Regional Water Supply Agreement
Administration Advisory Committee
MINUTES

Meeting date:	October 30, 2024
Time:	12:00 – 2:00 pm
Location:	533 E Waterworks Drive, St. George UT
Participants:	Administration Advisory Committee members Zach Renstrom, Justin Sip, Ben Billingsley, Nannette Billings, Kaden DeMille, Kelly Wilson, Jeremy Redd, Brock Jacobsen, John Willis, Dale Coulam. Also present were Washington County Commissioners Adam Snow. Victor Iverson and Gil Almquist were not present. Kyle Gubler, Rick Rosenberg, Kress Staheli, Dale Coulam, and Michele Randall were not present. Other meeting attendees are noted on the attached sign-in sheet.

Drought Contingency Plan

Washington County Water Conservancy District Staff Engineer Whit Bundy provided an update on the drought contingency plan. Mr. Bundy reported that the Bureau of Reclamation approved the plan. The purpose of the update was to remind the group of the plan's progress, outline what has been done so far, and address any remaining tasks or questions before seeking approval.

Mr. Bundy explained that the engineering firm AE2S was contracted to develop a drought model, which was created in collaboration with a task force that included representatives from each municipality. The model incorporates multiple criteria to determine drought stages, including:

- Temperature
- Water production levels
- Precipitation
- Stream flow
- Reservoir volume
- Soil moisture

These criteria are used to trigger one of five possible drought stages, ranging from stage 0 (no drought) to stage 4 (severe drought). As the number increases, the severity of the drought

escalates, leading to increasingly stringent response actions. Over the past 30 years, the region has primarily experienced drought stages 0 and 1, which represent normal to mild drought conditions. Occasionally, during particularly dry years, the area has entered stage 2, but stages 3 and 4, which indicate severe and extreme drought, have never been reached.

The plan requires three consecutive months of the same drought conditions for the level to increase or decrease, ensuring that the change reflects sustained trends rather than short-term fluctuations. The TAC (Technical Advisory Committee) will be meeting monthly to review the drought model's data and progress. After three consecutive months of data that indicate a change in drought stage, the findings will be brought before the Administrative Advisory Committee (this group) for review and vote whether to recommend that the Water District Board adopt the new drought stage. This process ensures that the drought response stages are carefully considered and approved.

Mr. Bundy explained the drought stages:

Stage 0 represents normal water availability, where conditions are stable and there is no immediate water shortage. During this stage, the focus is on maintaining existing conservation plans, promoting water efficiency, and encouraging the community to remain conservation aware.

Stage 1 targets a 10% reduction in water use. This will be achieved through a combination of public outreach and education to raise awareness about water conservation. Establishing watering guidelines to encourage efficient water use. Reducing irrigation on public facilities to help conserve water.

Stage 2 introduces more restrictive measures to achieve a 20% reduction in water use. Restricting new landscaping to drip irrigation and water-efficient plants. A moratorium on new swimming pool permits to prevent additional water usage. Restricting car washing to commercial facilities, reducing the demand for water. Increasing construction water rates to encourage greater efficiency in water use during building projects. Prohibiting ornamental water fountains and misting systems that contribute to excessive water use. Implementing water budgets for golf courses to limit their water consumption. Introducing a water use compliance program to monitor and enforce conservation measures.

Advisory Committee member Jeremy Redd commented that if people or organizations anticipate future reductions in water use (like a mandated 10-20% cut), they might hold back from becoming fully efficient upfront because they expect they will need to cut further in the future and want to leave room for those cuts. Mr. Redd said that as an example, a golf course might choose not to implement all possible water-saving measures immediately because if they are forced to reduce usage by 20% later, they want to avoid being in a situation where they have already maximized efficiency and have no more room to cut. In response to a question from Mr. Redd about whether the plan focuses on potable or secondary water with respect to golf courses or other public facilities, Mr. Bundy responded that the focus is potable water.

Advisory Committee member Nannette Billings raised a concern that cutting water use by 20% would harm essential landscaping, leading to the need for replacement of grass, trees, or other vegetation, which can be costly. Ms. Billings asked whether a 20% reduction will keep facilities operational.

Mr. Bundy responded that the plan would trigger a 20% reduction only when the area experiences one of the driest periods it has ever seen. Given the ongoing concern over adequate drinking water supply, tough decisions are necessary. A significant amount of water is going toward landscapes like golf courses and public spaces, so reductions in these areas could make a noticeable difference, freeing up more water for potable users.

Conservancy District public affairs director Karry Rathje said that rather than reducing irrigation uniformly, planners can modify the landscape design to eliminate grass in areas that are not used for recreation, like along sidewalks or ornamental patches. These modifications help facilities maintain functionality while meeting water reduction goals.

