Town of Apple Valley

A plan for transitioning and integrating water administration, operation, and planning into the existing Town of Apple Valley structure.

WATER ENTERPRISE TRANSITION PLAN

Mission: ***To provide a better way of life through local control of public safety, services and amenities; enhancing our residents' lives and providing for our community's future.***

Vision: ***A premier community, full of first-class amenities, events, and employment opportunities, Apple Valley will lead the High Desert in public safety and environmental stewardship defining 'A Better Way of Life.***

BACKGROUND ON THE APPLE VALLEY WATER SYSTEM

The Town of Apple Valley is pursuing the acquisition of the water system currently owned and operated by Liberty Utilities (Apple Valley Ranchos Water) Corp. ("Water System"). The Water System is an integrated and independent water system that provides water service primarily in the Town of Apple Valley and small areas outside the Town's boundaries. The acquisition of the Water System has received broad support from the residents of the Town. In June 2017, Town voters approved Measure F, authorizing the Town to issue up to $150 million in debt for the purposes of acquiring the Water System.

In November of 2015, the Town Council adopted Resolutions of Necessity to acquire the Water System by eminent domain. At the time the Water System was owned by Apple Valley Ranchos Water Company, a subsidiary of the Carlyle Group. Since the adoption of the Resolutions of Necessity, the System was sold to, and is presently owned by, Liberty Utilities Corporation ("Liberty"). Liberty is a subsidiary of, and is owned and controlled by, Algonquin Power & Utilities Corporation. The Town elected to acquire the Water System for multiple reasons, including, but not limited to, the following:

- Longstanding public concern about escalating water rates;
- the significantly higher water rates paid by customers of the Apple Valley Water System as compared to neighboring jurisdictions;
- the lack of local control over water rates, service, expenditures, and policy;
- the lack of responsiveness and accountability of the corporate owners to concerns of ratepayers within the service area;
- the lack of transparency in the operation of the Apple Valley Water System; and
- the lack of long term water planning coordinated with Town planning objectives and community input.

On December 16, 2015, the owner of the System sued the Town alleging the Town's approval of the acquisition via the adoption of the Resolutions of Necessity violated the California Environmental Quality Act despite the Town having subjected the project to the highest level of environmental review – an environmental impact report. After a lengthy legal battle, in February 2018, the Court ruled in favor of the Town.

On January 8, 2016, the Town initiated a formal condemnation action to acquire the Apple Valley Water System. Liberty has filed a "right-to-take" challenge, contesting the Town's right to acquire the Water System. The "right to take" trial is set to begin on September 30, 2019. Once the Court concludes that the Town may acquire the System, there will be a valuation phase, during which a jury will determine the fair market value of the Water System. Following the conclusion of the second phase, the Town will formally acquire and assume operation of the Water System.

Although no physical changes to the existing system are now proposed, the purpose of this plan is to provide a preliminary transition plan for transition and operations of the

Water System from an organizational, administrative, and procedural standpoint in the event the system is acquired by the Town. Concurrently with the presentation of this preliminary transition and operations plan, Town staff is presenting a resolution relating to the retention of certain staff for the Town Council's consideration. A schematic map of the Water System from Liberty's documentation is attached hereto as Attachment 1.

TRANSITION AND OPERATIONS PLAN

The Town's plan for transition and operations can be broken into three phases: (1) a Pre-Acquisition Phase, consisting of tasks the Town would seek to accomplish in the period immediately following the Court decision concluding that the Town has the right to acquire the system; (2) a Transition Phase, consisting of tasks the Town expects to perform immediately following acquisition and through the first six months of operation, including a condition assessment; and (3) an Operations Phase, consisting of tasks the Town expects to perform following the assessment.

(1) Pre-Acquisition Phase

The following steps are anticipated to take place prior to the Town taking over operation of the System. Many of the tasks below will begin immediately upon the Court ruling that the Town has the right to acquire the System.

Organizational Structure and Retention of Employees

Upon acquisition, the operations portion of the Apple Valley Water Division will become part of the Public Works Department. Prior to acquisition, staff and consultants will analyze the current organizational structure in order to ensure a smooth transition. Where appropriate, employees will transition into Town employment in essentially similar roles to roles they currently perform. The contemplated organizational structure for integrating the Water Division into the Town is attached hereto as Attachment 2.

Upon acquisition, the Town will need qualified operators familiar with the water system. The Town anticipates that, during the Transition Period, the Town will identify a number of operational efficiencies, nonetheless the Town needs to be prepared to operate the system from day one. As a result, it would be beneficial for the Town to offer employment to any and all current non-executive, non-contract employees of Liberty Utilities who are responsible for the administration and operation of the water system, subject to certain eligibility criteria. The proposed resolution authorizes the Town Manager to retain employees on this basis. It also authorizes the Town Manager, to the extent necessary and subject to Council approval, to assume or continue on-going contracts relating to the operation and maintenance of the Water System. In the event the Town is unable to secure sufficient staff to operate the Water System through this process, the proposed resolution authorizes the Town Manager to retain consulting and contracted vendor services to ensure the system is operated successfully until such time as permanent staffing needs are met. At present, Liberty employs a number of

certified operators in both water distribution and water treatment. A list of certified operators obtained from Liberty is attached hereto as Attachment 3. There are also other non-executive and non-contract employees of Liberty Utilities who are responsible for the administration and operation of the water system, who are not part of the list of certified operators and are subject to retention. These include customer service representatives.

During the pre-acquisition phase, the Town Manager will seek to identify a potential candidate or candidates to fill the role of Public Works Director, currently vacant awaiting determination on the right-to-take trial, who will report directly to the Town Manager. The Town Manager will also collaborate with the Town Engineer, the Public Works Director, and other staff in establishing engineering oversight, IT, SCADA, and customer billing integration.

Similarly, the Town Manager would work with the Public Works Director to identify other current Liberty employees to fill managerial and supervisory roles, such as the position of Water Operations Manager. To the extent these employees cannot or choose not to transition to town employment, the proposed resolution authorizes the Town Manager to retain consulting services to ensure the system is operated successfully until such time as permanent staffing needs are met. Successful candidates will possess, or have the ability to obtain, the appropriate certifications such as Water Management (D-5), Water Treatment (T-3), and Waste Water Collection (D-4).

Working in concert with the future Public Works Director, as identified above, the Town Manager and appropriate staff will evaulate existing water facilities to be acquired in comparison with the Town-owned Public Works Yard to determine the most efficient use of land and facilities from which to operate the various divisions of the Public Works Department, including the new Water Division.

In addition to operations facilities, all administrative functions will be evaulated for integration with existing Town functions and will continue as they do currently until integration is tested and complete. Ultimately, billing will be consolidated with other enterprise functions, such as sewer, trash, and recycling. This consolidation will also include integration of the customer service representatives for water with customer service representatives for other municipal services. Evaulation will include current systems in use by both agencies as well as any new systems that could add functionality and efficiency.

Financial operations will be incorporated into the Town's general ledger and financial system as an enterprise fund. As such, all water revenues and expenditures will be accounted for separately to ensure compliance with state law governing the separation of finances. Originally adopted, and still commonly referred to as Proposition 218, the "Right to Vote On Taxes Act" requires public input on proposed taxes and further requires funds collected to only be used for the purposes the tax or fee was collected. Annual audits of the water enterprise will be included as a component unit of the Town's annual audit and presented in the Comprehensive Annual Financial Report (CAFR).

Human resources and office based information technology will be integrated into existing Town systems. Supervisory control and data acquisition (SCADA) and GIS systems currently in use throughtout the water and sewer systems will be evaluated for integration by the Public Works Director and appropriate staff.

Meeting with Partner Agencies

The Town Manager, Public Works Director, Water Operations Manager, and appropriate staff from will meet with the all agency partners to prepare for the transition of operations, including but not limited to:

- State Water Resources Control Board;
- Lahontan regional Water Quality Control Board;
- Mojave Water Agency;
- Apple Valley Fire Protection District;
- Victor Valley Wastewater Reclamation Authority
- Victorville Water District;
- San Bernardino County Department of Public Health;
- Community Service Area 64 (or SVL CSD);
- Local Agency Formation Commission (LAFCO); and
- Golden State Water and any other private water companies, as necessary.

The Town desires to work with the appropriate current owner's staff and contractors as early as possible following a favorable decision in the right-to-take trial. While there may be some discomfort, it is important for our customers and constituents -- who are one in the same -- to have a smooth transition of services. Partner agency meetings is one area we can begin to work together prior to transition of employment to the Town.

Preparation of Required State Filings

The federal Safe Drinking Water Act of 1996 (SDWA) requires states to incorporate technical, managerial, and financial (TMF) capacity into public water system operations. This requirement helps ensure that public water systems have long-term sustainability and can maintain compliance with all applicable drinking water laws and regulations. It included mandates to the states to prevent new non-viable systems. It also mandated the development and implementation of a comprehensive capacity development strategy to assist public water systems in obtaining adequate capacity.

The Public Works Director, in association with the appropriate staff, will prepare the TMF assessment form for submission to the State Water Resources Control Board (SWRCB). In addition, a change of ownership application for the Water System will also have to be processed with the SWRCB.

Water Service Regulations and Policies

The Assistant Town Manager and appropriate staff will reach out to other Califonia municipalities to request and assess local codes that provide clarity and local control to existing law in the California Water Code. Using existing rules, policies, and procedures of the water company, she will propose additions to the Town's Municipal Code to codify these policies and procedures, as necessary.

Financing Acquisition

On June 6, 2017, the voters of Apple Valley authorized the issuance of up to $150,000,000 in water revenue bonds to finance the purchase of the water system from Liberty Utilities. Utilitzing a financial advisor, the Town will issue a Request for Proposals to qualified lenders to provide this financing. The Town Manager, Finance Director, and Public Works Director and staff from the financial advisor will review these proposals and make a recommendation for selection to the Town Council. The amount of the debt will be dependent upon the total cost of acquisition, including the legal fees associated with acquisition and the water system value as determined by the jury in the valuation phase.

Preparation for Rate Setting

The Town will issue an RFP for a qualified consulting firm to assist with rate setting in compliance with Proposition 218 which requires that rates for property-related fees are reasonable and proportional to the cost of providing service. The principal requirements of Proposition 218 as they relate to water service charges imposed by a local agency are as follows:

1. Revenues derived from the charge shall not exceed the costs required to provide the property-related service.

2. Revenues derived from the charge shall not be used for any purpose other than that for which the charge was imposed.

3. The amount of the charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.

4. No charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.

5. No charge may be imposed for general governmental services including, but not limited to police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.

6. A public agency must hold a public hearing to consider the adoption of the proposed new or increase in an existing charge; written notice of the public hearing and proposed charge shall be mailed to the record owner of each parcel at least 45 days prior to the public hearing; if the public agency receives written protests to the proposed charge from a majority of the property owners, the charge may not be imposed.

Following selection of a qualified and independent consulting firm, the Finance Director, Public Works Director, and appropriate staff will calculate cost of providing water service, with the exception of the cost of purchasing the system, to be determined by the jury during the valuation phase of the acquisition. Once final costs are known, property owners and customers of record directly responsible for payment of water service charges will have an opportunity to protest the proposed new or increased rates at the public hearing described in item 6 above.

As part of the anticipated rate setting process, the Town will direct the independent consulting firm to conduct a cost of service analysis and Rate Study using principles established by the American Water Works Association (AWWA). The AWWA *"Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1"* (the "M1 Manual") establishes commonly accepted professional standards for cost of service studies.

According to the M1 Manual, the first step in ratemaking analysis is to determine the adequate and appropriate level of funding for a given utility. This is referred to as determining the "revenue requirement." This analysis considers the short-term and long-term service objectives of the utility over a given planning horizon, including capital facilities, system operations and maintenance, and financial reserve policies to determine the adequacy of a utility's existing rates to recover its costs. A number of factors may affect these projections, including the number of customers served, water-use trends, nonrecurring sales, weather, conservation, water use restrictions, inflation, interest rates, wholesale contracts, capital finance needs, changes in tax laws, and other changes in operating and economic conditions, among others.

After determining a utility's revenue requirement, the next step is determining the cost of service. Utilizing a public agency's approved budget, financial reports, operating data, and capital improvement plans, a rate study generally categorizes (functionalizes) system costs (e.g., treatment, storage, pumping, etc.), including operating and maintenance and asset costs, among major operating functions to determine the cost of service.

After the asset values and operating costs are properly categorized by function, the functionalized costs are allocated first to cost causation components, and then distributed to the various customer classes. This is done by determining the characteristics of those classes and the contribution of each to cost causation components such as supply costs, base costs, peaking costs, and efficiency costs (or

conservation costs). Customer classes are determined by analyzing water usage patterns, including seasonal usage and peaking, and grouping customrs with similar patterns together. Customers with common water usage patterns place similar demands and cause the Town to incur similar costs.

Rate design is the final element of the rate-making process and uses the revenue requirement and cost of service analyses to determine rates for each customer class that reflect the proportionate cost of providing service among the customer classes and on a parcel basis to the customers within each customer class. Rates utilize "rate components" that build-up to the total variable component (i.e. the part of the water service charges that varies depending on the level of consumption), and fixed component (i.e. the portion of water service charges that remain constant regardless of consumption), for the various customer classes. In the case of tiered rates, the rate components allocate the cost of service within each customer class, effectively treating each tier as a sub-class and determining the cost to serve each tier based on the incremental and marginal costs of supplying high water users.

Community Outreach

The Town's Director of Communications and appropriate staff will prepare and initiate a public information campaign to inform the public of the transition, which will include community meetings and outreach to residents, businesses, developers, and other stakeholders. This will include reassurance of system operations, rate studies, timing and manner of meter reading and billing, and overall continuity of service.

(2) Transition Phase

The following tasks are those which are anticipated to be accomplished immediately upon the acquisition of the System or soon thereafter. We anticipate this phase, particularly the systems assessment, to take approximately six months to complete.

Administrative Tasks

Employees will be in-processed following a background check, drug test, and physical, typical of all new hires of the Town of Apple Valley. Employees will attend an employee orientation and will be integrated into respective departments. Water field staff, including management and supervisorial will merge with the Public Works Department. Finance, accounting, and customer service staff will be integrated into the Finance Department. Clerical staff will be integrated into the Public Works Department or in other departments, depending on need.

The Public Works Director and appropriate finance staff will prepare a budget amendment to add water operations to the annual budget as an enterprise fund. This will include updating employee rosters and the Town's classification plan.

The Town's existing corporate yard and public work facilities and equipment will be primed for integration with water operatons and personnel and coordinated with Liberty's current office and corporate yard facilities which will retain the water productions facilities and staff.

