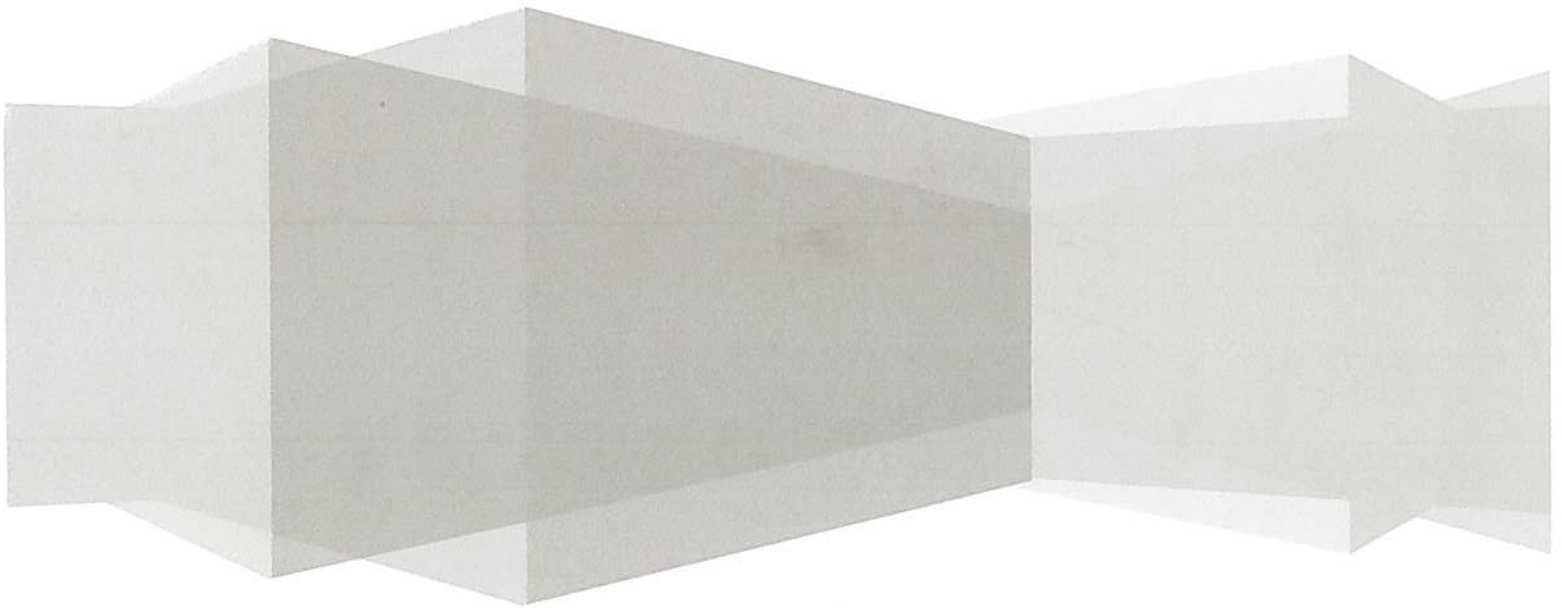




Happy Valley Water System, Inc.

Water Conservation Plan



Conservation Planning Goals

Efficiency of the system while providing adequate levels of water for customers necessary needs and additional landscaping wishes.

While there are many goals regarding water conservation, our main goals are to:

- Improve the utilization of the current system to extend the life of the existing facilities
- Lower variable operating costs
- Improve drought or emergency preparedness
- Protect and preserve our environmental resources

Water System Profile

Existing facilities

- Pump house
- Pump - 20 HP, 20 PSI - 100 gpm rated capacity
- Water supply source is a well
- 6,500 feet of 4" mains and 10,000 feet of 2" mains are currently in place
- Storage?
- Meters - most are 1" and some are 3/4"
- Only residential customers, no commercial customers
- 27 possible connections, 24 active
- annual production approximately 6,500,000 gallons
 - average of 22,570 gallons per month per customer
 - peak use in mid-summer is approximately 1,650,000 gallons
 - peak use monthly average - approximately 68,750 per customer
 - peak use daily average - approximately 2,218 gallons per customer
- Current rates are as follows:
 - \$27 per month, which includes 20,000 gallons
 - \$.70/1,000 gallons for all consumption in excess of 20,000 gallons

Forecast of Future Demand

There are currently 24 customers receiving water service with a total potential of 27.

In the last 10 years or more, 3 previous customers have drilled their own wells and disconnected from the existing water system, however, there are some vacant properties in the vicinity of the pump house that might possibly hook up to the existing system (one of which is owned by a current customer on the system).

Demand is not expected to exceed our system capabilities in the next 5 or 10 years.

Planned Facilities

We have no intention at this time to expand our main water lines as they are currently adequate to handle the existing demand.

It is our belief that the lines as originally installed are undersized and would need to be upgraded for any future expansion.

Meters are replaced when they stop working correctly - we have tracked meter replacements since purchasing the company - records previous to that were not available. Eventually we expect to have all meters with 1" lines.

