Dayton Valley Water System

Permit # NV0000032

Water Conservation Plan Update

2026

Approved by Nevada Division of Water Resources: TBD
Adopted by Board of County Commissioners: TBD

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Introduction

The Lyon County Utilities Department (LCUD) manages the Dayton Valley Water System that serves the residents of Dayton and Mound House and is required to maintain a water conservation plan (Plan) in accordance with the requirements of NRS 540.121 – 540.151 (Appendix A).

This Plan supersedes the 2021 Water Conservation Plan. The Plan elements include the new requirements that went into effect as of January 1, 2020. The Plan will be periodically reviewed and updated every five years.

Plan Elements

1. A Plan of water conservation submitted to the Divison of Water Resourses for review must include provisions related to:

   1.a. Methods of public education to (1) Increase public awareness of the limited supply of water in this State and the need to conserve water, and (2) Encourage reduction in the size of lawns and the use of plants adapted to arid and semiarid climates.

   - LCUD participates in public outreach such as Dayton Valley Days and educational programs at elementary schools.
   - Promotional material related to conservation is posted at the utility office and is available to walk-in customers.

   1.b. Specific conservation measures that are required to meet the service area's needs, including, but not limited to, any conservation measures required by law.

   - Lyon County adopted water-use regulations (Lyon County Code, 9.03.16) to promote water conservation during emergency and non-emergency situations. (Appendix B).
   - Lyon County adopted general use regulations (Lyon County Code, 9.03.07B) that identifies Water Waste:
     - It is unlawful for anyone connected to the public water system to waste water. For the purpose of this section, "waste" means any excessive usage which causes water to run into or along any street, alley, storm drainage system, or into or upon another's property; providing nothing in this section shall be construed as to apply to the accidental breaking of any hose, water pipe, or other irrigation. If such breaks are not repaired, or the water turned off within the specified time once notice is given, LCUD may discontinue water service, and it is unlawful for any person to again turn on such water until proper repairs have been made.

1.c. The management of water to identify and reduce water loss in water supplies, inaccuracies in water meters and high pressure in water supplies, which must include, without limitation: (1) Goals for acceptable levels of water loss in water supplies; (2) A plan which analyzes how the supplier of water will progress towards the goals established for the acceptable levels of water loss.

- LCUD analyzes water loss by comparing production vs. billing information monthly with a goal of less than 10% loss.
- To ensure continued compliance with the water loss goal, LCUD actively analyzes loss data and follows up on discrepancies.
- LCUD manages system pressures through the use of regulating valves, altitude valves, and pressure relief valves.
- LCUD is in year four (4)of a five (5) year program to replace existing water meters with new smart meters. Smart meters are installed on all new development.

1.d. The management of water to, where applicable, increase the reuse of effluent.

- Dayton Valley Golf Course uses effluent to supplement irrigation.

1.e. The contingency plan for drought conditions ensures a supply of potable water.

- Lyon County adopted water-use regulations (Lyon County Code, 9.03.16) to promote water conservation during emergency and non-emergency situations. (Appendix B).

1.f. A schedule for carrying out the Plan.

- A water loss audit using AWWA methodology and software was completed for the calendar year 2025 (Appendix D).

1.g. A plan for how the supplier of water will progress towards the installation of meters on all connections.

- All connections are metered.

1.h. Standards for water efficiency for new development.

- In 1991, Nevada enacted a law requiring the adoption of conservation plans by water suppliers. Minimum standards for plumbing fixtures were adopted in 1991 (Assembly Bill 359) by Nevada, and in 1992 minimum flow standards for plumbing fixtures were adopted by the federal government (National Energy and Policy Conservation Act).

1.j. Tiered rate structures for the pricing of water to promote the conservation of water, including, without limitation, an estimate of the manner in which the tiered rate structure will impact the consumptive use of water.

- The Board of County Commissioners approved a tiered rate structure of County Commissioners on November 21, 2019 (Appendix C).

- LCUD does not anticipate any further water conservation savings due to a change in the rate structure.

1.j. Watering restrictions based on the time of day and the day of the week.

- Lyon County adopted water-use regulations (Lyon County Code, 9.03.16) to promote water conservation during emergency and non-emergency situations. (Appendix B).

2. In addition to the requirements of subsection 1, a plan of water conservation submitted to the State for review by a supplier of water providing service for 500 or more connections must include provisions relating to:

2.a. Measures to evaluate the effectiveness of the Plan.

- LCUD completed a water loss audit according to NRS 540.145(a) and used the software program's performance indicators to evaluate different aspects of the water system (Appendix D).

2.b. For each conservation measure specified in the Plan, an estimate of the amount of water that will be conserved each year as a result of the adoption of the Plan stated in terms of gallons of water saved annually.

- As defined in section 9.03.16 in the Lyon County Code, the three (3) levels of conservation are (1) Routine Conservation, (2) Moderate Conservation, and (3) Strict Conservation.
- LCUD estimates that the Routine Conservation level conserves about 10% of the annual production each year (100 million gallons saved annually).
- LCUD estimates that the Moderate Conservation level would conserve an additional 5% of the annual production.
- LCUD estimates that the Strict Conservation level would conserve an additional 5% of the annual production.

3. List of Appendicies

Appendix A. NRS Chapter 540 – Planning and Development of Water Resources

Appendix B. Lyon County Ordinance 9.03.16, Water Conservation Required

Appendix C. Approved Water and Sewer Rate Structure

Appendix D. Water Loss Audit for Calendar Year 2025

Appendix A

NRS Chapter 540 - Planning and Development of Water Resources

CHAPTER 540 - PLANNING AND DEVELOPMENT OF WATER RESOURCES

GENERAL PROVISIONS

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NRS 540.141 Required provisions of plan or joint plan of water conservation; review by Section; posting of plans and joint plans on Internet website. [Effective January 1, 2020.]
NRS 540.145 Requirements for supplier of water to calculate water loss. [Effective January 1, 2020.]
NRS 540.151 Supplier of water required to adopt plan to provide certain incentives; procedure for adoption of plan; adoption of joint plans permitted.

GENERAL PROVISIONS

NRS 540.011 Legislative declaration.

1. The Legislature determines that it is the policy of the State of Nevada to continue to recognize the critical nature of the State's limited water resources. It is acknowledged that many of the State's surface water resources are committed to existing uses, under existing water rights, and that in many areas of the State the available groundwater supplies have been appropriated for current uses. It is the policy of the State of Nevada to recognize and provide for the protection of these existing water rights. It is the policy of the State to encourage efficient and nonwasteful use of these limited supplies. It is also the policy of the State to encourage suppliers of water to establish prices for the use of water that maximize water conservation with due consideration to the essential service needs of customers and the economic burdens on businesses, public services and low-income households.

2. The Legislature further recognizes the relationship between the critical nature of the State's limited water resources and the increasing demands placed on these resources as the population of the State continues to grow.

3. The Legislature further recognizes the relationship between the quantity of water and the quality of water, and the necessity to consider both factors simultaneously when planning the uses of water.