Customer service and call center staff for water, sewer, and trash will be cross trained on the operation of customer service systems and handling of customer starts, stops, and inquiries. This will allow for a one-stop shop for all customer service inquiries. Any single customer service representative will be able to start and stop service for all enterprise functions, saving time and resources.

Water staff will be trained on Town administrative functions, such as human resources, public records act compliance, payroll, and purchasing. Bidding will follow Town policies ensuring compliance with the government code and water code.

Appropriate staff will be added to the schedule of training required by the Government Code, and other laws applicable to public agencies, including AB 1234 ethics training, sexual harassment prevention training, etc.

Customer billing systems will remain in place and evaluated for combined billing with other enterprise functions of the town. The goal will be a single bill encompassing all Apple Valley enterprise billing.

Web pages and appropriate links will be added to the existing Town website to direct customers and members of the public to water related information.

Appropriate water staff will be included in all predevelopment and development meetings. Development related plans will be routed through Town systems to ensure a one-stop shop for all development activity including engineering, operation, and CEQA.

Municipal codes related to water will be written by staff, reviewed by the Town Attorney, and forwarded to the Town Council for potential adoption.

Operational Tasks

The Public Works Director, Water Manager, supervisor(s), and water production staff will meet Town executive staff to comfirm policies, procedures and current water quality test results. Staff will reinspect all production facilities and take and test new water quality samples, and prepare a report for Town Council as to the compliance of the system from a quality and production stand point upon transition.

The Public Works Director and appropriate staff will perform a condition assessment of the water system, paying close attention to any known areas of concern, including:

- the system's regluatory compliance;
- any work tasks currently underway;

- any tasks identified for completion during current fiscal year;
- the adequacy of existing operational plans, including, for example, Liberty's 'Operation & Maintenance Plan Summary' and the accompanying 'Procedure for Inspection, Repair, and Replacement of Water Mains and Services' attached hereto as Attachment 4;
- existing protocols for water operations;
- existing protocols for water emergencies and hazards;
- existing protocols and plans for natural disasters, earthquake, fire, etc.;
- compliance with industry standards, e.g., AWWA standards and objectives;
- the transmission and distribution system, including: a review of the accuracy of the booster pump data, well data, reservoir data, and pressure regulating valve data attached hereto as Attachment 5;
- a review and assessment of transmission and distribution facilities included in Schedule D-3 of Liberty's Annual Report for the System attached hereto as Attachment 6;
- a review of current counts of active service connections to confirm information included in Schedules D-4 and D-5 of Liberty's Annual Report for the System attached hereto as Attachment 7;
- sources of water supply and water developed, including those listed in Schedule D-1a on Liberty's Annual Report for the System attached hereto as Attachment 8;
- storage capacity for water operations;
- storage capacity and flow rates for fire systems;
- seismic and structural issue in water storage, production, and distribution facilities and water works;
- water pressure throughout the system, including the existence of any zones and transition zones;
- any engineering studies regarding the system;
- the existing water master plans (currently, there is no systemwide water master plan);
- communication systems including supervisory control and data acquisition (SCADA), GIS, and information technology systems in place, both administratively and in the field; and
- any other assessments identified during the pre-acquisition phase and transition phase.

The purpose of the above described assessments will be to ensure compliance, identify and fix deficiencies, and facilitate good management. They will also ensure broad information sharing for appropriate advising of the Town Council for policy and budget related decision making. Additionally, assessments will help identify additional areas of efficiency through economies of scale, integration of SCADA, GIS, IT, and billing systems, cross training with other departments and divisions, increased use of recycled water, development of alternative water sources, and increased coordination on master planning and development.

The Public Works Director, working with appropriate finance staff, will issue a request for qualifications for firms to perform the first comprehensive and systemwide Water Master Plan, with a minimum five to twenty year horizon. This will include assessing and making recommendations regarding such matters as conditions, risks, deficiencies, opportunities for improvement and increased efficiency, alternative water sources, conservation, capital projects, operational savings, and supply and demand for current and projected growth. In addition to the first Water Master Plan, staff will request qualifications for firms to assist with preparation or update of the following:

- the Urban Water Management Plan;
- a Five-Year Capital Improvement Plan;
- appropriate performance measures for water operations; and
- natural disaster and emergency management documents and procedures.

Customer Outreach and Customer Service

One of the primary motivations for the Town's proposed acquisition of the System is the general level of dissatisfaction Town residents have expressed with the current performance of the System. Since Liberty acquired the System, the company has commissioned a number of customer satisfaction surveys, which began in March 2017 and continued through 2019. The results of those surveys are attached hereto as Attachment 9. The surveys show that Liberty consistently performs below average for customer satisfaction when compared to averages for Western water utilities and for utilities nationwide. For example, in the 2017 surveys, Liberty obtained a below average customer satisfaction score of 3.82 out of 10, compared to a Western average of 7.20 and a nationwide average of 7.22. Of 33 attributes considered in the survey, Liberty scored below the Western and nationwide average in every single one. Of all the attributes addressed in that survey, Liberty performed particularly poorly in terms of pricing. For example, in assessing 'fairness of pricing', Liberty customers rated the company 2.58 out of 10, compared to a nationwide average of 6.38. The results in 2018 and 2019 are similarly poor. For example, in the 2018 surveys, customers rated the company 4.52 out of 10 for the 'ease of understanding your pricing' attribute compared to an average of 6.67 among western utilities. In 2019, for the 'fairness of pricing' attribute, for which Liberty received a score of 2.58 in 2017, customers now awarded the company a score of 2.85 out of 10, a meager improvement, compared to an average of 6.32 among western utilities.

Given the high level of dissatisfaction, community outreach is particularly important to get community input in order to address these concerns. Based on the low scores demonstrated above and in the attached document, it is apparent the primary factor in customer satisfaction is pricing. Customers have clearly responded they believe it to be unfair. The largest component of water rates upon acquisition will naturally be the cost of acquisition. This factor is largely outside the control of the Town, save the Town's efforts in the valuation phase of the acquisition.

Once valuation is determined, the Town will be transparent about the impact of this rate component. In future years, efficiencies realized upon acquisition and the elimination of profit for multiple layers of multi-national corporations will result in rates which will be lower than they otherwise would have been. Customers will experience rates that are more transparent, easier to comment on due to rate setting taking place at Town Council meetings, and ultimately provide higher ratings on the survey questions of 'ease of understanding your pricing' and 'fairness of pricing'.

(3) Operations Phase

The following tasks are anticipated to begin upon the completion of the systems assessment, which will be completed as part of the Transition Phase.

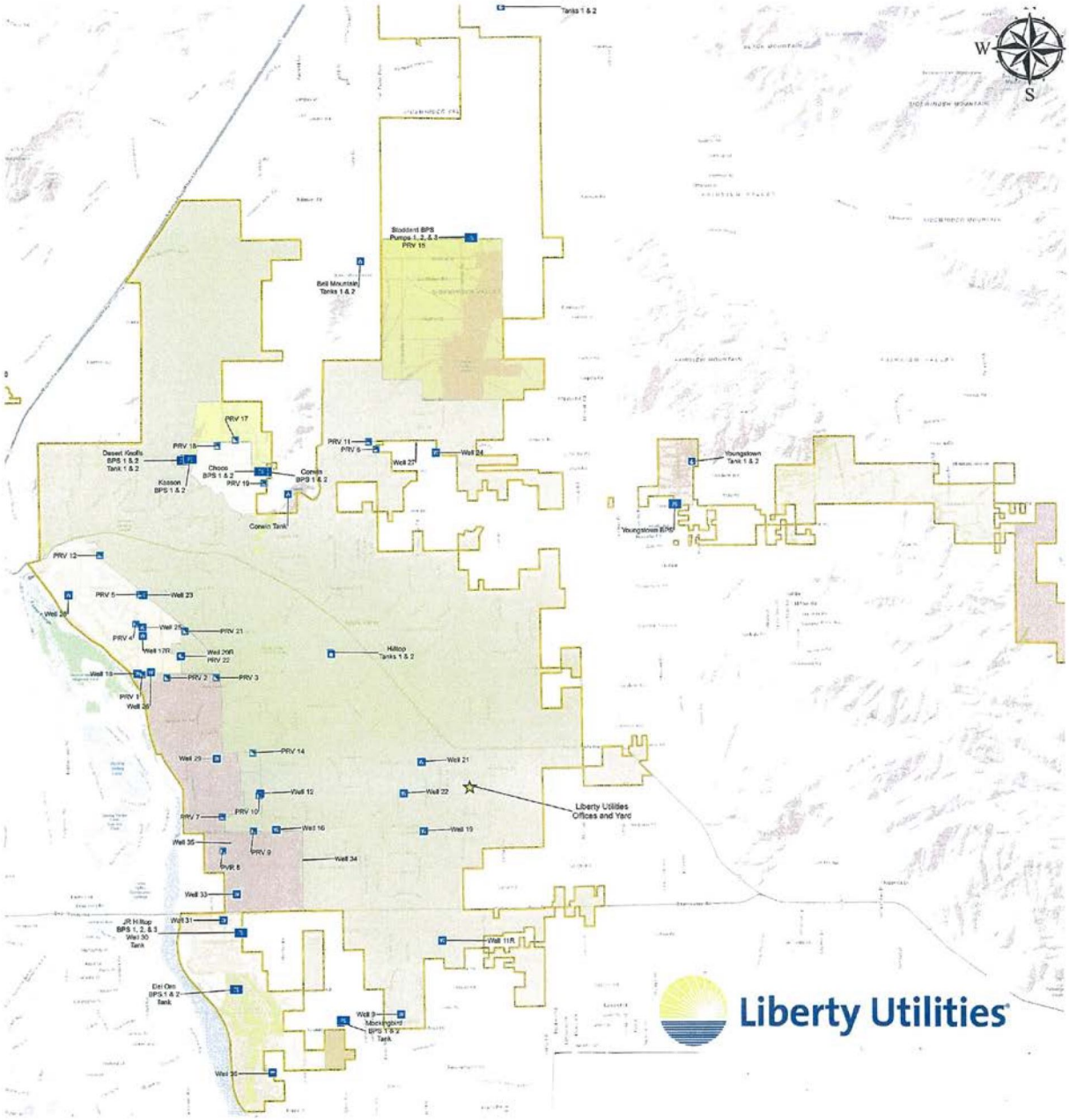
Presentation of Assessment

The full assesment of the water system, as described in Phase 2, Transition Phase, will be presented to the Town Council and the public at a special meeting to be called approximately six months following acquisition or as soon as the assessments are complete.

This assessment will provide a comprehensive status of the water system upon acquisition. Based on the results of the assessment, staff will make recommendations on a comprehensive work plan to address any areas of potential concern, such as fire flow, seismic safety, storage sufficiency, emergency response, and areas of opportunities to improve operations and reduce costs. The Town Council will consider adopting stategic goals for the Town's new Water Division, based on applicable AWWA Effective Utility Management Attributes. The Council will also consider adopting a Water Master Plan, Urban Water Management Plan, and Five-Year Capital Improvement Plan. Because the contents of those plans are unknown at this time, there is insufficient information available to conduct meaningful environmental review of those potential plans under CEQA at this time. However, once the contents of the plans are known, the Town would complete any and all required environmental review under CEQA prior to any adoption or approval of the plans.

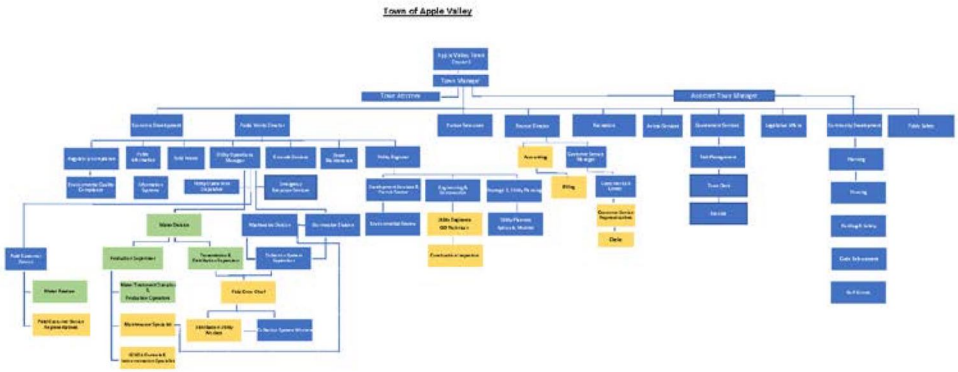
ATTACHMENT 1

LIBERTY SCHEMATIC MAP


Tanks 1 & 2
W
S
Stoddard BPS
Pumps 1, 2, & 3
PRV 15
Bell Mountain
Tanks 1 & 2
PRV 17
PRV 18
Desert Knolls
BPS 1 & 2
Tank 1 & 2
Kosson
BPS 1 & 2
Choco
BPS 1 & 2
PRV 19
Corwin
BPS 1 & 2
Corwin Tank
PRV 11
PRV 5
Well 27
Well 24
Youngstown
Tank 1 & 2
Youngstown BPS
PRV 12
PRV 5
Well 23
Well 26
PRV 4
Well 25
PRV 21
Well 17R
Well 20R
PRV 22
Hilltop
Tanks 1 & 2
Well 19
PRV 2
PRV 3
PRV 1
Well 28
Well 29
PRV 14
Well 21
Well 12
Well 22
Liberty Utilities
Offices and Yard
PRV 7
PRV 10
Well 16
Well 19
Well 35
PRV 9
PRV 8
Well 34
Well 33
Well 31
JR Hilltop
BPS 1, 2, & 3
Well 30
Tank
Well 11R
Del Oro
BPS 1 & 2
Tank
Well 9
Mockingbird
BPS 1 & 2
Tank
Well 36
Liberty Utilities

ATTACHMENT 2

ANTICIPATED ORGANIZATIONAL STRUCTURE


Town of Apple Valley

ATTACHMENT 3

LIST OF CERTIFIED OPERATORS FROM LIBERTY'S OPERATION AND MAINTENANCE PLAN

Operation & Maintenance Plan

Liberty Utilities (Apple Valley Ranchos Water) Corp.