Future pipe replacements?

Identify Water Conservation Measures

Currently we encourage customers to be diligent on their own regarding their water usage. Summer customer statements have a note on them to water in the morning or at night as watering during the day is the least effective.

Monthly readings (except for extreme weather months) are taken at the pump house to monitor water usage at the supply. Any non-customer metered water use (i.e. fire hydrant flushing/testing) is noted in the meter readings and reviewed to make sure no additional issues exist.

Individual customer water meters are read monthly (weather permitting). Historical records are kept of the monthly meter readings, which allows us to consistently monitor for accuracy and address any leaks identified through monthly meter reading immediately.

Our current monthly rate includes the use of 20,000 gallons. The tariff for use of greater than 20,000 gallons seems to be the best way to make people aware of the water they are using and discourage over use.

Occasionally we have a situation where the weather has been extremely warm for a long period and we encourage our customers to use water extremely prudently so that we are not forced to ration water allowing all customers to have continued access for necessary operations.

Communicating by mail is the most efficient way to reach all of our customers. Individual customer bills showing water consumption are mailed/emailed monthly. Customers are encouraged to contact us immediately by phone if they have any questions regarding their billing.

Add budget for water conservation measures showing increase in rates - Worksheet 3-4

Worksheet 3-3: Budget and Savings for Each Conservation Measure

Describe planned conservation measure:

Typical water savings from the measure: _____ per _____

Number of planned installations: _____

Anticipated life span for the measure: _____ years

The measure is designed to reduce:

☐ Average-day demand

☐ Maximum-day demand

☐ Both average-day and maximum-day demand

Line	Item	Amount	Amount
A	BUDGET FOR EACH MEASURE [a]	Per unit [b]	Total cost of the measure
1	Materials	\$	\$
2	Labor		
3	Rebates or other payments		
4	Marketing and advertising		
5	Administration		
6	Consulting or contracting		
7	Other		
8	Total program cost for the life of the measure (add lines 1 through 7) [c]		\$
B	TOTAL SAVINGS		
9	Number of units to be installed [d]		
10	Anticipated annual water savings per unit in gallons [e]		
11	Total annual savings for the measure in gallons (multiply line 9 by line 10)		
12	Expected life span for the measure in years		
13	Total life span savings for the measure in gallons (multiply line 11 by line 12)		
14	Cost per gallon of water saved (divide line 8 by line 13)		\$ /gallon

[a] A separate analysis should be performed for each conservation measure, but measures can be combined if they jointly produce water savings.

[b] Examples of a unit are a toilet, a retrofit kit, and an audit. A unit estimate may not be appropriate for each measure, in which case total program water savings and costs for the measure can be used.

[c] Include all recurring operation and maintenance costs over the life of the measure.

[d] Units can be individual product units (such as toilets) or groups of products (such as household retrofits), as long as the analysis is consistent. Leave blank if unit values do not apply.

[e] For example, water savings per retrofit. See Appendix B for benchmarks and sample calculations. Leave blank if unit values do not apply.

Worksheet 3-4: Selection of Conservation Measures

Line	Measure	Already implemented ☐	Plan to implement ☐	Primary criteria for selecting or rejecting the conservation measure for implementation [a]
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Universal metering [B]

1	Source-water metering			
2	Service-connection metering			
3	Meter public-use water			

Water accounting and loss control [A]

4	Account for water			
5	Repair known leaks			

Costing and pricing [B]

6	Cost-of-service accounting			
7	User charges			
8	Metered rates			

Information and education [B]

9	Understandable water bill			
10	Information available			

Other Measures [b]

11				
12				
13				
14				
15				
16				
17				
18				
19				
20...				

[a] This space may also be used to note special issues related to this measure, including legal or obstacles to its use that preclude further consideration.

[b] See Appendix A for additional information on water conservation measures.

[A] = measure affects average-day demand

[P] = measure affects maximum-day (peak) demand

[B] = measure affects average and peak demand

Benefits and Costs

Conservation of water is beneficial to everyone on the water system.

Select Water Conservation Measures

Meter accuracy analysis - test, calibrate, repair and replace meters as needed -

Water System Audit - usually reserved for water companies with more than 3300 connections

Automated sensors - not cost effective for 24 connections

Loss-prevention program - not necessary - all water monitored and accounted for

Peak use time reminders

Price increases for excess of base price/gallons

Integrate Resources and Modify Forecasts

After implementation all forecasts will be reviewed and modified as needed.

Present Implementation and Evaluation Strategy

Worksheet 3-5 for rate increases

Worksheet 3-5: Implementation Strategy

A. PUBLIC INVOLVEMENT

Describe plan for public involvement:

B. MONITORING AND EVALUATION

Describe plan for monitoring and evaluation:

Describe plan to collect water demand data:

C. PLAN UPDATES

Describe plan for updates and revisions:

D. ADOPTION OF THE PLAN

Date plan completed:

Date plan approved:

Approved by [governing body]:

Signature:
