DROUGHT MITIGATION AND RESPONSE PLAN

Dominion Water and Sanitation District

August 2023

Prepared for:

DWSD

Prepared by:

INTERA

Acknowledgements

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Executive Summary

Dominion Water and Sanitation District (Dominion or DWSD) was formed in 2004 as a Title 32 Special District for the specific purpose of providing wholesale water and wastewater services to Sterling Ranch Community Authority Board (Sterling Ranch CAB) or those Special Districts or municipalities located with Dominion's Service Area who rely on failing wells (Retail Districts). The purpose of this Drought Mitigation and Response Plan (Plan) is to provide Dominion and its Retail Districts the guidance necessary to ensure that drought and water shortages are addressed in a proactive manner, minimizing long-term impacts, and ensuring that sufficient water is available for the health, safety, and community livelihood during water shortages. This State approved Plan was developed in accordance with DWSD's Rules and Regulations along with Colorado Water Conservation Board's (CWCB) *2020 Drought Management Planning: A Guide for Water Providers.* The Plan was developed through a series of five workshops comprised of representatives from Dominion and its existing Retail District, Sterling Ranch CAB, and was also carried through a public review process and reviewed by the CWCB prior to finalization. The Plan is to be updated in 2028, or sooner as determined by Dominion. A key component of this Plan is a template in Appendix A for Dominion's Retail Districts who are required to develop a Drought Mitigation and Response Plan (Retail DMRP) as a condition of service.

Dominion is committed to providing a 70% renewable water supply to Retail Districts within its service area in northwest Douglas County, on a ten-year average. However, Dominion's goal is to provide a higher percentage of renewable water to its Retail Districts. Along with this commitment is the vision to provide a reliable and sustainable supply working closely with Retail Districts and regional partners to promote efficient water use. To effectively execute, mitigate, and respond to drought and water shortages, Dominion and its Retail Districts must have well defined roles. These roles are defined in Dominion's Rules and Regulations.

Role of DWSD in Drought Mitigation and Response: *DWSD's role is to 1) provide a reliable and predictable water supply to its Retail Districts, 2) preserve the water necessary to meet essential health and safety needs during a Water Shortage, 3) minimize adverse Water Shortage impacts to the extent practical by mandating and enforcing reduction in water use among Retail Districts, 4) collaborate with regional partners, 5) facilitate collaboration with and between DWSD's Retail Districts, and 6) coordinate with and provide information to Retail Districts. DWSD shall accomplish this through collaborative and well-coordinated efforts with Retail Districts and regional partners. Water efficiency, proactive water supply planning, well-prepared Drought Mitigation and Response efforts, and communication are all paramount in this effort. – DWSD's Rules and Regulations, Section 8.03(a).*

Role of Retail Water Districts: *The role of the Retail District is to 1) manage its water planning efforts and distribution system to optimize water efficiency within its Service Area, 2) stay informed of Drought and Water Shortage conditions, 3) work closely with DWSD and DWSD's other Retail Districts as needed in periods of Drought and Water Shortages to achieve measured water savings, 4) facilitate governance at the local level by collaboratively pursuing solutions with their respective end users and meeting DWSD's required water saving targets when necessary, and 5) keep their respective End Users well informed of any necessary Mitigation and Response. Retail Districts are required to have a Retail DMRP as referenced in Section 8.10. – DWSD's Rules and Regulations, Section 8.03(b).*

Goals and Operating Principles

The objectives of this Plan are provided below.

1. **Provide resilient water supply –** Allow for the continued delivery of a sustainable, resilient water supply that is reliable and predictive for its Retail Districts.
2. **Encourage adoption of water efficiency standards** – Retail districts are encouraged to adopt water efficiency standards to promote and facilitate low water landscapes and land use planning.
3. **Make informed decisions -** Foster coordinated communication with regional water providers and identify the resources necessary to ensure a data-driven predictive drought monitoring approach that informs decision-making when contemplating declaration of a drought or water shortage.
4. **Guide Retail District Drought planning -** Provide Retail Districts clear guidance when developing their retail DRMPs based on established standards, yet also allowing for flexibility to address unique circumstances and needs.
5. **Coordinate with Retail Districts** - Foster an engaging interactive process between Dominion and the Retail Districts on monitoring, declaring, and implementing a drought and water shortage response that is mutually beneficial and results in achievable water savings.

The following operating principles are reflective of Dominion's values and were developed to provide the Retail District guidance in development of the Retail District DMRP. They also provide guidance when it comes to decision-making and implementation of drought response. The operating principles are as follows:

1. **Coordinate on Retail DMRPs** -Work in close coordination with existing and prospective Retail Districts to assist districts with developing effective Retail DMRPs that are reflective of Dominion's priorities in Table 2.
2. **Clearly communicate -** Provide clear communication with Retail Districts on local and regional drought monitoring findings at the onset and during a drought or water shortage declaration.
3. **Empower Retail Districts -** Provide the necessary tools to each Retail District during a drought and water shortage to 1) allow Retail Districts to effectively implement response measures outlined in their Retail DMRPs; and 2) communicate with the end users as laid out in their Retail DMRPs.
4. **Innovate and collaborate -** Encourage innovative collaborative approaches to addressing water shortage related challenges that meet Dominion's objectives and improve resiliency both regionally and within Dominion's local Service Area.
5. **Promote water efficiency** - Encourage and incentivize water efficiency and low water use landscaping in all new development within Dominion's Service Area.

Background

Dominion provides wholesale water and wastewater services in northwest Douglas County, Colorado. Sterling Ranch CAB is Dominion's current sole Retail District. Sterling Ranch is at the forefront of incorporating water efficiency into new development. During the initial planning phases of Sterling Ranch, water efficiency was directly incorporated into the planning and construction plans. Sterling Ranch's end users water use is low, incorporating high indoor efficiency standards and residential low water use landscapes on efficient drip and sub-surface irrigation systems. Sterling Ranch's low per capita water demand levels are indicative of future development within Dominion's Service Area. New development within Sterling Ranch will need to adhere to water efficiency-oriented water demand standards and Dominion strives to achieve similar water efficient standards with future developments and districts within its service area.

As Dominion's Service Area continues to develop, it is anticipated to undergo significant changes with a diverse Retail District customer end use base. To continue the pioneering water efficient standards set by Sterling Ranch, DWSD will continue to promote water efficiency practices for all new development within its service

area. However, Dominion recognizes that there are other prospective smaller existing Retail Districts in their service area that are currently reliant on failing wells. These districts are established in older communities that are less water efficient. While less water efficient, these Retail Districts will have the option to opt into DWSD services, attaining access to renewable water supplies that Dominion can deliver. This Drought Mitigation and Response Plan was designed to meet the drought response capabilities of both less water efficient traditional established communities and newer more innovative water efficient developments.

Vulnerability Assessment

Dominion's renewable supplies come from regional contractual agreements, and other surface water rights owned by Dominion and currently stored in Chatfield Reservoir. Dominion is exposed to a variety of vulnerabilities. Its most significant vulnerability is its dependency on contractual water. While it contractually has sufficient water to meet its existing indoor and outdoor demands, a severe drought could instigate reductions on contractual deliveries. Dominion is in the process of developing new supplies to meet growing water demands and ensure long-term water supply reliability. This will give Dominion greater autonomy and the flexibility to conjunctively use groundwater and eventually store water at an on-site location, increasing system efficiencies and providing the ability to store and deliver drought reserves. Additionally, Dominion's water is treated at the Larry D. Moore Water Treatment Plant (Moore WTP) jointly owned and operated by Roxborough Water and Sanitation District with one point of delivery. Redundancy in Dominion's transmission system is needed to provide multiple avenues in how water supplies can be physically delivered to Sterling Ranch CAB and ultimately to its future prospective Retail Districts.

A component of Dominion's long-term planning for water supply reliability is the uncertainty and risk associated with climate change, a Colorado River compact call, and natural disasters such as wildfire. This emphasizes Dominion's need for on-site storage and conjunctive water use, enabling Dominion to access groundwater supplies when needed during dry periods while also having supplies in storage to utilize. Dominion's commitment to water wise and drought tolerant landscaping can help mitigate increased temperatures and consequently, outdoor water demand because of climate change. In addition, water wise landscaping has been carefully selected by Sterling Ranch CAB in collaboration with the Denver Botanic Gardens to be more tolerant to Drought conditions, minimizing the impact to landscaping and potential costs to end users in replanting landscaping that may be irreparably harmed from reduced watering.

While susceptible to climate change and other vulnerabilities discussed above, Dominion's ability to provide renewable supplies to a region that has historically relied on wells in a depleting groundwater basin, enhances the long-term sustainability of the region. This is most notable for existing smaller communities in the region that currently rely on failing groundwater wells. These communities will have the opportunity to receive wholesale water supplies from Dominion which will significantly reduce the vulnerability of these communities, ensuring a more sustainable future for Douglas County.

Mitigation and Response Strategies

Dominion is committed to drought preparedness by mitigating impacts before they occur. Mitigation strategies focus on the following:

Drought mitigation and response planning and coordination - Drought planning is a fundamental practice both within DWSD and within its Retail Districts. Dominion requires a Retail DMRP among its Retail Districts as a condition of service. Dominion also continues to forge relationships with its contractual regional water providers to enhance the potential for collaboration and coordination in periods of drought.

Water efficiency - As discussed above, Dominion is also committed to the promotion of water efficiency both within Sterling Ranch CAB, whom is at the forefront of water efficiency and water wise landscaping in Colorado,

and throughout the western United States. Water efficiency within Sterling Ranch CAB's service area is incorporated through water-efficient design standards and water wise landscaping, implementation of a volumetric conservation-oriented tiered water budget rate structure, and through Dominion's approach to drought mitigation. During a DWSD drought declaration, Retail Districts that are water efficient will have a lower water saving target on a unit-by-unit basis relative to their less efficient counterparts. In addition, all Retail Districts are required to adopt their own Water Efficiency Plan that minimizes water usage, water loss and provides for long-term sustainable water usage.

Water supply system development and redundancy - Dominion's water supply portfolio and redundancy measures encompass additional interconnects with DWSD's transmission system, the optimization of return flows and reuse water through supporting infrastructure, development of Cherokee groundwater and associated infrastructure, rainwater harvesting, aquifer storage recovery (ASR), and the acquisition of additional water rights.