Stage 3 targets a 30% reduction, with prohibitions on the irrigation for non-functional grass, including residential front lawns, commercial, institutional, and decorative lawns. The focus is on areas of grass that do not serve a functional purpose. Other provisions include stricter water budgets for golf courses as well as a requirement that new plants be selected from an approved list of water-efficient plants. Also, no new building permits will be issued, except for existing projects that can be completed under the current restrictions. There will be exemptions for construction projects that do not require water, as well as for any activities deemed essential for public health, safety, and welfare. This stage also includes prohibition on draining and refilling swimming pools, to prevent the unnecessary loss of large amounts of water during a drought.

Stage 4 represents a severe drought scenario, where the focus is primarily on essential water use, ensuring that people have enough water for drinking and basic health needs. At this stage, the District will target a 40% reduction in water use, with all the restrictions from previous stages remaining in place, with additional measures of limiting golf course irrigation to only tees and greens to significantly reduce water usage in these areas. The stage also implements a more stringent rate structure to further encourage water conservation and penalize excessive use. Outdoor water use will be limited to handheld hoses only.

Discussion:

Advisory Committee member Brock Jacobsen commented the implications of prolonged restrictions on new building permits under drought stage 3 regulations, particularly if these restrictions persist for 6-9 months or more it would have an economic impact halting new construction could disrupt local industries, especially those tied to development, construction, and related services, potentially leading to job losses.

Nanette Billings commented that any decisions to impose or lift restrictions, such as a moratorium on new building permits under drought stage 3, would need to align with state laws.

Commissioner Adam Snow explained an important limitation regarding the reissuance of moratoriums, likely tied to legal restrictions at the state level. A moratorium, once issued, typically has a set maximum duration (e.g., six months). During this period, no new moratorium can be reissued until the initial one expires or specific conditions change.

Scott Taylor commented that the region has not fully experienced the realities of operating under stage 3 drought conditions. Stage 3 restrictions could be highly detrimental to the building industry. The ultimate priority remains ensuring residents have access to water when they turn on their taps.

Committee member Nanette Billings commented that there needs to be an important distinction between potable and non-potable water. Ms. Billings emphasized the need to clarify the scope of water conservation measures and their impacts.

Mr. Bundy explained that water not used for outdoor irrigation remains stored in reservoirs, preserving it for treatment and eventual use as drinking water. By reducing irrigation demand, the region can extend the availability of reservoir water for critical needs, especially during prolonged droughts.

Advisory Committee member Ben Billingsley asked whether the Water District has developed a demand model to anticipate how often the area could hit stage 3. Mr. Bundy said that the District has demand models, but they have not yet been fully integrated into a drought model to predict future drought stages. Ben Billingsley said that if demand is given too much weight, it could push the system into a higher drought stage like Stage 3 or Stage 4 and make it difficult to return to a lower stage, even if water supply conditions improve.

Advisory Committee member John Willis asked whether increases in demand could influence the stage level. Mr. Bundy responded that the stages are based on certain demands, and would have be adjusted for changes to both supply and demand.

Advisory Committee member Zach Renstrom said that the District is working with Bowen Collins and Associates to have modeling incorporate a hotter, drier scenario moving forward in certain demands. The emphasis on building infrastructure ahead of demand is critical. It ensures there is a buffer in the system to accommodate unforeseen spikes in demand or supply shortfalls. By staying ahead of growth trends, the system avoids hitting critical thresholds.

Water District staff member Nicole Hunter raised a point about the evolving role of conservation in water resource management. Historically, grass irrigation has been seen as a significant "reserve" for water savings during droughts or emergencies. However, as conservation efforts intensify and landscapes shift toward more water-efficient options, that "buffer" becomes smaller.

Mr. Bundy said that at 54%, outdoor water use still represents a significant portion of total consumption. There's considerable potential for improved efficiency.

Water District staff member Corey Cram said that the region has not seen stage 3 in the past 30 years. In the 1970s, the region had limited water storage, which made communities highly vulnerable to droughts. Immediate and significant cutbacks, such as reduced outdoor watering, were the only options. Without storage capacity, drought management relied on emergency conservation. Over the past 30 years the creation of reservoirs has provided a critical buffer, allowing water systems to manage demand and there is interconnection with the cities.

Zach Renstrom said that because the region is not currently in a drought, now is a good time to prepare. Members should raise any questions or comments. In addition to preparing for a drought, the Committee should consider emergency scenarios.

Committee member John Willis said that the plan is very general. It needs to define what facilities will be reduced by 20% and how the plan applies to and accounts for secondary water. Also, the plan is very general regarding construction permits. For example, some construction projects may not use water or may have their own source of water.

Scott Taylor said that stage 1 and stage 2 require participants to be very water conscious. Mr. Taylor asked how reductions are measured and whether reductions are based on the highest user.

Ben Billingsley emphasized the need for proactive, enforceable actions from cities, particularly in extreme water conservation scenarios. Banning grass and pool permits are more than just voluntary conservation measures—they require municipal action and regulatory enforcement.

