County of San Mateo
Department of Public Works

# Pescadero Community Water System (*County Service Area No. 11*)

## *Public Meeting*

Pescadero Elementary School
October 19, 2011
6:30 PM

County of San Mateo
Department of Public Works

# Agenda

1. History & Operations of CSA-11
2. August 2011 Water Outage
3. Findings
4. System Performance
5. Financial State of CSA-11
6. Water Rates
7. Rate Setting Process
8. Options for Service Provision
9. Questions and Comments

# 1. History & Operations of CSA-11

- October 13, 1987 – Board of Supervisors adopted Resolution No. 49690 requesting LAFCo to undertake proceedings for the formation of CSA-11.
- January 12, 1988 – Board of Supervisors adopted Resolution No. 49999 establishing CSA-11.
  - Enabling legislation – California Government Code Section 25210

# 1. History & Operations of CSA-11

- Reasons for the formation of CSA-11:
  - 40% of private wells were shallow and had high concentration of nitrate and bacteria
  - Community petition.
  - An aquifer of adequate size and quality was available.
- Provides water to 100 customers within CSA-11 boundary:
  - 80 Residential (Single and Multi-Family)
  - 14 Commercial (Stores, Restaurants)
  - 6 Others (Fire Station, School, Church)

# 1. History & Operations of CSA-11

- CSA-11 boundaries are contiguous with the Urban/Rural Service Boundary as defined in the General Plan and Local Coastal Program.

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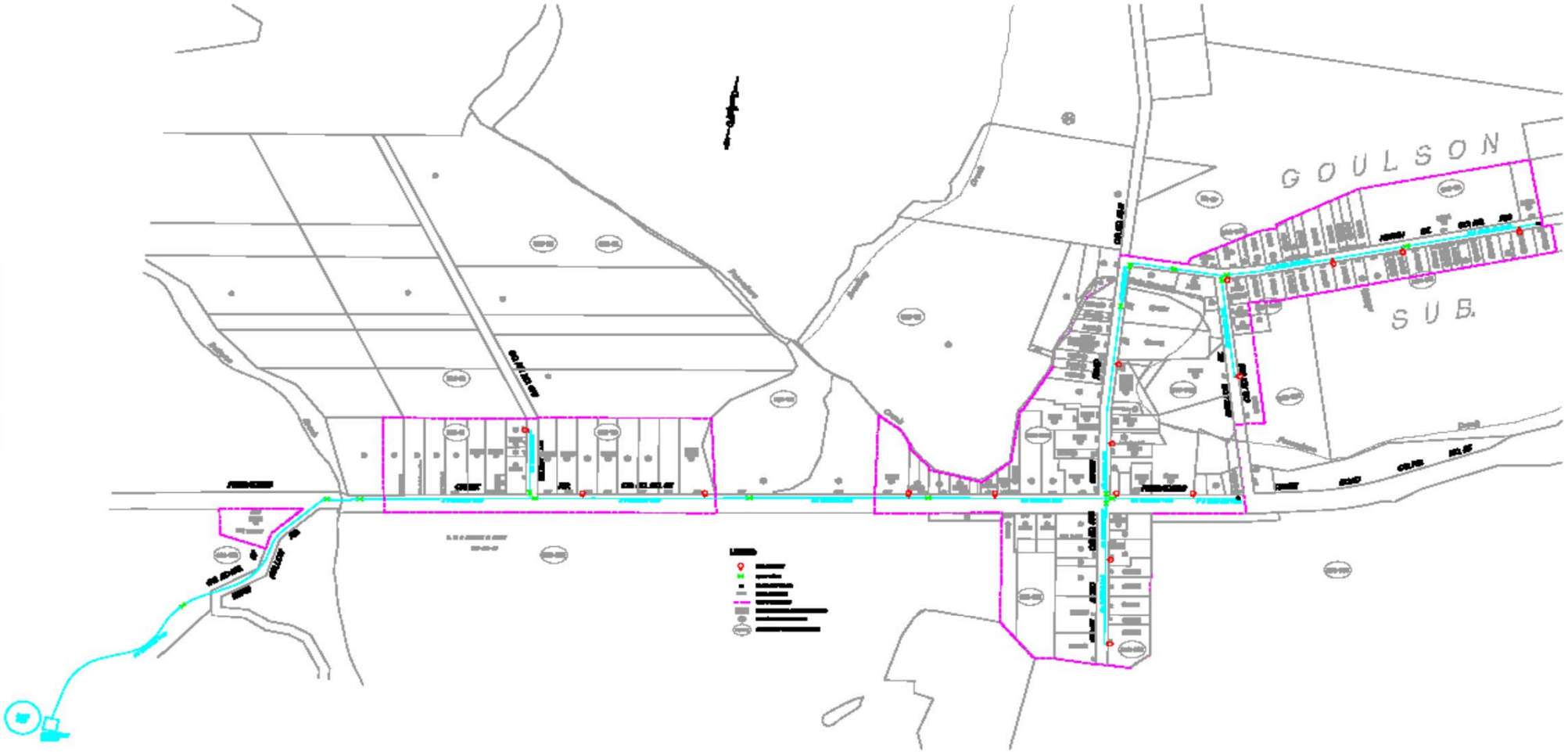

# 1. History & Operations of CSA-11

- Funding for the construction of the CSA-11 water system ($1.3 Million):
  - California Dept. of Water Resources (DWR) Grant of $400,000
  - DWR loan:
    - $296,100 loan for 20 years
    - Approximately $20,475 paid annually
    - Will be paid off by October 2012
  - County General Fund loan
  - Property owner assessments