LIST OF CERTIFIED OPERATORS

Grade 1 = 12 Hours Grade 2 = 16 Hours Grade 3 = 24 Hours Grade 4 = 36 Hours Grade 5 = 36 Hours

Name	Distribution	Cert. #	Last Exp Date	Exp. Date	Renewal Date	Treatment	Cert. #	Last Exp Date	Exp. Date	Renewal Date
Adam Ambrose	grade 5	28390	2/1/2017	6/1/2020	2/1/2020	grade 2	26133	1/1/2017	1/1/2020	9/1/2019
Austen Clark	grade 2	47913	N/A	12/1/2019	8/1/2019					
Brett Holley	grade 4	14142	9/1/2018	1/1/2022	9/1/2021	grade 2	28948	1/1/2014	1/1/2021	9/1/2020
Brian Keith	grade 4	14141	3/1/2019	3/1/2022	11/1/2021	grade 2	26446	2/1/2017	2/1/2020	10/1/2019
Bryan Walker	grade 2	14156	8/1/2018	8/1/2021	4/1/2021					
David Fortin	grade 4	14139	11/1/2016	3/1/2020	11/1/2019	grade 2	14900	10/1/2017	10/1/2020	6/1/2020
Doug Warren	grade 4	3295	9/1/2018	1/1/2022	9/1/2021	grade 2	29488	7/1/2018	7/1/2021	3/1/2021
Elias De La Torre	grade 2	42581	5/1/2017	5/1/2020	1/1/2020					
Eric Larsen	grade 2	46342	12/1/2018	12/1/2021	8/1/2021	grade 2	40237	N/A	2/1/2020	10/1/2019
Greg Miles	grade 3	35020	4/1/2017	4/1/2020	12/1/2019					
Jayson Moses	grade 2	35021	3/1/2017	3/1/2020	11/1/2019	grade 1	34534	7/1/2018	7/1/2021	3/1/2021
Jeremy Caudell	grade 5	34494	n/a	12/1/2020	8/1/2020	grade 2	29476	7/1/2018	7/1/2021	3/1/2021
Maria Garcia	grade 2	47757	N/A	11/1/2019	7/1/2019					
Mark Beppu	grade 4	14132	9/1/2017	1/1/2021	9/1/2020	grade 2	22338	5/1/2019	5/1/2022	1/1/2022
Mike Cinko	grade 4	14133	3/1/2017	10/1/2019	6/1/2019	grade 2	19189	11/1/2016	11/1/2019	7/1/2019
Mike Lent	grade 4	14144	5/1/2015	3/1/2020	11/1/2019	grade 2	19208	1/1/2019	1/1/2022	9/1/2021
Mike Reese	grade 3	14149	5/1/2015	5/1/2021	1/1/2021	grade 2	14926	10/1/2017	10/1/2020	6/1/2020
Nathan E. Johnson	grade 2	49223	N/A		7/1/2020	grade 1	42097	N/A	7/1/2021	3/1/2021
Randy Vogel	grade 3	14155	5/1/2018	5/1/2022	1/1/2022	grade 1	17990	6/1/2017	6/1/2020	2/1/2020
Ray Griego	grade 3	14140	4/1/2018	4/1/2022	12/1/2021	grade 2	28945	6/1/2018	6/1/2021	2/1/2021
Roman Diaz	grade 5	36137	5/1/2018	7/1/2020	11/1/2020	grade 2	37017	6/1/2018	2/1/2021	6/1/2021
Shay Davidson	grade 2	34493	12/1/2017	12/1/2020	8/1/2020					
T. Nathan Esquer	grade 2	39514	5/2/2019	5/2/2022	1/1/2022	grade 1	37424	6/1/2018	6/1/2021	2/1/2021
Tony Penna	grade 2	43164	11/1/2016	11/1/2019	7/1/2019					
Tony Penna	grade 2	43164	11/1/2016	11/1/2019	7/1/2019					

ATTACHMENT 4

OPERATION & MAINTENANCE PLAN SUMMARY

AND

PROCEDURE FOR INSPECTION, REPAIR, AND REPLACEMENT OF WATER MAINS AND SERVICES

Operation & Maintenance Plan Summary

Liberty Utilities - Apple Valley (Liberty)

Production Maintenance

1. **Operations and Maintenance (O&M) Plans**
   - **A. Water Quality Procedures for Water Utilities**
     1. Water quality sampling by Liberty is performed by certified operators according to the protocols outlined in *Water Quality Sampling Guidelines, 2nd edition, January 2005*, or subsequent editions as published by the California-Nevada Section of the American Water Works Association.
     2. Water Quality monitoring shall be conducted in compliance with state and federal drinking water regulations and according to DPH approved:
        a. Water Quality Monitoring Plan
        b. Total Coliform Rule Monitoring Plan
        c. Ground Water Rule Monitoring Plan
        d. Stage 1 Disinfection By-Products Monitoring Plan
        e. Lead and Copper Rule Monitoring Plan
   - **B. Contents of O&M Plan for Water Utilities**
     This O&M Plan includes:
     1. The operations and maintenance schedule for each unit process for each treatment plant.
        a. LIBERTY currently has no treatment plants.
     2. The operations and maintenance schedule for each groundwater source and unit process.
        a. See Production Department Maintenance Schedule (Attachment A)
           i. Water treatment is by chlorination. Chemical feed pumps are checked daily. Service is performed monthly or as needed
           ii. Chemical feed system / pumps are acid washed. Service is performed at least annually or as needed
           iii. Chlorine day tanks are serviced once every three years, or as needed
           iv. On-line residual monitors are checked for calibration at least monthly and re-calibrated as necessary
           v. Static and pumping level soundings are taken monthly
           vi. Specific capacity is monitored monthly
           vii. Cla-Valves are serviced at least every three years
           viii. Pump motors and natural gas engines are serviced annually
           ix. Emergency generators are tested and ran quarterly

3. The schedule for routine inspection of reservoirs, and the procedures for cleaning reservoirs.
    a. See Production Department Maintenance Schedule (Attachment A)
        i. Inspect tank exterior and site area at least weekly
        ii. Inspect tank roof and screens every six months
        iii. Inspect tanks by diving or draining every five years
            1. Repair or replace coating as necessary per inspection results
            2. Remove sediment as necessary

4. The operations and maintenance schedule for each purchased water connection.
    a. LIBERTY currently does not have any purchased water connections.

5. The schedule and procedures for testing backflow prevention assemblies and notifying customers of their obligation to test backflow prevention assemblies.
    a. See Cross-Connection Control Program
        i. LIBERTY carries out its DPH approved Cross Connection Control Program
        ii. Records are maintained in the program data base

6. The schedule and program for maintenance and calibration of source flow meters.
    a. See Production Department Maintenance Schedule (Attachment A)
        i. Mojave Water Agency (Watermaster) requires testing of source flow meters every other year.
        ii. Meters are repaired, replaced or calibrated as deemed necessary by testing

7. The program for bio-film control in water mains.
    a. LIBERTY controls bio-film levels inside of its pipelines by maintaining a distribution system chlorine residual of no less than 0.2 mg/L in at least 95% of its distribution system samples
        i. Chlorine residual samples are taken on a weekly basis per Total Coliform Rule sampling and archived in WaterTrax
        ii. Heterotrophic plate count (HPC) analysis are performed weekly to determine the level of bio-film control and archived in WaterTrax
        iii. All HPC samples greater than 300 CFU's are re-sampled and corrective action is taken as necessary

8. The operations and maintenance schedule for each booster pump station.
    a. See Production Department Maintenance Schedule (Attachment A)
        i. Pump efficiency is tested annually
        ii. Cla-Valves are serviced at least every three years
        iii. Pump motors are serviced annually
        iv. Emergency generators are tested and ran quarterly

Field Operation Maintenance

9. The schedule and procedure for flushing dead end mains and the distribution system, and the procedures for disposal of the flushed water, including dechlorination.
    a. See Field Operations Department Maintenance Schedule (Attachment E) and System Maintenance Schedule (Attachment E-1)
        i. Flushing dead end mains are performed at least every three years
        ii. Flush mains as necessary at target sites or as identified through Production Department sampling results
    b. Disposal of flushed system water is de-chlorinated according to Best Management Practices and associated guidance as published by the California-Nevada Section of the American Water Works Association.

10. The schedule and procedures for inspecting, repairing and replacing water mains.
    a. See Procedure for Inspection, Repair and Replacement of Water Mains.
    b. LIBERTY follows the recommended guidelines set for in AWWA Standard G200-04, Distribution System Operations and Management.
    c. When exposing a water main, an inspection is performed and information is collected regarding the condition of that water main.
    d. Leaks are repaired in a safe and timely manner with appropriate record keeping.
    e. Water mains are replaced on a priority basis considering all available information.

11. The plan for responding to emergencies as described in Section VII.3 of GO 103.
    a. LIBERTY personnel follow the company's DPH approved Emergency Response and Recovery Plan (ERRP) when responding to emergencies.
    b. LIBERTY routinely exercises the ERRP with desk top emergency exercises

12. The training protocols for use by employees for interacting with customers.
    a. All LIBERTY employees receive training for interacting with customers during new-hire orientation and every three years.

13. The schedule and procedures for routine maintenance of water main valves, combination air vacuum release valves, fire hydrants, and valves.
    a. See Field Operations Department Maintenance Schedule (Attachment E)
        i. Valves are exercised at least once every five years per procedures outlined for the valve exercising program
            1. Results are recorded in company data base
            2. Broken valves are placed on a schedule for replacement
        ii. Valves are inspected every two years
            1. Locate, operate and record in company data base
        iii. Fire Hydrants are flow tested once every three years
            1. Flow capacity is recorded in the company hydrant data base
        iv. Pressure Reducing Valves and Pressure Relief Valves are tested and serviced every two years
        v. Air Vacuum Release Valves are serviced every three years

14. The qualifications and training of operating personnel including production, water treatment, cross connection control/backflow specialist certification and distribution.
    a. See List of Certified Operators (Attachment F)
        i. DPH sets the operator certification level requirements for each water system according to its size and complexity. LIBERTY retains the services of employees who are certified to the appropriate level to operate its water systems.
        ii. A current list of certified operators is on file.

OPERATIONS & MAINTENANCE PLAN

Liberty Utilities - Apple Valley (Liberty)

PRODUCTION DEPARTMENT

ATTACHMENT A

2010 MAINTENANCE SCHEDULE

	DAILY WELL	DAILY RESERVOIRS	MONTHLY WELL	MONTHLY WELL	MONTHLY WELL	MONTHLY WELL	PER Hrs. RUN MIOX	SEMI-ANNUALLY RESERVOIRS	SEMI-ANNUALLY	EVERY TWO YEARS	EVERY TWO YEARS	EVERY THREE YEARS
	CHECK CHEMICAL INJECTION	INSPECT RESERVOIR	DRAIN/ RETURN	OPERATION	WELL MONITORING	GENERATOR		INSPECT RESERVOIR FOR DEBRIS	SERVICE NATURAL GAS	SERVICE OR INSPECT	CALIBRATE SOURCE	INSPECT RESERVOIR
MONTH	HOURS	EXTERIOR	AIR VENTS	INJECTION	ENERGY CAPACITY	RUN TEST	MIOX	AND SCREENS	ENGINES	CLA VALVES	METERS	INTERIOR
JAN	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
FEB	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
MARCH	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
APRIL	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
MAY	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
JUNE	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval		4			
JULY	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
AUG	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
SEP	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
OCT	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
NOV	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval					
DEC	All injection pumps checked daily	All Res. Exterior checked daily	Check Calibration Weekly	CL2 4,7,10,13,20,21, 23,30 MIOX Injectors and CL2 Backup as needed	4,21,22,19,9,11 24,27,7,26,23,25 17,10,26,20,29 12,16,34,33,30,AG4,36	1,2,3 8,10,11 12,13,14 15,16	AS NEEDED or BY Hrs. Maint. Interval		19			

Liberty Utilities - Apple Valley (Liberty)
MONTHLY MAINTENANCE CHECK LIST
WELLS - Attachment B

WELL # _____ MONTH_____ YEAR_____

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
CHECK CHEMICAL INJECTION PUMPS	DAILY (5 DAYS A WEEK)																															
CHECK CALIBRATION OF ON-LINE ANALZERS	MONTHLY																															
CLEAN CHEMICAL FEED INJECTORS	MONTHLY																															
WELL SOUNDINGS & CAPACITY	MONTHLY																															
GENERATOR TEST RUN	MONTHLY																															
SERVICE PUMPS, MOTORS	SEMI ANNUALLY JUNE & DEC																															
ACID WASH MIOX CELLS	SEMI ANNUALLY JUNE & DEC																															
CHECK CALIBRATE FOR SOURCE METERS	ANNUALLY JUNE																															
SERVICE CHLORINE HOLDING TANKS	EVERY THREE YEARS																															

REMARKS _____

Liberty Utilities - Apple Valley (Liberty)
MONTHLY MAINTENANCE CHECK LIST
SYSTEM - Attachment C

SYSTEM _____ MONTH_____ YEAR_____

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
INSPECT INTERCONNECT VAULTS	QUARTERLY																															
TEST PRV RELIEF VALVES AT CB CONNECTIONS	ANNUALLY																															
SERVICE OR INSPECT CB CLA VALVES / PRVs	EVERY TWO YEARS	C	L	A		V	A	L	V	E		R	E	C	O	R	D	S														
SERVICE OR INSPECT CB CLA VALVES AT WELLS	EVERY FIVE YEARS	C	L	A		V	A	L	V	E		R	E	C	O	R	D	S														

REMARKS _____

Liberty Utilities - Apple Valley (Liberty)
MONTHLY MAINTENANCE CHECK LIST
RESERVOIR/BOOSTER PUMP STATION - Attachm

RESERVOIR # _____ MONT

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	1
INSPECT SITE	DAILY (7 DAYS A WEEK)																		
INSPECTED RESERVOIR EXTERIOR	WEEKLY																		
INSPECTED RESERVOIR ROOF AND SCREENS	SEMI ANNUALLY JUNE & DEC																		
INSPECTED RESERVOIR INTERIOR	EVERY FIVE YEARS																		
SERVICE PUMPS, MOTORS	SEMI ANNUALLY OR AS NEEDED JUNE & DEC																		

REMARKS _____

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OPERATIONS & MAINTENANCE PLAN

Liberty Utilities - Apple Valley (Liberty)