John Willis said that the plan should clearly specify whether the reductions apply to water supplied by the District, each city's independent water sources, or a combination of both.

Zach Renstrom said that the plan will go back to the work group to discuss all the questions and concerns.

Commissioner Adam Snow recommended that each city enlists their attorneys to help ensure that the tools like moratoriums or emergency declarations meet the legal requirements. Early legal review can reduce the risk of plans being challenged.

Discussion on current water year and previous water year

Whit Bundy provided an update on water demand, noting that consumption, measured in gallons, is significantly higher this year compared to last year. Mr. Bundy said that consumption is the highest it has been in the past 40 years. The increase is attributed to this year’s exceptionally hot and dry conditions, which caused demand to rise.

Mr. Bundy also pointed out that the number of Equivalent Residential Connections (ERCs) served has increased due to population growth. While the per ERC water usage is improving and the number is coming down, the overall demand remains high because the population growth has outpaced those improvements, and many older homes still have higher water consumption rates. This explains why current demand is still elevated despite progress in reducing per ERC usage.

The current number of lots, including those in PID's, development agreements, and those with approved preliminary plans or final plats, is just under 68,000.

Mr. Bundy explained that although the area is approaching drought stage 1 based on the model, it has not officially moved into that stage yet. Some of the key factors contributing to the potential shift include low moisture levels, low soil moisture, and high temperatures, which have led to a significant increase in water production.

Current reservoir levels:

- Sand Hollow and Kolob are at 79%.
- Gunlock is at 48%.
- Quail Creek is at 57%.

Consider approval of 2025 meeting schedule

Zach Renstrom outlined the proposed 2025 meeting schedule, noting that meetings are planned to be held quarterly, unless urgent circumstances arise, such as a major drought, which would necessitate additional meetings.

> ***Mayor Justin Sip made a motion to approve the 2025 meeting schedule, the motion was seconded by Adam Snow and all voted aye.***

Consider approval of August 28, 2024 minutes

> ***Mayor Kelly Wilson made a motion to approve the August 28, 2024 minutes, the motion was seconded by Mayor Justin Sip, and all voted aye.***

Karry Rathje provided details on the upcoming tour to San Diego, California, scheduled for Monday, January 27, 2025, through Tuesday, January 28, 2025. This trip will visit Pure Water San Diego and the Santee Lakes Recreation Preserve, offering a firsthand look at advanced water reuse systems in action. This tour will give valuable insights into the operational and community-focused aspects of water reuse.

Next meeting Wednesday, January 29, 2025 from 12:00 pm to 2:00 pm

The meeting was adjourned upon motion.

Mindy Mees

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Secretary

Memo

To RWSA Administrative Advisory Committee Members

From Whit Bundy, WCWCD

Date October 16, 2024

SUBJECT Drought Contingency Plan

The drought contingency plan task force, which includes representatives from each RWSA municipal partner, has developed a draft Drought Contingency Plan (plan) after months of collaboration and analysis. The district is required to have a plan to qualify for state funding.

We would like to discuss and approve the following drought stages and corresponding actions, as outlined in the current draft plan, at the October 30 Administrative Advisory Committee (AAC) meeting.

Drought stages are determined by a combination of conditions including temperature, precipitation, streamflow, reservoir volume, soil moisture and demand. Historically, the county is typically in drought stage 0-1, with occasional dips into stage 2. Stages 3 and 4 were developed to ensure we had uniform, effective measures in place in the event of an emergency. The district board, in consultation with our municipal partners, will determine when to move between drought stages.

Additional information will be shared at the AAC meeting, but we wanted to provide a summary of actions prior to the meeting for your review and consideration. Please provide your feedback prior to the meeting.

Drought Stage 0: Conserve
Water availability is at normal supply

- Implement Conservation Plans

Drought Stage 1: Caution
Water availability is abnormally dry or decreasing supply
Target 10% reduction in water use

- Deploy stage 1 communications (to be collaboratively developed)
- Promote stage 1 watering guidelines (to be collaboratively developed)
- Reduce irrigation of public facilities by 10%

- Stage 0 actions plus:
    - Leverage smart metering systems to strengthen messaging
    - Monitor and report reservoir levels as a percentage of total surface water storage

Drought Stage 2: Concern
Water availability is at prolonged drought, or diminished supply
Target 20% reduction in water use

- Deploy stage 2 communications (to be collaboratively developed)
- Promote stage 2 watering guidelines (to be collaboratively developed)
- Reduce irrigation of public facilities by an additional 10% (20% total)
- Implement stage 2 rate structure (to be collaboratively developed)
- Stage 1 actions plus:
    - Prohibit grass installation. Drip irrigated, water-efficient plants only.
    - Moratorium on swimming pool permits
    - Restrict car washing to commercial facilities
    - Increase construction water rates to promote greater efficiency
    - Prohibit ornamental water fountain use
    - Prohibit misting system use
    - Implement water budgets for golf courses to reduce demand 20%
    - Implement enforcement program