As a wholesale water provider, Dominion's response to drought includes both response strategies and the communication and exchange of information with Retail Districts. Dominion communicates with its Retail Districts on a frequent basis as laid out in the administrative and operational framework in Section 9. Supply-side response strategies that may be implemented by Dominion to reduce drought impacts include water shortage surcharges, curtailment, measures to elongate supplies (e.g., renegotiation of contractual supplies, leasing water, capitalizing on regional opportunities), the leveraging of state and federal assistance, provisions of emergency water to domestic users, and the support of reuse water to preserve key landscape features under severe and emergency shortages.

Monitoring

Dominion's decision to declare a drought is a data-driven process coupled with professional expertise. Dominion routinely monitors a variety of hydrologic and climatic indicators to ensure a timely and appropriate mitigation to drought. One of the main indicators for drought and shortages is Dominion's Water Supply Index as defined by Dominion's water supply to water demand ratio. The specific components comprising the "Water Supply" numerator and "Water Demand" denominator vary as Dominion's water supply portfolio matures as its service area continues to develop.

Stages, Triggers, and Total Demand Reduction Target

Dominion's response to drought and shortages is based on the four-stage framework shown in Table A-1 below. Dominion's declaration of a particular drought stage (Stage 1, 2, or 3) will require each Retail District to examine its water supply situation and subsequently act in accordance with their Retail DMRP to respond to the stressed supply situation.[1] The stages increase in severity as the Water Supply Index decreases which calls for a higher demand reduction target (more water to be saved) with each elevating stage. Table A-1 provides ranges on what the total demand reduction target should be per each individual stage. The total demand reduction factor applies to all DWSD's service area.

[1] Details on the administrative and implementation process for this are provided in Section 9.

Table A-1: Dominion's Drought Stages, Trigger Guidelines, and Total Demand Reduction Target

Trigger	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Water Supply Index	1.0 or greater	1.0 to 0.9	0.9 - 0.65	Below 0.65
Total demand reduction target[2]	n/a	10%-25% outdoor	25% - 85% outdoor	100% outdoor Consider maintaining established trees Possible indoor target
Curtailment	n/a	Potential curtailment	Curtailment very likely	Curtailment has occurred
Dominion Water Shortage Surcharge	None	Potential	Potential	Likely

Dominion may implement a water shortage surcharge on Retail Districts when costs for its contractual water supply have increased due to drought and/or a water shortage. Water shortage surcharges would be used by Dominion on a temporary short-term basis to ensure Dominion can meet budgetary challenges associated with the increase cost in water. Dominion may also have to induce curtailments by reducing deliveries to its Retail Districts if it is subject to reductions in its contractual water, or other potential reduction in water supply due to hydrologic variability. As Dominion continues to acquire new supplies and storage, developing more autonomy within its water supply portfolio, the likelihood of a curtailment will decrease.

Retail District Drought Mitigation and Response Plans

Retail DMRPs play an important role in ensuring resiliency within Dominion's service area. All of Dominion's Retail Districts need to develop a Retail DMRP during the water supply application process. Appendix A of this Drought Mitigation and Response Plan provides a template that Retail Districts must use in developing their Retail DMRP. The intent of this template is to streamline the Retail DMRP development process while including fundamental components to drought planning. All Retail DMRPs must be reviewed and approved by Dominion. Minor template deviations may be addressed during the Retail DMRP review process once the Retail District has completed its first draft of the plan for DWSD review.

At the onset and during a drought declaration, Dominion's total demand reduction target for its service area is allocated to individual Retail Districts as a water saving target. This allocation will be equitably distributed based on the proportion of total Dominion deliveries each Retail District receives and level of water efficiency for each individual district. Generally, Retail Districts that have a higher level of water efficiency will be required to save less water per unit basis (e.g., water use per household) than less efficient Retail Districts.

[2] The range of percentages for the total demand reduction target apply to outdoor water use which assumes that approximately 40% of DWSD's water use is outdoor. For instance, in a Stage 1 drought a 0.9 Water Supply Index translates to a system-wide 10% reduction in supplies which then calculates to be a total demand reduction target of 25% of outdoor water use (10 divided by 40).

It is the responsibility of each individual Retail District to meet their Retail District water saving target and consequently, this target is instrumental in determining what the appropriate drought stage should be for official declaration within each individual Retail District's service area. Table A-2 provides a guidance framework to assist Retail Districts in deciding what the appropriate response stage should be and corresponding level of drought response. The range of recommended Retail District water saving targets and level of response increases as the stages increase in severity.

Table A-2: Stages, Water Saving Targets and Retail District Response Guidelines

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Retail District Water Saving Targets	n/a	10%-25% outdoor	25% - 85% outdoor	100% outdoor Consider maintaining established trees Possible indoor target
Summary of Response	Normal operations	Focus on large users potential water shortage surcharge	Focus on outdoor uses increase outreach potential water shortage surcharge	Focus on all indoor & outdoor uses Increase outreach likely water shortage surcharge
Outdoor restrictions	n/a	Voluntary to mandatory	Mandatory	Restricted except established trees
Indoor restrictions	n/a	n/a	Voluntary	Voluntary to mandatory Possible rations
Customer end use outreach	Routine communication with end users on the value of water and need to be efficient	Focuses on end user on any mandatory restrictions as well as at a broad community level to promote water savings	Escalates providing education on the situation and emphasizing the necessity to reduce water use at a broad community level.	Focuses on the need to conserve water for health and safety, urgency of the situation, and ways to save water from an indoor perspective.

Tables 8, 9, and 10 in Section 8 provide two frameworks for drought response measures that Retail Districts are to refer to when developing their Retail DMRP. One of the distinguishing factors of these frameworks is whether Retail Districts have dual indoor and outdoor metering capabilities and water budgets. Retail Districts that do not have dual metering and water budgets may utilize more traditional voluntary and outdoor water restrictions (e.g., end users are allowed to water 2 days per week) as one of the main mechanisms for reducing water use during dry periods. Retail Districts that install dual indoor and outdoor metering at the individual homeowner level and have also assigned indoor and outdoor water budgets at the account level, like Sterling Ranch CAB, have capability to identify customer end users that are exceeding their outdoor water budget. This empowers the individual homeowner to make decisions on how to best use their purchased water while remaining within their budget.

Operational and Administrative Framework

During "normal" periods when Dominion and its Retail Districts are not under a drought or shortage declaration, Dominion and its Retail Districts will meet at minimum three times a year. Dominion staff will be responsible for providing a "drought outlook" and providing data on its latest monitoring activities and

indicators. Dominion will also facilitate the exchange of information on drought-related concerns, long-range water supply planning, water efficiency practices, challenges/lessons learned, etc. In turn, Retail Districts will present information on their monthly demand patterns by customer end use sector and any observed trends. Retail Districts will also be responsible for providing Dominion electronic data to inform the Water Supply Index.

The frequency of drought monitoring meetings will increase if indicators suggest that there is an increased likelihood of a drought. Dominion staff will be responsible for determining the most appropriate drought stage and subsequent total demand reduction target to recommend to Dominion's Board. This will also include the allocation of water saving target percentages for each individual Retail District. Dominion's Retail Districts will actively engage with Dominion by conveying any challenges, questions or concerns to Dominion. If conditions warrant a declaration, Dominion staff will provide recommendations to Dominion's Board for a formal decision. Upon the Board's adoption of a Drought Stage Resolution, Dominion staff will officially inform Retail Districts of the declaration, associated drought stage, Dominion's total demand reduction factor, and the assigned Retail Districts' water saving targets. This will subsequently trigger the Retail Districts' drought declaration and processes laid out in their individual Retail DMRPs.

Following declaration of a water shortage or drought, a "response team" consisting of Dominion and representatives of each Retail District will, at a minimum, meet monthly. Each Retail District will be responsible for demonstrating, based on demand data, how it is meeting its water saving target during the declaration. All information presented by the Retail Districts will be made available to Dominion for filing in Dominion's program portal.

Dominion reserves the right to impose penalties as a means of enforcement if a Retail District is negligent in implementing and meeting their water saving target. Enforcement will be managed on a case-by-case basis but will generally consist of a status meeting(s), a probation period, and penalty(ies) if the water saving target cannot be achieved.

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1 Overview

1.1 Roles of Dominion and Retail Water Districts

Dominion was formed in 2004 as a Title 32 Special District authorized to provide wholesale water and wastewater services to Special Districts or municipalities in northwest Douglas County. Dominion is committed to providing a 70% renewable water supply to Retail Districts within the northwest area of Douglas County. Along with this commitment is the vision to provide a reliable and sustainable supply working closely with retail water districts and regional partners to promote efficient water use.

Vision: *DWSD is committed to providing a sustainable and reliable water supply to its Retail Districts, working closely with each Retail District and regional partner to promote the efficient use of this valuable limited resource. – DWSD's Rules and Regulations, Section 8.03(a).*

To effectively execute drought and water shortage mitigation and response, Dominion and its Retail Districts must have well defined roles. These are defined in Dominion's Rules and Regulations.

Role of DWSD in Drought Mitigation and Response: *DWSD's role is to 1) provide a reliable and predictable water supply to its Retail Districts, 2) preserve the water necessary to meet essential health and safety needs during a Water Shortage, 3) minimize adverse Water Shortage impacts to the extent practical by mandating and enforcing reduction in water use among Retail Districts, 4) collaborate with regional partners, 5) facilitate collaboration with and between DWSD's Retail Districts, and 6) coordinate with and provide information to Retail Districts. DWSD shall accomplish this through collaborative and well-coordinated efforts with Retail Districts and regional partners. Water efficiency, proactive water supply planning, well-prepared drought mitigation and Response efforts, and communication are all paramount in this effort. – DWSD's Rules and Regulations, Section 8.03(a).*

Role of Retail Water Districts: *The role of the Retail District is to 1) manage its water planning efforts and distribution system to optimize water efficiency within its Service Area, 2) stay informed of Drought and Water Shortage conditions, 3) work closely with DWSD and DWSD's other Retail Districts as needed in periods of Drought and Water Shortages to achieve measured water savings, 4) facilitate governance at the local level by collaboratively pursuing solutions with their respective end users and meeting DWSD's required water saving targets when necessary, and 5) keep their respective End Users well informed of any necessary mitigation and response. Retail Districts are required to have a Retail DMRP as referenced in Section 8.08(b). – DWSD's Rules and Regulations, Section 8.03(b).*

1.2 Dominion's Definition of Drought and Shortage

Drought is generally described as an imbalance caused by a deficiency of precipitation over an extended period, that results in a shortage for some activity, group, or need. Drought and accompanying water shortages can look very different from a meteorological, hydrological, agricultural, municipal, or socioeconomical perspective. Additionally, within Colorado, municipalities in the same geographic area can be impacted by

drought in very different ways, depending on their unique water supply situation and characteristics of their service area.