FIELD OPERATIONS DEPARTMENT

ATTACHMENT E

2010 MAINTENANCE SCHEDULE

		MONTHLY	MONTHLY	YEARLY	EVERY 2 YEARS	EVERY 2 YEARS	EVERY 3 YEARS	EVERY 3 YEARS	EVERY 3 YEARS	EVERY 3 YEARS		
MONTH	WEEK	PRESSURE ZONE PRESSURE MONITORING	SAND FILTER INSPECTION AND MAINTENANCE	FIRE HYDRANT INSPECTION AND FLUSHING (AVFPD)	PRV STATION INSPECTION AND MAINTENANCE	VALVE INSPECTION AND TURNING	FIRE HYDRANT INSPECTION AND FLUSHING (AVRWC)	FIRE HYDRANT FLOW TESTING (AVRWC / AVFPD)	AIR VAC INSPECTION AND MAINTENANCE	DEAD END LINE FLUSHING		
JAN	4	14 SITES	2 SITES	ALL SYSTEM	29 PRESSURE	CONTINUOUS	CONTINUOUS	CONTINUOUS	13 SITES	34 LINES FLUSHED		
	11	READ	INSPECTED AND	HYDRANTS	VALVE SITES	ON GOING	ON GOING	ON GOING	INSPECTED AND	T4N, R3W		
	18	MONTHLY	MAINTAINED	INSPECTED AND	INSPECTED AND	PROCESS	PROCESS	PROCESS	MAINTAINED AS			
	25		MONTHLY	FLUSHED BY	MAINTAINED				NEEDED			
FEB	1			AVFPD	BY OUTSIDE				2 SITES	31 LINES FLUSHED		
	8				CONTRACTOR				INSPECTED AND	T4N, R3W		
	15								MAINTAINED AS	T5N, R3W		
	22								NEEDED			
MARCH	1								7 SITES	28 LINES FLUSHED		
	8								INSPECTED AND	T5N, R3W		
	15								MAINTAINED AS			
	22								NEEDED			
	29											
APRIL	5								13 SITES	31 LINES FLUSHED		
	12								INSPECTED AND	T5N, R3W		
	19								MAINTAINED AS	T5N, R4W		
	26								NEEDED			
MAY	3								1 SITE	33 LINES FLUSHED		
	10								INSPECTED AND	T5N, R3W		
	17								MAINTAINED AS			
	24								NEEDED			
	31											
JUNE	7								4 SITES	41 LINES FLUSHED		
	14								INSPECTED AND	T5N, R3W		
	21								MAINTAINED AS	T6N, R3W		
	28								NEEDED			
JULY	5								9 SITES	19 LINES FLUSHED		
	12								INSPECTED AND	T5N, R3W		
	19								MAINTAINED AS			
	26								NEEDED			
AUG	2								2 SITES	24 LINES FLUSHED		
	9								INSPECTED AND	T5N, R3W		
	16								MAINTAINED AS	T5N, R4W		
	23								NEEDED			
	30											
SEP	6								7 SITES	46 LINES FLUSHED		
	13								INSPECTED AND	T5N, R3W		
	20								MAINTAINED AS	T5N, R4W		
	27								MNEEDED			
OCT	4								6 SITES	30 LINES FLUSHED		
	11								INSPECTED AND	T5N, R4W		
	18								MAINTAINED AS			
	25								NEEDED			
NOV	1								3 SITES	21 LINES FLUSHED		
	8								INSPECTED AND	T5N, R4W		
	15								MAINTAINED AS	T6N, R3W		
	22								NEEDED	T6N, R4W		
	29											
DEC	6									15 LINES FLUSHED		
	13									T6N, R4W		
	20											
	27											
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
LOCATION OF RECORDS		SYSTEM PRESSURE EXCEL SPREAD SHEETS Field maint. on K:\Drive	VALVE PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	HYDRANT PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	VALVE PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	VALVE PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	VALVE PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	HYDRANT PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	VALVE PROGRAM ACCESS DATA BASE Field maint. on K:\Drive	VALVE PROGRAM ACCESS DATA BASE Field maint. on K:\Drive		

Liberty Utilities - Apple Valley (Liberty)
MONTHLY OPERATIONS CHECK LIST
SYSTEM - Attachment E - 1

SYSTEM _____ MONTH_____ YEAR_____

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
PRESSURE SURVEY	MONTHLY	E	X	C	E	L		S	P	R	E	A	D		S	H	E	E	T													
SAND FILTER INSPECTION	MONTHLY	D	A	T	A		B	A	S	E																						
HYDRANT INSPECTION AND FLUSH BY AVFD	YEARLY	D	A	T	A		B	A	S	E																						
SERVICE OR INSPECT PRVs	EVERY TWO YEARS	D	A	T	A		B	A	S	E																						
OPERATE & INSPECT GATE VALVES	EVERY TWO YEARS	D	A	T	A		B	A	S	E																						
HYDRANTS FLUSHED AND INSPECTED BY AVR	EVERY TWO YEARS	D	A	T	A		B	A	S	E																						
FLOW TEST HYDRANTS	EVERY THREE YEARS	D	A	T	A		B	A	S	E																						
DEAD END LINE FLUSHING	EVERY THREE YEARS	D	A	T	A		B	A	S	E																						
AIR VAC INSPECTION AND MAINTENANCE	EVERY THREE YEARS	D	A	T	A		B	A	S	E																						

REMARKS _____

Procedure for Inspection, Repair and Replacement of Water Mains and Services

Effective Date: April 1, 2019

General

Liberty Utilities is committed to following these recommended guidelines for the effective operation and maintenance of its drinking water distributions systems as set forth in AWWA Standard G200-15, Distribution Systems Operation and Management. With respect to water mains and services, leaks are high priority, and we pay close attention to repairing them. Liberty Utilities strives to repair known leaks in a timely manner and collect information about the condition of existing water mains to aid in the decision-making process for main or service replacements. The prioritization of water main and service replacements is a process that is regularly reevaluated, considering all information related to the needs and costs for replacement in order to maintain a sustainable, safe and reliable system in a cost-effective manner.

Repair or Replacement

Known leaks are repaired in a timely manner, unless the severity of the leak is low enough such that postponing the repair to a safer and more reasonable time will benefit those involved or affected by the leak repair. Service leak repairs or replacements will be completed in accordance with AWWA Standard C800-14 and 17. Leak repair procedures include:

Scheduled Leak Repairs

- Call the regional notification center for Utility Location Services (811). Excavation by any means shall not begin until the required waiting period has expired, and the 811 ticket is valid to begin excavating.
- Take appropriate precautions for the safety of employees and the public, including traffic control devices per local requirements.
- Evaluate the situation regarding the need to shut down the water system in the area of the leak.
- In the determination of whether or not to shut down the water consider the following:
  - Critical Customers affected by a shutdown such as Hospitals, Dialysis Centers, Nursing Homes.
  - Ability to provide temporary water supply through alternative means to Critical Customers.
  - The need to obtain alternative supplies of water (i.e.., bottled water) to be brought in to supply critical customers before shutting the system down.
- Communicate the situation with local management and obtain approval to shut the system down.
- Once the approval is made to shut down the system, provide adequate notification to customers, as well as appropriate Liberty personnel, minimize the number of service interruptions and keep customers informed. Notification may be performed via phone call, email, IVR, door hanger, or other approved methods.
- If alternative water supplies are necessary, secure those before the shutdown.
- Make repairs with only approved materials.

- Make repairs with crews who have the appropriate credentials and/or certifications for that application.
- Follow Company Disinfection Guidelines (incorporates AWWA Standard C651-14).
- Record pipe information as discussed in the Inspection section of this plan.
- If possible, return area of leak to a condition as good as or better than the condition prior to the leak.

Leaks Requiring Immediate Action

- This is only for water leaks that have been determined to require immediate action and cannot be scheduled for repairs under the normal 811 waiting periods.
- Call the regional notification center for Utility Location Services (811) and inform them that it is an emergency repair.
- Directly contact other Utilities/Municipalities and inform them that you have an emergency repair situation.
- Excavation by any means shall not begin until the Underground Facilities in the area are located and marked out.
- Take appropriate precautions for the safety of employees and the public, including traffic control devices per local requirements.
- Evaluate the situation regarding the need to shut down the water system in the area of the leak.
- In the determination of whether or not to shut down the water system in the area of the leak, consider the following:
    - Critical Customers affected by a shutdown, such as Hospitals, Dialysis Centers, Nursing Homes.
    - Ability to provide temporary water supply through alternative means to Critical Customers.
    - The need to obtain alternative supplies of water to be brought in to supply critical customers.
- Communicate the situation with local management and obtain approval to shut the system down.
- Once the approval is made to shut down the system, provide adequate notification to customers if feasible, notify appropriate Liberty personnel, minimize the number of service interruptions and keep customers informed as practical. Notification may be performed via phone call, email, IVR, door hanger, or other approved methods.
- If alternative water supplies are necessary, secure those as soon as possible following the shutdown.
- Shut down the water and wait for the Underground Utilities to be located and marked before you begin excavating to make the required repairs.
- If it has been determined that the water does not need to be shut off, wait for the Underground Utilities to be located and marked before you begin excavating to make the required repairs.
- Make repairs with only approved materials.
- Make repairs with crews who have the appropriate credentials and/or certifications for that application.
- Follow Company Disinfection Guidelines (incorporates AWWA Standard C651-14).
- Record pipe information as discussed in the Inspection section of this plan.
- If possible, return area of leak to a condition as good as or better than the condition prior to the leak.

Water Main Repair Excavation before the Completion of the Locating/Marking Out of Underground Utilities

Water main leaks may be severe enough they present an Emergency condition that would require the excavation process to begin prior to the completion of the locating/marking out of Underground Facilities.

The determination of how long it will take for the Underground Utilities to be located and marked out is a critical piece of information to consider in the determination of proceeding with excavating under these circumstances.

An examples of a situations that may require excavating prior to the Locating and Marking out process being completed would be excavating to find valves that are covered over by pavement, concrete, etc.

Excavating prior to the Local 811 Locating and Marking out Process being completed is governed by the Local 811 Laws/Regulations.

Water service leaks shall not have excavations performed prior to the completion of the locating and marking out process. If the situation is severe enough on a water service and it cannot wait, it shall be shut down.

Local 811 System Allows Excavation prior to Locating/Marking out Process being Completed.

Proceed as Follows:

- Call the regional notification center for Utility Location Services (811) and inform them that it is an emergency repair.
- Directly contact other Utilities/Municipalities and inform them that you have an emergency repair situation.
- Take appropriate precautions for the safety of employees and the public, to include traffic control devices per local requirements.
- Communicate the situation with Senior Water Operations, Director or Above, management and obtain approval to begin excavating before the Locating/Marking out process is completed.
- Surface pavement/concrete shall be jackhammered or saw cut only to a depth to allow removal by hand tools.
- Surface pavement/concrete shall only be removed with hand shovels/bars/prying tools.
- Excavation shall only be performed with hand shovels or vacuum excavation without air/water lances.
- Excavate only to complete the minimum necessary to bring the situation under control.
- If at any time during this process any safety concerns/issues are encountered, the surface pavement/concrete removal process or sub surface excavation process shall stop and await the completion of the locating/marking out process.

Once the situation is brought under control, proceed to repair the water main as outlined in the **Scheduled Leak Repairs** section.

Local 811 System Does Not Allow Excavation Prior to Locating/Marking Out Process Being Completed.

If the Local 811 System's laws/regulations do not allow for emergency condition excavating prior to the locating and marking out process being completed, proceed per the **Leaks Requiring Immediate Action** section, which mandates waiting for the locating and marking out of Underground Facilities to be completed.

Leaks Repaired and Called into the 811 System as Emergencies Internal Reporting Requirements

Leaks that have been called into the Local 811 System as being Emergencies, shall be recorded in the Gensuite or equivalent system by the Local Water Operation personnel.

The circumstances of the situation shall be recorded in the system, so that a post event analysis can be performed.

Regular occurring reviews shall be conducted by Water Operations personnel, and the results shared across all the Water Operating areas to show each locations number of Leak Repair Emergency 811 events.

This review process is to be used to identify trends and make operational improvements/capital investments in Water System Operations and to ensure the 811 Emergency category is not being misapplied.

ATTACHMENT 5

BOOSTER PUMP DATA, WELL DATA, RESERVOIR DATA, AND PRESSURE REGULATING VALVE DATA

BOOSTER PUMP DATA

SITE NO.	ADDRESS	CITY	PRESSURE ZONE SERVED	AGE (years)	HP	STATIC (PSI)	GPM	PUMPING (PSI)	STATUS	COMMENTS
CORWIN 1	16781 CORWIN RD.	APPLE VALLEY	CORWIN	8	100		1237	125.6	ACTIVE	VFD
CORWIN 2	16781 CORWIN RD.	APPLE VALLEY	CORWIN	8	100		1181	126.5	ACTIVE	VFD
EL ORO 1	JR ASHOOD GOLF COURSE	APPLE VALLEY	JESS RANCH	20	50	81		85	ACTIVE	
EL ORO 2	JR ASHOOD GOLF COURSE	APPLE VALLEY	JESS RANCH	20	25	81		85	ACTIVE	
EL ORO 3	JR ASHOOD GOLF COURSE	APPLE VALLEY	JESS RANCH	20	15	81		85	ACTIVE	
RT KNOLLS 1	18946 KASSON CT.	APPLE VALLEY	DESERT KNOLLS	24	20	70	100	80	ACTIVE	
RT KNOLLS 2	18946 KASSON CT.	APPLE VALLEY	DESERT KNOLLS	24	15	70	100	80	ACTIVE	
HILLTOP 1	AV RD & TOWN CENTER DR.	APPLE VALLEY	JESS RANCH	23	40	75	320	78	ACTIVE	
HILLTOP 2	AV RD & TOWN CENTER DR.	APPLE VALLEY	JESS RANCH	23	75	75	1300	78	ACTIVE	VFD
HILLTOP 3	AV RD & TOWN CENTER DR.	APPLE VALLEY	JESS RANCH	23	75	75	1240	78	ACTIVE	
KASSON	16748 KASSON CT.	APPLE VALLEY	CORWIN	6	100		1100	145	ACTIVE	
ODDARD 1	21798 LAFAYETTE ST.	APPLE VALLEY	STODDARD	26	50		529	130	ACTIVE	
ODDARD 2	21798 LAFAYETTE ST.	APPLE VALLEY	STODDARD	26	50		520	130	ACTIVE	
ODDARD 3	21798 LAFAYETTE ST.	APPLE VALLEY	STODDARD	26	75		638	130	ACTIVE	
NGSTOWN 1	23876 CAHUILLA RD.	APPLE VALLEY	YOUNGSTOWN	0	10	85	107	100	ACTIVE	VFD
NGSTOWN 2	23876 CAHUILLA RD.	APPLE VALLEY	YOUNGSTOWN	0	10	85	107	100	ACTIVE	VFD
CKINGBIRD 1	10974 MOCKINGBIRD AVE.	APPLE VALLEY	MAIN	1	100		1350	93.5	ACTIVE	
CKINGBIRD 2	10974 MOCKINGBIRD AVE.	APPLE VALLEY	MAIN	1	100		1330	93.3	ACTIVE	