4. The Legislature further recognizes the important role of water resource planning and that such planning must be based upon identifying current and future needs for water. The Legislature determines that the purpose of

the State's water resource planning is to assist the State, its local governments and its citizens in developing effective plans for the use of water.
(Added to NRS by 1977, 1170; A 1991, 173; 1995, 2499; 2007, 1252)

NRS 540.021 Definitions. As used in this chapter:
1. "Chief" means the Chief of the Section.
2. "Department" means the State Department of Conservation and Natural Resources.
3. "Division" means the Division of Water Resources of the Department.
4. "Section" means the Water Planning Section of the Division.
(Added to NRS by 1977, 1170; A 2005, 2566)

WATER PLANNING SECTION OF DIVISION OF WATER RESOURCES

NRS 540.031 Creation. The Water Planning Section of the Division is hereby created.
(Added to NRS by 1977, 1170; A 1989, 1238; 2005, 2566)

NRS 540.036 Composition; appointment and classification of Chief.
1. The Section consists of the Chief and any other necessary personnel.
2. The Chief is appointed by the State Engineer and is in the unclassified service of the State.
(Added to NRS by 2005, 2566)

NRS 540.041 Chief: Qualifications; duties; employment of staff.
1. The Chief:
(a) Must be selected with special reference to his or her training, experience, capability and interest in the field of water resource planning.
(b) Shall coordinate the activities of the Section.
2. The Chief is responsible for the administration of all provisions of law relating to the functions of the Section.
3. The Chief, with the approval of the State Engineer, may employ, within the limits of legislative appropriations, such staff as is necessary to the performance of his or her duties.
(Added to NRS by 1977, 1170; A 1985, 437; 1995, 2316; 1999, 1087; 2005, 2566; 2013, 1631)

NRS 540.051 Duties. The Section shall:
1. Include in its planning:
(a) Recognition and protection of existing water rights consistent with chapters 533 and 534 of NRS; and
(b) Consideration of the factors relating to the quality of water in this State and the importance of considering the issues of quantity and quality simultaneously, but the State Environmental Commission and Division of Environmental Protection of the Department retain full responsibility for the management of water quality.
2. Suggest to the Legislature changes in water policy which may be necessary to meet new requirements of law or of the people of the State.
3. Assist the State Engineer in dealings with the Federal Government and other states, but the State Engineer is solely responsible for the allocation of water resources and litigation.
4. Review local and federal documents regarding water planning that are relevant to the use of water in Nevada, including, without limitation, local water and resource plans. Reviews conducted pursuant to this subsection must consider, without limitation:
(a) The accuracy of information relating to water use and water planning;
(b) Compliance with the water law of this State; and
(c) General advice relating to water planning.
5. Compile and update summarized data relating to hydrographic basins to support decisions that the State Engineer makes regarding such basins, and provide summarized information regarding such basins to the public. The Section shall cause to be generated and updated a summary for each hydrographic basin to show critical information regarding that basin, including, without limitation:
(a) Whether the basin is designated;
(b) All appurtenant or associated studies related to the availability of water;
(c) Rulings and orders affecting new appropriations of water;
(d) The availability of crop and pumpage inventories;
(e) The availability of data regarding water levels; and
(f) Current commitments of water from the basin that are attributable to existing water rights.
➥ The information described in this subsection must, insofar as practicable, be provided in an electronic format and made available on the website of the State Engineer on the Internet or its successor.
6. Upon request, provide technical assistance to the Board for Financing Water Projects created by NRS 349.957, including, without limitation, the review of letters of intent and applications for grants.
7. Promote water conservation by:
(a) Consulting with suppliers of water concerning:
(1) Community water conservation plans; and
(2) The content and scope of water plans; and

(b) Reviewing plans for compliance with the applicable provisions of NRS 540.121 to 540.151, inclusive.

8. Assist federal, state and local governments and the general public in obtaining information regarding water planning, the availability of water and issues relating to water rights.

9. Support activities in response to drought as provided for under the drought plan established for the State.

10. Administer the statewide program established for the management of floodplains.

11. Upon request, provide updates to local governments on water issues relevant to this State, changes in policy and the availability of new information concerning water resources.

(Added to NRS by 1977, 1170; A 1987, 2280; 1991, 173; 1993, 1703; 1995, 2499; 2005, 2566)

REPORTING OF APPROVED PROJECTS

NRS 540.061 Statement of legislative intent relating to reporting of projects to Chief. It is the intent of the Legislature, in accordance with the state policy set forth in NRS 540.011, to provide for the reporting of all projects to the Chief to ensure effective coordination by the State in its effort to plan water use.

(Added to NRS by 1989, 1236; A 2005, 2568)

NRS 540.071 "Project" defined. As used in NRS 540.061 to 540.091, inclusive, unless the context otherwise requires, "project" means any development, including new construction and expansion or modification of existing development, that requires the use of 5 acre-feet or more of water per year and requires the approval of an officer or agency of a local government.

(Added to NRS by 1989, 1236)

NRS 540.081 Applicability of NRS 540.061 to 540.091, inclusive. NRS 540.061 to 540.091, inclusive, do not apply to:

1. A publicly owned project;
2. A subdivision as defined in NRS 278.320;
3. A parcel map subject to the provisions of NRS 278.461 to 278.469, inclusive;
4. A division of land pursuant to NRS 278.471 to 278.4725, inclusive; or
5. A planned unit development pursuant to chapter 278A of NRS.

(Added to NRS by 1989, 1236; A 1993, 2585)

NRS 540.091 Reports of approved projects: Contents; filing; deposit of fees.

1. A local governmental officer or agency that is required to approve a project shall file a report of each project the officer or agency approves on a form provided by the Chief.

2. Each report of an approved project must include:

(a) The name and mailing address of the owner or developer of the project;

(b) A legal description of the location of the project;

(c) A description of the project, including a summary of the amount of water required annually for the project;

(d) A statement concerning how the water will be supplied; and

(e) If the water is self-supplied, the source of the water and identification of the water rights.

3. A local governmental officer or agency may require the owner or developer of an approved project to fill out the report.

4. The local governmental officer or agency shall file all reports for projects approved during a quarter of a calendar year on or before 15 days after the last day of the quarter. The local governmental officer or agency shall submit a fee with each report in the amount of $75 plus 50 cents per acre-foot of water, or fraction thereof, required by the project. The local governmental officer or agency shall collect the fee from the owner or developer of the project, plus an additional administrative fee of $10 which may be retained by the local government.

5. The Chief shall deposit all fees received pursuant to this section with the State Treasurer for credit to the State General Fund.

(Added to NRS by 1989, 1236; A 1989, 2094; 2005, 2568)

WATER CONSERVATION

NRS 540.121 "Supplier of water" defined. As used in NRS 540.121 to 540.151, inclusive, "supplier of water" includes, but is not limited to:

1. Any county, city, town, local improvement district, general improvement district and water conservancy district;

2. Any water district, water system, water project or water planning and advisory board created by a special act of the Legislature; and

3. Any other public or private entity,

➥ that supplies water for municipal, industrial or domestic purposes. The term does not include a public utility required to adopt a plan of water conservation pursuant to NRS 704.662.

(Added to NRS by 1991, 520; A 2019, 2098)

NRS 540.131 Plan of water conservation: Procedure for adoption and updating of plan; review of plan by Section; joint plans permitted by certain suppliers; duties of local governing body.

1. Except as otherwise provided in subsection 5, each supplier of water which supplies water for municipal, industrial or domestic purposes shall, on or before July 1, 1992, adopt a plan of water conservation based on the climate and the living conditions of its service area in accordance with the provisions of NRS 540.141, and shall update the plan pursuant to paragraph (c) of subsection 4. The provisions of the plan must apply only to the supplier's property and its customers. The supplier of water shall submit the plan to the Section for review by the Section pursuant to subsection 3.