Although droughts do not occur at regular predictable intervals, they are a natural part of the Colorado climate. While there will continue to be climate variability with wet and dry years in the future, climate science predicts an increased likelihood that Colorado will experience relatively more frequent, severe and longer droughts in the future, further emphasizing the need for responsible drought planning. Water shortages are not only attributed to drought but can also be caused by natural events such as wildfire or infrastructure failure(s). Capital infrastructure improvements and operations and maintenance (O&M) procedures that are not properly planned for can cause shortages or exacerbate an existing shortage while in drought. Dominion defines drought and water shortage as follows.

Drought is a period of below normal precipitation and/or warmer temperatures that could result in reduced yield of renewable water supplies. – DWSD's Rules and Regulations, Section 3.01.

Water Shortage shall mean discrete instances during which demands within DWSD Service Area exceed available renewable and non-renewable water supplies. Water Shortages may be caused by drought that cannot be made up with non-renewable groundwater supplies; the failure of significant infrastructure, maintenance and operational procedures; or any number of natural or anthropogenic events un-related to Drought. - DWSD's Rules and Regulations, Section 3.01

This Drought Mitigation and Response Plan applies to prolonged water shortages attributed to drought or other unforeseen circumstances. Acute short-term water shortages, such as a temporary break in a water main feeding a local neighborhood would activate an emergency mitigation.

1.3 Purpose of the Plan

Chapter 8 in DWSD's *Rules and Regulations* lays the foundation for drought mitigation, monitoring, planning, and coordination and response among Dominion and its Retail Districts. This Plan builds on the *Rules and Regulations*, providing guidance to implement a well-coordinated and effective response at both the retail and wholesale level. The purpose of this Plan is to provide Dominion and its Retail Districts the guidance necessary to ensure that drought and water shortages are addressed in a proactive manner, minimizing long-term impacts, and ensuring that sufficient water is available for the health, safety, and community livelihood during times of water shortages. The Plan was developed in accordance with DWSD's Rules and Regulations along with CWCB's *2020 Drought Management Planning: A Guide for Water Providers.* In addition to this Plan, Appendix A provides a template for Dominion's Retail Districts when developing their individual Retail DMRPs.

1.4 Relationship with Other Planning Mechanisms

This Plan will be implemented in coordination with other local, regional, and state planning efforts. These plans include the following:

- Aurora Water Management Plan
- 2040 Douglas County Comprehensive Master Plan

- Douglas County Natural Hazard Mitigation Plan
- Metro Basin Implementation Plan
- Colorado Water Plan
- Colorado Drought Mitigation and Response Plan[3]

1.5 Development of the Plan

Five workshops were held both in-person and remotely among the Planning Team throughout the development of this Plan. The Planning Team, shown in Table 1 below, was comprised of representatives from Dominion and its existing Retail District, Sterling Ranch CAB. During the development, the team members provided valuable information and input. The Planning Team also reviewed the draft Plan prior to distribution to Dominion's Board and the community within Sterling Ranch for comment.

Table 1: Drought and Water Shortage Planning Team

Member	Title	Role and Contribution
Andrea Cole	General Manager	Managed the project, coordinated data acquisition, provided input from perspective as General Manager
Josh Baile	Finance and Operations Manager	Provided input from perspective of Finance and Operations Manager and offered professional expertise
Gary Debus	Interim General Manager with Sterling Ranch CAB	Provided input representing Sterling Ranch (Retail District)
Denise Hogenes	Former General Manager with Sterling Ranch CAB	Provided input representing Sterling Ranch (Retail District)

Dominion worked with their Retail District, Sterling Ranch CAB, to hold a 60–day public review period from May 14, 2023 to July 14, 2023 to obtain public feedback on the Plan. The plan was posted on Sterling Ranch CAB's website where members of the public were able to review the Plan and post comments. Additionally, Sterling Ranch hosted a Town Hall on May 24, 2023 at the Sterling Center to provide information on the Plan and receive public input. Public comments submitted to Sterling Ranch CAB are provided in Appendix B.

1.6 Plan Adoption

A resolution adopting Dominion's Drought Mitigation and Response Plan was passed on August 15, 2023. This resolution is provided in Appendix C. Each Dominion Board member had the opportunity to review the Plan and comment prior to formal adoption. This Plan may be implemented with no new regulatory measures and therefore no additional resolutions were passed. Likewise, DWSD currently does not have any official agreements with other entities related to drought mitigation or response. DWSD will consider entering into future agreements if such agreement(s) are considered beneficial.

[3] This Plan helps inform the State's Drought Mitigation and Response Plan by providing feedback on local drought vulnerabilities, mitigation, and response efforts.

1.7 Periodic Review and Update

Dominion's Drought Mitigation and Response Plan will be updated every five years or sooner as determined by Dominion. The next update is scheduled for completion in 2028. Dominion's General Manager will be responsible for initiating the Plan update process.

2 Goals, Operating Principles and Water Use Priorities

2.1 Objectives of this Plan

This Plan better prepares Dominion for drought and provides an action-based guidance framework to respond to a water shortage when it occurs. The objectives of this Plan are provided below.

1. **Provide resilient water supply –** Allow for the continued delivery of a sustainable, resilient water supply that is reliable and predictive for its Retail Districts.
2. **Encourage adoption of water efficiency standards** – Retail Districts are encouraged to adopt water efficiency standards to promote and facilitate low water landscapes and land use planning.
3. **Make informed decisions -** Foster coordinated communication with regional water providers and identify the resources necessary to ensure a data-driven predictive drought monitoring approach that informs decision-making when contemplating declaration of a drought or water shortage.
4. **Guide Retail District Drought planning -** Provide Retail Districts clear guidance when developing their Retail DRMPs based on established standards, yet also allowing for flexibility to address unique circumstances and needs.
5. **Coordinate with Retail Districts** - Foster an engaging interactive process between Dominion and the Retail Districts on monitoring, declaring, and implementing drought and water shortage response that is mutually beneficial and results in achievable water savings.

2.2 Operating Principles of this Plan

The following operating principles are reflective of Dominion's values and were developed as means to assist with the development of this Plan. They also provide guidance when it comes to decision-making and implementation of drought response. The operating principles are as follows:

1. **Coordinate on Retail DMRPs** -Work in close coordination with existing and prospective Retail Districts to assist districts with developing effective Retail DMRPs that are reflective of Dominion's priorities in Table 2.
2. **Clearly communicate -** Provide clear communication with water Retail Districts on local and regional drought monitoring findings at the onset and during a drought or water shortage declaration.
3. **Empower Retail Districts -** Provide the necessary tools to each Retail District during a drought and water shortage to 1) allow Retail Districts to effectively implement response measures outlined in their Retail DMRPs; and 2) communicate with the end users as laid out in their Retail DMRPs.
4. **Innovate and collaborate -** Encourage innovative collaborative approaches to addressing water shortage related challenges that meet Dominion's objectives and improve resiliency both regionally and within Dominion's local service area.
5. **Promote water efficiency** - Encourage and incentivize water efficiency and low water use landscaping in all new development within Dominion's service area.

2.3 Water Use Priorities

Table 2 presents Dominion's prioritization of customer end use during periods of a water shortage. Customer uses of highest priority consist of services essential to public health and safety such as indoor residential use, hospitals, schools, and firefighting. During periods of shortage, Dominion will work with its Retail Districts to ensure that these essential needs are met. Depending on the severity and duration of the water shortage, lower priority customer uses may be reduced or prohibited in very severe situations.

Retail Districts are to review the priorities provided in Table 2 below during the update/development of their Retail DMRPs, examples are not intended to be all inclusive. These priorities may be modified by the Retail District to better meet their individual circumstances; however, such modifications should be discussed with Dominion during the Retail DMRP review process.

Table 2: Retail District Customer End-Use Priorities

Priority	Description	Water Use Types
First Priority	Health and safety	Indoor essential uses (residential, hospitals, schools, long-term care facilities, restaurants, commercial services, government facilities & community centers), firefighting, water pipeline flushing
Second Priority	Highly valued functional landscaping, construction water, commercial	Established trees, private and commercial vegetable gardens, construction water for approved new development, and car washes using recycled water
Third Priority	High priority and efficient irrigation	Established landscaping using drip irrigation (perennials, shrubs), sports fields, or regional parks that have incorporated alternative supplies of water (to include rainwater harvesting) as a primary water supply
Fourth Priority	Medium priority and efficient irrigation	New low water use plants on drip, established shrubs/perennials not on drip, active turf on parks (heavily used but not sports field)
Fifth Priority	Turf irrigation & inefficient uses	All established and newly installed turf including passive (low foot traffic) areas at parks, HOA shrubs/perennials, outdoor pools, medians, power washing, low efficient businesses (car washes not using recycled water)

3 Background

3.1 Dominion's Water System and Service Area

Dominion provides wholesale water and wastewater services in northwest Douglas County, Colorado. Sterling Ranch is Dominion's current sole retail water district. Figure 1 shows Dominion's service area and Sterling Ranch. Sterling Ranch is located between Littleton, Roxborough, Highlands Ranch, and an industrial area to the east. Historically the area was used for grazing and farming. Development in Sterling Ranch was initiated in 2018 and the area currently consists of new housing, large areas of open space, and state parks.

Dominion's service area extends well beyond the boundaries of Sterling Ranch, as shown in Figure 1. As development continues within the area, DWSD will be providing renewable water supply, as a wholesaler, to existing and newly established Retail Districts, based on 1) water availability, 2) compliance with Rules and Regulations, and 3) payment of all applicable fees. These Retail Districts will be responsible for providing water supply services to customer end users.

Dominion will be undergoing significant changes as it continues to develop and grow into its service area with a diverse Retail District customer end use base. Sterling Ranch is at the forefront of incorporating water efficiency into new development. To continue the pioneering water efficient standards set by Sterling Ranch, DWSD will continue to promote water efficiency practices for all new development within its service area. Dominion recognizes that there are other prospective smaller Retail Districts in their service area, on failing wells. These districts are established in older communities that are less water efficient. While less water efficient, such Retail Districts will have the option to opt into DWSD services, attaining access to renewable water supplies that Dominion can deliver. This Plan was designed to meet the drought response capabilities of both less water efficient traditional established communities and newer more innovative water efficient developments.