WELL DATA

NO.	ADDRESS	CITY	PRESSURE ZONE SERVED	DIMENSIONS	AGE (years)	HP	STATIC (PSI)	GPM	PUMPING (PSI)	STATUS	COMMENTS
L 7	16619 DANTE	VICTORVILLE	BELLVUE	14" X 324'	58	30	66	267	90	ACTIVE	SS, HYDRO
L 9	11029 SARATOGA RD.	APPLE VALLEY	MAIN	14" X 551'	61	125	N/A	862		ACTIVE	SS, EG
11R	11775 JAMACHA RD.	APPLE VALLEY	MAIN	18" X 494'	23	250	62	1877	70	ACTIVE	SS, EG
12	19990 OTTAWA RD.	APPLE VALLEY	MAIN	16" X 430'	62	150	122	927	131	ACTIVE	SS, EG
16	19900 SITTING BULL RD.	APPLE VALLEY	MAIN	12" X 320'	48	150	126	1155	136	ACTIVE	SS, EG
17R	14929 NOKOMIS RD.	APPLE VALLEY	MAIN	16" X 352'	11	125	110	558	119	ACTIVE	SS, EG
18	14519 RIVERSIDE DR.	APPLE VALLEY	MAIN	14" X 397'	45	200	151	1033	163	ACTIVE	SS, EG
19	21305 SITTING BULL RD.	APPLE VALLEY	MAIN	16" X 489'	45	300	78	900	82	ACTIVE	NATURAL GAS
20R	18990 CHICKASAW RD.	APPLE VALLEY	MAIN	16" X 430'	5	150	140	529	145	ACTIVE	SS
21	21292 POWHATTAN RD.	APPLE VALLEY	MAIN	20" X 395'	30	250	84	848	90	INACTIVE	SS
22	21090 OTTAWA RD.	APPLE VALLEY	MAIN	20" X 500'	27	350	83	1997	68	ACTIVE	SS, GENERATOR
23	15302 APPLE VALLEY RD.	APPLE VALLEY	MAIN	20" X 472'	27	125	137	488	143	ABANDONED	
24	21463 WANLEW RD.	APPLE VALLEY	MAIN	14" X 340'	29	250	N/A	N/A		ABANDONED	
25	19555 TUSCOLA RD.	APPLE VALLEY	MAIN	16" X 427'	24	150	160	362	155	ACTIVE	SS, EG
26	19089 SENECA RD.	APPLE VALLEY	MAIN	20" X 525'	23	350	150	1249	155	ACTIVE	SS, GENERATOR
27	20683 WANLEW RD.	APPLE VALLEY	MAIN	14" X 372'	10	100	N/A	0		ABANDONED	
28	16310 RIVERSIDE DR.	APPLE VALLEY	MAIN	18" X 415'	27	200	171	827	178	ACTIVE	SS, EG
29	19237 YUCCA LOMA RD.	APPLE VALLEY	MAIN	20" X 400'	11	450	130	2147	138	ACTIVE	SS, GENERATOR
30	11401 APPLE VALLEY RD.	APPLE VALLEY	JESS RANCH	14" X 400'	30	60	75	1496	77	ACTIVE	SS, EG
31	19201 APPLE VALLEY RD.	APPLE VALLEY	JESS RANCH	14" X 287'	26	60	N/A	0		INACTIVE	SHAFT BROKEN
33	12189 APPLE VALLEY RD.	APPLE VALLEY	MAIN	20" X 420'	8	400	120	2509	127	ACTIVE	SS, GENERATOR
34	12500 GERONIMO RD.	APPLE VALLEY	MAIN	16" X 400'	8	250	125	1512	135	ACTIVE	SS, EG, VFD
35	A.V. RD. & SITTING BULL RD.	APPLE VALLEY	MAIN	N/A	N/A	N/A	N/A	N/A	N/A	PROPOSED	ONLINE 2018
36	19779 TUSSING RANCH RD.	APPLE VALLEY	JESS RANCH	20" X 460'	7	400	70	3291	89	ACTIVE	SS, GENERATOR

TES EQUIPPED WITH EMERGENCY GENERATOR HOOK-UP
TES EQUIPPED WITH SOFT START
DE VARIABLE FREQUENCY DRIVE

0.5 0 1 2 3 4 Miles

RESERVOIR DATA

SITE NO.	ADDRESS	CITY	PRESSURE ZONE SERVED	AGE (years)	STORAGE (MG)	PUMP HP	STATIC (PSI)	GPM	PUMPING (PSI)	STATUS	COMMEN
HILLTOP TANK 1	20000 HWY 18	APPLE VALLEY	MAIN	57	1.5					ACTIVE	
HILLTOP TANK 2	20000 HWY 18	APPLE VALLEY	MAIN	27	1.5					ACTIVE	
DESERT KNOLLS 1	KASSON CT	APPLE VALLEY	MAIN	65	2					ACTIVE	
DESERT KNOLLS 2	KASSON CT	APPLE VALLEY	MAIN	26	1					ACTIVE	
JR HILLTOP	TOWN CENTER DR	APPLE VALLEY	JESS RANCH	26	0.285					ACTIVE	
BELL MOUNTAIN	SUBRANCH/LA EVANS	APPLE VALLEY	BELL MOUNTAIN	26	1					ACTIVE	
STODDARD	NAVAJO N/STODDARD WELL5	APPLE VALLEY	STODDARD	26	1					ACTIVE	
YOUNGSTOWN	SOUTH RIM/MOJAVA	APPLE VALLEY	YOUNGSTOWN	23	0.125					ACTIVE	
JR DEL ORO	DEL ORO @ GOLF COURSE	APPLE VALLEY	JESS RANCH	27	0.286					ACTIVE	
CORWIN	ROANOKE/SYLVAN	APPLE VALLEY	MAIN	9	1.475					ACTIVE	
MOCKINGBIRD	10974 MOCKINGBIRD AVE.	APPLE VALLEY	JESS RANCH	7	1.5					ACTIVE	

PRV DATA (17 PRESSURE ZONES)

SITE NO.	LOCATION	CITY	PRESSURE ZONE FROM / TO	AGE	CONTROL VALVES	SOURCE PSI	DISCHARGE PSI	MAXIMUM FLOW (GPM)	MINIMU FLOW (GPM
PRV 1	SENECA X RIVERSIDE DR	APPLE VALLEY	HIGH COUNTRY	22	6" X 3"	150	87	3560	
PRV 2	S/SENECA BETWEEN MINGO AND INKPA	APPLE VALLEY	HIGH COUNTRY	22	6" X 4"	150	85	800	
PRV 3	S/W CORNER OF SENECA AND APPLE VALLEY	APPLE VALLEY	HIGH COUNTRY	22	6"	118	55	1800	
PRV 4	NOKOMIS X TUSCOLA 4928	APPLE VALLEY	RIVERSIDE	22	4" X 2"	145	80	800	
PRV 5	SYMERON X NOKOMIS 4928	APPLE VALLEY	RIVERSIDE	22	6" X 3"	140	50	2200	
PRV 6	DALE EVANS X RANCHO DE LA BRISAS	APPLE VALLEY	AZTEC	23	4"	88	37	800	
PRV 7	KAMBRIDGE X APPLE VALLEY	APPLE VALLEY	HIGH COUNTRY	16	6" X 2"	100	95	2008	
PRV 8	CATALINA X YORKSHIRE LOT 19	APPLE VALLEY	HIGH COUNTRY	24	6" X 2"	UNK	70	2008	
PRV 9	SITTING BULL X PARAISO	APPLE VALLEY	HIGH COUNTRY	21	6" X 2"	130	70	2008	
PRV 10	OTTAWA X PACHA	APPLE VALLEY	HIGH COUNTRY	20	6" X 2"	UNK	70	2008	
PRV 11	WANLEW X RANCHO DE LA BRISAS	APPLE VALLEY	AZTEC	23	6" X 2"	88	42	2008	
PRV 12	N/W OF APPLE VALLEY RD & TUSCOLA INTERSECTION	APPLE VALLEY	RIVERSIDE	7	8" X 6"	155	58	2008	
PRV 14	YUCCA LOMA RD X MEADOW VIEW	APPLE VALLEY	TRACT 15250	11	8" X 6"	UNK	78	UNK	
PRV 15	STODDARD BOOSTER	APPLE VALLEY	RIVERSIDE	15	8" X 2"	UNK	UNK	3600	
PRV 16	VICTORVILLE INTERCONNECT WELL 7	APPLE VALLEY	BELLVUE	17	6" X 2"	80	68	UNK	
PRV 17	ARCATA SOUTH OF SKY TERRACE	APPLE VALLEY	REDUCED CORWIN	8	6" X 2"	52	32	1800	
PRV 18	CHIPPEWA X JERICO	APPLE VALLEY	REDUCED CORWIN	8	4" X 2"	100+	46	800	
PRV 19	ROANOKE X ATOKA	APPLE VALLEY	REDUCED CORWIN	8	4"	140	43	800	
PRV 21	14950 KINA X CHICKASAW	APPLE VALLEY	MANDAN / MAIN	1	6" X 2"	120	55	2008	
PRV 22	CHICKASAW AT WELL 20	APPLE VALLEY	MANDAN	1	6" X 6"	140	75	2008	

ATTACHMENT 6

SCHEDULE D-3 (DESCRIPTION OF TRANSMISSION AND DISTRIBUTION FACILITIES) FROM LIBERTY'S ANNUAL REPORT

SCHEDULE D-3
Description of Transmission and Distribution Facilities

A. LENGTH OF DITCHES, FLUMES AND LINED CONDUITS IN MILES FOR VARIOUS CAPACITIES
Capacities in Cubic Feet Per Second or Miner's Inches (State Which) _____

Line No.		0 to 5	6 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 75	76 to 100
1	Ditch								
2	Flume	NONE							
3	Lined conduit								
4									
5	Total	-	-	-	-	-	-	-	-

A. LENGTH OF DITCHES, FLUMES AND LINED CONDUITS IN MILES FOR VARIOUS CAPACITIES - Continued
Capacities in Cubic Feet Per Second or Miner's Inches (State Which) _____

Line No.		101 to 200	201 to 300	301 to 400	401 to 500	501 to 750	751 to 1000	Over 1000	Total All Lengths
6	Ditch								
7	Flume	NONE							
8	Lined conduit								
9									
10	Total	-	-	-	-	-	-	-	-

B. FOOTAGES OF PIPE BY INSIDE DIAMETERS IN INCHES - NOT INCLUDING SERVICE PIPING

Line No.		1	1 1/2	2	2 1/2	3	3 1/2	4	5	6
11	Ductile Iron							14		
12	Cast Iron (cement lined)							3,730		
13	Gravity Irrig.									
14	PVC DR 25									
15	Steel (ST, SLC. STC)			11,921	3,458	1,217	477	203,525	6,296	
16	CMLC Steel									
17	PE		775		350	3,731		1,200		
18	Cement - asbestos							5,283		
19	Welded steel	251								
20	PVC DR 18									
21	PVC CL 305-DR14		4	15	16	624		3,106		
22	PVC CL 200					20		13,100		
23	PVC CL 150			5,767		1,997		16,045		
24	Total	251	779	17,703	3,824	7,589	477	246,003	6,296	

B. FOOTAGES OF PIPE BY INSIDE DIAMETERS IN INCHES - NOT INCLUDING SERVICE PIPING - Continued

Line No.		10	12	14	15	16	18	20	24	30
25	Ductile Iron		90,827	3,473		64,731	35	30,550	59	
26	Cast Iron (cement lined)									
27	Gravity Irrig.		5,590						3,785	
28	PVC DR 25			18,153		585	5,795			
29	Steel (ST, SLC. STC)		119,193		4,515	20			2,428	
30	CMLC Steel			17		96		2,095		
31	PE									
32	Cement - asbestos	6,335	85,327	24,169		7,420				
33	Welded steel									
34	PVC DR 18			141		2,370				
35	PVC CL 305-DR14		3,366							
36	PVC CL 200	55	87,534	49		5,239	16			
37	PVC CL 150	1,760	191,767	203		16,984		40		
38	Total	8,150	583,604	46,205	4,515	97,445	5,846	32,685	6,272	

ATTACHMENT 7

SCHEDULE D-4 (NUMBER OF ACTIVE SERVICE CONNECTIONS) AND SCHEDULE D-5 (NUMBER OF METERS AND SERVICES ON PIPE SYSTEMS AT END OF YEAR) FROM LIBERTY'S ANNUAL REPORT

SCHEDULE D-4
Number of Active Service Connections

Classification	Metered - Dec 31		Flat Rate - Dec 31	
	Prior Year	Current Year	Prior Year	Current Year
Residential	18,689	18,811		
Commercial	1,412	1,414		
Industrial	2	2		
Public authorities	47	46		
Irrigation	166	168		
Other (specify)	6	6		
Agriculture				
Subtotal	20,322	20,447	-	-
Private fire connections	235	237		
Public fire hydrants	2,783	2,800		
Total	23,340	23,484	-	-

SCHEDULE D-5
Number of Meters and Services on Pipe Systems at End of Year

Size	Meters	Active Service Connections
5/8 x 3/4 - in	18,285	xxxxxxxxxxx
3/4 - in	786	
1 - in	980	
1 1/2 - in	168	
2 - in	179	
3 - in	26	
4 - in	70	
6 - in	132	
8 - in	50	
10 - in	7	
12 - in	1	
Total	20,684	-

SCHEDULE D-6
Meter Testing Data

A. Number of Meters Tested During Year as Prescribed in Section VI of General Order No. 103:

1. New, after being received . . .	-
2. Used, before repair	90
3. Used, after repair	-
4. Found fast, requiring billing adjustment	4

B. Number of Meters in Service Since Last Test

1. Ten years or less	18,364
2. More than 10, but less than 15 years	2,301
3. More than 15 years	19

ATTACHMENT 8

SCHEDULE D-1a (SOURCES OF SUPPLY AND WATER DEVELOPED – WELLS)
FROM LIBERTY'S ANNUAL REPORT

SCHEDULE D-1a
Sources of Supply and Water Developed- WELLS

NO.	ADDRESS	IMENSION	DEPTH TO WATER	GPM	ANNUAL PRODUCTION 100 Cu. Ft.
4	Ptn. SW 1/4, NW 1/4, Sec 27	20"			0.00
7	Ptn. NW 1/4, Sec 34 T6N R4W	14"	69'	301	5,715.00
9	Lot 262, Tract 5885	14"	238'	754	32,962.00
11R	Lot 971, Tract 6115	18"	216'	2,011	624,724.00
12	Ptn. NE 1/4, SW 1/4, Sec 30	16"	99'	1,000	73,793.00
16	Ptn. SE 1/4, Sec 30 T5N R3W	16"	86'	1,262	45,708.00
17R	Ptn. SW 1/4, Sec 13 T5N R4W	16"	63'	638	22,293.00
18	Lot 360, Tract 5704	16"	62'	1,251	528,185.00
19	Lot 1059, Tract 6257	16"	185'	725	6,249.00
20R	Ptn. SW 1/4, Sec 13 T5N R4W	16"	92'	543	46,613.00
21	Ptn. NW 1/4, Sec 28 T5N R3W	20"	167`		0.00
22	Ptn. NE 1/4, SW 1/4, Sec 28	20"	184'	1,994	142,149.00
23	Lot 335, Tract 4053	20"	123'		0.00
25	18555 Tuscola, T5N R4W Sec 13	16"	66'	429	19,411.00
26	18588 Seneca, T5N R4W Sec 13	20"	82'	990	393,653.00
27	21271 Waalew Road (Inactive with SWRCB)	10"	164'		0.00
28	Riverside Drive	18"	52'	950	236,194.00
29	19237 Yucca Loma	20"	72'	2,171	793,639.00
33	12189 Apple Valley Road	20"	98'	2,594	410,746.00
34	12500 Geronimo Road	16"	148'	1,670	87,164.00
R6	Apple Valley Road, South of Poppy Road	20"	86'	3,288	40,575.00
36	19739 Tussing Ranch Road	20"	87'	3,288	537,057.00
30	11401 Apple Valley Road	14"	96'	1,422	109,399.00
31	Apple Valley Road (Out of Service)	14"	0'	0	0.00
3	Agricultural Well	18"	0'	0	0.00
4	Agricultural Well	18"	85'	890	658,772.00
5	Agricultural Well	18"	85'	2,181	1,387,710.00
Marine well 1	38001 Fairway Ave. Yermo, CA	12"	161'	184	24,339.84
Hellbro # 4	Yermo, CA	12"	169'	152	4,846.36
				30,688	6,231,897.20

ATTACHMENT 9

LIBERTY UTILITIES CUSTOMER SATISFACTION RESULTS FOR WAVE 1-3 (MARCH – SEPT 2017), WAVE 4-7 (2018) AND WAVE 8 (2019)

Customer Satisfaction Results

CA – Apple Valley **Wave 1 -3** **March -Sept 2017**

Liberty Utilities

Contents

- Objectives
- Profiles & Study Methodology
- CSAT Factor Weights
- Index Results
- Attribute Scores
- Ranking Scores & Best In Class
- Summary

Liberty Utilities

Objectives

- Analyze current customer satisfaction levels with Liberty Utilities among CA Apple Valley Water Customers.
- Compare current customer satisfaction levels with industry standards .
- Summarize findings and highlight areas of opportunity.