Drought Stage 3: Alarm
Water availability is at escalated drought, or deteriorated supply
Target 30% reduction in water use

- Deploy stage 3 communications (to be collaboratively developed)
- Promote stage 3 watering guidelines (to be collaboratively developed)
- Reduce irrigation of public facilities by an additional 10% (30% total)
    - Turn off outdoor water features, including splash pads
- Implement stage 3 rate structure (to be collaboratively developed)
- Stage 2 actions plus:
    - Prohibit irrigation of non-functional grass, including, but not limited to residential front yards, commercial and institutional decorative lawns
    - Implement water budgets for golf courses to reduce demand 30%
    - New landscape must be from stage 3 plant list (to be developed by district)
    - No new building permits issued (existing projects can be completed)
        - Exemptions for construction that does not use water
        - Governing body can make exemptions for public health, safety, and welfare
    - Prohibit complete draining and refilling of swimming pools, make-up water is acceptable

Drought Stage 4: Crisis

Water availability is at extreme drought, or depleted supply
Target 40% reduction in water use

- Deploy stage 4 communications (to be collaboratively developed)
- Promote stage 4 watering guidelines (to be collaboratively developed)
- Reduce irrigation of public facilities by an additional 10% (40% total)
- Golf course irrigation limited to tees and greens (or budgeted at 40 percent reduction)
- Implement stage 4 rate structure (to be collaboratively developed)
- Stage 3 actions plus:
    - Outdoor water use by handheld hose only

WASHINGTON COUNTY
WATER
CONSERVANCY
DISTRICT

2025 Regional Water Supply Agreement Administration Advisory Committee

Meeting Schedule
533 E Waterworks Drive
12:00 pm – 2:00 pm

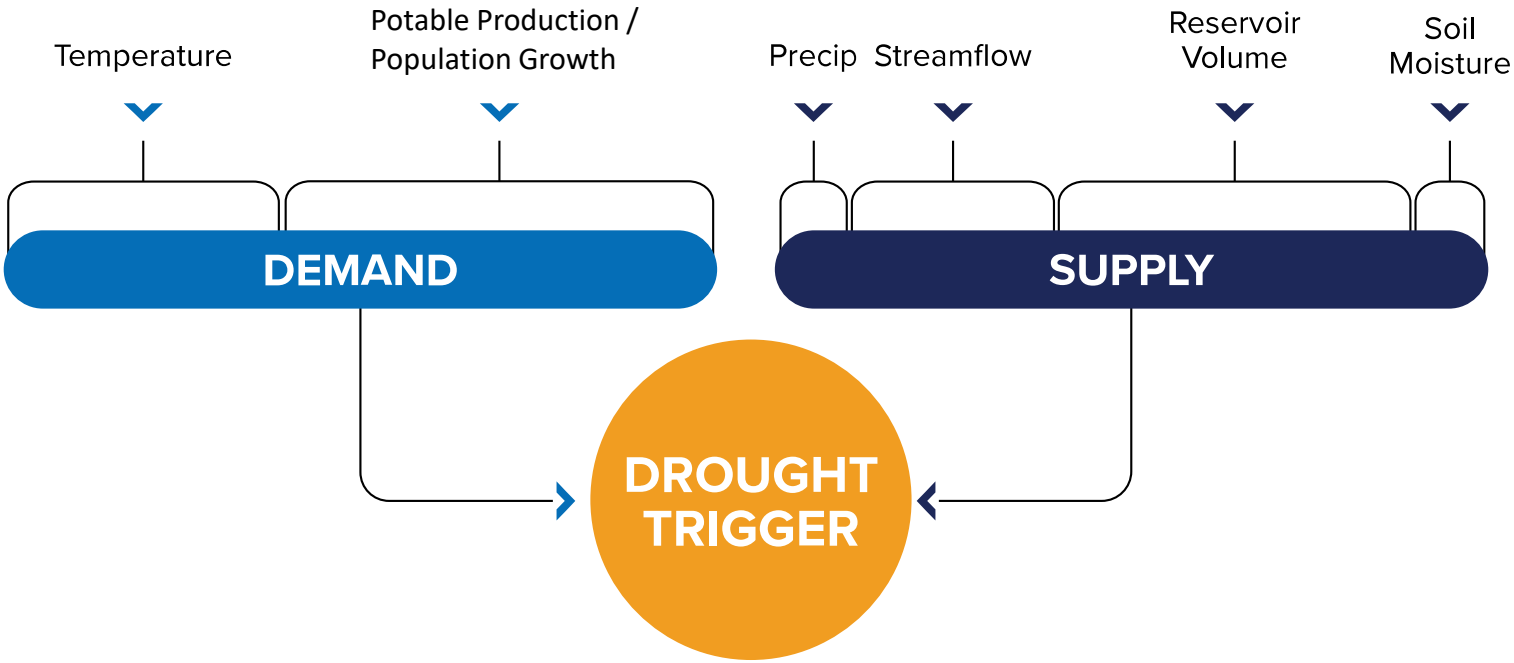
January 29, 2025
May 28, 2025
August 27, 2025
October 29, 2025