2. As part of the procedure of adopting a plan, the supplier of water shall provide an opportunity for any interested person, including, but not limited to, any private or public entity that supplies water for municipal, industrial or domestic purposes, to submit written views and recommendations on the plan.

3. The plan must be reviewed by the Section within 120 days after its submission and approved for compliance with this section and NRS 540.141 before it is adopted by the supplier of water.

4. The plan:

(a) Must be available for inspection by members of the public during office hours at the offices of the supplier of water;

(b) May be revised from time to time to reflect the changing needs and conditions of the service area. Each such revision must be made available for inspection by members of the public; and

(c) Must be updated every 5 years and comply with the requirements of this section and NRS 540.141.

5. Suppliers of water:

(a) Who are required to adopt a plan of water conservation pursuant to this section; and

(b) Whose service areas are located in a common geographical area,

➥ may adopt joint plans of water conservation based on the climate and living conditions of that common geographical area. Such a plan must comply with the requirements of this section and NRS 540.141.

6. The board of county commissioners of a county, the governing body of a city and the town board or board of county commissioners having jurisdiction of the affairs of a town shall:

(a) Adopt any ordinances necessary to carry out a plan of water conservation adopted pursuant to this section which applies to property within its jurisdiction;

(b) Establish a schedule of fines for the violation of any ordinances adopted pursuant to this subsection; and

(c) Hire such employees as it deems necessary to enforce the provisions of any ordinances it adopts pursuant to this subsection.

(Added to NRS by 1991, 520; A 2005, 2570; 2007, 1253; 2017, 3524)

NRS 540.141 Required provisions of plan or joint plan of water conservation; review by Section; posting of plans and joint plans on Internet website. [Effective through December 31, 2019.]

1. A plan or joint plan of water conservation submitted to the Section for review must include provisions relating to:

(a) Methods of public education to:

(1) Increase public awareness of the limited supply of water in this State and the need to conserve water.

(2) Encourage reduction in the size of lawns and encourage the use of plants that are adapted to arid and semiarid climates.

(b) Specific conservation measures required to meet the needs of the service area, including, but not limited to, any conservation measures required by law.

(c) The management of water to:

(1) Identify and reduce leakage in water supplies, inaccuracies in water meters and high pressure in water supplies; and

(2) Where applicable, increase the reuse of effluent.

(d) A contingency plan for drought conditions that ensures a supply of potable water.

(e) A schedule for carrying out the plan or joint plan.

(f) A plan for how the supplier of water will progress towards the installation of meters on all connections.

(g) Standards for water efficiency for new development.

(h) Tiered rate structures for the pricing of water to promote the conservation of water, including, without limitation, an estimate of the manner in which the tiered rate structure will impact the consumptive use of water.

(i) Watering restrictions based on the time of day and the day of the week.

2. In addition to the requirements of subsection 1, a plan or joint plan of water conservation submitted to the Section for review by a supplier of water providing service for 500 or more connections must include provisions relating to:

(a) Measures to evaluate the effectiveness of the plan or joint plan.

(b) For each conservation measure specified in the plan or joint plan, an estimate of the amount of water that will be conserved each year as a result of the adoption of the plan or joint plan, stated in terms of gallons of water saved annually.

3. The Section shall review any plan or joint plan submitted to it within 120 days after its submission and approve the plan if it is based on the climate and living conditions of the service area and complies with the requirements of this section.

4. The Chief may exempt wholesale water purveyors from the provisions of this section which do not reasonably apply to wholesale supply.

5. To the extent practicable, the State Engineer shall provide on the Internet website of the State Engineer a link to the plans and joint plans that are submitted for review. In carrying out the provisions of this subsection, the State Engineer is not responsible for ensuring, and is not liable for failing to ensure, that the plans and joint plans which are provided on the Internet website are accurate and current.

(Added to NRS by 1991, 521; A 2005, 2571; 2007, 1254; 2017, 3524)

NRS 540.141 Required provisions of plan or joint plan of water conservation; review by Section; posting of plans and joint plans on Internet website. [Effective January 1, 2020.]

1. A plan or joint plan of water conservation submitted to the Section for review must include provisions relating to:

(a) Methods of public education to:

(1) Increase public awareness of the limited supply of water in this State and the need to conserve water.

(2) Encourage reduction in the size of lawns and encourage the use of plants that are adapted to arid and semiarid climates.

(b) Specific conservation measures required to meet the needs of the service area, including, but not limited to, any conservation measures required by law.

(c) The management of water to identify and reduce water loss in water supplies, inaccuracies in water meters and high pressure in water supplies, which must include, without limitation:

(1) Goals for acceptable levels of water loss in water supplies. Such goals may use the following performance indicators and analyses, without limitation:

(I) Infrastructure water loss index;

(II) Water audit data validity score;

(III) Operational basic apparent losses;

(IV) Operational basic real losses; and

(V) Economic level of water loss.

(2) A plan which analyzes how the supplier of water will progress towards the goals established for the acceptable levels of water loss.

(d) The management of water to, where applicable, increase the reuse of effluent.

(e) A contingency plan for drought conditions that ensures a supply of potable water.

(f) A schedule for carrying out the plan or joint plan.

(g) A plan for how the supplier of water will progress towards the installation of meters on all connections.

(h) Standards for water efficiency for new development.

(i) Tiered rate structures for the pricing of water to promote the conservation of water, including, without limitation, an estimate of the manner in which the tiered rate structure will impact the consumptive use of water.

(j) Watering restrictions based on the time of day and the day of the week.

2. In addition to the requirements of subsection 1, a plan or joint plan of water conservation submitted to the Section for review by a supplier of water providing service for 500 or more connections must include provisions relating to:

(a) Measures to evaluate the effectiveness of the plan or joint plan.

(b) For each conservation measure specified in the plan or joint plan, an estimate of the amount of water that will be conserved each year as a result of the adoption of the plan or joint plan, stated in terms of gallons of water saved annually.

3. The Section shall review any plan or joint plan submitted to it within 120 days after its submission and approve the plan if it is based on the climate and living conditions of the service area and complies with the requirements of this section.

4. The Chief may exempt wholesale water purveyors from the provisions of this section which do not reasonably apply to wholesale supply.

5. To the extent practicable, the State Engineer shall provide on the Internet website of the State Engineer a link to the plans and joint plans that are submitted for review. In carrying out the provisions of this subsection, the State Engineer is not responsible for ensuring, and is not liable for failing to ensure, that the plans and joint plans which are provided on the Internet website are accurate and current.

(Added to NRS by 1991, 521; A 2005, 2571; 2007, 1254; 2017, 3524; 2019, 2099, effective January 1, 2020)

NRS 540.145 Requirements for supplier of water to calculate water loss. [Effective January 1, 2020.]

1. Except as otherwise provided in subsection 4, each supplier of water that is required to adopt or update a plan of water conservation in accordance with the provisions of NRS 540.131 and:

(a) Serves 3,300 persons or more must conduct a water loss audit in accordance with the methodology and software of the American Water Works Association for water loss auditing. The results of the water loss audit must be submitted by the supplier of water to the Section with the plan of water conservation or update to the plan of water conservation, as applicable.