Terminology

- **Wave:** the period of study, IE: March – June 2017
- **Fielding Dates:** the actual dates the survey was conducted.
- **Relative Impact:** percentage effect of an index factor on customer satisfaction.
- **Net Promoter Score:** the index range that measures the willingness of customers to recommend our products or services to others.
- **Index Score:** summarizes multiple performance indicators.
- **Attribute Score:** the actual aggregate that make up the overall indices.
- **Detractor:** percentage of customers who do not promote a company.

Liberty Utilities

Profiles & Study Methodology

Participant Demographic

- Generation: 13% Pre-Boomer (65-87), 40% Boomer (53-71), 14% Gen X (38-52), 14% Gen Y (22-37)
- Gender: 37% Female, 49% Male
- Residential Areas: 25% Rural, 65% Suburban, 10% Urban

Liberty Utility Profile

- CA Apple Valley Water has 20,515 customers.
- They received 37,379 calls in 2016, and serviced 12,656 orders.
- Phone answering Service level was 84% year end, above target.

Methodology

- Of valid 5,891 emails contacted, a cumulative total of 501 surveys or 8.5% were completed.
- Fielding dates: March – Sept 2017
- Conducted 100% On-line.

Liberty Utilities

Industry Factor Weights

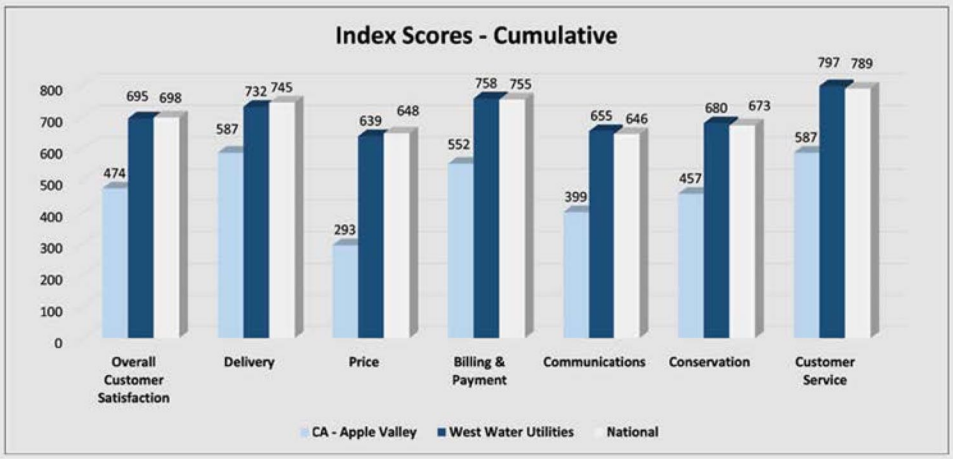
Factor Weighting	Water Utility Survey
Factors	**Relative Impact**
Delivery	26%
Price	21%
Billing & Payment	15%
Conservation	15%
Communications	15%
Customer Service	8%

- This chart represents the relative impact of six factors on customer satisfaction scores in the Water Utility Industry. J.D. Power establishes the factor weighting through regression analysis.
- Factor weighting will help Liberty Utilities determine where we find the best opportunities for improved customer satisfaction.

Liberty Utilities

Index Scores

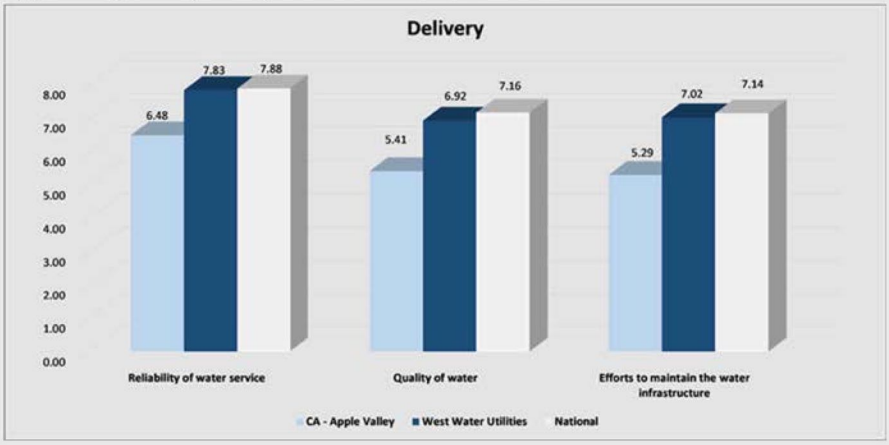
- ✓ Customer satisfaction score was 3.82/10 compared to the Western water utilities of 7.20 and 7.22 for national average.
- ✓ Overall customer service indexed score achieved was 474/1000 compared to the Western region water utilities score of 695 and an National average of 698.
- ✓ Top performance indices were Delivery, Billing/Payment, and Customer Service.



Liberty Utilities

Attribute Scores

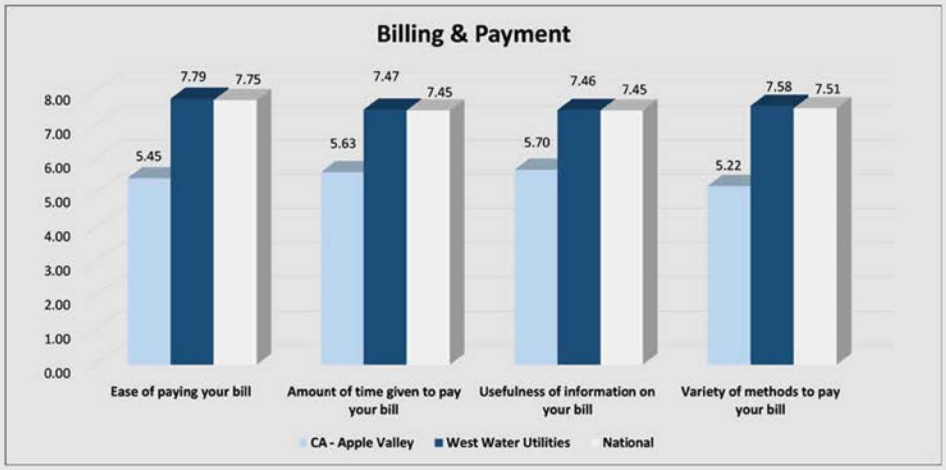
- ✓ Customers were asked to rate attributes on a 10 point scale.
- ✓ The following Attribute analysis looks at the top three factors ranked in weight of importance to the customer according to Industry standard.
- ✓ Delivery, Billing & Payment, and Customer Service.



- ✓ Most areas scored well for however there is opportunity to increase efforts to maintain the water infrastructure.

Liberty Utilities

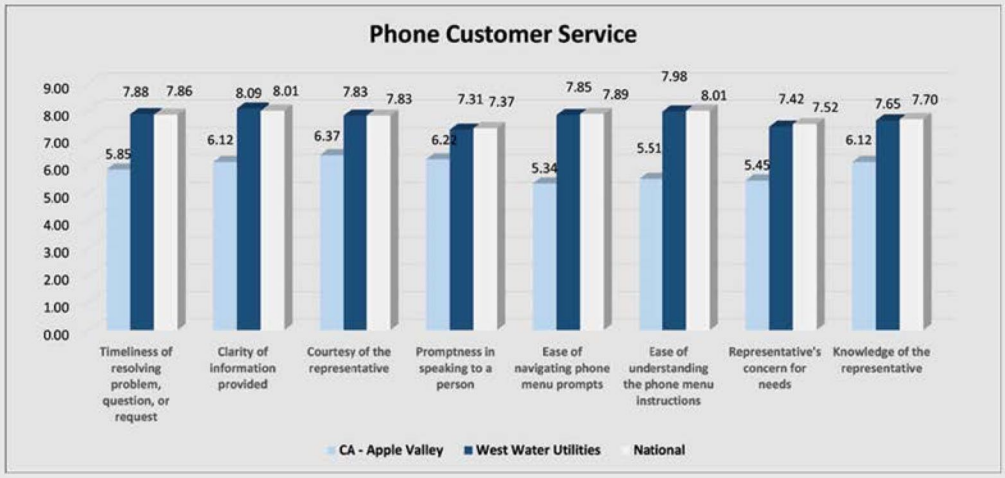
Attribute Scores



- ✓ Usefulness of bill info and amount of time given to pay bill were top scores.
- ✓ Areas of opportunity include variety of methods to pay bill.

Liberty Utilities

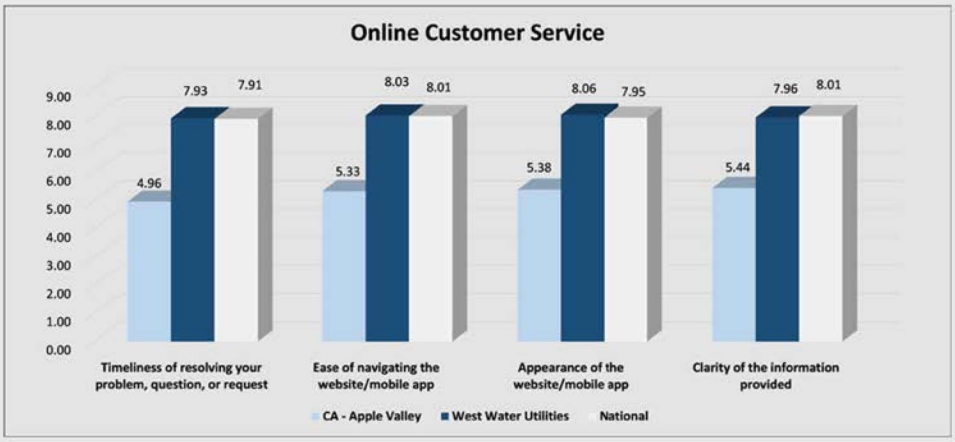
Attribute Scores



- ✓ Promptness in speaking to a person and Courtesy of rep were top scores.
- ✓ Areas of opportunity ease of phone menus and reps concern for needs.

Liberty Utilities

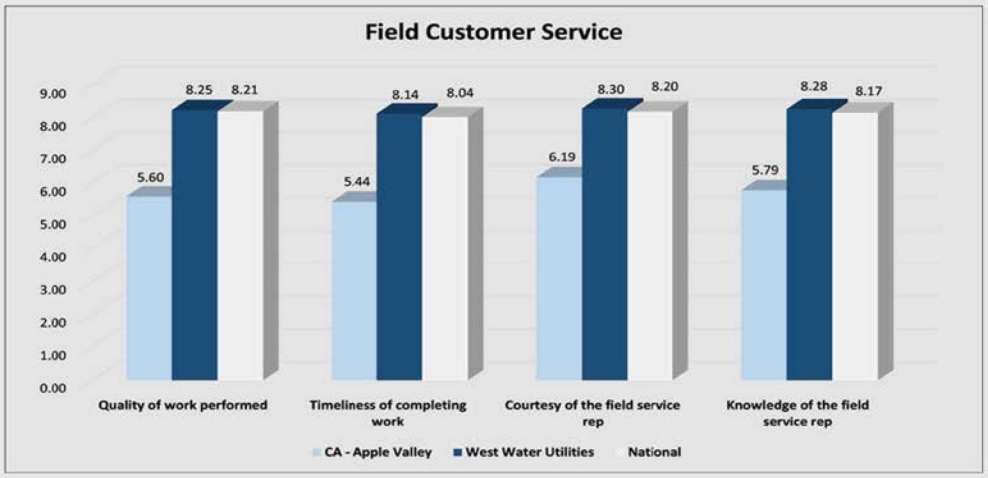
Attribute Scores



- ✓ Appearance of the website and clarity of info provided were top scores.
- ✓ Areas of opportunity include ease of navigation and timeliness of resolving problem, question, or request.

Liberty Utilities

Attribute Scores



- ✓ Courtesy of field rep and knowledge of the field service rep were top scores.
- ✓ Areas of opportunity include quality of work performed and timeliness of completing work.