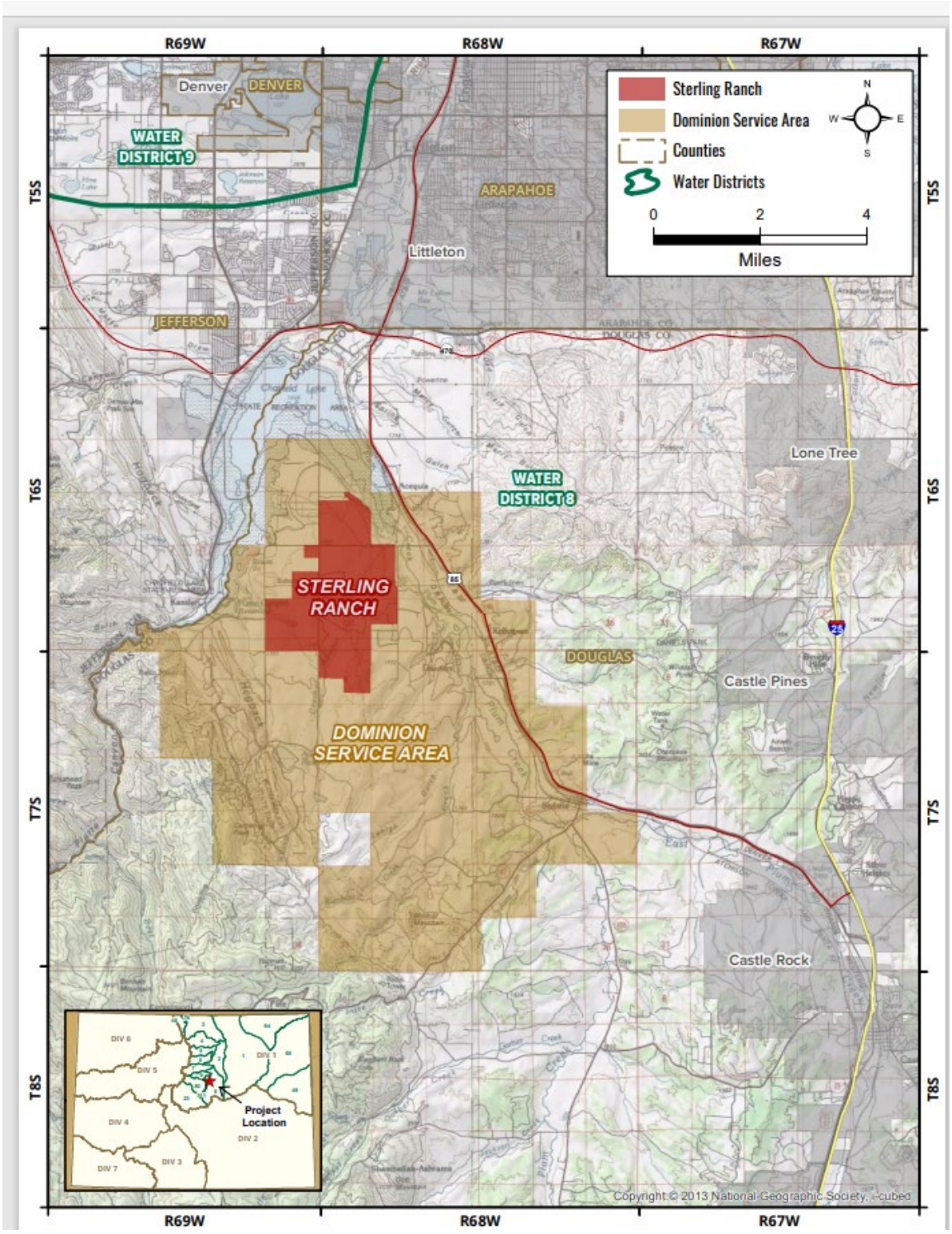

Figure 1: Dominion's Service Area and its Retail District, Sterling Ranch

3.2 Water Demands and Customer End Use Profile

Dominion initiated water services in 2018, delivering water to its current Retail District, Sterling Ranch. As shown in Figure 2, Sterling Ranch water demands are increasing as development continues, with a total of approximately 1,500 homes serviced in 2022. Construction water has comprised approximately half of total demands while single-family housing and irrigation in common spaces comprises most of the remaining use. Sterling Ranch water demands have remained relatively low, as discussed in further detail below.

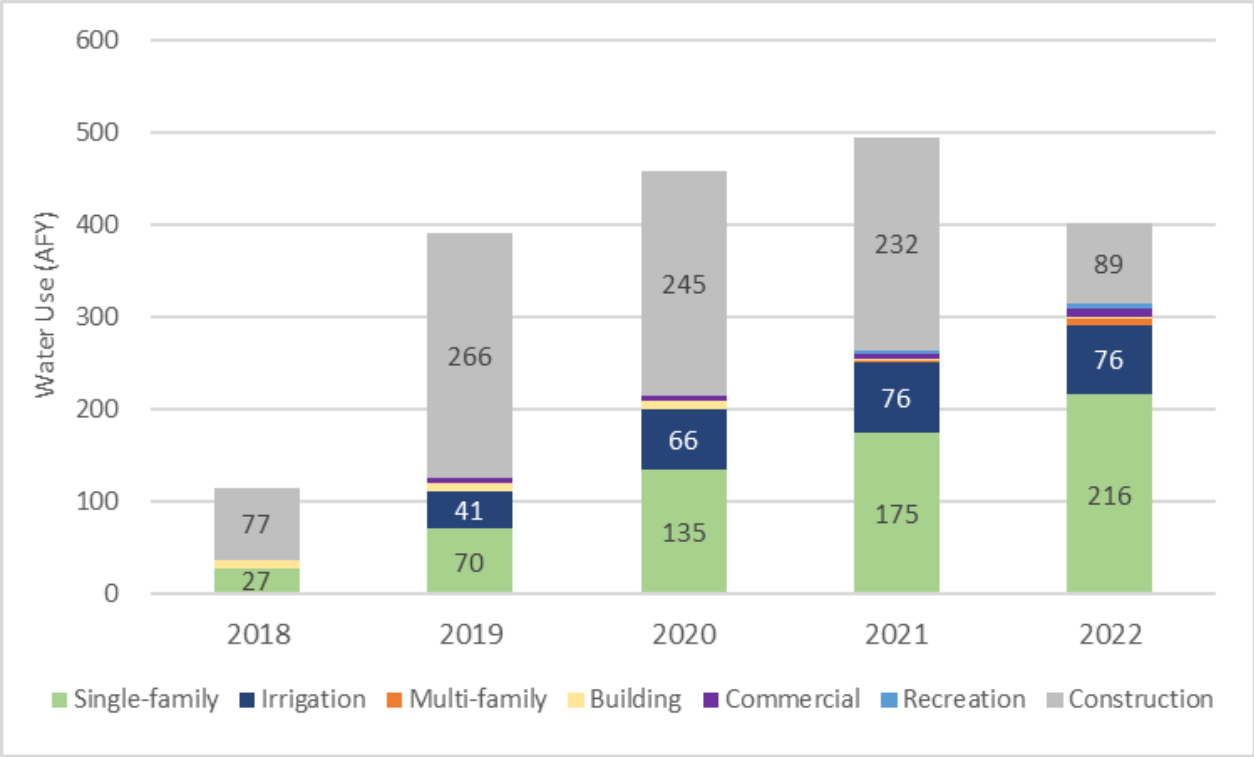

Figure 2: Historical Water Demands by Customer End User Sector

Figure 3 shows the composition of indoor and outdoor water use for Sterling Ranch for 2022. Proportionately, construction water is projected to decrease as Sterling Ranch develops. In addition, homeowners are provided a variance on meeting outdoor water budgets to allow for landscaping to be established, as the community achieves build out it is anticipated that outdoor usage will decrease. Indoor residential use comprises about 36 percent of the total water use while 40 percent consists of outdoor irrigation for residential/commercial accounts and the Sterling Ranch CAB which is irrigation on common spaces.

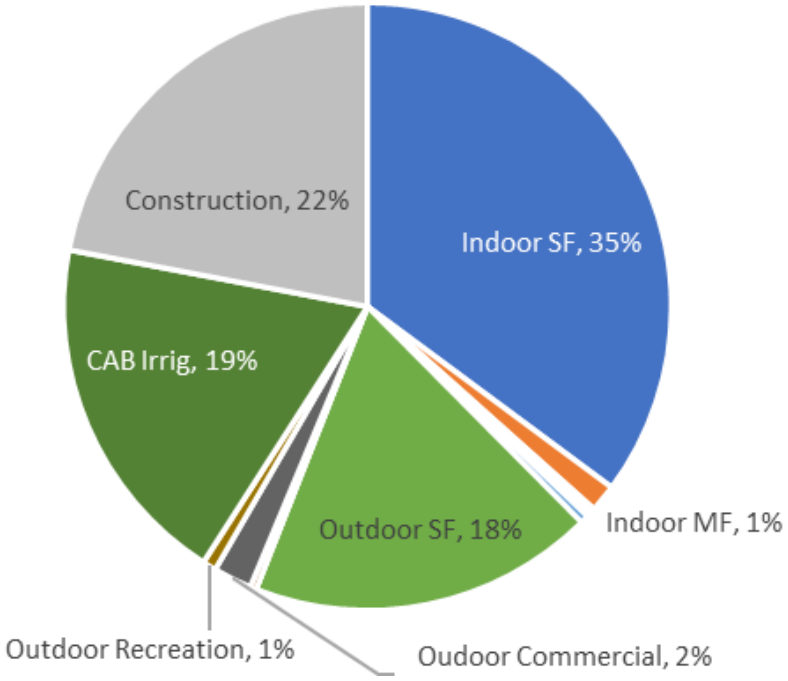

Figure 3: 2022 Construction and Indoor and Outdoor Demands (approximately 1,500 homes)

During the initial planning phases of Sterling Ranch, water efficiency was directly incorporated into the planning and construction plans. As a result, per capita water demands, shown in Figure 4, are relatively low. Sterling Ranch's average indoor per capita water use of 30 gpcd is below indoor per capita water levels observed in 15 of the major metropolitan areas in the United States which ranged from 60 to 34 gpcd in the third quarter of 2022.[4] This is largely attributed to the water efficient indoor fixtures and appliances installed in all of Sterling Ranch's new homes. Sterling Ranch's outdoor water use is also relatively low, with most of the residential landscaping comprising of low water use vegetation on efficient drip and sub-surface irrigation systems. Section 5.1 provides more information on specific water efficiency practices within Sterling Ranch. Figure 4 also shows that per capita outdoor water demands for 2021 and 2022 are lower relative to previous years. This may be attributed to the use of less irrigation water as the landscaping of the homes built previously (starting in 2018) became established and did not need as much water.