# 1. History & Operations of CSA-11

- Well and pump systems constructed and put in operation in 1992:
  - Storage tank – 140,000 gallon capacity
  - Well #1 – Production well; Drilled and developed in 1992; Pump rate ~ 60 gpm
  - Well #2 – Standby/emergency well; Drilled in 1983; Developed in 1992; Pump rate ~ 30 gpm
  - Alarm and telemetry system
  - Cathodic protection for storage tank to prevent corrosion
  - Chlorination building

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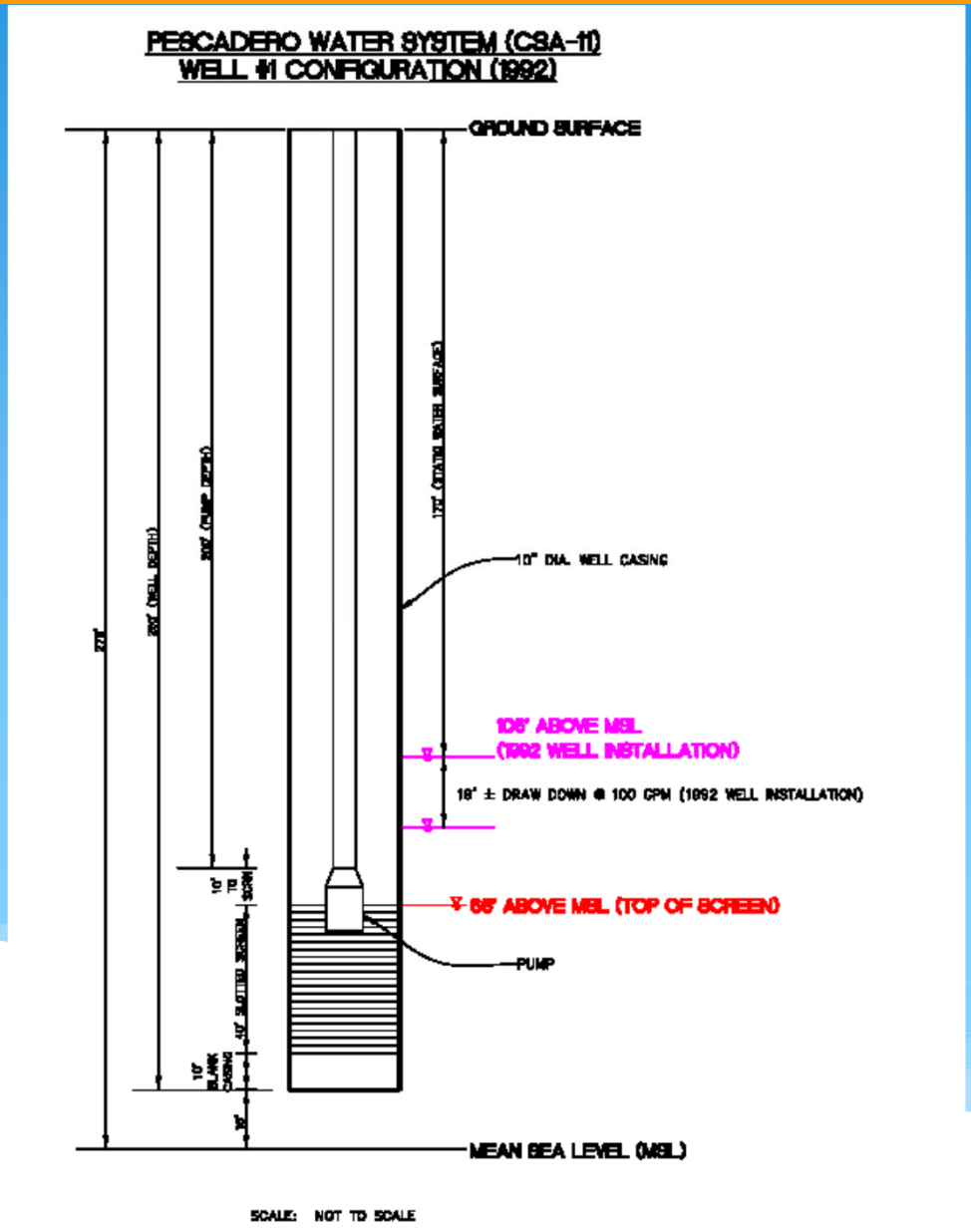