(b) Serves less than 3,300 persons must calculate the amount of water delivered by the supplier of water and the amount of water that was billed to customers of the supplier of water for each year. The calculations must be submitted by the supplier of water to the Section with the plan for water conservation or update to the plan of water conservation, as applicable.

2. If the supplier of water has previously submitted the results of a water loss audit to the Section pursuant to paragraph (a) of subsection 1, and is submitting an update to the plan of water conservation, the supplier must

also submit to the Section:

(a) A comparison between the results of the new water loss audit and the previous water loss audit; and

(b) An analysis of any progress made by the supplier towards the goals for acceptable water loss established in the plan for water conservation pursuant to paragraph (c) of subsection 1 of NRS 540.141.

3. If the supplier of water has previously submitted the results of the calculations conducted pursuant to paragraph (b) of subsection 1 to the Section, and is submitting an update to the plan of water conservation, the supplier must also submit to the Section:

(a) A comparison between the results of the new calculations and the previous calculations; and

(b) An analysis of any progress made by the supplier towards the goals for acceptable water loss established in the plan for water conservation pursuant to paragraph (c) of subsection 1 of NRS 540.141.

4. The provisions of this section do not apply to a transient water system as defined in NRS 445A.848.

(Added to NRS by 2019, 2098, effective January 1, 2020)

NRS 540.151 Supplier of water required to adopt plan to provide certain incentives; procedure for adoption of plan; adoption of joint plans permitted.

1. Except as otherwise provided in subsection 5, each supplier of water which supplies water for municipal, industrial or domestic purposes shall adopt a plan to provide incentives:

(a) To encourage water conservation in its service area;

(b) To retrofit existing structures with plumbing fixtures designed to conserve the use of water; and

(c) For the installation of landscaping that uses a minimal amount of water.

➥ The supplier of water may request assistance from the Section to develop its plan.

2. As part of the procedure of adopting a plan, the supplier of water shall provide an opportunity for any interested person to submit written views and recommendations on the plan.

3. The supplier of water shall file a copy of the plan with the Section for informational purposes.

4. The plan:

(a) Must be available for inspection by members of the public during office hours at the offices of the supplier of water; and

(b) May be revised from time to time to reflect the changing needs and conditions of the service area. Each such revision must be made available for inspection by members of the public.

5. Suppliers of water:

(a) Who are required to adopt a plan for incentives pursuant to this section; and

(b) Whose service areas are located in a common geographical area,

➥ may adopt joint plans.

(Added to NRS by 1991, 522; A 2005, 2571)

Appendix B

Lyon County Ordinance 9.03.16
Water Conservation Required

9.03.16: WATER CONSERVATION REQUIRED:
When in the opinion of the board of commissioners circumstances require water conservation by LCUD customers, the board of commissioners may impose one or more of the following conditions after consideration of those circumstances at a regular public hearing after notice to the customers as provided for in Nevada law or at an emergency meeting conducted by the board.

Routine conservation does not require special board action and is observed annually from June 1 through October 1 of each year.

A. Routine Conservation:

1. Restrict watering to odd and even days depending on service address. There is no restriction to hand watering or washing cars using hoses with self-closing nozzles.

a. Watering is not allowed between the hours of ten o'clock (10:00) A.M. and six o'clock (6:00) P.M.

b. No outside watering on the thirty first day of a month.

c. No outside watering when it is windy.

2. Exempted from this section are the following:

a. Nevada licensed commercial gardeners or caretakers who are on the premises at the time watering is taking place;

b. Vegetable gardens, flowerbeds, trees within two (2) months of planting;

c. New lawns including sod, for twenty one (21) days from planting or installation date, that have been planted prior to June 15 or after August 15;

d. Complexes that file for and receive approval of an irrigation plan.

e. Residential customers adjusting and repairing their irrigation system during the nonwatering times for a not to exceed time frame of one hour.

f. Special exemptions from this section may be granted by the utilities director or his/her designee on a case by case basis based on a determination that the special request shall not be detrimental to the public water system or supply. A customer requesting an exemption must submit a written request to LCUD.

3. No excess water running down impervious surfaces or on to other property that may cause damage or as described in subsection 9.03.07B of this chapter.

B. Moderate Conservation:

1. All items under subsection A, "Routine Conservation", of this section.

2. Restrict landscape irrigation to more restrictive schedule such as no watering on Mondays or watering only twice a week.

3. Limit use of water from fire hydrants to actual firefighting use.

4. Prohibit wash down of driveways, sidewalks, parking lots and other impervious surfaces.

C. Strict Conservation:

1. All items under subsection B, "Moderate Conservation", of this section.

2. No landscape or lawn irrigation under any circumstances.

3. No new lawn or landscape installation.

4. No wash down of automobiles, trucks, vans or other motorized equipment except at commercial washing facilities that recycle wash water.

5. Impose an excess consumption charge of three hundred percent (300%) of the existing rate per one thousand (1,000) gallons for water use in excess of one hundred fifty percent (150%) of the base amount. The director may make arrangements on a case by case basis but must report the arrangements to the board through the county manager.

D. Circumstances Under Which Moderate Or Strict Conservation May Be Required: The board of commissioners, upon its findings that one or more of the following emergency conditions are present, may impose moderate or strict conservation measures:

1. Water scarcity condition exists or is likely to exist.

2. Failure of water production, storage or distribution system(s).

3. Demand for service in excess of LCUD's authorized water rights.

4. Order of any agency of the federal, state or local government having jurisdiction in such matters.

5. Any other condition that may require such action.

E. Penalties: As a condition of service, any person who violates any of the provisions of subsection 9.03.07B of this chapter, subsections A, B and C of this section, will be assessed as follows:

1. For the first offense, issuance of a verbal warning;

2. For the second offense, issuance of a written warning both posted and mailed;

3. For the third through seventh offense, a fee assessment established by the board;

4. For the eighth offense and subsequent offenses, the installation of a flow restriction device and a service fee on a time and materials basis to cover the installation cost.

Fee assessments shall be added to the owner's or agent's monthly utility bill. Owners or agents shall be notified of the fee assessment through certified mail within seven (7) days of the observed violation. Protests shall be handled as provided for in subsections 9.03.01K through M and 9.03.09G of this chapter. (Ord. 504, 1-18-2007)

Appendix C

Approved Water and Sewer Rate Structure

RESOLUTION NO. 19-22

A RESOLUTION ADOPTING WATER AND SEWER RATES FOR THE DAYTON WATER FUND AND DAYTON SEWER FUND FOR ALL CUSTOMERS WITHIN THE DAYTON SERVICE AREA

WHEREAS, Lyon County has the authority to own, operate and maintain water and sewer system improvements pursuant to Nevada Revised Statutes (NRS) 244.157 and 318.144; and

WHEREAS, the Dayton Water Fund and Dayton Sewer Fund are operated as independent enterprise funds as defined in NRS 354.517; and

WHEREAS, in accordance with the Lyon County Code, Sections 9.03.09.Q and 9.05.13.I and 9.05.13.K, the Board of County Commissioners (Board) establishes the water and sewer rates that apply to all customers; and