These low per capita water demand levels are indicative of future development within Dominion's service rea. New development within Sterling Ranch will need to adhere to water efficiency-oriented water demand standards (e.g., 0.24 acre-feet per year (AFY) for single-family detached housing). Dominion strives to achieve similar water efficient standards with future developments and districts within its Service Area.

Sterling Ranch's relatively high level of water efficiency and low water use landscapes is an important factor when considering measures to achieve water savings during a drought. While outdoor watering restrictions can be implemented at Sterling Ranch to obtain outdoor water savings, the volumetric amount of water savings from these low water use landscapes is less that what can be achieved in communities that have more of a traditional landscape, consisting of higher water using vegetation (e.g., Kentucky Bluegrass). While this Plan incorporates outdoor water restrictions as a component of temporary demand management during drought, the volumetric water savings are relatively low when compared to more traditional landscaped communities.

[4] Source: Flume Data Labs Household Water Use Index. Accessed at: Flume Data Labs Household Water Use Index

This emphasizes the importance of incorporating drought reserves into Dominion's long term water supply planning efforts. As discussed in Section 5.1, storage and conjunctive use, where groundwater can be relied upon during period of drought, are critical components to DWSD's future water supply portfolio and drought mitigation.

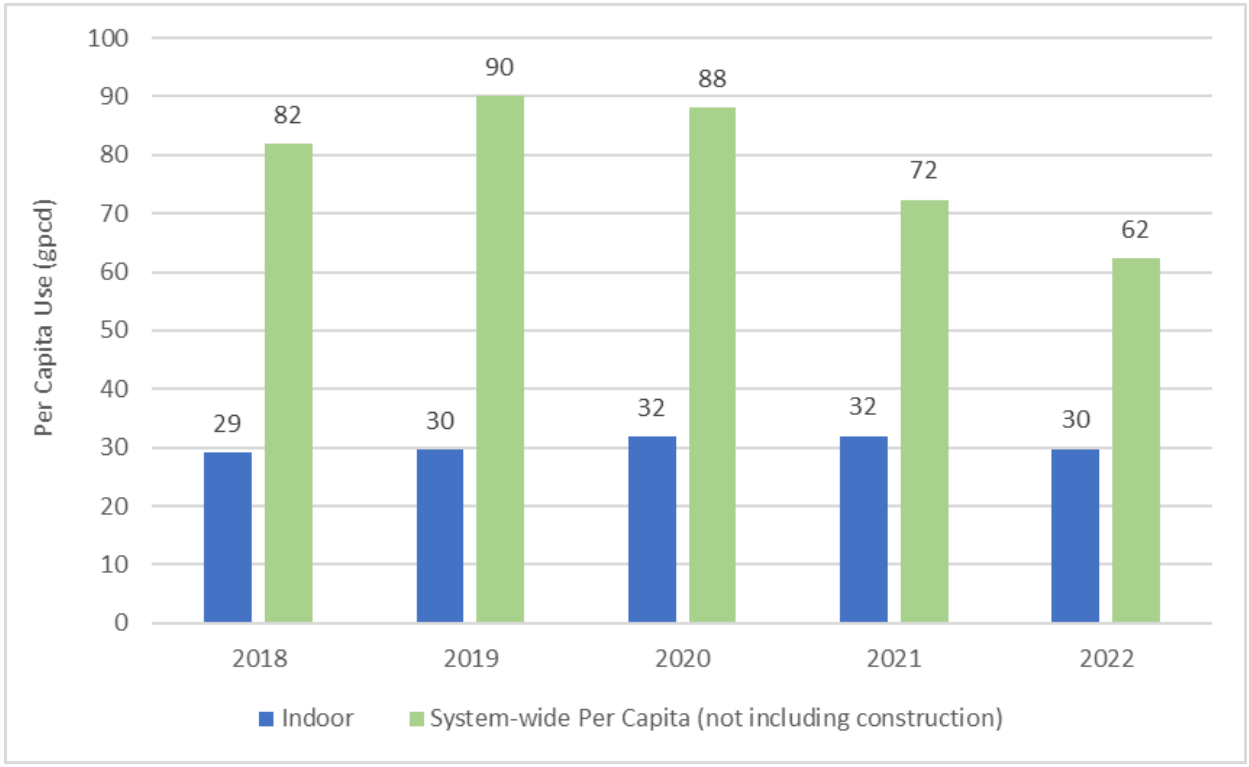

Figure 4: Sterling Ranch Per Capita Water Demand

3.3 Water Supply

Most water providers in Douglas County have historically relied on non-renewable groundwater from the Denver Groundwater Basin. Over drafting of the Denver Groundwater Basin has caused groundwater levels to decline in local areas reducing not only the availability of water supplies but also impacting water quality. Many water providers in Douglas County are in the process of acquiring renewable supplies that are more sustainable for the long-term future. In response to Douglas County's transition to water systems predominantly reliant on renewable supplies, Dominion became the first water provider in the county to develop on a renewable water supply. Since Dominion's inception, Dominion has served its Retail District, Sterling Ranch, with a 100% renewable water supply and has commitment to a build out water supply comprised of at least 70% renewable supplies based on a ten-year rolling average of deliveries. Dominion will ultimately rely on a flexible and robust conjunctive use system to sustainably, and responsibly, manage groundwater supplies and a portfolio of renewable supplies.

Dominion's renewable supplies come from regional agreements, and other surface water rights owned by Dominion and currently stored in Chatfield Reservoir. Dominion has sufficient water supplies to meet its existing commitments and is currently in the process of developing those water supplies through infrastructure projects and attaining additional supplies to meet the projected water needs of a diversity of prospective Retail Districts. Section 5.1 provides additional information on drought mitigation and Dominion's efforts in developing more supplies.

4 Vulnerability Assessment

4.1 Dominion and History of Drought in the Region

As discussed in Section 3.3, most of Douglas County has historically relied on non-renewable groundwater from the Denver Groundwater Basin. During droughts (e.g., 2002 and 2012), providers historically tended to maintain "normal" operations since the Denver Groundwater Basin served as a short-term "insulator" to drought, still providing reliable yields. However, as the Denver Groundwater Basin continues to be over drafted, groundwater levels have declined in local areas bringing concerns regarding the long-term longevity of the Denver Basin aquifer systems.

Many of Douglas County's water providers have followed Dominion's lead and are now in the process of pivoting, acquiring renewable supplies and initiating conjunctive management, decreasing dependency on the Denver Groundwater Basin. Providers are increasingly using renewable water supplies, when available in wet and normal years, with the concept of reducing use of underlying groundwater. Groundwater is then reserved for meeting peak demand periods and in periods of drought when the availability of renewable supplies is less. Regionally, an increase in use of renewable surface water supplies results in a greater sensitivity to the variability of climate and hydrology and consequently to drought, relative to historical periods when groundwater was the primary less variable source. Conjunctive management of the underlying aquifers helps to mitigate this variability where Denver Basin Groundwater is reserved for dry periods. This variable nature of surface water availability also highlights the need for additional surface water storage and ASR in the region that can provide an additional level of drought resiliency during dry periods.

As discussed in Section 3.3, Dominion became the first water provider in Douglas County to initiate development solely using renewable water supplies with a commitment of obtaining a 70% renewable water supply portfolio by buildout. Service to its current retail water provider, Sterling Ranch, was initiated in 2018. To date, Dominion has not experienced any drought-related impacts in the past four years of operation. However, it has been diligently monitoring current climatic conditions and drought mitigation efforts throughout the region.

4.2 Current and Future Vulnerabilities

Currently, Dominion's most significant vulnerability is its dependency on contractual water. While it contractually has sufficient water to meet its existing indoor and outdoor demands, a severe drought could instigate reductions on contractual deliveries. Dominion is actively engaged in planning for its water supply needs to ensure long-term water supply reliability. As discussed in Sections 3.3 and 4.1, Dominion is in the process of developing new supplies to meet growing water demands. These new supplies will give Dominion greater autonomy and the flexibility to conjunctively use groundwater and eventually store water, increasing system efficiencies and providing the ability to store and deliver drought reserves. This in turn, will decrease Dominion's dependency on contractual water. As discussed in Section 5.1, Dominion is drilling its first well at Cherokee Ranch and completing the Eastern Regional Pipeline (ERP). Deliveries of Dominion-owned supplies through this new infrastructure will be available in 2028.

Redundancy in Dominion's transmission system is also needed to provide multiple avenues in how water supplies can be physically delivered to Sterling Ranch and ultimately to its future prospective Retail Districts. Currently, Sterling Ranch's water is treated at the Roxborough Moore Water Treatment Plant with one point of delivery. As discussed in Section 5.1, Dominion is in the process of developing an interconnect with Centennial Water and Sanitation District and exploring options for additional interconnects.

Water efficiency also plays a role in reducing Dominion's vulnerability to drought as well as contributing to the sustainability of the underlying Denver Groundwater Basin. As discussed in Section 3.2, new development within Sterling Ranch will need to adhere to water efficiency-oriented water demand standards (e.g., 0.24 AFY for single-family detached housing). These standards result in lower future water demands relative to traditional standards and consequently can place less stress on the need for groundwater in the underlying aquifer systems. In addition, low water use and drought tolerant landscaping necessary to meet the water demand standards can have a higher survivability rate under water-stressed situations and consequently can result in a lower vegetative mortality rate during drought.

During a water shortage, Dominion could experience a variety of future impacts. These impacts along with a corresponding ranking by the Planning Team relative to the potential impact severity and likelihood of impact are listed in Table 3 below. As discussed above, the highest-ranking vulnerabilities specific to potential impact severity are contractual disruption of supplies and distribution system interruption. Other vulnerabilities with high rankings are increased data and information needs, public perception, scarcity of equipment/contractors to for repairs, and increased political conflict.