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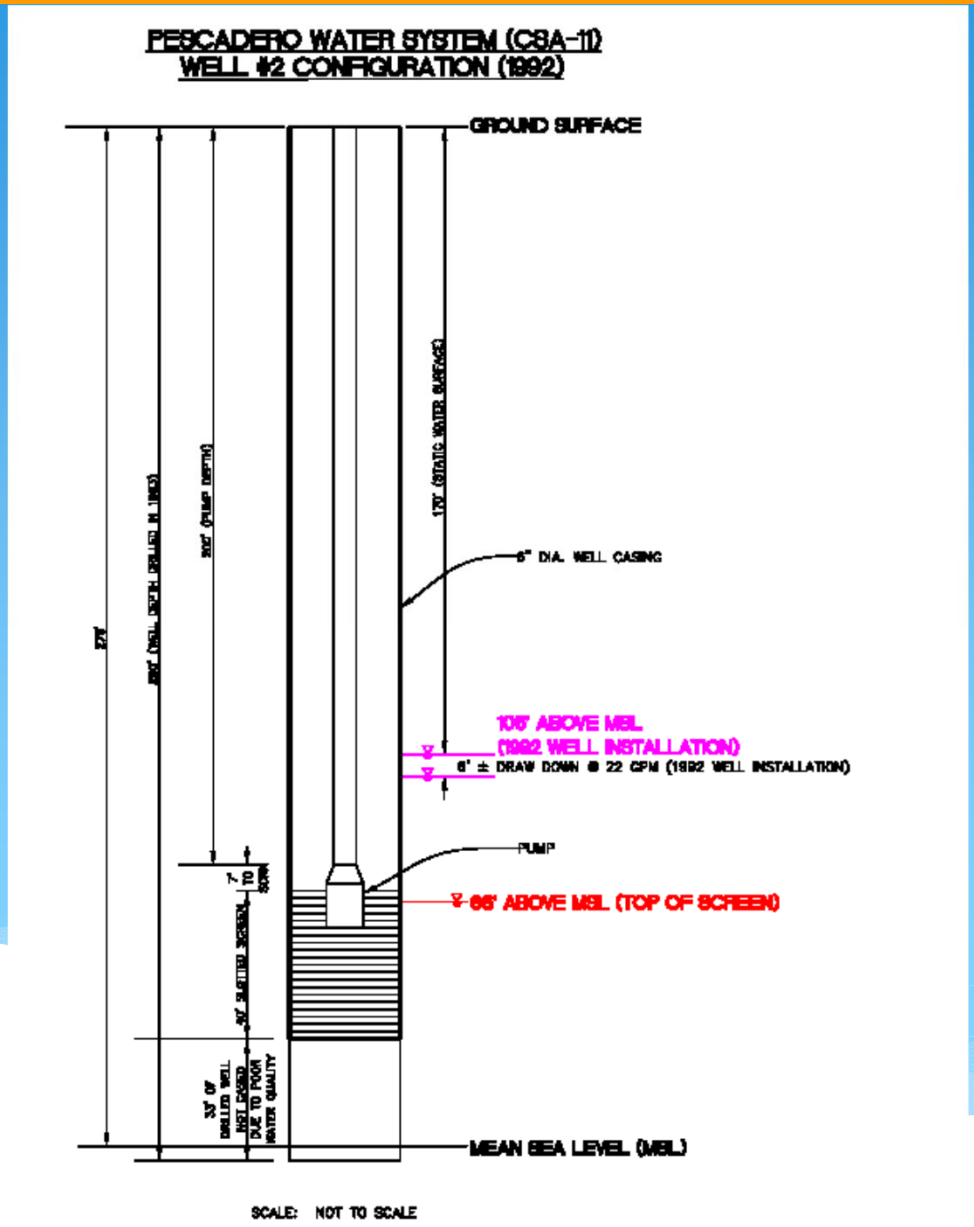

# 1. History & Operations of CSA-11

- Distribution system also constructed and put in operation in 1992:
  - 8” diameter water main – 7,960 linear feet
  - 6” diameter water main – 2,570 linear feet
  - 4” diameter water main – 1,130 linear feet
  - Backflow prevention devices and valves
  - Service laterals and meter boxes
  - 17 fire hydrants

# 1. History & Operations of CSA-11

- Administration, Operation, and Maintenance of CSA-11:
  - County Board of Supervisors is the governing body.
  - Regulation compliance oversight – California Department of Public Health (County Environmental Health Services prior to July 1, 2011)
    - ✓ Permit to operate
    - ✓ Water quality monitoring and testing

# 1. History & Operations of CSA-11

- Administration, Operation, and Maintenance of CSA-11:
  - Department of Public Works provides staff for operation, maintenance and administration of CSA-11, as well as CSA-7.
  - Operator - Responsible for operating and maintaining system; must be State certified
  - Office locations:
    - ✓ Redwood City – Administration and billing
    - ✓ San Mateo – Operation, maintenance and repairs

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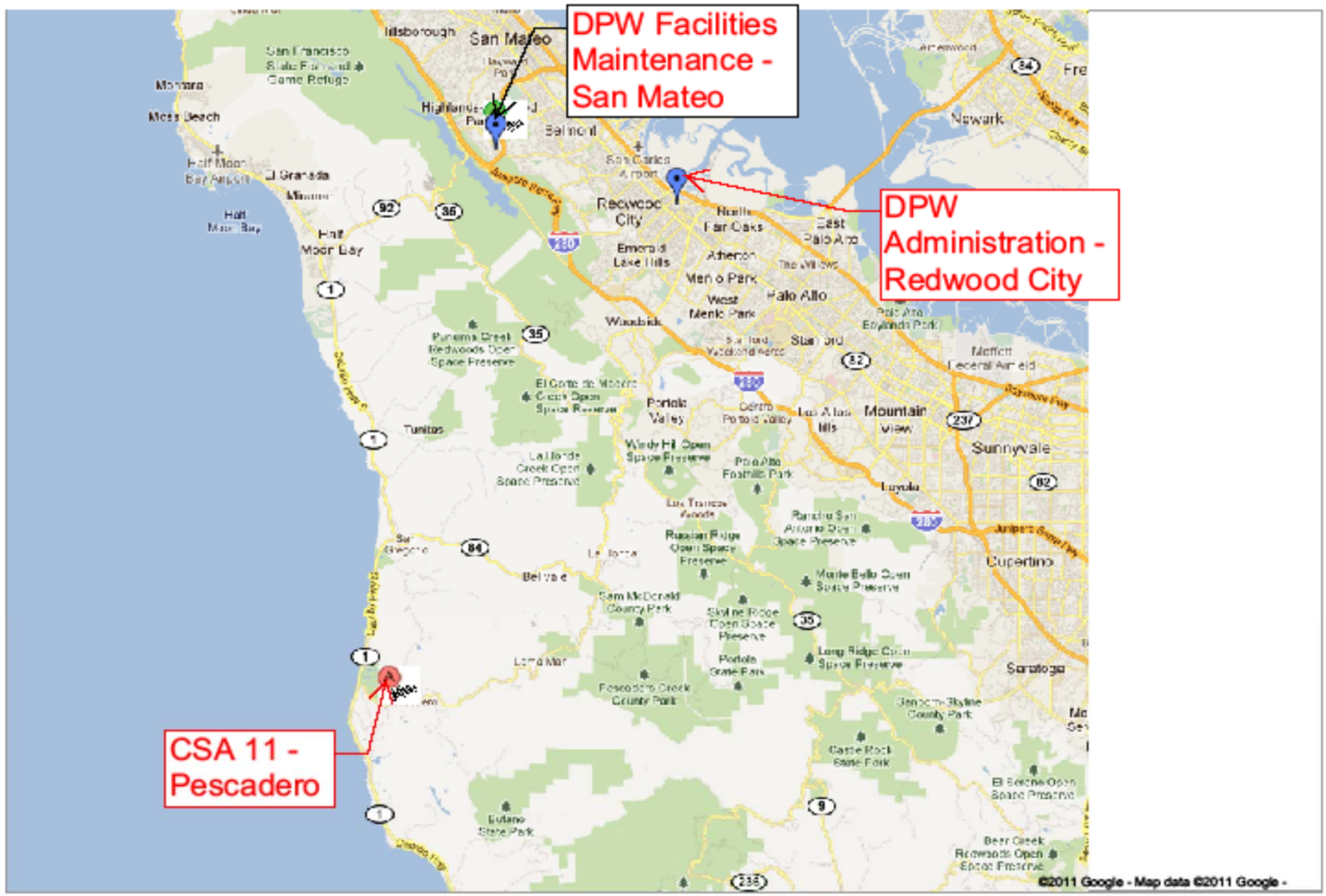
Google