WHEREAS, Lyon County hired Farr West Engineering to conduct a water and sewer rate study, and Farr West considered the necessary maintenance and improvements needed to operate the system without requiring the existing customers to pay the costs for expansion of the facilities to serve new development; and, Farr West determined the rates necessary to maintain and operate the system and further determined that the existing rate structure does not support those expenses; and

WHEREAS, the Board has determined that it would be beneficial to modify the monthly water and sewer user rates to ensure that Lyon County Utilities has sufficient resources to maintain and operate the water and sewer utilities in Dayton so that the customers can receive adequate service in the future; and

NOW, THEREFORE, BE IT RESOLVED, by the Board of Lyon County Commissioners:

1. Effective January 1, 2020, the following user water and sewer rate schedules for the Dayton Water Fund and Dayton Sewer Fund shall apply:

Dayton Water Fund:

Customer Class and Meter Size	Current Monthly Rate	Monthly Rates Jan 1, 2020 [1]	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
Percent Increase		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Residential Customers (First 5,000 Gallons)							
3/4" Meter	$ 26.02	$ 26.67	$ 27.34	$ 28.02	$ 28.72	$ 29.44	$ 30.18
Low Income Single Family	$ 17.44	$ 17.88	$ 18.33	$ 18.79	$ 19.26	$ 19.74	$ 20.23
Commercial and Industrial Customers (First 5,000 Gallons) [2]							
3/4" Meter	$ 26.02	$ 26.67	$ 27.34	$ 28.02	$ 28.72	$ 29.44	$ 30.18
1" Meter	$ 35.27	$ 36.15	$ 37.05	$ 37.98	$ 38.93	$ 39.90	$ 40.90
1-1/2" Meter	$ 50.61	$ 51.88	$ 53.18	$ 54.51	$ 55.87	$ 57.27	$ 58.70
2" Meter	$ 69.03	$ 70.76	$ 72.53	$ 74.34	$ 76.20	$ 78.11	$ 80.06
3" Meter	$ 118.14	$ 121.09	$ 124.12	$ 127.22	$ 130.40	$ 133.66	$ 137.00
4" Meter	$ 173.39	$ 177.72	$ 182.16	$ 186.71	$ 191.38	$ 196.16	$ 201.06
6" Meter	$ 197.88	$ 202.83	$ 207.90	$ 213.10	$ 218.43	$ 223.89	$ 229.49
8" Meter	$ 249.95	$ 256.20	$ 262.61	$ 269.18	$ 275.91	$ 282.81	$ 289.88
Each Additional 1,000 Gallons for All Customers	$ 3.20	$ 3.28	$ 3.36	$ 3.44	$ 3.53	$ 3.62	$ 3.71
Source Water Fee	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00

Note:

(1) Mid-year increase to be implemented January 1, 2020

(2) Includes irrigation customers

Dayton Sewer Fund:

Customer Class and Meter Size	Current Monthly Rate	Monthly Rates Jan 1, 2020 [1]	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
Percent Increase		7.55%	7.55%	7.55%	7.55%	7.55%	7.55%
Residential Customers							
Single Family Residential	$ 58.94	$ 63.39	$ 68.18	$ 73.33	$ 78.87	$ 84.82	$ 91.22
Multi-Family Residential [2]	$ 53.70	$ 57.75	$ 62.11	$ 66.80	$ 71.84	$ 77.26	$ 83.09
Low Income Single Family	$ 39.81	$ 42.82	$ 46.05	$ 49.53	$ 53.27	$ 57.29	$ 61.62
Commercial and Industrial Customers							
Base Rate	$ 24.18	$ 26.01	$ 27.97	$ 30.08	$ 32.35	$ 34.79	$ 37.42
Commodity Rate [3]	$ 4.33	$ 4.66	$ 5.01	$ 5.39	$ 5.80	$ 6.24	$ 6.71

Notes:

(1) Mid-year increase to be implemented January 1, 2020

(2) Multiplied by the number of living units

(3) Rate for each 1,000 gallons of water used

PASSED, APPROVED AND ADOPTED this 21st day of November, 2019 by the following vote of the Lyon County Board of Commissioners:

AYES: Dini, Keller, Mortensen

NAYES: Gray, Hastings

ABESENT:

ABSTENTIONS:

LYON COUNTY
BOARD OF COMMISSIONERS

By: Chairman

Attest:

County Clerk

Appendix D

Water Loss Audit For Calendar Year 2025

AWWA Free Water Audit Software v6.0

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This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format and is not meant to take the place of a full-scale, comprehensive water audit format. Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targeting loss reduction levels. This tool contains several separate worksheets. Sheets can be accessed using the tabs at the bottom of the screen, or by clicking the TOC links below.

Table of Contents (TOC)

Start Page	The current sheet. Enter contact information and basic audit details.
Worksheet	Enter the required data on this worksheet to calculate the water balance and data grading.
Interactive Data Grading	Answer questions about operational practices for each audit input, and the data validity grades will automatically populate.
Dashboard	Review NRW components, performance indicators and graphical outputs to evaluate the results of the audit.
Notes	Enter notes to explain how values were calculated, document data sources, and related information about data management practices.
Blank Sheet	By popular demand! A blank sheet. The world is your canvas.
Water Balance	The values entered in the Worksheet automatically populate the Water Balance.
Loss Control Planning	Use this sheet to interpret the results of the audit validity score and performance indicators.
Definitions	Use this sheet to understand the terms used in the audit process.
Service Connection Diagram	Diagrams depicting possible customer service connection line configurations.
Acknowledgements	Acknowledgements for development of the AWWA Free Water Audit Software v6.0.

AWWA Web Resources for Water Loss Control

https://www.awwa.org/Resources-Tools/Resource-Topics/Water-Loss-Control

Items referenced in the Free Water Audit Software v6.0 on the web:

- Data Grading Matrix v6.0
- Example Water Audit v6.0
- Water Audit Compiler v6.0
- AWWA Reports on Performance Indicators
- M36 Manual

Enter Basic Information

Name of Utility:	Lyon Co Utilities - Dayton Valley Water	
Name of Contact Person:	Chris Hoffert	
Email:	choffert@lyon-county.org	
Telephone | Ext.:	(775)246-6220	ext. 8
City/Town/Municipality:	Dayton	
State / Province:	Nevada (NV)	
Country:	US	
Audit Preparation Date:	Jan 20 2026	
Audit Year:	2025	
Audit Year Label:	Calendar	(Fiscal, Calendar, etc)
Audit Period Start Date:	Jan 01 2025	
Audit Period End Date:	Dec 31 2025	
Volume Reporting Units:	Million gallons (US)	
Water System Structure:	Retail	
Water Type:	Potable Water	
System ID Number:	NV0000032	
Validator Name/ID:	n/a	
Validator Email:	n/a	
Estimated Total Population Served by Water Utility:	16,000	

Key of Input Acronyms

In order of appearance in the Worksheet

VOS	Volume from Own Sources
VOSEA	VOS Error Adjustment
WI	Water Imported
WIEA	WI Error Adjustment
WE	Water Exported
WEEA	WE Error Adjustment
BMAC	Billed Metered Authorized Consumption
BUAC	Billed Unmetered Authorized Consumption
UMAC	Unbilled Metered Authorized Consumption
UUAC	Unbilled Unmetered Authorized Consumption
SDHE	Systematic Data Handling Errors
CMI	Customer Metering Inaccuracies
UC	Unauthorized Consumption
Lm	Length of mains
Nc	Number of service connections
Lp	Average length of (private) customer service line
AOP	Average Operating Pressure
CRUC	Customer Retail Unit Charge
VPC	Variable Production Cost

Color Key User input | Calculated | Optional default

Guidance for the Worksheet

Choosing to enter unit of **percent** or **volume** (applies to VOSEA, WIEA, WEEA, CMI)

choose entry option:

1.00%	percent	*or*
	volume	25.000

Choosing to enter **default** or **custom input** (applies to UUAC, SDHE, UC)

choose entry option:

0.25%	default	*or*
	custom	75.000

Guidance for the Interactive Data Grading

Use acronym buttons in IDG header to navigate among inputs. Acronym Key above. White = needs answers, orange = complete, clear = not required. Example below.

