# CITY OF RIDGEFIELD

**CLARK COUNTY** **WASHINGTON**

# WATER CONSERVATION STRATEGY

**G&O #23244**
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# INTRODUCTION

This Water Conservation Plan has been developed to provide the City of Ridgefield (City) with a structured approach to manage water demand during planned system outages, emergencies, and periods of peak seasonal demand that could otherwise exceed the system's current production and storage capacity.

The plan is designed to reflect the City's present needs, which are outlined in greater detail in the following sections. It is recommended that the City periodically review and update this Water Conservation Plan to ensure that demand management strategies best fit with evolving water supply and demand conditions and infrastructure improvements.

## SYSTEM OVERVIEW

The City of Ridgefield's water distribution system is supplied by six wells (identified as Wells 7, 8, 9, 10, 11 and Junction) as well as an intertie with Clark Public Utilities (CPU) which is located on South 5$^{th}$ Street east of the I-5 Junction. Two other interties with CPU are located in the north of the City's service area; however, these serve isolated stretches of distribution main and are not connected to the remainder of the City's system. The City also maintains three storage facilities (identified as the Cemetery Reservoir, The Junction Reservoir, and the High School Reservoir) which are used to maintain the pressure in the distribution system. A comprehensive description of all of the City's water system components can be found in the *2024 Ridgefield Water System Plan (WSP).*

As previously mentioned, the City's reservoirs are key to establishing system pressure. The Cemetery Reservoir maintains pressure for the downtown area while High School Reservoir maintains system pressure for the remainder of the system. System pressure is maintained by ensuring that both reservoirs remain sufficiently full to provide a minimum of 30 psi to the highest in the water system. During a fireflow or emergency event, system pressure is allowed to dip as low as 20 psi; however, should pressure drop below 20 psi for an extended period of time, public notifications and a boil water notice are required by the Washington State Department of Health (DOH). The City operates a third reservoir, the Junction Reservoir, which is a ground level tank that can be used to refill the High School Reservoir via the Junction Booster Station. It is important that the Junction Reservoir remain at least 16 feet full, as this corresponds to the volume of water required to put out a large fire in the City's eastern commercial and industrial area.

## PRESENT NEED

Over the last 15 years the City has experienced rapid growth and development. During this time, new water infrastructure has been brought online and existing facilities have been upgraded to increase overall system capacity. However, it is important to note that despite investments in water infrastructure, the existing water system has limited capacity to support further increases in water demand and peak demands in recent summers have pushed the limits of the existing system.

The *2024 Ridgefield Water System Plan* identified supply and storage capacities as the two growth limiting asset categories. It was projected that the City would reach a capacity deficit for supply in 2025 and storage in 2026 if growth continues as projected in the WSP and *Draft Clark County Comprehensive Growth Management Plan*.

The City's Capital Improvement Program outlines the construction schedule to bring new assets online to address these supply and storage deficiencies. However, these improvements are still more than a year from being completed. As a result, the City's ability to enact water conservation measures during periods of peak demand has taken on added importance.

Both the City's source and storage capacity limitations impact the water system's ability to maintain water supply and system pressure in the summer. This conservation plan has been tailored to reduce the seasonal peaks of water demand through a series of customer and City actions triggered by parameters like water production and available storage. The stages, triggers, and actions are described in detail in the Water Conservation Action Plan below.

As previously mentioned, the City should update this Water Conservation Plan as new infrastructure is brought online. As of Spring 2025, the City's Eastside Reservoir project is well into the design phase, with construction expected to begin in 2026. This project will add an estimated 2.5 million gallons of storage. The City is also actively pursuing multiple avenues to increase supply capacity, including an additional 1,000 gpm from a water main extension and CPU intertie on North Royle Road and additional wells at the Kennedy Farms development.

## WATER CONSERVATION ACTION PLAN

Five distinct conservations "stages" have been created and are designed to increase in severity as the scenarios become more serious. Each stage is enacted when the specific trigger occurs and results in corresponding customer and City actions designed to curb water demand.

These triggers have been intentionally selected to allow for adequate reaction time by the City, water system operators, and customers, while also allowing for escalation to a more elevated and stringent stage should the need arise.

## COMMUNICATION

Clear communication with the public is a key component of this action plan. The water conservation stages and corresponding customer responsibilities must be clearly communicated. The City has developed communication strategies for three distinct groups which are outlined below. These groups include:

- Water Meter Customers
- Non-Home Owner Associations (HOAs)
- Contractors and Businesses

### Water Meter Customers

Once a conservation stage is triggered or enacted, the City will provide information to customers using their on-file preferred means of contact (robo-call or text message). The information provided will include an explanation of the current stage, as well as a summary of expected customer actions. Customers will also be informed of when the stage is expected to end (if such information is available) or be notified that the stage remains effective until demand conditions change.