To see all the details that are visible on the screen, use the "Print" link next to the map.




**CSA-11 Location**

Public - 0 views
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# 2. August 2011 Water Outage

- Monday, August 22, 2011:
  - CSA-11 staff began receiving calls at approximately 3:30 PM.
  - Staff arrived at 4:45 PM to find Well #1 pump not operating and storage tank level at 0.70 feet.
  - Pump turned back on at 5:30 PM and pumping water at a rate of 57 gallons per minute (gpm).
  - Staff remained on-site until 9:30 PM.
  - Customers were observed as using water as usual.

# 2. August 2011 Water Outage

- Tuesday, August 23, 2011:
  - At approx. 6:30 AM, staff received message that there was no water.
  - Well #1 pump had failed. Well #2 pump was put in service but was only pumping at a rate of 5-7 gpm (instead of the rated 30 gpm).
  - State Dept. of Public Health was informed of outage and required boil water notices to be issued. Staff hand delivered notices.
  - Staff worked all day to locate pump, replace pump, add length of intake pipe to lower pump in the well.

# 2. August 2011 Water Outage

- Wednesday, August 24, 2011 through Friday, August 26, 2011
  - New pump for Well #1 was replaced and functioning by 12:00 AM, Wednesday, Aug. 24th.
  - Water was treated with chlorine on August 24th for disinfection.
  - Samples for chlorine residual were tested at 5 locations on Aug. 24, 25, and 26 to ensure that the State disinfection requirements were met.
  - Bacteriological samples were analyzed 24 hrs. apart on August 24 and 25 (negative results).
  - Boil Water Notice was canceled on August 26.

# 2. August 2011 Water Outage

- Costs of water outage:
  - New pump for Well #1 – $5,952.
  - Contractor to remove failed pump and install new pump – $4,300.
  - Bottled water supply and delivery – $1,996.
  - Portable restrooms – $842.
  - Bacteriological sampling – $240.
  - County staff labor and equipment costs – $17,087.
  - Total costs of event - $30,420 (not including potential payments for claims).

# 3. Findings

- Well #1:
  - Pump failed due to declining water surface elevation.
- Well #2:
  - Pump rate was 5-7 gpm – below its rated capacity of 30 gpm.