VOS	VOSEA	WI	WIEA	WE	WEEA	BMAC	BUAC	UMAC	UUAC
SDHE	CMI	UC	Lm	Nc	Lp	AOP	CRUC	VPC	

After clicking an acronym button, answer all visible questions in the order they're presented, choosing best-fit answer — answer 1

Grade will populate when all visible questions are complete for an input — 7

The limiting criteria will be labeled along the right. If only 1 limiting criterion is shown, improving on that criterion will achieve a higher data grade. If multiple limiting criteria are shown, improving on *each* limiting criterion is necessary to achieve a higher data grade. A complete inventory of data grading criteria is available in the Data Grading Matrix v6.0 (see web resources) — Limiting

If you have questions or comments regarding this software please contact us at: wlc@awwa.org

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AWWA Free Water Audit Software: Dashboard

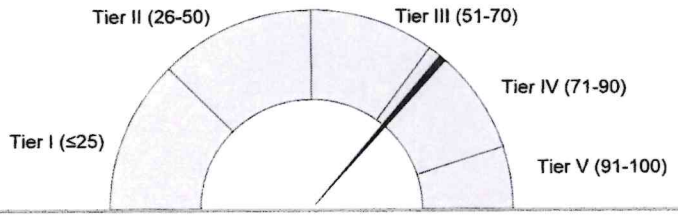
go to worksheet | go to grading | go to references

FWAS v6.0 | Water Audit Report for: Lyon Co Utilities - Dayton Valley Water | Audit Year: 2025 Calendar | Jan 01 2025 - Dec 31 2025

Data Validity

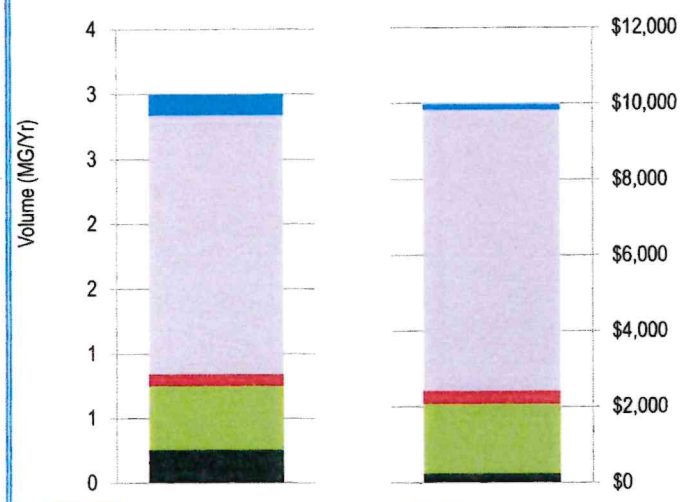
Data Validity Score: 72 **Data Validity Tier:** Tier IV (71-90)

See Loss Control Planning for Tier Details



NRW Components Summary

Total Volume of NRW = 3 MG/Yr | Total Cost of NRW = $9,972/Yr



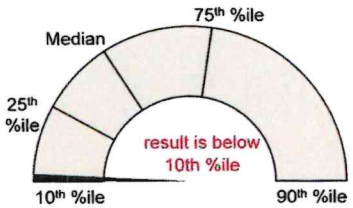
Real Losses
Systematic Data Handling Errors
Customer Metering Inaccuracies
Unauthorized Consumption
Unbilled Unmetered Auth Cons
Unbilled Metered Authorized Cons

	Volume MG/Yr	Value $/Yr	Basis of Valuation
Apparent Losses	2.6	$9,601	CRUC
Real Losses	0.2	$145	VPC
Unbilled Authorized Cons	0.3	$226	VPC
Non-Revenue Water	3.0	$9,972	Blended

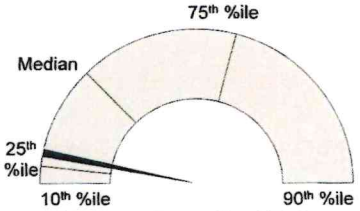
Key Performance Indicators

Actual KPI result | Target (see Worksheet)

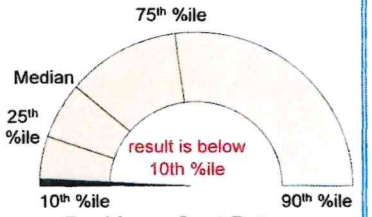
gauge %iles per validated industry ranges[2]



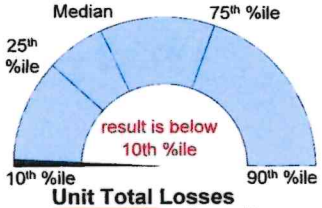
Total Loss Cost Rate
1.38 $/conn/year



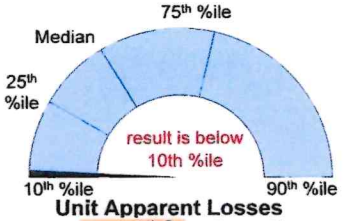
Apparent Loss Cost Rate
1.36 $/conn/year



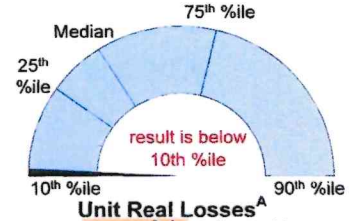
Real Loss Cost Rate
0.02 $/conn/year



Unit Total Losses
1.1 gal/conn/day

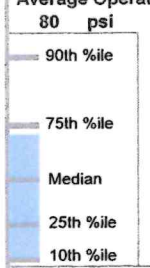


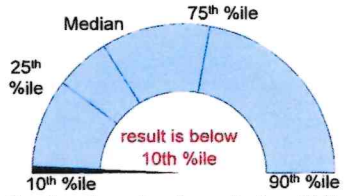
Unit Apparent Losses
1.0 gal/conn/day



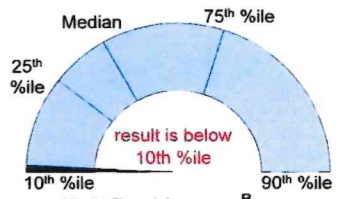
Unit Real Losses[A]
0.1 gal/conn/day

Average Operating Pressure
80 psi





Infrastructure Leakage Index (ILI)
0.0 dimensionless



Unit Real Losses[B]
1 gal/mile/day

See UARL definition for additional guidance on the ILI

(UARL) Unavoidable Annual Real Losses: 87.9 MG/Yr | 34.0 gal/conn/day

Guidance Information for Key Performance Indicators

- The eight indicators shown are the recommended suite per the AWWA Water Loss Control Committee 2020 Position on KPIs[1].
- A suite of KPIs is necessary, as no single KPI can holistically communicate water loss performance for a given water system.
- See Table 1 below for Uses and Limitations for each KPI, excerpted from the AWWA Water Loss Control Committee Report (2020)[1], with naming conventions updated.
- Percentiles (%iles) shown on KPI gauges come from Level 1 validated data in the AWWA WLCC Reference Water Audit Dataset (2020)[2].
- KPI %iles shown above are not segregated by cohorts. Limited KPI data by cohorts may be found in WRF 4695 Guidance Manual, Appendix B (2019)[5].
- Actual KPI results that fall below 10th %ile or above 90th %ile do not necessarily imply error, but should be viewed with scrutiny.
- Percentiles not intended to imply targets. Targets may be input by user for operational KPIs, if desired, on Worksheet.
- See UARL and ILI in Definitions tab for discussion of size and pressure limitations.
- Systems that fall on the extreme ends of size or connection density should use caution when interpreting Unit Losses KPIs.