### Home Owner Associations

The City has an inventory of HOA emails and direct addresses and will communicate with these associations using their preferred means of contact. The City will designate each HOA as in either Group A or B, with each group representing a similar typical water consumption volume. These groups will be used to determine which days water is permitted should the City enter a conservation stage where that is required.

The City will communicate to each HOA which group they have been designated to when appropriate and will provide an explanation of the current stage, as well as a summary of expected HOA actions. HOAs will also be informed of when the stage is expected to end (if such information is available) or be notified that the stage remains effective until demand conditions change.

### Contractors and Businesses

Need to be made aware of when water is limited or is no longer available from the City. An inventory of active construction contractors should be readily available as they have all filled out the *Hydrant Meter Rental Agreement*. This agreement outlines the conditions and limitations of City-produced water use. The City should make a point to contact construction contractors as conservation stages are reached and clearly state what the limitations and expectations are for the use of City Water. Contractors will also be informed of when the stage is expected to end (if such information is available) or be notified that the stage remains effective until demand conditions change.

The City may also choose to contact local landscaping contractors using the inventory of local City businesses. Landscaping contractors should be made aware of what conservation stage the City is in, how long it is expected to last (if such information is available or be notified that the stage remains effective until demand conditions change).

**City Efforts**

The City will also construct a "Water Conservation Stage Sign" on Pioneer Street which will display the current conservation stage and tell the public check the City's website. A corresponding prominent banner that links to a summary of the current stage and customer actions will be updated accordingly on the City website. The City's social media pages will display or link to the same information as well.

Internally, the Utilities Operations Director is responsible for ensuring the City actions and responsibilities are clearly delegated and communicated to City staff.

**Stage I**

Stage I is an advisory stage designed to remind customer and City staff of water conservation measures to curb seasonal demand or respond to anticipated drops in water supply.

Triggers

Stage I is triggered automatically on May 1st every year and will remain in effect until September 30th of every year.

Stage I may also be triggered by the – Public Works Utilities and Operations Director (PWUOD) when the potential for a water shortage exists due to a planned well shutdown, service of a storage reservoir, or water transmission main repair. In such cases it is not certain that there will be a water shortage, but an advisory may be issued as a precaution to prevent a shortage, or as a prudent response to drought conditions.

Customer Actions

Customers are to be reminded of the following conservation practices they can implement to promote water conservation:

- Limit water consumption to beneficial uses;
- Limit outdoor watering and encourage watering at night;
- Convert irrigation systems to drip systems;

- Maintain watering below saturation levels to minimize surface runoff and waste;
- Ensure pools, spas and ornamental fountains/ponds are equipped with recirculation pumps;
- Install automatic shut-off devices on any free-flowing hose application; and
- Refrain from washing cars at home.

City Actions

- Refrain from using hydrant meters for temporary water service and construction use during the hours of 7:00 am – 11:00 am.
- Prepare a list of HOAs, split into two groups (Groups A and B) which have roughly even water consumption.
- Prepare a list of construction contractors with active *Hydrant Meter Rental Agreements*.
- Prepare/update inventory of local landscaping contractors.

**Stage II**

Stage II is a response to typical seasonal water demand increase and marks the point when customers are asked to voluntarily enact water conservation practices outlined in Stage 1. Customers are also asked to consider limiting their irrigation. The City is encouraged to plan to limit irrigation of City-managed properties and delay water intensive activities.

Triggers

Stage II will be triggered when any of the following conditions occur:

1. **Water production (of wells and CPU intertie) reaches 2.5 MG;**
2. In the event of a major water main break or any other circumstances where the PWUOD is concerned about maintaining or replenishing sufficient storage reserves.

Once Stage II is triggered by the 2.5 MG water production threshold, Stage II will remain in effect until September 30th. If Stage II is triggered by the PWUOD, the same person will end the stage actions when normal operations are restored.

Customer Actions

The public will be asked to voluntarily enact water conservation practices outlined in Stage I, in addition to following:

- HOA Group A as well as properties with odd addresses are requested to limit outdoor watering to Monday, Wednesday, Friday; and
- HOA Group B as well as properties with even addresses are requested to limit outdoor watering to Tuesday, Thursday, Saturday.

City Actions

- Form a plan for odd/even watering days for City owned and irrigated properties;
- Delay water flushing or street cleaning when possible;
- Limit water use for construction.

**Stage III**

Stage III is a response to early sustained stress of the water system. In this stage customers and the City are required to significantly modify their water consumption behavior.