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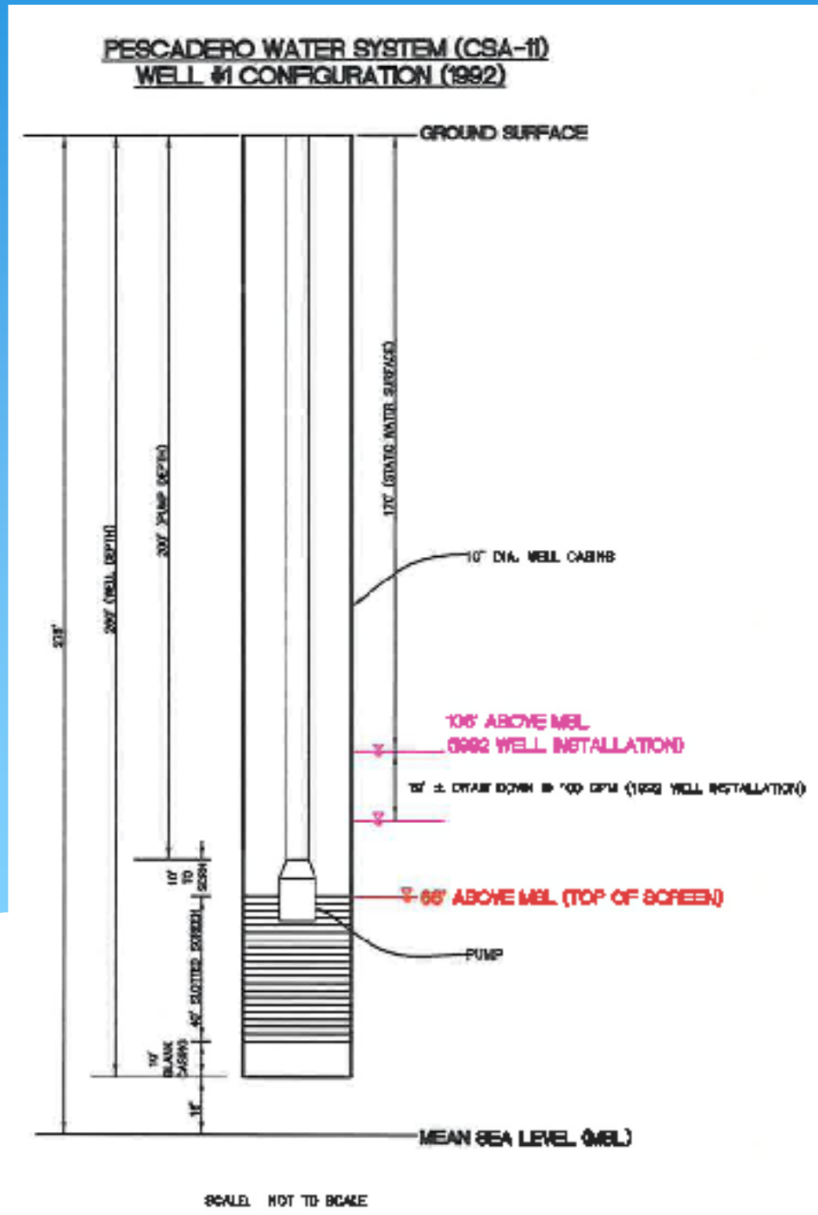


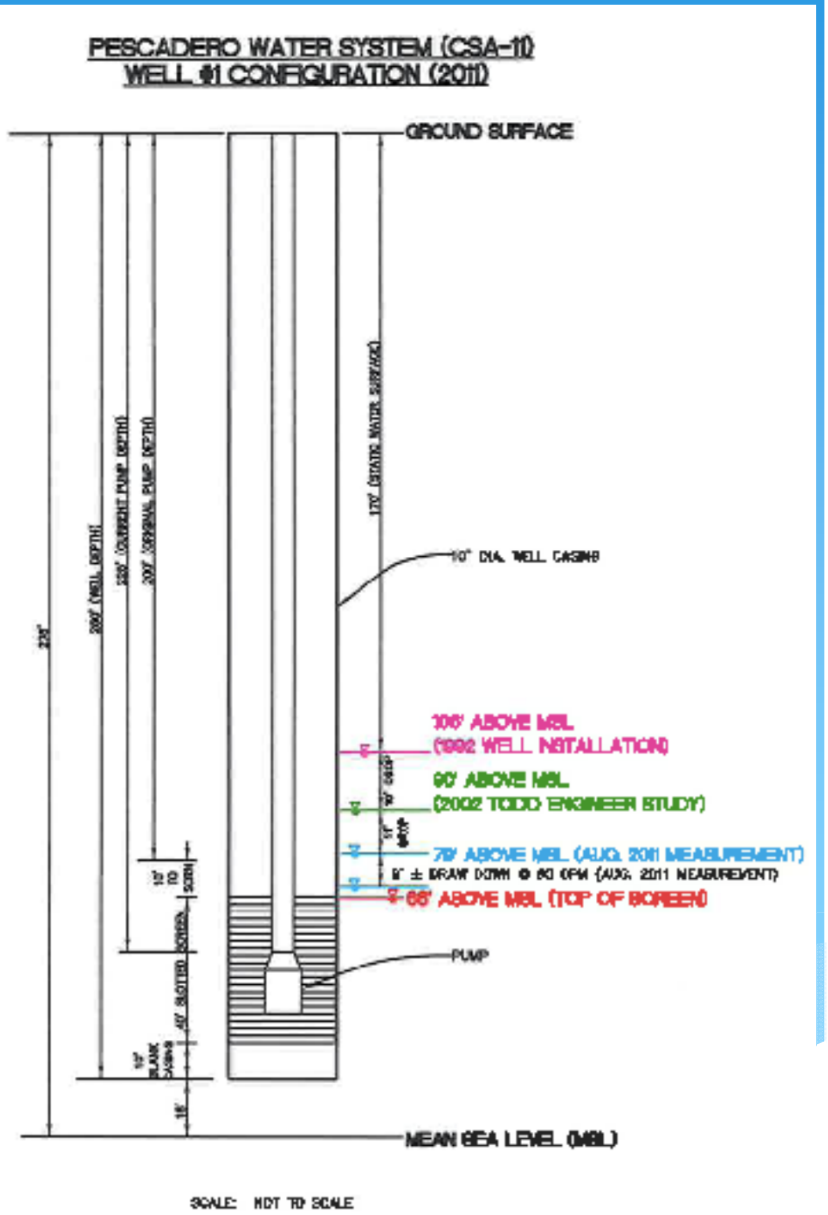

# 3. Findings

- Alarm System:
  - Originally equipped to dial a pre-programmed phone # when:
    - ✓ Storage tank reached a low or high level (adjustable levels).
    - ✓ Power outage.
  - Deactivated for several years as it routinely issued false alarms:
    - ✓ More frequent physical inspections were done instead.
    - ✓ Did not work as intended during power outages when the phone line lost power.