Table 1

Source: AWWA Water Loss Control Committee Report (2020)[1], with naming conventions updated

2020 AWWA Water Audit Method – Water Audit Outputs and Key Performance Indicators: Uses and Limitations

Type	Indicator	Description	Suitable Purposes					Uses and Limitations	Principal Users
			Assessment	Bench-Marking	Target-Setting	Planning	Tracking		
Attribute	Apparent Loss Volume	Calculated by Free Water Audit Software	✓				✓	Assess loss level	Utility, Regulators
	Apparent Loss Cost	Calculated by Free Water Audit Software	✓				✓	Assess cost loss level	Utility, Regulators
	Real Loss Volume	Calculated by Free Water Audit Software	✓				✓	Assess loss level	Utility, Regulators
	Real Loss Cost	Calculated by Free Water Audit Software	✓				✓	Assess loss cost level	Utility, Regulators
	Unavoidable Annual Real Loss (UARL)	Calculated by Free Water Audit Software	✓				✓	Reveal theoretical technical low level of leakage	Utility, Regulators
Volume	Unit Apparent Losses (vol/conn/day)	Strong and understandable indicator for multiple users.	✓	✓	✓	✓	✓	Used for performance tracking and target-setting	Utility, Regulators
	Unit Real Losses[A] (vol/conn/day)	Strong and understandable indicator for multiple users.	✓	✓	✓	✓	✓	Used for performance tracking and target-setting	Utility, Regulators, Policy Makers
	Unit Real Losses[B] (vol/pipeline length/ day)	Strong and understandable indicator for use by utilities with low connection density.	✓	✓	✓	✓	✓	Data collection and assessment of systems with "low" connection density	Utility, Regulators, Policy Makers
	Unit Total Losses (vol/conn/day) **New KPI**	Strong and understandable indicator, suitable for high-level performance measurement.	✓				✓	High level indicator for trending analysis. Not appropriate for target-setting or benchmarking	Utilities, Customers
	Infrastructure Leakage Index (ILI)	Robust, specialized ratio KPI; can be influenced by pressure and connection density.	✓	✓			✓	Benchmarking after pressure management is implemented	Utilities
Value	Apparent Loss Cost Rate (value/conn/year) **New KPI**	Indicators with sufficient technical rigor. Provide the unit financial value of each type of loss, which is useful for planning and assessment of cost efficiency of water loss reduction and control interventions and programs.	✓			✓	✓	Data collection and assessment on AWWA indicators or contextual parameters to use in conjunction with Loss Cost Rates	Utilities, Regulators, Customers
	Real Loss Cost Rate (value/conn/year) **New KPI**		✓			✓	✓		Utilities, Regulators, Customers
Validity	Data Validity Tier (DVT)	Strong indicator of water loss audit data quality, if data has been validated. Tier provides guidance on priority areas of activity.	✓	✓		✓	✓	Assess caliber of data inputs of the water audit	Regulators, Utilities

AWWA Free Water Audit Software: Worksheet

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Water Audit Report for: Lyon Co Utilities - Dayton Valley Water
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Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n g	7	937.000	MG/Yr	n g 8		percent	VOSEA
WI	Water Imported:	n g	n/a		MG/Yr				WIEA
WE	Water Exported:	n g	n/a		MG/Yr				WEEA
	WATER SUPPLIED:			937.000	MG/Yr				

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n g	9	934.000	MG/Yr				
BUAC	Billed Unmetered:	n g	1		MG/Yr				
UMAC	Unbilled Metered:	n g	n/a		MG/Yr				
UUAC	Unbilled Unmetered:	n g	5	0.251	MG/Yr	custom	0.251	MG/Yr	
	AUTHORIZED CONSUMPTION:			934.251	MG/Yr				

WATER LOSSES 2.749 MG/Yr

Apparent Losses

choose entry option:

SDHE	Systematic Data Handling Errors:	n g	8	2.000	MG/Yr	custom	2.000	MG/Yr	
CMI	Customer Metering Inaccuracies:	n g	3	0.088	MG/Yr	volume	0.088	MG/Yr	under-registration
UC	Unauthorized Consumption:	n g	6	0.500	MG/Yr	custom	0.500	MG/Yr	
	Apparent Losses:			2.588	MG/Yr				

Real Losses

	Real Losses:			0.161	MG/Yr
	WATER LOSSES:			2.749	MG/Yr

NON-REVENUE WATER

	NON-REVENUE WATER:			3.000	MG/Yr

SYSTEM DATA

Lm	Length of mains:	n g	10	360.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n g	10	7,074		(active *and* inactive)
	Service connection density:			20	conn./mile main	
	Are customer meters typically located at the curbstop/property line?			Yes		
Lp		n g	10			
	Average length of customer service line has been set to zero and a data grading of 10 has been applied					
AOP	Average Operating Pressure:	n g	7	80.0	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n g	9	$3.71	$/1000 gallons (US)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n g	3	$900.00	$/Million gallons		$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

*** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *** go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Variable Production Cost (VPC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses^:		gal/conn/day
Unit Real Losses^:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: User Notes

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Water Audit Report for: Lyon Co Utilities - Dayton Valley Water
Audit Year: 2025

Calendar
Jan 01 2025 - Dec 31 2025

General Notes:	

	Audit Item	Notes on Input Derivation	Notes on Data Validity Grading
go to worksheet / go to grading	Volume from Own Sources (VOS)		
go to worksheet / go to grading	Volume from Own Sources Error Adjustment (VOSEA)	New upgrades to our SCADA system will provide better well meter reporting.Upgrade will be completed in 2026-2027.	
go to worksheet / go to grading	Water Imported (WI)		
go to worksheet / go to grading	Water Imported Error Adjustment (WIEA)		
go to worksheet / go to grading	Water Exported (WE)		

	Audit Item	Notes on Input Derivation	Notes on Data Validity Grading
go to worksheet / go to grading	Water Exported Error Adjustment (WEIA)		
go to worksheet / go to grading	Billed Metered Authorized Consumption (BMAC)		
go to worksheet / go to grading	Billed Unmetered Authorized Consumption (BUAC)	These are fire lines that are not metered. If consumption occurred, an alarm would notify the fire department and the water company.	
go to worksheet / go to grading	Unbilled Metered Authorized Consumption (UMAC)		
go to worksheet / go to grading	Unbilled Unmetered Authorized Consumption (UUAC)		
go to worksheet / go to grading	Systematic Data Handling Errors (SDHE)		
go to worksheet / go to grading	Customer Metering Inaccuracies (CMI)	LCUD is currently in the process of replacing all residential and commercial meters. It is anticipated to be completed by FYE 2026. Due to manufacturing delays and equipment shortages the meter replacement program was delayed by 3 years.	