Triggers

Stage III is triggered when any of the following conditions occur:

1. **When total daily water production (of wells and CPU intertie) reaches 2.75 MG;**
2. When the water level in the Junction Reservoir reaches 16 feet and water production reached 2.5 MG anytime within the previous 3 days;
3. When any City well is out of service between June 1st and September 30th.

Stage III will remain in effect until all water sources are operational, the Junction Reservoir has maintained a water level above 16 feet, water production returns below 2.5 MG for 3 days and temperatures are forecasted to be below average for the next week.

Customers Actions

- HOA Group A as well as properties with odd addresses shall limit watering Monday, Wednesday, Friday;
- HOA Group B as well as properties with even addresses shall limit watering Tuesday, Thursday, Saturday;
- Pools, spas, and ornamental fountains/ponds are only allowed to operate if they are equipped with recirculation pumps;
- Pause permitting and/or filling of any swimming pools, artificial lakes, ponds, or streams;
- Require automatic shut-off devices on any free-flowing hose application;
- Automobiles can only be washed at commercial establishments that use recycled or reclaimed water.

City Actions

- Issue warnings to non-compliant customers clearly stating that fines and water shut-offs will occur should the City enter the Emergency Stage;
- Implement twice per week watering schedule for lawns at City owned and managed properties;
- Drip irrigation systems can be used three times per week;
- Only use water for Public Works maintenance when deemed necessary by the PWUOD or to maintain public health and safety;
- Stop washing fleet vehicles;
- Fire Department should postpone using water for training exercises;
- Rescind hydrant permits for temporary water service, unless necessary for public health and safety.

**Stage IV**

Stage IV is a response to prolonged stress of the City's water system. In this stage customers and the City are required to more drastically modify their water consumption behavior.

Triggers

Stage IV will be triggered when any of the following conditions occur:

1. **When total daily water production (of wells and CPU intertie) reaches 3.0 MG;**

2. When the Junction Reservoir Level reaches 16 feet and production has reached 2.75 MG within the previous 3 days;

3. When the South 5th Street Intertie or either ground level reservoirs are offline between June 1st and September 30th.

Stage IV will remain in effect until all sources are functional, the Junction Reservoir has maintained a water level above 16 feet, water production returns below 2.85 MG for 3 days and temperatures are forecasted to be below average for the next week.

Customers Actions

- All measures from the previous stage (Stage III) shall continue unless replaced by more restrictive requirements below;

- Limit lawn watering to once per week;

- HOA Group A as well as properties with odd addresses shall limit:

    - Drip irrigation to Mondays and Thursdays;
    - Lawn watering to Tuesdays;
    - Non-drip (hand watering) of landscapes other than lawns to Sunday.

- HOA Group B as well as properties with even addresses shall limit:

    - Drip irrigation to Tuesdays and Saturdays;
    - Lawn watering to Fridays;
    - Non-drip (hand watering) of landscapes other than lawns to Wednesdays.

- Restaurants only serve water upon specific request;

- Issue warnings to non-compliant customers clearly stating that fines and water shut-offs will occur should the City enter Stages IV and V.

City Actions

- All measures from the previous stage (Stage III) shall continue unless replaced by more restrictive requirements below;
- Stop watering lawns at City owned and managed properties;
- Drip irrigation systems can be used twice a week;
- Stop washing fleet vehicles;
- Rescind hydrant permits for temporary water service, unless necessary for public health;
- Issue fines and water shut-offs for non-compliant customers;
- Water shut-offs will occur should the City enter the Emergency Stage.

**Stage V**

Stage V is an emergency response to minimize water demand when the City's water system is critically stressed from an abnormally sustained drought or failure of critical infrastructure. In this stage customers and the City are required to immediately take action to minimize their water consumption behavior.

Triggers

Stage V is triggered when any of the following conditions occur:

1. **Multiple sources are offline and daily water production is over 2.5 MG;**
2. The High School reservoir is offline;
3. Multiple ground level tanks are offline;
4. A water supply emergency is called by the PWUOD.

Stage V will remain in effect until PWUOD ends the water supply emergency stage.

Customer Actions

- All measures from the previous stage (Stage IV) shall continue unless replaced by more restrictive requirements below;

- Prohibit all lawn watering;
- Prohibit non-drip (hand watering) of landscaping;
- Drip irrigation may be used one time per week;
- A contractor must be contacted to fix any residential leaks within 24 hours of notification by the utilities department.

City Actions

- All measures from the previous stage (Stage IV) shall continue unless replaced by more restrictive requirements below;
- Issue fines and water shut-offs for non-compliant customers;
- Request police support for enforcing emergency customer demand curbing actions;
- Drip irrigation systems may be used 1 day a week.