WASHINGTON COUNTY
WATER
CONSERVANCY
DISTRICT

Water Shortage Contingency Plan

AAC Meeting | October 30, 2024

Model


Temperature
Potable Production / Population Growth
Precip
Streamflow
Reservoir Volume
Soil Moisture
DEMAND
SUPPLY
DROUGHT TRIGGER

Water Shortage Stages

WATER AVAILABILITY AND RESPONSE STAGES					
	Stage 0	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**
	Normal	**Dry**	**Prolonged Drought**	**Escalated Drought**	**Extreme Drought**
Response Actions	**Conserve**	**Caution**	**Concern**	**Alarm**	**Crisis**

Historic Trends

- Over last 30 years:
  - Stage 0 – 62%
  - Stage 1 – 29%
  - Stage 2 – 9%
  - Stages 3 & 4 – 0%

DROUGHT STAGE												
Year	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
1967	0	0	0	0	0	0	0	0	0	1	0	0
1968	0	0	0	0	0	0	0	0	0	1	1	0
1969	0	0	0	0	0	0	0	1	0	0	0	1
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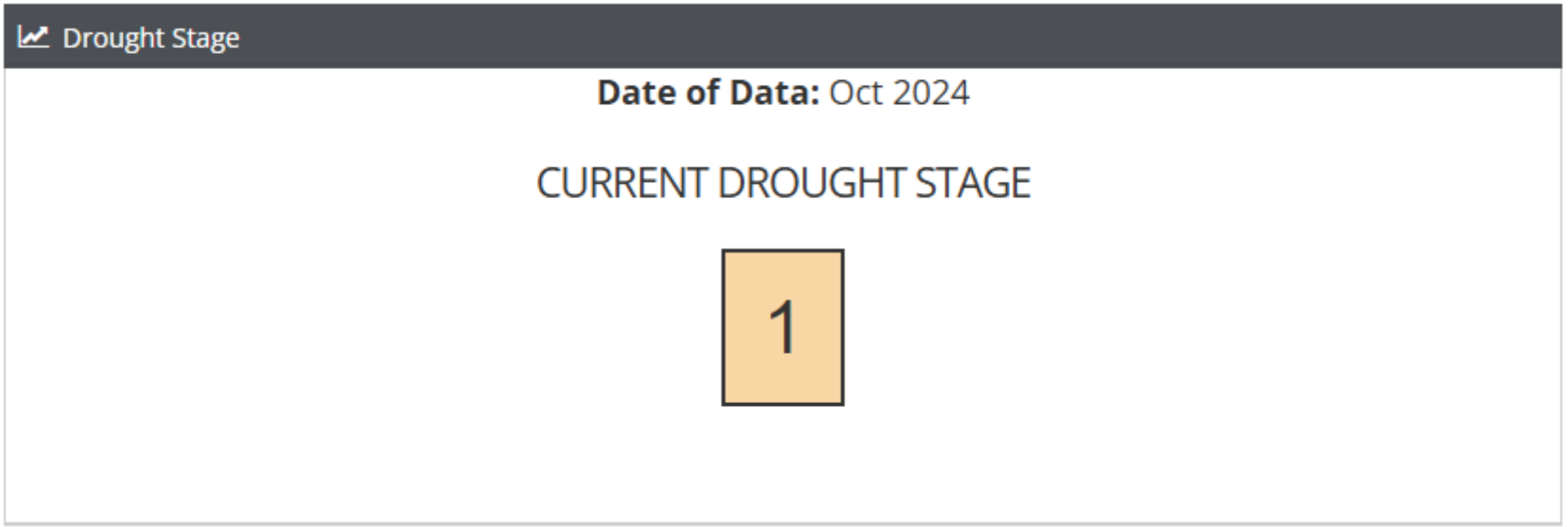
2016	0	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	1	0	0	0	0	0
2018	0	0	0	1	1	1	1	1	1	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	1	0	0	0	0
2021	1	1	2	1	1	1	1	1	1	0	1	0
2022	1	1	1	1	1	1	1	0	0	0	0	0

Changing Drought Stages

- Transitions between drought stages require
  - 3 consecutive months of conditions
  - Approval of the Technical Advisory Committee, Administrative Advisory Committee and WCWCD Board