Liberty Utilities

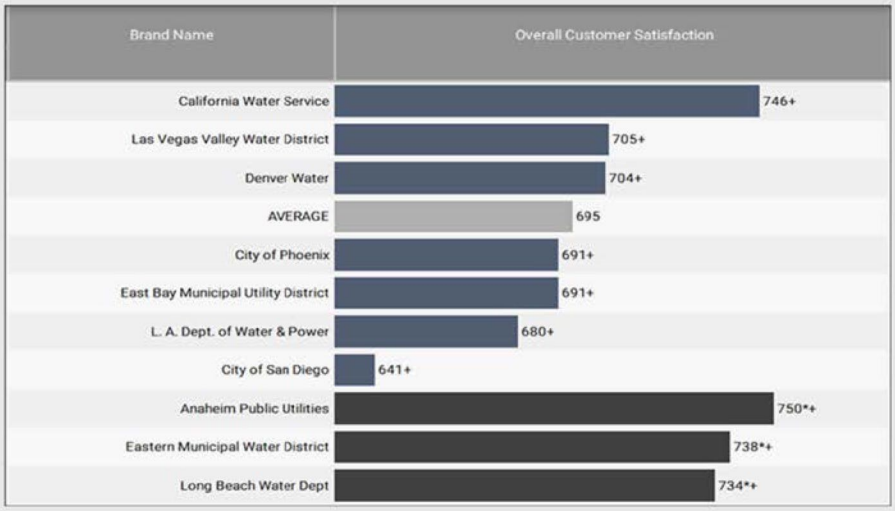
Top Ten Scores by Indices & Attribute

Indice	Importance to Customer (Rank 1-6)	Performance Attributes	CA Apple Valley	West Water Utilities	National
Delivery	1	Reliability of water service	6.48	7.83	7.88
Phone Customer Service	6	Phone - Courtesy of the representative	6.37	7.83	7.83
Phone Customer Service	6	Phone - Promptness in speaking to a person	6.22	7.31	7.37
Field Customer Service	6	FS - Courtesy of the field service rep	6.19	8.30	8.20
Phone Customer Service	6	Phone - Clarity of information provided	6.12	8.09	8.01
Phone Customer Service	6	Phone - Knowledge of the representative	6.12	7.65	7.70
Phone Customer Service	6	Phone - Timeliness of resolving problem, question, or reques	5.85	7.88	7.86
Field Customer Service	6	FS - Knowledge of the field service rep	5.79	8.28	8.17
Billing and Payment	3	Usefulness of information on your bill	5.70	7.46	7.45
Billing and Payment	3	Amount of time given to pay your bill	5.63	7.47	7.45
Field Customer Service	6	FS - Quality of work performed	5.60	8.25	8.21
Phone Customer Service	6	Phone - Ease of understanding the phone menu instructions	5.51	7.98	8.01
Phone Customer Service	6	Phone - Representative's concern for needs	5.45	7.42	7.52
Billing and Payment	3	Ease of paying your bill	5.45	7.79	7.75
Online Customer Service	6	Online - Clarity of the information provided	5.44	7.96	8.01
Field Customer Service	6	FS - Timeliness of completing work	5.44	8.14	8.04
Delivery	1	Quality of water	5.41	6.92	7.16
Online Customer Service	6	Online - Appearance of the website/mobile app	5.38	8.06	7.95
Phone Customer Service	6	Phone - Ease of navigating phone menu prompts	5.34	7.85	7.89
Online Customer Service	6	Online - Ease of navigating the website/mobile app	5.33	8.03	8.01
Delivery	1	Efforts to maintain the water infrastructure	5.29	7.02	7.14
Billing and Payment	3	Variety of methods to pay your bill	5.22	7.58	7.51
Online Customer Service	6	Online - Timeliness of resolving your problem, question, or r	4.96	7.93	7.91
Conservation	3	Variety of water conservation programs offered	4.42	6.80	6.67
Conservation	3	Actions to take care of the environment	4.28	6.77	6.72
Conservation	3	Planning for the future	4.28	6.82	6.79
Communications	3	Usefulness of suggestions to reduce usage/lower bills	4.22	6.81	6.64
Communications	3	Creating messages that get your attention	4.11	6.32	6.28
Communications	3	Efforts to communicate changes that affect account/service	4.09	6.62	6.54
Price	2	Ease of understanding your pricing	3.89	6.63	6.71
Communications	3	Keeping you informed about efforts to keep water costs low	3.38	6.41	6.35
Price	2	Fairness of pricing	2.58	6.28	6.38
Price	2	Total cost of your water service	2.55	6.32	6.42

Liberty Utilities

Best in Class

- ✓ This chart represents the best in class scores for West Water Utilities.
- ✓ From these examples, best practices and learnings may be possible through ESource to gain insights and improvement opportunities.



Liberty Utilities

Summary

- ✓ Liberty Utilities CA Apple Valley Water scored generally well according to comparisons with National averages and comparable Utilities in the categories of Field and phone Customer Service.
- ✓ Areas of opportunity include Attention to Price, Communications, and Conservation.
- ✓ This is the cumulative wave 1 – 3 of CSAT surveys done using J.D. Power's scoring model.
- ✓ For reliability, cumulative scores for successive waves are presented in this deck
- ✓ As more waves of data become available, year over year analysis will be possible using consistent metrics.

Liberty Utilities

Customer Satisfaction Results

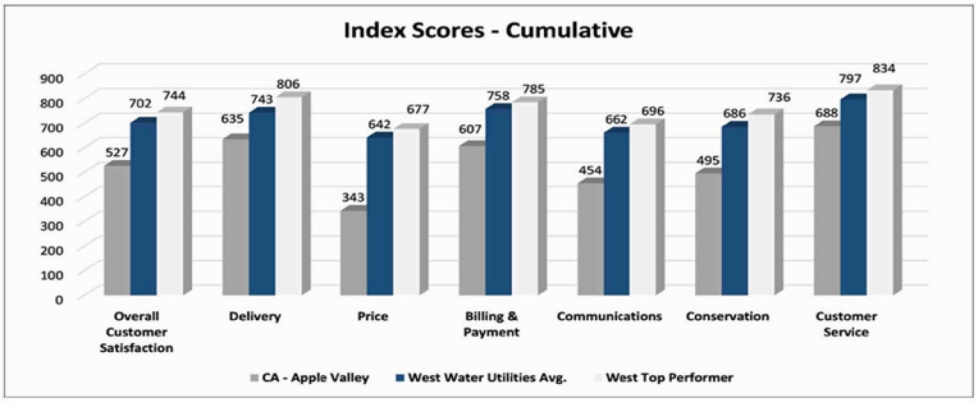
Apple Valley Water

Wave 4 -7 2018

Liberty Utilities

Index Scores

- ✓ Current customer satisfaction levels are compared with comparable industry average and top performers syndicated 2017.
- ✓ Overall index achieved was 527 compared to the West Water Utilities average of 702 and West top performer of 744 .
- ✓ Top performance indices were Customer Service, Delivery, and Billing & Payment.



Liberty Utilities

2018 Progress vs. Scorecard Target

- ✓ This chart represents current CSAT progress against the 2018 overall satisfaction goal, assuming all factors are improved equally to reach that target.
- ✓ The 2018 goal is to reach 20% of the top quartile overall satisfaction score by region, size and commodity based on 2017 syndicated (National) results.

Liberty Utilities

2018 Progress vs. Scorecard Target Data

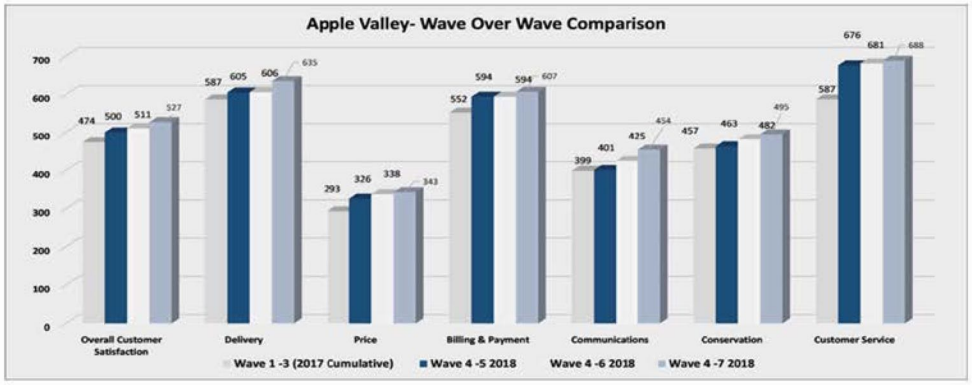
Apple Valley Water	Overall Customer Satisfaction	Delivery	Price	Billing & Payment	Communications	Conservation	Customer Service
2017 W1-3 (Cumulative)	474	587	293	552	399	457	587
2018 W4 - 7	527	635	343	607	454	495	688
2017 Top Quartile Score	716	766	664	769	678	702	829
2017 Actual to Top Quartile	242	179	371	217	279	245	242
2018 Goal (20% of Top Quartile)	522	623	367	595	455	506	635
Difference	189	131	321	162	224	207	141
% of 2018 Goal to date	**101%**	**102%**	**93%**	**102%**	**100%**	**98%**	**108%**

Liberty Utilities

Wave Over Wave Comparison

Apple Valley - Wave over Wave Comparison

Category	Wave 1 -3 (2017 Cumulative)	Wave 4 -5 2018	Wave 4 -6 2018	Wave 4 -7 2018
Overall Customer Satisfaction	474	500	511	527
Delivery	587	605	606	635
Price	293	326	338	343
Billing & Payment	552	594	594	607
Communications	399	401	425	454
Conservation	457	463	482	495
Customer Service	587	676	681	688



Liberty Utilities

Scores by Indices & Attribute

Indice	Importance to Customer (Rank 1-6)	Performance Attributes	CA Apple Valley	West Water Utilities Average	West Water Utilities Top Performer	% of Utilities Average	% of Top Performer
Billing and Payment	3	Usefulness of information on your bill	6.40	7.46	7.72	86%	83%
Billing and Payment	3	Amount of time given to pay your bill	6.32	7.48	7.74	84%	82%
Billing and Payment	3	Variety of methods to pay your bill	5.62	7.55	7.89	74%	71%
Billing and Payment	3	Ease of paying your bill	5.84	7.79	8.03	75%	73%
Communications	3	Efforts to communicate changes that affect account/service	4.70	6.68	7.09	70%	66%
Communications	3	Usefulness of suggestions to reduce usage/lower bills	4.77	6.86	7.17	70%	67%
Communications	3	Creating messages that get your attention	4.48	6.41	6.71	70%	67%
Communications	3	Keeping you informed about efforts to keep water costs low	4.03	6.50	6.84	62%	59%
Conservation	3	Planning for the future	4.91	6.88	7.43	71%	66%
Conservation	3	Variety of water conservation programs offered	4.79	6.85	7.24	70%	66%
Conservation	3	Actions to take care of the environment	4.69	6.85	7.44	69%	63%
Delivery	1	Reliability of water service	7.21	7.92	8.39	91%	86%
Delivery	1	Efforts to maintain the water infrastructure	5.80	7.12	7.68	81%	75%
Delivery	1	Quality Of Water	5.53	7.08	7.97	79%	71%
Field Customer Service	6	Timeliness of completing work	8.25	8.27	8.49	100%	97%
Field Customer Service	6	Courtesy of the field service representative	8.00	8.30	8.56	96%	93%
Field Customer Service	6	Quality of work performed	7.44	8.27	8.50	90%	88%
Field Customer Service	6	Knowledge of the field service representative	7.44	8.23	8.66	90%	86%
Online Customer Service	6	Clarity of the information provided	6.32	7.98	8.46	79%	75%
Online Customer Service	6	Appearance of the website	6.36	7.96	8.28	80%	77%
Online Customer Service	6	Ease of navigating the website	6.14	8.01	8.52	77%	72%
Online Customer Service	6	Timeliness of resolving your problem, question, or request	5.85	8.03	8.33	73%	70%
Phone Customer Service	6	Knowledge of the representative	7.94	8.08	8.28	98%	96%
Phone Customer Service	6	Courtesy of the representative	7.84	7.98	8.32	98%	94%
Phone Customer Service	6	Promptness in speaking to a person	7.11	7.57	7.79	94%	91%
Phone Customer Service	6	Ease of navigating phone menu prompts	6.53	8.01	8.29	82%	79%
Phone Customer Service	6	Ease of understanding the phone menu instructions	7.00	7.95	8.65	88%	81%
Phone Customer Service	6	Clarity of information provided	7.46	8.09	8.70	92%	86%
Phone Customer Service	6	Representative's concern for needs	6.79	7.70	8.27	88%	82%
Phone Customer Service	6	Timeliness of resolving problem, question, or request	6.50	7.84	8.53	83%	76%
Price	2	Ease of understanding your pricing	4.52	6.67	6.93	68%	65%
Price	2	Total cost of your water service	3.04	6.36	6.72	48%	45%
Price	2	Fairness of pricing	3.03	6.32	6.70	48%	45%

Liberty Utilities

Apple Valley Top 10 Scores

% Top Performer

Indice	Importance to Customer (Rank 1-6)	Performance Attributes	CA Apple Valley	West Water Utilities Average	West Water Utilities Top Performer	% of Top Performer
Field Customer Service	6	Timeliness of completing work	8.25	8.27	8.49	97%
Phone Customer Service	6	Knowledge of the representative	7.94	8.08	8.28	96%
Phone Customer Service	6	Courtesy of the representative	7.84	7.98	8.32	94%
Field Customer Service	6	Courtesy of the field service representative	8.00	8.30	8.56	93%
Phone Customer Service	6	Promptness in speaking to a person	7.11	7.57	7.79	91%
Field Customer Service	6	Quality of work performed	7.44	8.27	8.50	88%
Field Customer Service	6	Knowledge of the field service representative	7.44	8.23	8.66	86%
Delivery	1	Reliability of water service	7.21	7.92	8.39	86%
Phone Customer Service	6	Clarity of information provided	7.46	8.09	8.70	86%
Billing and Payment	3	Usefulness of information on your bill	6.40	7.46	7.72	83%

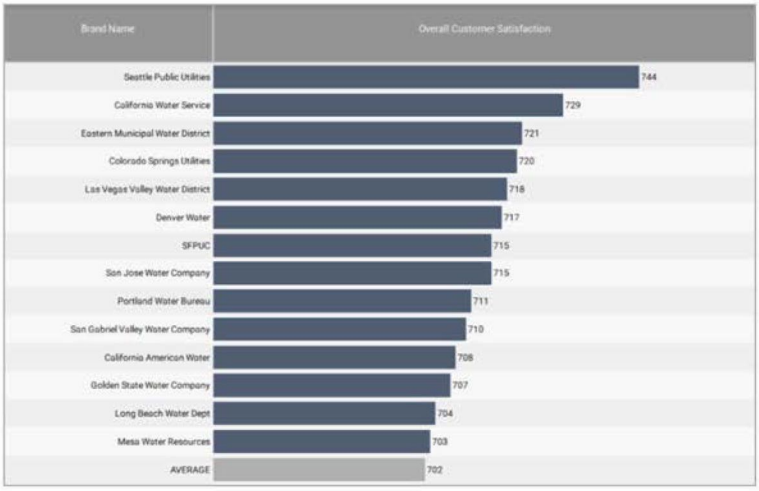
% Avg. Utilities

Indice	Importance to Customer (Rank 1-6)	Performance Attributes	CA Apple Valley	West Water Utilities Average	West Water Utilities Top Performer	% of Utilities Average
Field Customer Service	6	Timeliness of completing work	8.25	8.27	8.49	100%
Phone Customer Service	6	Knowledge of the representative	7.94	8.08	8.28	98%
Phone Customer Service	6	Courtesy of the representative	7.84	7.98	8.32	98%
Field Customer Service	6	Courtesy of the field service representative	8.00	8.30	8.56	96%
Phone Customer Service	6	Promptness in speaking to a person	7.11	7.57	7.79	94%
Phone Customer Service	6	Clarity of information provided	7.46	8.09	8.70	92%
Delivery	1	Reliability of water service	7.21	7.92	8.39	91%
Field Customer Service	6	Knowledge of the field service representative	7.44	8.23	8.66	90%
Field Customer Service	6	Quality of work performed	7.44	8.27	8.50	90%
Phone Customer Service	6	Representative's concern for needs	6.79	7.70	8.27	88%

Liberty Utilities

Best in Class

- ✓ This chart represents the best in class scores for West Water Utilities.
- ✓ From these examples, best practices and learnings may be possible through E Source to gain insights and improvement opportunities.