# 3. Findings

- Recommended Actions:
  - Video inspect both wells to determine actual depths – Approx. cost $17,000.
  - Place pumps at proper depths, based on actual well & water surface depths (as part of video inspection work).
  - Alarm re-activated to monitor power outage and low and high tank levels.

# 4. System Performance

- March 2002 - Todd Engineers completed an assessment report on CSA-11:
  - Well #1 was estimated to service the community for 25 years (in service since 1992).
  - Todd Engineers' assessment indicated well failure could occur in 8 to 15 years (between 2010 and 2017).
  - Recommendations included installation of a new, deeper well (100' below sea level), which could increase the aquifer lifespan to 38 years.

# 4. System Performance

- Funding for 3rd well:
  - In 2002, a USDA grant in the amount of $135,000 was approved.
  - County General Fund loan of $165,000 was approved.
  - In 2003, CSA-11 customers surveyed to determine support of constructing the 3rd well through rate increases.
  - 92% of surveyed customers did not feel a new well was needed.
  - As a result, DPW declined the $135,000 USDA grant money in 2004.

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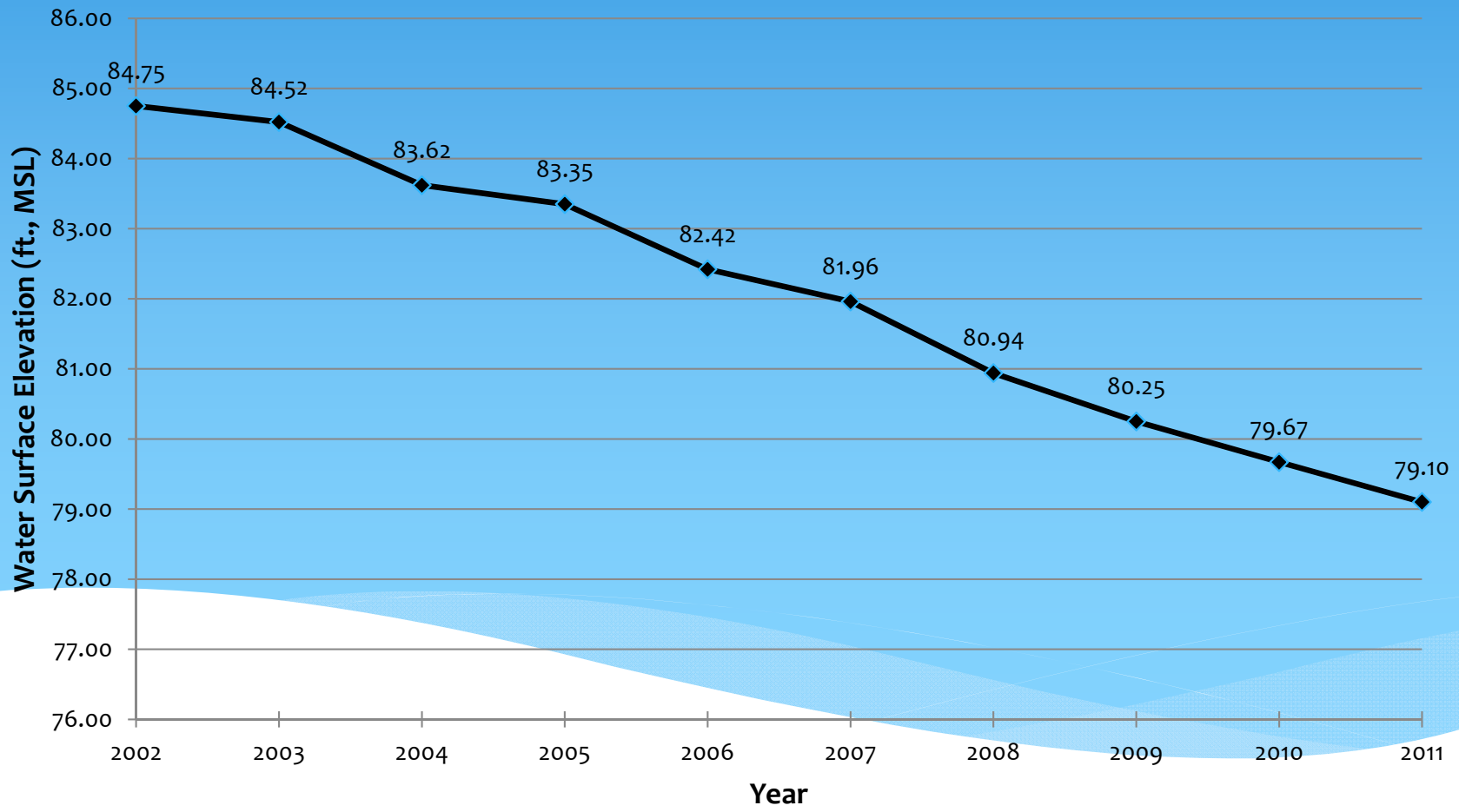
# Well #1 Water Surface Elevation Changes from 2002-2011



# 5. Financial State of CSA-11

- Independent entity with own separate budget.
- Receives no property taxes because CSA-11 was formed after implementation of Proposition 13.
- Only source of funding is from revenue generated by water sales and monthly service fees.
- Current rates do not support required operation and maintenance activities.

