines strategies for achieving the revenue level required to meet the future requirements, and recommends a course of action.

### **Ensure financial reserves are maintained**

This task defines the target level of reserves to be maintained as a function of the annual budget. (For example, the reserve level might be specified to equal the annual budget, or 100%)

### **Investigate alternate revenue sources including grants and loans**

Investigate State Revolving funds

This task is to determine feasibility of acquiring funds from the EPA State Revolving Funds program. If feasible, a strategy to acquire and apply the funds to CCWD infrastructure renewal will be defined in this task. See <https://www.epa.gov/cwsrf>.

### **Investigate State Water Project**

This task is to determine if CCWD qualify for funds managed by the California State Water Project. See <https://water.ca.gov/Programs/State-Water-Project>

## **APPENDIX C: EMERGENCY ACTION PLAN**

### **Define earthquake emergency or other disaster action plan**

This task is to define an earthquake emergency action plan for CCWD. The objective of the plan is to ensure water reserves are maintained in the tanks in case the wells are disrupted. Specific actions to close particular valves should be included.

### **Provide periodic training for key residents to implement the plan**

This task is to create a training syllabus to teach permanent, semi -permanent (snowbirds), and frequent residents how to react and perform the emergency actions required if a serious earthquake occurs. The task also includes scheduling and providing training sessions.



## **APPENDIX D: CUSTOMER SERVICE AND COMMUNITY OUTREACH**

### **Hold CCWD status briefings with the community**

This task is to develop a concept and agenda for an annual “State of the System” town-hall type meeting with the community. The intent is to provide an informal (not a Water Board meeting) venue to explain CCWDs current operations, plans, and issues, and to allow the community members to voice their opinions.

### **Provide a formal mechanism for the community to provide input to the district regarding its goals and performance.**

Provide CCWD suggestion box (paper or electronic)

This task is to devise a method for CCWD customers to voice concerns or questions on paper or via some electronic means, allowing them to remain anonymous if desired.

### **Allow community members to comment during the CCWD community status meetings.**

This task is to determine how to shape CCWD customer interaction during the annual open meeting.

### **Determine the feasibility of a water operations technician**

-To prevent the excesses experienced in the past, document duties, processes, and contractual requirements for the water operations technician (WOT).

-Develop job description

This task is to document the qualifications, capabilities, and duties of the WOT.

-Define written work procedures

This task is to document the procedures used to carry out the duties and responsibilities of the WOT as defined in the job description.

-Define contract requirements

This task is to document the contract requirements for the WOT agreement.

-Perform annual job performance reviews

This task is to document the annual performance review process and create the review criteria.

-Provide formal training sessions for Community residents to serve as substitute water operations technicians.

-Develop written work instructions for substitute operations technicians

This task is to document procedures for substitute WOTs assuming they are volunteers from the community.

-Provide periodic training for substitute operations technicians

This task is to document a training syllabus for substitute WOTS, develop training materials, schedule training, and certify them ready for duty.

- Provide formal training sessions to qualify heavy equipment operators.

Define training syllabus for operating each piece of equipment

This task is to document a training syllabus for operating each piece of heavy equipment including the Water Operations truck, dump truck, backhoe, bulldozer, and generator. The syllabus should include criteria for certifying the individual capable of operating the equipment.

-Provide periodic training to qualify equipment operators

This task is to schedule training sessions for volunteers from the community to learn to operate the equipment

## **APPENDIX E: COSS**

A **cost of service study** (COSS) is the tool typically used by municipal utilities to ensure that their rates are tied to their **costs** of providing electricity to their customers. A **cost of service study** involves analyzing historical expenses and projecting future cash flow needs to arrive at a revenue requirement.

There are three steps in the process:

1. Identify costs and revenue requirements
2. Allocate costs to types of water usage
3. Design rates for each type of water usage.  
(Effectively CCWD has only one type of water usage, residential, so there is only one rate structure to be defined.)

Cost of Service Analysis Traditionally water utilities (and regulators) use cost of service studies to allocate revenue requirements according to the cost of service (including capital and operating costs) associated with different patterns of water use. A cost of service study is used to identify, for example, variations in costs caused by seasonal and daily peak demands. Three specific activities guide the allocation of costs:

- Cost functionalization separates costs into functional categories, such as source development, treatment, transmission, and distribution. The calculation of costs by functional category is provided directly by the accounting system or estimated indirectly using accounting information.
- Cost classification assigns functional costs to service characteristics. Several approaches are possible. The base-extra-capacity method assigns functional costs to average day, maximum day, and maximum hourly usage categories. The demand-commodity method allocates functional costs to demand and commodity usage categories. Other categories are often used for customer-related costs such as billing, metering, and fire protection. An important variation classifies costs by peaking period – peak versus non-peak.
- Cost allocation assigns each category of costs to customer classes. For example, customer related costs are usually allocated according to the number of service connections in each class. Capacity costs are allocated differently under the base-extra-capacity and commodity-demand methods. Costs are allocated to customer classes in proportion to the respective demands these customers place on the utility system.

### **Normal Operations**

This task performs the COSS for normal operations. Cost factors include energy costs, maintenance of the delivery system, salaries for the operations technician, insurance, licenses, fees, testing costs, vehicle amortization and maintenance (fuel costs and repairs), and contributions to the reserves such that reserves increase 5% per year. Seasonal variations should be considered.

## **APPENDIX E**

### **Infrastructure renewal**

This task performs the COSS for infrastructure renewal, replacement of pipes and valves, and adding automation to some manual tasks. Cost factors include material costs, machinery rental costs (i.e., a trencher), labor, insurance, and outside engineering consultation. The tasks in 5.3.4 are the basis for doing this study.

### **Heavy Equipment Replacement**

This task performs the COSS for replacing the heavy equipment, including the dump truck and the backhoe. The objective is to replace the truck within two to five years, and the backhoe within five to seven years. Cost factors to be included are cost of replacement equipment, residual value of current equipment, costs of special tools and supplies for the replacement equipment, and training for the replacement equipment.

#### 1.1.1 Goal 3: Improve Revenue

##### 1.1.1.1 Periodic Cost of Living Increases enough to support objectives

The combined COSS should indicate the rate level required for customers. This task defines strategies for achieving the revenue level required to meet the future requirements, and recommends a course of action.

##### 1.1.1.2 Ensure financial reserves are maintained

## **APPENDIX F: SUSTAINABLE AND SOUND WATER SOURCE**

Monitor the aquifer level monthly to determine seasonal and long-term fluctuations

Define procedure for monthly measurement and recording of aquifer level

This task is to document the procedure to perform monthly measurement and recording of the aquifer level.

Provide annual cumulative report on aquifer level

This task is to document a procedure to provide an annual report that shows monthly aquifer levels, and compares the mean annual level to previous means.

## **IMPLEMENTATION PLANS**

### **Schedule/Timetable/Gant chart**

- 1) Replacement of Piping
  - a. Cost
  - b. Materials
  - c. Duration
  - d. Timetable
  - e. Labor force

Etc,etc.