Table 3: Potential Future Drought Vulnerabilities[5]

Potential Drought Impacts	Vulnerability Assessment	
	Ranking of Potential Impact Severity	Likelihood of Potential Future Impact
Contractual disruption of supplies	Highest	Medium
Transmission system disruption	Highest	Medium
Increased data and information needs	High	High
Public perception	High	High
Scarcity of equipment/contractors to fix things	High	High
Increased political conflict	High	High
Lower streamflows and lake reservoir levels	High	Medium
Costs to acquire and develop new supplies	High	Medium
Loss of revenue from reduction of water sales	High	Low
Less dilution in surface water - higher contaminants/ lower water quality in stream, lakes and reservoirs	Medium	Low
Regional unequal distribution of drought response measures and implementation	Medium	Medium
Costs increased for shortage response	Low	Medium
Reevaluation of social values	Low	Medium
Reduction in municipal well production (neighboring providers may increase pumping)	Low	Low
Increased costs in staff time	Low	Low
Change in water use behavior to conserve water resulting in prioritize of projects that are renewable	Low	Low
Stress to surrounding natural environment	Low	Low

In addition to the vulnerabilities addressed above, a component of Dominion's long-term planning for water supply reliability is the uncertainty and risk associated with climate change, a Colorado River compact call, and natural disasters such as wildfire. Climate science is indicating that Colorado will likely see more frequent

[5]The Planning Team developed this list of vulnerabilities and ranked these vulnerabilities. The category levels are reflective of this voting exercise.

droughts of higher severity and duration than observed in the historical record. This emphasizes Dominion's need for storage and conjunctive water use, enabling Dominion to access groundwater supplies when needed during dry periods while also having supplies in storage to utilize. Climate science is also showing that temperatures are increasing on an average basis, which can inadvertently increase evapotranspiration rates and outdoor water demands. Dominion's commitment to low water use landscapes can help mitigate some of this impact.

While Dominion is susceptible to climate change and other vulnerabilities discussed above, Dominion's ability to provide renewable supplies to a region that has historically relied on wells in a depleting groundwater basin, enhances the long-term sustainability of the region. This is most notable for existing smaller communities in the region that currently rely on failing groundwater wells. These communities will have the opportunity to receive wholesale water supplies from Dominion which will significantly reduce the vulnerability of these communities, ensuring a more sustainable future.

5 Mitigation and Response Strategies

Dominion employs a variety of mitigation and response strategies to address and avoid the impacts associated with drought and water shortages. Mitigation consists of actions taken prior to the onset of drought or water shortage to optimize water supply reliability and lessen or avoid adverse impacts during a drought or water shortage. Response strategies are actions taken during a drought and shortage to avoid and reduce impacts while best maintaining supplies for essential health and safety services.

5.1 Mitigation Measures

Dominion is committed to drought preparedness by mitigating impacts of a drought before they occur. As described in Section 8.05 of the Rules and Regulations, mitigation strategies shall encompass activities to ensure that there are sufficient supplies to meet growing water demands within the service area. These are activities implemented on a long-term routine basis. Such strategies include:

- Drought mitigation and response planning and coordination.
- Water efficient planning and strategies to promote efficient and low water use.
- Water supply system development and redundancy.

5.1.1 Drought Mitigation and Response Planning and Coordination

Drought planning is fundamental to Dominion's preparedness, resiliency, and ability to respond to drought. This Plan and Section 8.04 of Dominion's Rules and Regulations capture the mitigation and response strategies Dominion is prepared to implement in dry periods. Furthermore, Dominion requires that all Retail Districts receiving supplies from Dominion will be required to have a Dominion-approved Retail DMRP as a condition of service. In addition to planning, Dominion continues to forge relationships with its contractual regional water providers to enhance the potential for collaboration and coordination in periods of drought.

5.1.2 Water Efficiency

Dominion is committed to the promotion of water efficiency within Sterling Ranch and throughout its service area and as discussed in Section 1.1, water efficiency is included in its vision and goals and operating principles of this Plan. Dominion incorporates water efficiency in the following ways.

- All new development serviced by Dominion Water in Sterling Ranch must meet water efficient demand standards (e.g., 0.24 AF per single-family unit). Dominion plans to encourage similar standards with future development in its Service Area.
- Dominion is in the process of developing a wholesale DWSD water conservation plan that includes a template for Retail District conservation plans that will be reviewed and approved by Dominion.
- Dominion's rates are based on a volumetric conservation-oriented tiered structure incentivizing the efficient use of water.
- During a DWSD drought declaration, Retail Districts that are water efficient will have a lower water saving target on a unit-by-unit basis relative to their less efficient counterparts. This is intended to incentivize water efficiency, while also acknowledging that more efficient communities will volumetrically have less water to "save" relative to less efficient community.

In addition to Dominion's strategies listed above to promote water efficiency within its service area, Dominion's Retail District, Sterling Ranch, is at the forefront of water efficiency in Colorado. Sterling Ranch is being developed with water efficiency directly incorporated upfront into community development planning. This consists of the installation of water efficient fixtures and appliances, waterwise plantings, design and installation of efficient residential irrigation systems, dual indoor and outdoor metering, water budgets and a tiered block rate structure that incentivizes water efficiency, a waterwise system certification program for single-family residences to ensure efficient fixtures and appliances prior to occupancy, review of all residential landscape plans to ensure water efficient designs in new home inspections, and native low water use areas in parks.

5.1.3 Water Supply Development and System Redundancy

Dominion is at the early stages of developing its water supply system. As development continues in its service area, Dominion will continue to develop water supplies that meet the long-term demands of its Retail Districts as well as in ensuring resiliency during dry periods. The following drought mitigation strategies are being implemented.

Emergency Interconnect with Centennial – Dominion is in the process of developing an interconnect with Centennial Water and Sanitation District on the eastern boundary of its service area. This is critical to providing system redundancy, particularly for emergency purposes if delivery of supplies from the Roxborough Moore Water Treatment Plant is temporarily interrupted. This is targeted for completion in 2024.

Additional Redundancy in DWSD's Transmission System – Explore interconnects with other water providers in the region. Section 7.05 in Dominion's Rules and Regulations addresses the development of emergency water connections.

Maximize Return Flows and Reuse Water – Nearly all of Dominion's water supply is legally reusable. Dominion will continue to explore opportunities to expand reuse of its return flows to further enhance efficiencies in their water supply system. This will also entail demolition of the Roxborough Wastewater Treatment Plant (WWTP) and construction of a new Chatfield Basin Water Reclamation Facility (CBWRF).

Cherokee Ranch Groundwater - Dominion is drilling its initial well in the Cherokee Ranch Denver Groundwater Basin. Dominion plans to drill three well sites in the Denver and Arapahoe aquifers by 2030. This water is a critical component of Dominion's conjunctive water supply system. Groundwater may be pumped in times when renewable supplies are limited or interrupted, improving Dominion's resiliency to drought.

Eastern Regional Pipeline — The ERP conveys water to Sterling Ranch from a connection with Castle Rock, tying in water supplies from the Cherokee Ranch wellfield to the High Zone Tank. It is currently being constructed with a targeted completion data of 2025 for the Cherokee Ranch wellfield and 2028 for connection to Castle Rock. This also includes treatment necessary to meet potable standards. The pipeline connection to Castle Rock will enable Dominion to convey and deliver its full Water Infrastructure and Supply Efficiency (WISE) subscription of 1,325 AF to include the portion, 700 AF, that was firmed through an agreement with Castle Rock.

Rainwater Harvesting - Dominion is in the process of implementing the State's first regional rainwater harvesting collection system at Sterling Ranch. This entails an extension and retrofit of the existing stormwater infrastructure to divert, store, and distribute non-potable rainwater for irrigation. After 10 years of data collection to demonstrate the legal viability of a regional rainwater harvesting system, a feasibility study and development of an operations plan, Dominion is currently in the system design phase. Construction is

anticipated to be completed by 2025-2026. This system will reduce non-potable irrigation demands on parks when rainwater supplies are available.

Diversion on South Platte River – Dominion is in discussion with other regional partners on developing a diversion on the South Platte River downstream of the discharge from the CBWRF. The diversion structure may consist of alluvial wells and/or a direct diversion structure depending upon the findings from the conceptual design. This will enable Dominion to divert its South Platte River junior water rights, utilize its storage rights in Chatfield Reservoir through exchange, and exercise its reusable return flows.

Local Surface Water Storage – Dominion is in the process of securing local surface water storage. These reservoirs will be used to store water for 1) direct delivery to Retail Districts following treatment, 2) provide replacement supply for out-of-priority depletions, and 3) store return flows via exchange, enhancing Dominion's ability to use its reuse water. This will enable Dominion to better regulate its supplies particularly during peak irrigation periods as well as to further develop its reusable return flows, improving the efficiency of Dominion's water supply system as Dominion's service area continues to develop.

Aquifer Storage Recovery Opportunities – ASR would provide Dominion an opportunity to store surplus supplies (e.g., WISE subscription and/or surplus South Platte rights during wet periods) for when supplies are in need either for direct use or for replacement purposes. Dominion is collaboratively working with other regional partners to explore ASR opportunities. South Metro Water Supply Authority (SMWSA) has secured funds to study the feasibility of a regional ASR system within the South Metro area. Dominion will be participating as a stakeholder as the study progresses.

Acquisitions of additional water rights – Dominion continues to evaluate potential additional renewable supplies to augment its existing water supply portfolio.

Table 4 outlines the action items and milestones for each of the water supply system development and redundancy mitigation measures addressed above. The additional mitigation measures, water efficiency and drought planning and coordination are ongoing items that are implemented on a routine basis.

Table 4: Supply Development Mitigation Action Plan

Mitigation Measures	Action Items	Project Staff	Milestones	
			To occur within 2023-2028	Long-term Post 2028
Emergency Interconnect with Centennial – use for Drought is subject by party	▪ Finalize design ▪ Initiate construction	Engineering Program Manager or designee	Anticipated completion 2024	Utilize emergency interconnect when needed
Additional Redundancy in the DWSD's transmission system	Explore additional interconnects with other local water providers	General Manager or designee	Ongoing	Ongoing
Maximize Return Flows and Reuse Water[6]	▪ Finalize plans to demo existing Roxborough WWTP ▪ Demo Roxborough WWTP ▪ File Site Plan for CBWRF with Colorado Department of Health and Environment ▪ Finalize design of CBWRF ▪ Construct CBWRF	Engineering Program Manager or designee	Demo WWTP and file Site Plan for CBWRF with CDPHE	Construction of CBWRF
Cherokee Ranch Groundwater	▪ Equip Arapahoe wells ▪ Design and construct groundwater treatment ▪ Design and construct pipeline to connect groundwater to ERP	Engineer Program Manager or designee	Complete groundwater treatment and pipeline to convey groundwater to Sterling Ranch as needed	Continue to develop wellfield based on demands and hydrologic conditions
ERP	Complete tie into Castle Rock system	Engineering Program Manager or designee	Completion targeted for 2028	
Rainwater Harvesting	▪ Modify rainwater harvesting legislation to allow for additional beneficial uses ▪ Complete SWSP and adjudicate the rainwater harvesting water right ▪ Design and construct the first regional rainwater harvesting project in the State of Colorado	General Manager or designee		▪ Continue to advance additional rainwater harvesting projects ▪ Modify rainwater harvesting legislation. ▪ Secure fully adjudicated and decreed right for rainwater harvesting

[6] Note: local surface water storage & diversion on the South Platte River included in this table are also needed maximize return flows and reuse water.