# 5. Financial State of CSA-11

- Fund balance as of 6/30/2011 – $43,512.
- Revenue - $46,500 annual average.
- Average annual expenditures (5-yr avg.)
  - $66,000 ($20,475 for loan repayment)
- Cost of August 2011 water outage event:
  - $30,420 (potential payments for claims not included)

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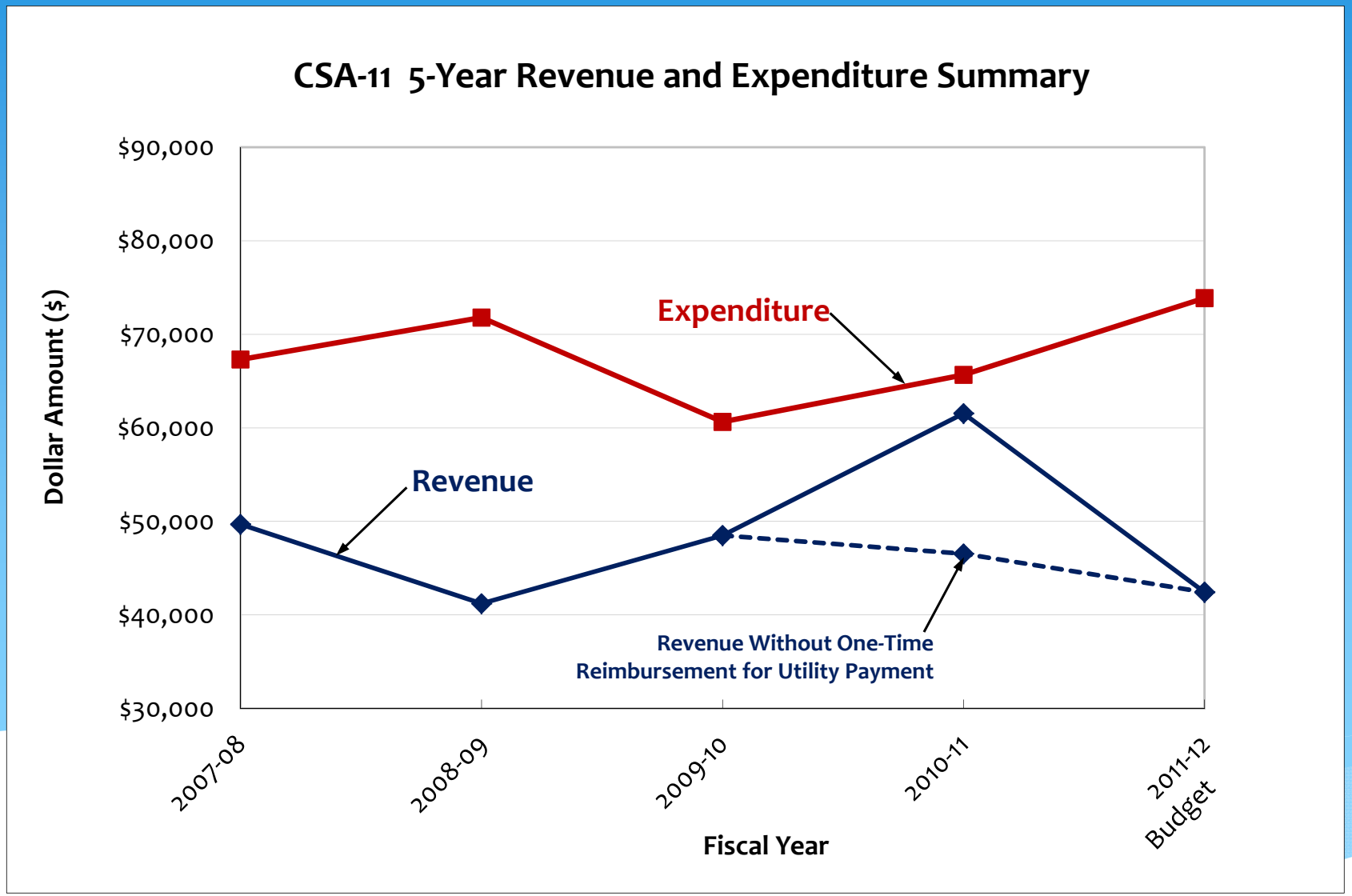


Note – Actuals except FY2011-12 Revenue and Expenditure figures are from adopted budget.

# 6. Water Rates

- Current CSA-11 rates (set in 2003):
  - $22.00 (Monthly Service Fee for 5/8” meter)
  - $33.00 (Monthly Service Fee for 1-½” meter)
  - $1.38 for every unit of water used
  - 1 unit equals 100 cubic feet of water
- Prior rates set in 1992:
  - $20.00 (Base charge for 5/8” meter)
  - $30.00 (Base charge for 1-½” meter)
  - $1.25 for every unit of water used

# 6. Water Rates

- Proposed rates:
  - Tiered rate structure to encourage conservation.
  - Set for 1 year and evaluate.
- Rates to support:
  - Operations and maintenance of CSA-11.
  - Minimum fund reserves and capital fund.
  - Priorities identified in response to water outage.
  - Long-term capital improvement needs, including addressing limitations of aquifer.

# 6. Water Rates

- Priorities:
  - Inspect Well #1, replace intake piping (~$7,600)
  - Inspect Well #2, replace pump if needed (~$9,400)
  - Upgrade alarm system (~$2,000)
  - Inspect cathodic protection system (~$1,000)
- Long-term Capital Improvements:
  - Limitation of aquifer
  - Additional storage capacity
  - Commercial fire flow capability