Current Stage



Drought Stage 0: Conserve

NORMAL WATER AVAILABILITY

IMPLEMENT CONSERVATION PLANS

Drought Stage 1: Caution

Abnormally dry or decreasing supply

Target 10% reduction in water use

- Public outreach (to be collaboratively developed)
  - Leverage smart metering systems to strengthen messaging
  - Monitor and report reservoir levels as a percentage of water storage
- Watering guidelines (to be collaboratively developed)
- Reduce irrigation of public facilities by 10%

Drought Stage 2: Concern

Prolonged drought or diminished supply

Target 20% reduction in water use

- Stage 1 actions plus:
  - New landscape installs limited to drip irrigation of water-efficient plants (no grass)
  - Moratorium on swimming pool permits
  - Restrict car washing to commercial facilities
  - Increase construction water rates to promote greater efficiency
  - Prohibit ornamental water fountain use
  - Prohibit misting system use
  - Implement water budgets for golf courses to reduce demand by 20%
  - Implement water use compliance program
- Reduce irrigation of public facilities by 20%

Drought Stage 3: Alarm

Escalated drought or deteriorated supply

Target 30% reduction in water use

- Stage 1 & 2 actions plus:
  - Implement Stage 3 rate structure (to be collaboratively developed)
  - Reduce irrigation of public facilities by 30%
    - Turn off outdoor water features, including splash pads

Drought Stage 3 Continued…

- Prohibit irrigation of non-functional grass, including, but not limited to residential front yards, commercial and institutional decorative lawns
- Implement water budgets for golf courses to reduce demand 30%
- New landscape must be from Stage 3 plant list (to be developed by district)
- No building permits issued (existing projects can be completed)
  - Exemptions for construction that does not use water
  - Governing body can make exemptions for public health, safety and welfare
- Prohibit complete draining and refilling of swimming pools, make-up water is allowed.

Drought Stage 4: Crisis

Extreme drought or depleted supply

Target 40% reduction in water use

- Stage 1-3 actions plus:
  - Golf course irrigation limited to tees and greens (or budgeted at 40% reduction)
  - Implement Stage 4 rate structure (to be collaboratively developed)
  - Outdoor water use by handheld hose only
- Reduce irrigation of public facilities by 40%

Next Steps

- Approval by AAC and recommendation for adoption to WCWCD Board of Trustees
- Adoption by WCWCD Board of Trustees