Liberty Utilities

Summary

- ✓ Apple Valley scored generally well in the categories of Customer Service, Delivery, and Billing & Payment..
- ✓ Areas of opportunity include attention to Conservation, Price, and Communication.
- ✓ This is the cumulative W4 - 7 2018 CSAT survey done using J.D. Power's scoring model.
- ✓ Of 8,220 emails contacted, a total of 194 surveys or 2.3% were completed 100% on line. Fielding dates: Dec 2017 to Oct 2018.

Liberty Utilities

Customer Satisfaction Results

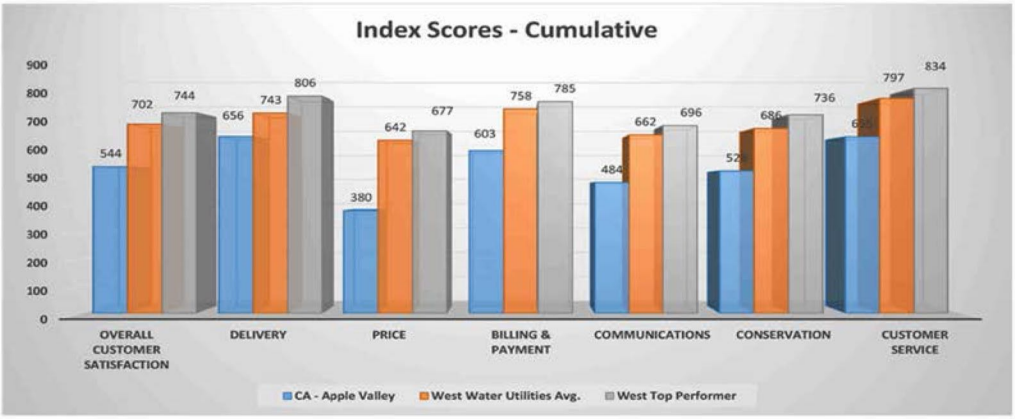
Apple Valley Water

Wave 8 2019

Liberty Utilities

Index Scores

- ✓ Current customer satisfaction levels are compared with comparable industry average and top performers from J.D. Power's 2017 syndicated (national) study.
- ✓ For Wave 8 2019, overall index achieved was 544 compared to the West Water Utilities average of 702 and West top performer of 744 .
- ✓ Top performance indices were Customer Service, Delivery, and Billing & Payment.



Liberty Utilities

2019 Progress vs. Scorecard Target

This analysis and chart represents current CSAT progress against the 2019 threshold satisfaction goal, assuming all factors are improved equally to reach that target

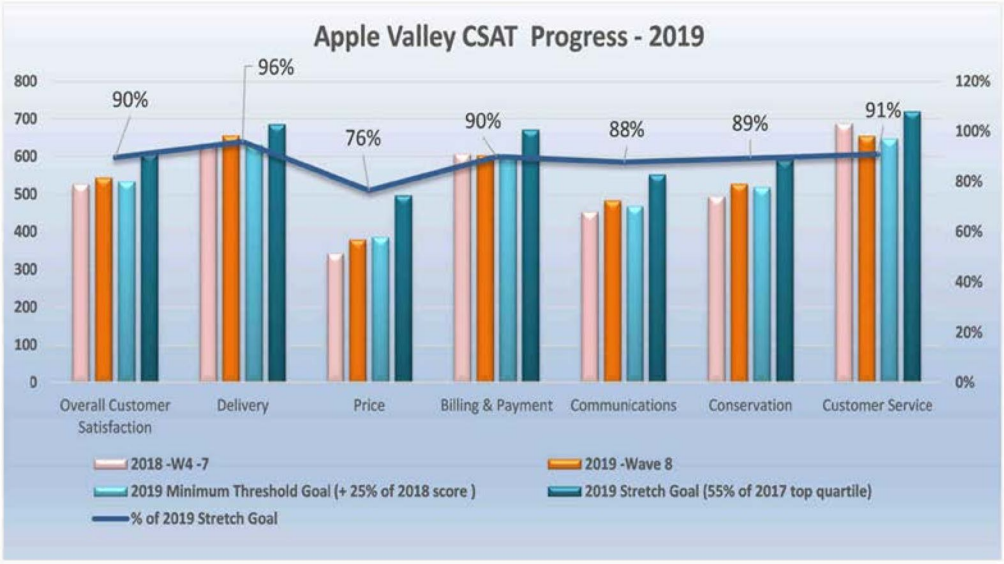
The 2018 threshold goal is to improve 25% over the cumulative overall customer satisfaction score from 2018

2018 cumulative scores and the 2019 stretch goal are included for reference; the 2019 stretch goals is to reach 55% of the top quartile overall satisfaction score by region, size and commodity based on 2017 syndicated (National) results

Apple Valley	Overall Customer Satisfaction	Delivery	Price	Billing & Payment	Communications	Conservation	Customer Service
2017 W1- 3	474	587	293	552	399	457	587
2018 -W4 -7	527	635	343	607	454	495	688
2019 -Wave 8	544	656	380	603	484	528	655
2017 Top Quartile Score	716	766	664	769	678	702	829
2019 Minimum Threshold Goal (+ 25% of 2018 score)	535	632	386	606	469	518	648
2019 Stretch Goal (55% of 2017 top quartile)	607	685	497	671	552	592	720
% of 2019 Threshold Goal	**102%**	**104%**	**98%**	**99%**	**103%**	**102%**	**101%**
% of 2019 Stretch Goal	**90%**	**96%**	**76%**	**90%**	**88%**	**89%**	**91%**

Liberty Utilities

2019 Progress vs. Scorecard Target Chart



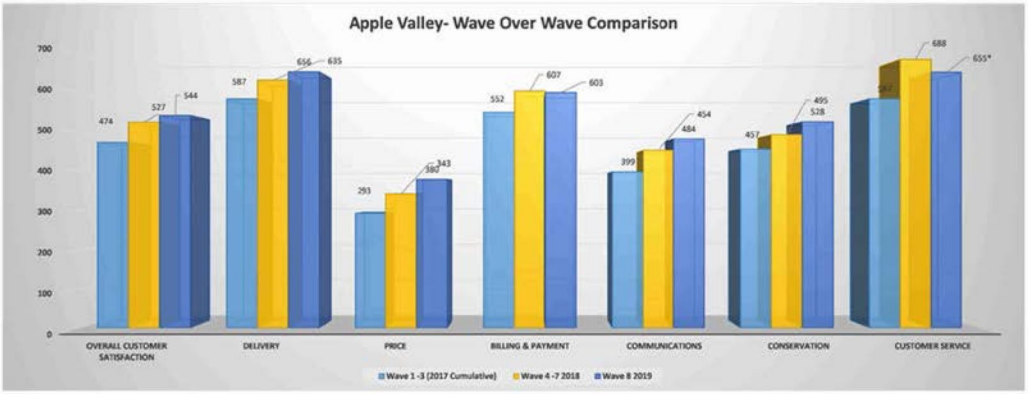
Liberty Utilities

Wave Over Wave Comparison

Apple Valley - Wave over Wave Comparison

Category	Wave 1 -3 (2017 Cumulative)	Wave 4 -5 2018	Wave 4 -6 2018	Wave 4 -7 2018	Wave 8 2019
Overall Customer Satisfaction	474	500	511	527	544
Delivery	587	605	606	635	656
Price	293	326	338	343	380
Billing & Payment	552	594	594	607	603
Communications	399	401	425	454	484
Conservation	457	463	482	495	528
Customer Service	587	676	681	688	655*

* Small sample size



Liberty Utilities

Scores by Indices & Attribute

Sorted by weighted impact to customer

Indice	Performance Attributes	% Overall Impact to Customer	CA Apple Valley	West Water Utilities Average	West Water Utilities Top Performer	% of Utilities Average	% of Top Performer
Delivery	Reliability of water service	10.9%	6.93	7.92	8.39	88%	83%
Delivery	Quality of water	8.4%	5.24	7.08	7.97	74%	66%
Price	Total cost of your water service	8.0%	2.93	6.36	6.72	46%	44%
Price	Fairness of pricing	7.7%	2.85	6.32	6.70	45%	43%
Delivery	Efforts to maintain the water infrastructure	7.3%	5.49	7.12	7.68	77%	72%
Price	Ease of understanding your pricing	5.7%	4.27	6.67	6.93	64%	62%
Conservation	Variety of water conservation programs offered	5.4%	4.42	6.85	7.24	65%	61%
Conservation	Planning for the future	5.2%	4.43	6.88	7.43	64%	60%
Conservation	Actions to take care of the environment	5.2%	4.30	6.85	7.44	63%	58%
Billing and Payment	Ease of paying your bill	4.1%	5.72	7.79	8.03	73%	71%
Communications	Usefulness of suggestions to reduce usage/lower bills	4.0%	4.33	6.86	7.17	63%	60%
Communications	Efforts to communicate changes that affect account/service	3.9%	4.10	6.68	7.09	61%	58%
Billing and Payment	Amount of time given to pay your bill	3.7%	6.13	7.48	7.74	82%	79%
Communications	Creating messages that get your attention	3.7%	3.88	6.41	6.71	61%	58%
Billing and Payment	Usefulness of information on your bill	3.6%	6.22	7.46	7.72	83%	81%
Communications	Keeping you informed about efforts to keep water costs low	3.6%	3.41	6.50	6.84	52%	50%
Billing and Payment	Variety of methods to pay your bill	3.3%	5.59	7.55	7.89	74%	71%
Online Customer Service	Appearance of the website	0.6%	6.00	7.96	8.28	75%	72%
Online Customer Service	Ease of navigating the website	0.6%	5.20	8.01	8.52	65%	61%
Online Customer Service	Timeliness of resolving problem, question, or request	0.6%	5.00	8.03	8.33	62%	60%
Phone Customer Service	Timeliness of resolving problem, question, or request	0.6%	6.14	7.84	8.53	78%	72%
Online Customer Service	Clarity of the information provided	0.5%	5.80	7.98	8.46	73%	69%
Phone Customer Service	Clarity of information provided	0.5%	7.50	8.09	8.70	93%	86%
Phone Customer Service	Courtesy of the representative	0.4%	8.33	7.98	8.32	104%	100%
Phone Customer Service	Promptness in speaking to a person	0.4%	7.15	7.57	7.79	95%	92%
Field Customer Service	Timeliness of completing work	0.3%	9.00	8.27	8.49	109%	106%
Field Customer Service	Courtesy of the field service representative	0.3%	7.75	8.30	8.56	93%	91%
Field Customer Service	Quality of work performed	0.3%	7.00	8.27	8.50	85%	82%
Phone Customer Service	Ease of understanding the phone menu instructions	0.3%	7.80	7.95	8.65	98%	90%
Phone Customer Service	Ease of navigating phone menu prompts	0.3%	7.20	8.01	8.29	90%	87%
Phone Customer Service	Representative's concern for needs	0.3%	6.54	7.70	8.27	85%	79%
Field Customer Service	Knowledge of the field service representative	0.2%	6.75	8.23	8.66	82%	78%
Phone Customer Service	Knowledge of the representative	0.2%	7.85	8.08	8.28	97%	95%

Liberty Utilities

Summary

- ✓ Top performance indices were Customer Service, Delivery, and Billing & Payment
- ✓ Areas of opportunity include conservation, Price, and Communication
- ✓ Wave 8 is the first CSAT survey completed using J.D. Power's scoring model for the 2019 scorecard year
- ✓ Of 8,820 emails contacted, a total of 151 surveys or 1.7% were completed
- ✓ Surveys are completed online only
- ✓ Fielding dates: Dec 2018

Liberty Utilities

Section 4. Eligibility Conditions. Before the Town Manager may employ any individual pursuant to this Resolution, the Town Manager must ascertain that said individual meets the following eligibility conditions:

(a) the individual was an employee of Liberty Utilities (Apple Valley Ranchos Water) Corp. on the Effective Date of this Resolution and continued that employment through the date that the Town assumes administration and operation of the Apple Valley Water System;

(b) the individual served in an eligible position as described in Section 3 above and directly related to the administration and operation of the Apple Valley Water System for the duration of the period specified in Section 4(a) above;

(c) the individual meets the minimum qualifications for the relevant position as delineated by the job description therefor;

(d) the individual meets the minimum requirements for employment with the Town, including, but not limited to, successfully completing and passing any and every background check required under federal, state, or local law; and

(e) the individual satisfies any and every other standard requirement that any other prospective Town employee must satisfy for employment with the Town.

Section 5. Retention of Consultants As Needed. The Town Manager is hereby directed to retain such consultants and vendors as he considers necessary for the successful administration and operation of the Apple Valley Water System in accordance with his powers and duties under Section 2.08.060 of the Apple Valley Municipal Code and in compliance with the Town's purchasing system set forth in Chapter 3.12 of the Apple Valley Municipal Code.

Section 6. Custodian of Records. The documents and materials that constitute the record of proceedings on which this Resolution and the above findings are based are located at the Town's offices at14955 Dale Evans Parkway, Apple Valley, CA 92307, and the custodian of records for these documents is the Town Clerk.

Section 7. Effective Date. This Resolution shall take effect immediately upon adoption. The Mayor shall sign this Resolution and the Town Clerk shall attest and certify to the passage and adoption thereof.

PASSED AND ADOPTED this 23rd day of July, 2019.

_____
Larry Cusack, Mayor

ATTEST:

_____
La Vonda M. Pearson, Town Clerk