Mitigation Measures	Action Items	Project Staff	Milestones	
			To occur within 2023-2028	Long-term Post 2028
	▪ Continue to advance and design additional rainwater harvesting projects			▪ Construct first regional rainwater harvesting project
Local Surface Water Storage	▪ Continue to advance feasibility of local surface water storage ▪ Secure regional partners ▪ Secure storage location ▪ Design and construct local surface water storage	General Manager or designee	▪ Advance feasibility study ▪ Secure regional partners	▪ Secure storage location ▪ Construct local surface water storage
Diversion on South Platte River	▪ Advance conceptual design of diversion structure ▪ Secure easement for diversion along South Platte River ▪ Secure necessary permits for diversion ▪ Design and construct diversion	Engineering Program Manager or designee	▪ Advance conceptual design of diversion structure ▪ Secure easement for diversion along South Platte River ▪ Secure necessary permits for diversion Design and construct diversion	Utilize diversion to capture junior South Platte River water rights, contract water from Aurora, exchange of water stored in Chatfield Reservoir, and return flows when CBWRF is operational
ASR Opportunities	▪ Advance feasibility and conceptual design of ASR at Cherokee Ranch wellfield ▪ Design and construct ASR	General Manager or designee	Advance feasibility and conceptual design of ASR at Cherokee Ranch wellfield	Construct ASR facilities at Cherokee Ranch wellfield
Acquisitions of Additional Water Rights	Continue feasibility of additional renewable water supplies as opportunities arise	General Manage or designee	Evaluate and acquire if renewable water supply augments existing water rights portfolio	Evaluate and acquire if renewable water supply augments existing water rights portfolio

5.2 Dominion's Drought and Shortage Response Strategies

As a wholesale water provider, Dominion's response to drought includes both response strategies and the communication and exchange of information with Retail Districts. Dominion will communicate with its Retail Districts on a frequent basis during a drought declaration. The communication framework for this is provided in Section 9. Dominion's drought response primarily consists of supply-side response. The following supply-side response strategies may be implemented by Dominion to reduce impacts.[7,8]

Renegotiate contractually controlled supplies – Where possible, DWSD will make efforts to negotiate terms of its contractual water supply agreements to best serve the interests of its Retail Districts and benefit the region.

Lease water from other entities – Explore potential short-term leasing opportunities to purchase water from other entities (e.g., neighboring cities).

Capitalize on new regional water supply opportunities that may result from Drought - Coordinate and collaborate with other water providers and regional partners to create beneficial opportunities for Dominion and the region.

Investigate state and federal assistance - Investigate opportunities for technical and financial assistance from other state and federal agencies and capitalize on such assistance, if needed.

Provide emergency water to domestic users – Where physically and legally possible, provide water to local users within Dominion's Service Area that need water for short-term emergency purposes. Such circumstances could entail domestic well owners that have depleted water reserves and water necessary for wildfire fighting purposes.

Support reuse water to preserve key landscape features under severe and emergency Shortages – Support the application of reuse water to landscape features of higher monetary, environmental, and social value such as larger established trees. In many cases, to limit irrigation only to key features, this would require direct application of reuse water (via a mobile unit) that is separate from the irrigation system.

5.3 Water Shortage Surcharge and Curtailments

In addition to Dominion's supply-side response strategies above, Dominion may implement a water shortage surcharge on Retail Districts. While this can generally be used by water providers as a tool to temporarily increase the cost of water and drive down customer end use water demands, Dominion would only be applying such a water shortage surcharge on Retail Districts when costs for its contractual water supply have increased due to drought and/or a water shortage. Water shortage surcharges would be used by Dominion on a temporary short-term basis to ensure Dominion can meet budgetary challenges associated with the increase cost in water deliveries.

[7] These supply-side response strategies meet the following criteria: 1) they are technically feasible and can be performed in a timely manner, 2) costs to implement the response strategies are worth the benefit, and 3) the strategies will meet an appropriate level of public acceptance. These strategies will be implemented when the opportunity arises and when needed and are consequently, not associated with any of the drought stages defined later in this Plan.

[8] The demand-side response strategies, focusing on customer water use, are the responsibility of the Retail District and are addressed in Section 8.

Dominion may also have to induce curtailments by reducing deliveries to its Retail Districts if it is subject to reductions in its contractual water or other potential reduction in water supply due to hydrologic variability. As Dominion continues to acquire new supplies and storage, developing more autonomy within its water supply portfolio, the likelihood of a curtailment will decrease.

6 Monitoring

6.1 Drought and Water Shortage Indicators

Monitoring is critical to ensuring a timely and appropriate response to drought. Monitoring includes climatic and hydrologic data along with projected near-term demands and actions others are taking. Table 5 shows the indicators that Dominion monitors on a routine basis.

Table 5: Drought and Water Shortage Indicators

Indicator	Description
Water Supplies, Operations, Deliveries	
Dominion's Water Supply Index	Indicator of Dominion's supplies relative to demand. This is the primary metric used to declare a drought stage and is described in further detail below
Aurora Water's Drought stage status	Dominion has a contractual arrangement with Aurora for water supplies. It is important for Dominion to stay informed of Aurora's drought declaration and response activities
WISE deliveries	Once the ERP is completed, Dominion will receive WISE supplies via Castle Rock. WISE recipients are notified of upcoming deliveries on a routine basis
Any significant infrastructure or water supply service interruptions within Service Area	Any operational/maintenance activity or infrastructure problem that could exacerbate or cause a water shortage
Demands	Dominion receives routine updates on customer end use water demands for Sterling Ranch. See Section 9 on Retail District demand reporting requirements
Climate and Hydrology	
U.S. Drought Monitor	Spatial maps that aggregate climate and drought indices and expert opinion to show drought severity for North America on a weekly basis
Temperature and Precipitation in Service Area	Record of average precipitation and temperature from local weather stations
Other Informational Sources	
Drought response actions by other entities in the region	This includes drought response actions of water providers within Douglas County, Aurora, Denver Water, and Colorado Springs Utilities
Water Availability and Flood Task Force Meetings	Monthly meetings led by the CWCB. A climate outlook is provided along with open forum discussion on what other providers are experiencing related to drought impacts and response
Front Range Drought Coordination Group	Routine meeting where water providers throughout the Front Range discuss drought-related topics, impacts recently experienced and drought response actions they are engaged with

One of the main indicators for drought and shortages is Dominion's Water Supply Index defined by Dominion's supply to demand ratio in Equation 1 below. The specific components comprising the "Water Supply"

numerator and "Water Demand" denominator shall vary as Dominion's water supply portfolio continues to mature as its Service Area continues to develop.

Equation 1:

$$Water\ Supply\ Index = \frac{Water\ Supply}{Water\ Demand}$$

At the time of development of this Plan, the "Water Supply" numerator is the sum of the supply sources listed in Equation 2 below that are made available during the 5-year tenure of this Plan. Currently, Dominion relies on Aurora Water contractual deliveries. It is anticipated that Dominion's portion of WISE, including firming water from the Town of Castle Rock, and water from the Cherokee wellfield will come online during the next five years. Additional water supplies may also be added if Dominion acquires new supplies that can physically be delivered to Retail Districts during the tenure of this Plan.

Equation 2:

$$\begin{aligned} Water\ Supply = {} & Aurora\ contractual\ deliveries + Castle\ Rock\ Firming\ (FSC\ 700) + WISE\ allocation \\ & + Cherokee\ Wells + South\ Platte\ River\ Water\ Rights \\ & + Exchange\ from\ Chatfield\ Reservoir \end{aligned}$$

The "Demand" denominator, shown in Equation 1, is further defined in Equation 3 below. Dominion's demands are the demands of Sterling Ranch as well as any new Retail Districts that come online.

Equation 3:

$$Water\ Demand = Sterling\ Ranch\ Demands + Demands\ of\ any\ new\ Retail\ Districts$$

6.2 Monitoring Activities

Dominion staff shall closely monitor indicator data to assess the potential for and severity of a drought and water shortage. Monitoring is essential to supporting a well-informed decision on declaring a drought or shortage stage and is incorporated into Operating Principal No. 2 of this Plan and in Dominion's Rules and Regulations.

DWSD shall convey Drought and Water Shortage monitoring findings to the Retail Districts on a routine basis. The DWSD Drought Mitigation and Response Plan shall provide a communication framework to guide DWSD on communications with Retail Districts regarding frequency of communications, monitoring findings, and Drought and Water Shortage status. The frequency of communication shall increase near the onset and during drought and Water Shortage periods. DWSD's Retail Districts shall actively engage with DWSD's communication efforts conveying any challenges, questions or concerns to DWSD. – DWSD's Rules and Regulations, Section 8.06(b)

Dominion staff are responsible for determining the Water Supply Index and collecting the other drought indicator data listed in Table 5. Monitoring of climatic conditions and other indicators occurs on a year-round basis. An increased frequency of monitoring is applied if other water providers in the region are anticipating or have declared a drought stage. See Section 9 for more details.

7 Stages, Triggers, and Total Demand Reduction Target

7.1 Dominion's Stages, Triggers, and Total Demand Reduction Target

Dominion's response to drought and water shortages is based on the four-stage framework shown in Table 6 below. Dominion's declaration of a particular drought stage (Stage 1, 2, or 3) will instigate each Retail District to examine its water supply situation and subsequently act in accordance with their Retail DMRP to respond to the stressed supply situation.[9] The stages increase in severity as the Water Supply Index decreases which calls for a higher demand reduction target (more water to be saved) with each elevating stage. Table 6 provides ranges on what the total demand reduction target should be per each individual stage. The total demand reduction factor applies to the total targeted savings achieved by all of Dominion's Retail Districts. Section 7.2 addresses how this total demand reduction target is allocated among Dominion's individual Retail Districts.