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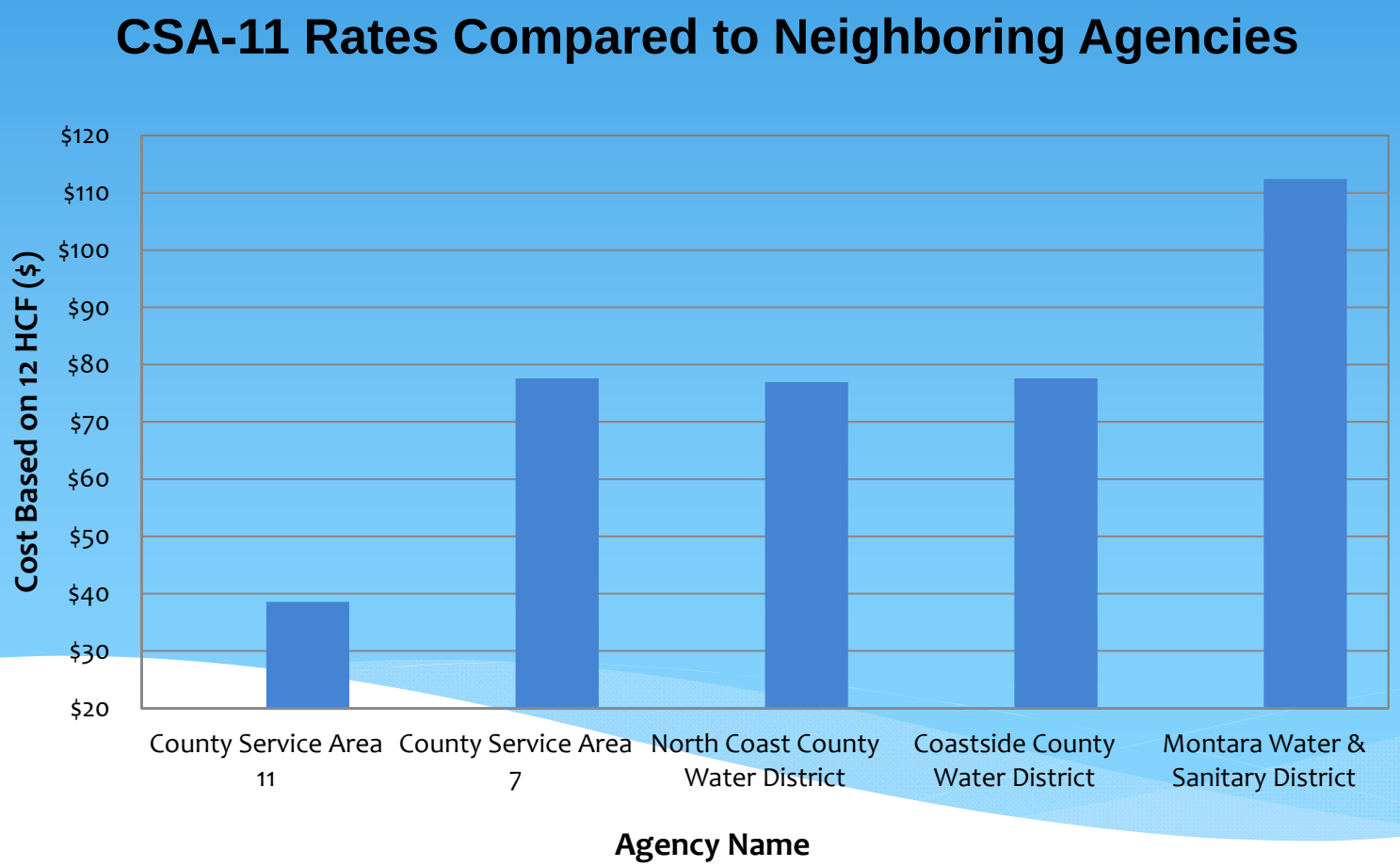
# 6. Water Rates



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# 6. Water Rates

| | CSA - 11 | | Other Water Agency Rates | | |
|---|---|---|---|---|---|
| No. of Customers | 99 | | 6,583 | 12,412 | 1,656 |
| | Current Rate | Proposed Tiered Rates | Coastside County Water | North Coast County Water | Montara Water & Sanitary |
| 5/8" x 3/4" Meter Monthly Service Charge | $22 | $28 | $15.36 | $24.94 | $20.84 |
| 1-1/2" Meter Monthly Service Charge | $33 | $42 | $74.32 | $44.95 | $37.51 |
| Tier 1 Water Rate (0-8 HCF) | $1.38 | $2.69 | $5.02 | 2.53 (0-5 HCF) | 6.54 (0-6 HCF) |
| Tier 2 Water Rate (9-25 HCF) | - | $4.04 | $5.53 | 5.62 (6-16 HCF) | 8.72 (7-13 HCF) |
| Tier 3 Water Rate (26-40 HCF) | - | $5.45 | $7.19 | 8.04 (17-28 HCF) | 10.9 (14-27 HCF) |
| Tier 4 Water Rate (> 40 HCF) | - | $7.36 | $8.88 | 14.75 (> 28 HCF) | 15.26 (> 27 HCF) |

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# 7. Rate Setting Process

| Key Dates | Actions |
|---|---|
| October 19, 2011 | Public meeting to discuss the need for new rates to sustain operations and maintenance activities, comply with regulations. |
| November 2011 | Meet with rate payer representatives. |
| November 2011 | Meetings with rate payers to discuss the proposed rates, factors involved in establishing rates, and seek rate payer input. |
| January 2012 | Adopt resolution setting place, date, and time of public hearing to consider proposed water rates. |
| January 2012 | Send Prop 218 notice (45 days prior to public hearing) to rate payers with proposed rates. |
| February 2012 | Hold public hearing and adopt resolution setting rates. |

# 8. Options for Service Provision

- Contract services
- DPW to continue to provide services
- Shared services with other water agencies in the area
- Develop a community based and operated water system
- Acquisition by other water system operators
- Other options that may be available to us

# Thank You!

Questions and comments?