	Audit Item	Notes on Input Derivation	Notes on Data Validity Grading
go to worksheet go to grading	Unauthorized Consumption (UC)		
go to worksheet go to grading	Length of Mains (Lm)		
go to worksheet go to grading	Number of Service Connections (Nc)		
go to worksheet go to grading	Average Length of (private) Customer Service Line (Lp)		
go to worksheet go to grading	Average Operating Pressure (AOP)		
go to worksheet go to grading	Customer Retail Unit Charge (CRUC)		
go to worksheet go to grading	Variable Production Cost (VPC)		

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Water Balance

Water Audit Report for: Lyon Co Utilities - Dayton Valley Water
Audit Year: 2025 Jan 01 2025 - Dec 31 2025
Data Validity Tier: Tier IV (71-90)

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		Water Exported (WE) (corrected for known errors) 0.000	Billed Water Exported			Revenue Water (Exported) 0.000
Volume from Own Sources (VOS) (corrected for known errors) 937.000	System Input Volume 937.000	Water Supplied 937.000	Authorized Consumption 934.251	Billed Authorized Consumption 934.000	Billed Metered Consumption (BMAC) (water exported is removed) 934.000	Revenue Water 934.000
					Billed Unmetered Consumption (BUAC) 0.000	
				Unbilled Authorized Consumption 0.251	Unbilled Metered Consumption (UMAC) 0.000	Non-Revenue Water (NRW) 3.000
					Unbilled Unmetered Consumption (UUAC) 0.251	
			Water Losses 2.749	Apparent Losses 2.588	Systematic Data Handling Errors (SDHE) 2.000	
					Customer Metering Inaccuracies (CMI) 0.088	
					Unauthorized Consumption (UC) 0.500	
Water Imported (WI) (corrected for known errors) 0.000				Real Losses 0.161	Leakage on Transmission and/or Distribution Mains Not broken down	
					Leakage and Overflows at Utility's Storage Tanks Not broken down	
					Leakage on Service Connections Not broken down	

AWWA Free Water Audit Software: Determining Water Loss Standing

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Water Audit Report for: Lyon Co Utilities - Dayton Valley Water
Audit Year: 2025 Jan 01 2025 - Dec 31 2025
Data Validity Tier: Tier IV (71-90)

Water Loss Control Planning Guide

	Water Audit Data Validity Tier (Score Range)				
Functional Focus Area	**Tier I (1-25)**	**Tier II (26-50)**	**Tier III (51-70)**	**Tier IV (71-90)**	**Tier V (91-100)**
Audit Data Collection	Launch auditing and loss control team; address supply metering deficiencies	Analyze business process for customer metering and billing functions and water supply operations; identify data gaps; improve supply metering	Establish/revise policies and procedures for data collection	Refine data collection practices and establish as routine business process	Annual water audit is a reliable gauge of year-to-year water efficiency standing
Short-term loss control	Research information on leak detection programs, Begin flowcharting analysis of customer billing system	Conduct loss assessment investigations on a sample portion of the system: customer meter testing, leak survey, unauthorized consumption, etc	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control and infrastructure monitoring	Refine, enhance or expand ongoing programs based upon economic justification	Stay abreast of improvements in metering, meter reading, billing, leakage management and infrastructure rehabilitation
Long-term loss control		Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement program, new customer billing system or AMR/AMI system	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process	Conduct detailed planning, budgeting and launch of comprehensive improvements for metering, billing or infrastructure management	Continue incremental improvements in short-term and long-term loss control interventions
Target-setting			Establish long-term apparent and real loss reduction goals (+10 year horizon)	Establish mid-range (5 year horizon) apparent and real loss reduction goals	Evaluate and refine loss control goals on a yearly basis
Benchmarking			Preliminary Comparisons - can begin to rely upon with PIs for performance comparisons for real losses	Performance Benchmarking with PIs is meaningful in comparing real loss standing	Identify Best Practices/ Best in class; PIs are very reliable as real loss performance indicators for best in class service

For validity scores of 50 or below, the shaded blocks should not be focus areas until better data validity is achieved.

Water Audit Comparison 2020 to 2025

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Water Audit Report for: Lyon Co Utilities - Dayton Valley Water
Audit Year: 2020 Jan 01 2020 - Dec 31 2020
Data Validity Tier: Tier IV (71-90)

		Water Exported (WE) (corrected for known errors) *0.000*	Billed Water Exported			Revenue Water (Exported) 0.000
Volume from Own Sources (VOS) (corrected for known errors) *937.000*	System Input Volume *937.000*	Water Supplied *937.000*	Authorized Consumption *934.251*	Billed Authorized Consumption *934.000*	Billed Metered Consumption (BMAC) (water exported is removed) *934.000*	Revenue Water 934.000
					Billed Unmetered Consumption (BUAC) *0.000*	
				Unbilled Authorized Consumption *0.251*	Unbilled Metered Consumption (UMAC) *0.000*	Non-Revenue Water (NRW) 3.000
					Unbilled Unmetered Consumption (UUAC) *0.251*	
			Water Losses *2.749*	Apparent Losses *1.588*	Systematic Data Handling Errors (SDHE) *1.000*	
					Customer Metering Inaccuracies (CMI) *0.088*	
					Unauthorized Consumption (UC) *0.500*	
Water Imported (WI) (corrected for known errors) *0.000*				Real Losses *1.161*	Leakage on Transmission and/or Distribution Mains *Not broken down*	
					Leakage and Overflows at Utility's Storage Tanks *Not broken down*	
					Leakage on Service Connections *Not broken down*	

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Water Audit Report for: Lyon Co Utilities - Dayton Valley Water
Audit Year: 2025 Jan 01 2025 - Dec 31 2025
Data Validity Tier: Tier IV (71-90)

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Volume from Own Sources (VOS) (corrected for known errors) 937.000	System Input Volume 937.000	Water Exported (WE) (corrected for known errors) 0.000	Billed Water Exported			Revenue Water (Exported) 0.000
		Water Supplied 937.000	Authorized Consumption 934.251	Billed Authorized Consumption 934.000	Billed Metered Consumption (BMAC) (water exported is removed) 934.000	Revenue Water 934.000
					Billed Unmetered Consumption (BUAC) 0.000	
				Unbilled Authorized Consumption 0.251	Unbilled Metered Consumption (UMAC) 0.000	Non-Revenue Water (NRW) 3.000
					Unbilled Unmetered Consumption (UUAC) 0.251	
			Water Losses 2.749	Apparent Losses 2.588	Systematic Data Handling Errors (SDHE) 2.000	
					Customer Metering Inaccuracies (CMI) 0.088	
					Unauthorized Consumption (UC) 0.500	
Water Imported (WI) (corrected for known errors) 0.000				Real Losses 0.161	Leakage on Transmission and/or Distribution Mains Not broken down	
					Leakage and Overflows at Utility's Storage Tanks Not broken down	
					Leakage on Service Connections Not broken down	