Q&A

wcwcd.gov

info@wcwcd.gov

WASHINGTON COUNTY
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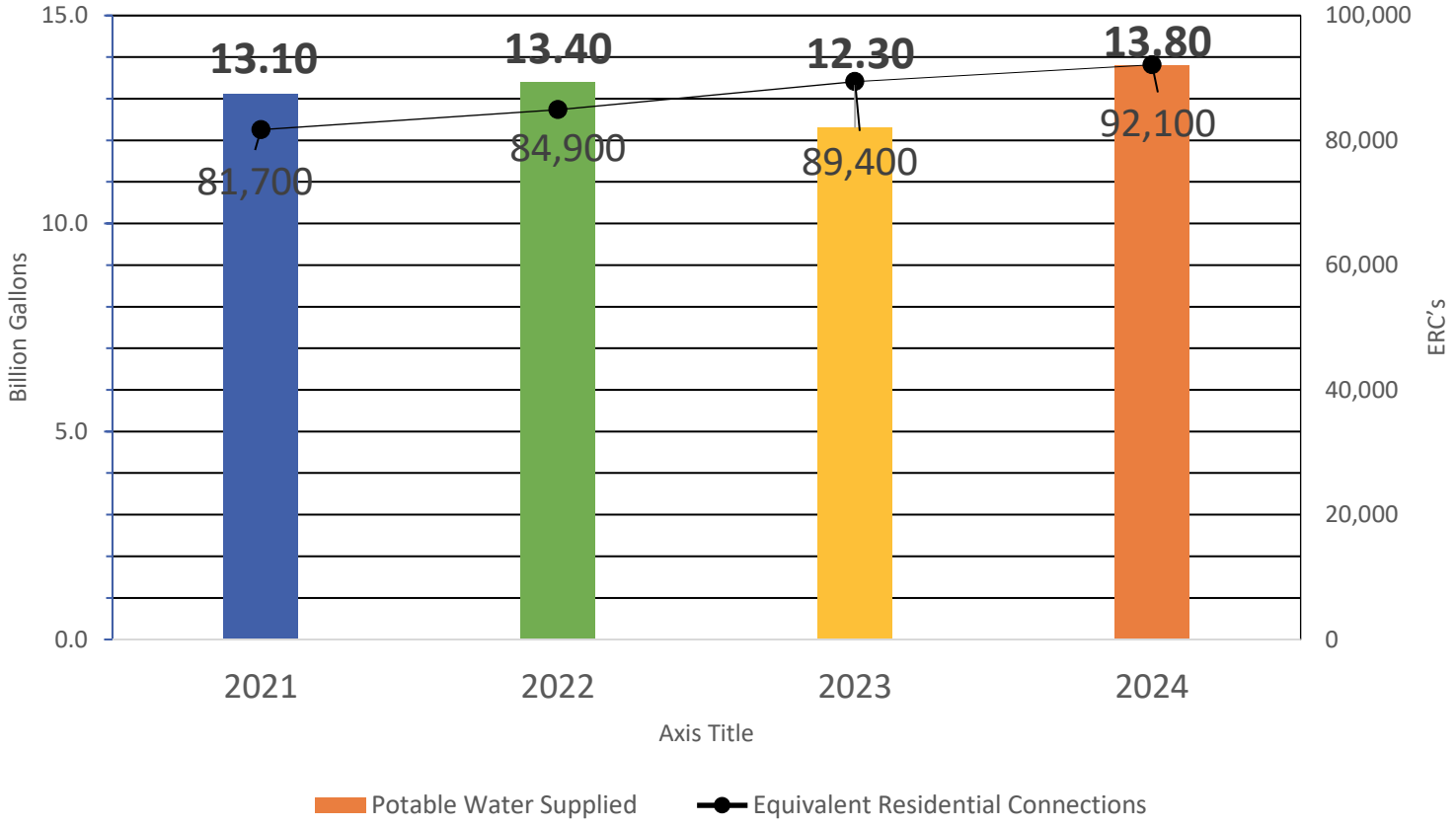
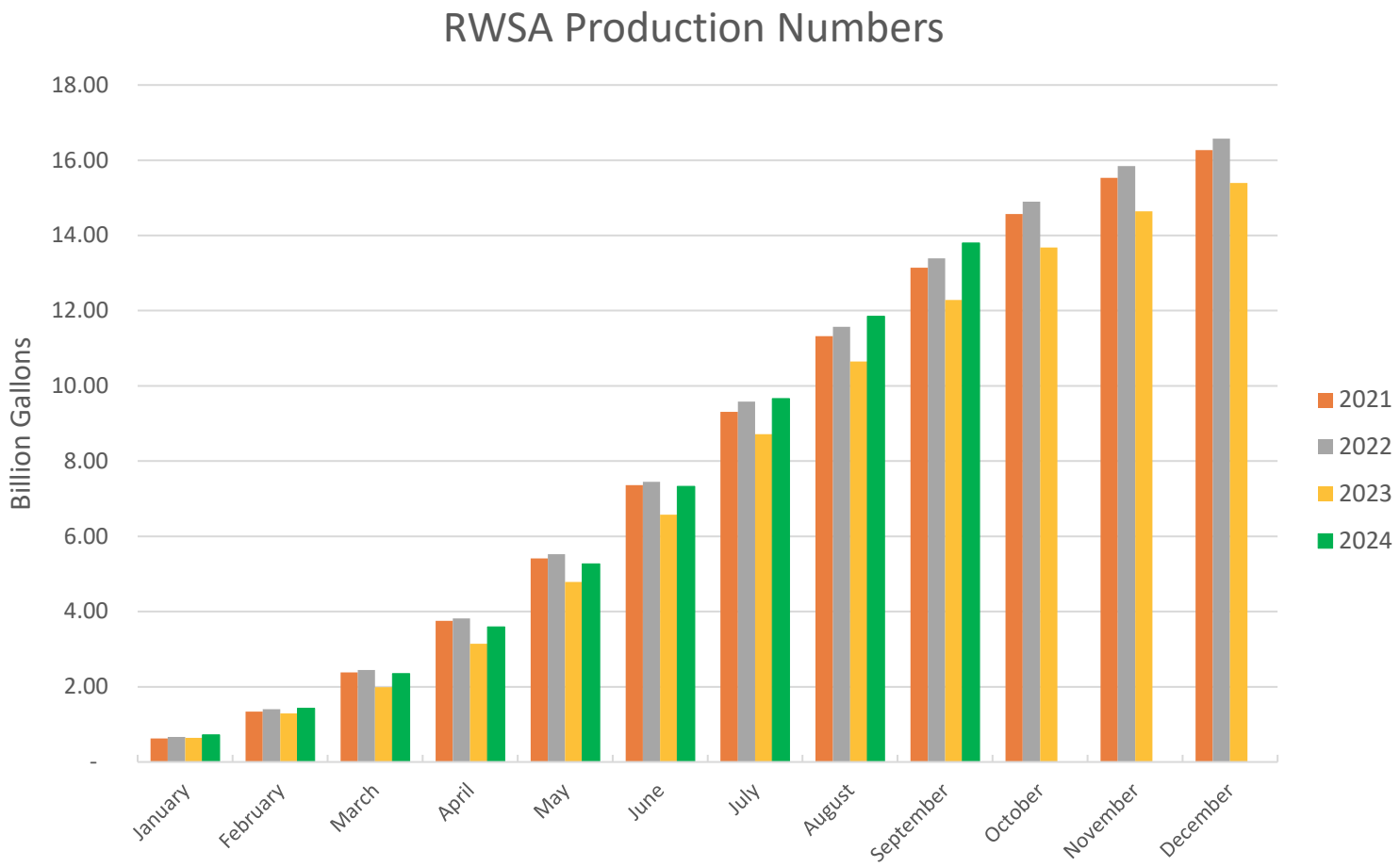
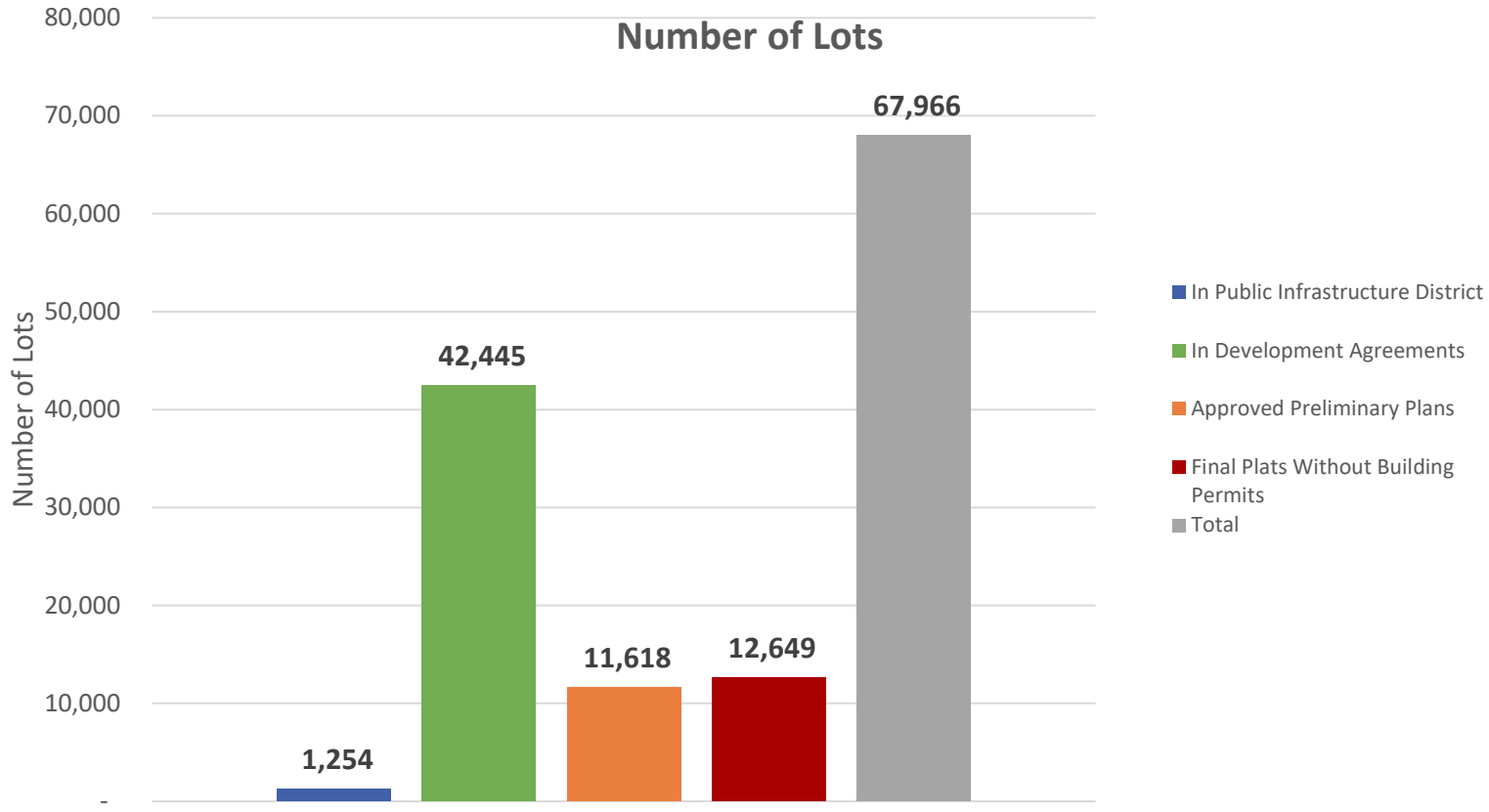
Water Production, Lot Numbers and Drought Update

October 2024

2024 Countywide Water Production




RWSA Production Numbers
Billion Gallons
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
-
January
February
March
April
May
June
July
August
September
October
November
December
2021
2022
2023
2024


Number of Lots
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
-
Number of Lots
1,254
42,445
11,618
12,649
67,966
In Public Infrastructure District
In Development Agreements
Approved Preliminary Plans
Final Plats Without Building Permits
Total

Drought Stage – 1

Key Factors

- Little Moisture
- High Temperatures
- Low Soil Moisture
- Increased Production