Table 6: Dominion's Drought Stages, Trigger Guidelines, and Total Demand Reduction Target

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Trigger – Water Supply Index	1.0 or greater	1.0 to 0.9	0.9 - 0.65	Below 0.65
Total demand reduction target[10]	n/a	10%-25% outdoor	25% - 85% outdoor	100% outdoor Consider maintaining established trees Possible indoor target
Curtailment	n/a	Potential curtailment	Curtailment very likely	Curtailment has occurred
Dominion Water Shortage Surcharge	None	Potential	Potential	Likely

As defined in Regulation 8.06(c), Dominion's assessment of drought and water shortage conditions is a data-driven process with a combination of climatic, operational, and community factors taken into consideration. While the Water Supply Index trigger, shown in Table 6, is one of the main sources of information for instituting a stage drought declaration, each drought and water shortage event is unique and therefore, information from multiple drought indicators is needed to assess conditions and determine what stage is most appropriate under given drought and/or shortage circumstances. The Water Supply Index in combination with the other indicators listed in Table 5, serve as a set of "guidelines" rather than a "set of rules." Professional expertise, coupled with all the indicators contribute to the ultimate decision.

[9] Details on the administrative and implementation process for this are provided in Section 9.

[10] The range of percentages for the total demand reduction target apply to outdoor water use which assumes that approximately 40% of DWSD's water use is outdoor. For instance, in a Stage 1 Drought a 0.9 Water Supply Index translates to a system-wide 10% reduction in supplies which then calculates to be a total demand reduction target of 25% of outdoor water use (10 divided by 40).

It is also worth noting that while the indicators and stages primarily focus on drought, the stages in Table 6 may be applied to water shortages that may not be associated with a drought. Such shortages could be induced by a catastrophic failure or other emergency condition of significant infrastructure caused by natural or anthropogenic events.

Dominion's assessment of Drought and Water Shortage conditions shall be a data-driven process. Quantitative and qualitative indicators addressed in Section 8.06(a) shall be evaluated to select a Drought and Water Shortage stage that requires an appropriate level of Response given the severity of conditions. – DWSD's Rules and Regulations, Section 8.06(c).

Table 6 also addresses the likelihood of a curtailment and water shortage surcharge that, if necessary, Dominion may place on its Retail Districts. As discussed in Section 5.3, a curtailment or reduction of deliveries to Dominion's Retail Districts may occur if Dominion receives less water supply than generally delivered via its contractual arrangements. A curtailment requires the reductions of lower priority water uses by retail water districts to ensure there is sufficient supply for its higher priority uses outlined in Table 2 (e.g., health and safety). As reflected in Table 6, the likelihood of a curtailment increases as the severity of drought stage increases. If Dominion's water supplies are being curtailed, the amount Dominion is being curtailed is instrumental in determining Dominion's total demand reduction target. For instance, if Dominion's total water supplies are being curtailed by 30%, its demand reduction target may be 30%.

7.2 Determination of Retail District Water Saving Targets

As Dominion expands services to more Retail Districts, Dominion's total demand reduction target will need to be allocated among each individual Retail District. This allocation will be equitably distributed based on the proportion of total Dominion deliveries each Retail District receives and level of water efficiency for each individual Retail District. Generally, Retail Districts that have a higher level of water efficiency will be required to save less water on a per unit basis (e.g., water use per household) than less efficient Retail Districts.

8 Retail District Drought Mitigation and Response Plans

Retail districts receiving supplies from DWSD must develop a Retail DMRP. This section provides a set of tables and guidelines that Retail Districts are to use when developing their individual plans.

8.1 Development and Review of Retail District Plans

The Retail DMRPs are fundamental to reducing water demands during drought and water shortages while preserving sufficient supplies for higher priority water uses. Consequently, these Retail DMRPs play an important role in ensuring resiliency within Dominion's Service Area. All future Retail Districts will need to develop plans during the will serve application process.

Retail Districts shall maintain a Retail DMRP approved by DWSD. A DWSD approved Retail DMRP is a requirement as a condition of service as specified in Section 6.03 and 6.10. – DWSD's Rules and Regulations, Section 8.08(b).

Dominion is committed to providing technical support in developing the Retail DMRPs. Appendix A of this Plan provides a template that Retail Districts must use in developing their plans. This template streamlines the Retail DMRP development process and includes fundamental components to drought planning.[11] The roles and responsibilities of Dominion and its Retail Districts, Rules and Regulations when it comes to drought and water shortage response, along with the coordination and communication protocols are embedded within the template.

All Retail DMRPs must be reviewed and approved by Dominion. This is a collaborative process outlined in the Rules and Regulations. While each Retail District is required to use this Plan and the template in Appendix A as a guideline, deviations may be made upon Dominion's approval. Any major deviation should be discussed with DWSD in advance of developing their Retail DMRP to ensure DWSD is in approval of such changes. Minor template deviations may be addressed during the Retail DMRP review process once the Retail District has completed the first draft of its Retail DMRP for DWSD review.

During the development of the Retail DMRP and DWSD's review process, DWSD and the Retail District shall collaboratively:

- *Identify and understand unique situation(s) of the retail water provider that warrants consideration in development of the Retail DMRP.*
- *Address questions, comments, and concerns that DMSD or the Retail District may have during the plan development and review process.*
- *Adhere to defined timelines of the will-serve application process.*

– DWSD's Rules and Regulations, Section 8.08.

[11] The Retail DMRP template in Appendix A includes the Drought planning components designated as "essential" in CWCB's *Drought Planning: An Updated Guide for Water Providers.*

8.2 Retail Districts Water Saving Targets and Stages

In preparation for the declaration of a drought, Dominion staff recommends a drought stage and total demand reduction target to the DWSD Board for approval. Section 7.2 addresses how Dominion's total demand reduction target for its service area is then allocated to individual Retail Districts as a Retail District water saving target. It is the responsibility of each individual Retail District to meet their Retail District water saving target and consequently, this target is instrumental in determining what the appropriate drought stage should be for official declaration within each individual Retail District's service area. Table 7 provides a guidance framework to assist Retail Districts in deciding what their appropriate response stage should be and corresponding level of drought response. The range of recommended Retail District saving targets and level of response increases as the stages increase in severity.

Table 7: Stages, Water Saving Targets and Retail District Response Guidelines

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Retail District Water Saving Targets	n/a	10%-25% outdoor	25% - 85% outdoor	▪ 100% outdoor ▪ Consider maintaining established trees ▪ Possible indoor target
Summary of Response	Normal operations	▪ Focus on large users ▪ Potential Water Shortage Surcharge	▪ Focus on outdoor uses ▪ Increase outreach ▪ Potential water shortage surcharge	▪ Focus on all indoor & outdoor uses ▪ Increase outreach ▪ Likely water shortage surcharge
Outdoor restrictions	n/a	Voluntary to mandatory	Mandatory	Restricted except established trees
Indoor restrictions	n/a	n/a	Voluntary	▪ Voluntary to mandatory ▪ Possible rations
Customer end use outreach	Routine communication with end users on the value of water and need to be efficient	Focuses on end user on any mandatory restrictions as well as at a broad community level to promote water savings	Escalates providing education on the situation and emphasizing the necessity to reduce water use at a broad community level.	Focuses on the need to conserve water for health and safety, urgency of the situation, and ways to save water from an indoor perspective.

Each of the stages shown in Table 7 are described in further detail below.

Normal – "Normal" conditions occur when there is not a drought and water shortage. Under these conditions, Retail Districts' water efficiency and conservation strategies implemented on a long-term basis are an important cornerstone to demand management. No additional temporary strategies to lower demands are needed.

Stage 1 Severely Dry – The "Stage 1 Severely Dry" stage is considered when a Retail District's outdoor water savings target is 10% to 25%. The Retail District should generally focus on large water users and increase outreach to its community on the value of water, current drought stage, and necessity for reducing water use. Outdoor restrictions could be voluntary to mandatory. For instance, large water users could be under mandatory obligation to meet their outdoor water budget with associated fines while end users within their targeted budgets could have the option of voluntarily further reducing their outdoor use.

Stage 2 Exceptionally Dry – The "Severe" stage is considered when a Retail District's outdoor water savings target is 25% to 85%. The Retail District should generally focus on all outdoor water use, implementing mandatory restrictions and temporarily reducing water budgets to ensure the water savings target can be accomplished. Under this stage, it is increasingly likely that Retail Districts could implement a temporary Water Shortage Surcharge on end use customers. Community messaging should escalate at a broad community level providing education on the situation and emphasizing the needs to reduce water use.

Stage 3 Emergency Conditions – The "Emergency" stage is considered when a Retail District's outdoor use is prohibited with a possible exception for established trees. An indoor water use target may also be considered. A shortage of this severity would likely only occur under a severe multi-year drought that exceeds historical records. Focus would be placed on ensuring that the health and safety needs of end users could be met. Rations may be implemented, and Retail Districts would likely enact a customer end user water shortage surcharge. Community outreach would emphasize the importance of preserving water for essential functions, fostering responsible stewardship, and amplify messaging on ways the community could save water from an indoor perspective.

8.3 Selection of Retail District Response Measures

This section provides a framework of drought response measures that Retail Districts are to refer to when developing their Retail DMRP. One of the distinguishing factors of this framework is whether Retail Districts have dual metering capabilities and water budgets. Many water providers in Colorado do not have this capability and consequently utilize traditional voluntary and mandatory outdoor water restrictions (e.g., end users are allowed to water 2 days per week) as one of the main mechanisms for reducing water use during dry periods. While mandatory restrictions have proven to be effective in reducing outdoor use, mandatory restrictions can require significant staff resources to patrol neighborhoods and enforce penalties for infractions.

Sterling Ranch is proactively installing dual indoor and outdoor metering at the individual homeowner level and has also assigned indoor and outdoor water budgets at the account level. This approach provides the capability to identify customer end users that are exceeding their outdoor water budget using metered data in declared drought situations. Such a system enables the implementation of drought response measures based on targeted water use levels at the individual end use account scale. End users benefit by maintaining the autonomous decision on how they want to use their outdoor water if they remain within their targeted water budget without having to adhere to traditional outdoor watering restrictions. The Retail Districts benefit by having the capability to identify customer end users that are exceeding their water budgets and enforcing infractions using metered data without having to invest in field staff patrolling neighborhoods. That said, Retail Districts that opt to use the metering and water budget approach must also invest in their information technology systems to ensure they have the administrative capabilities to efficiently monitor end use account usage relative to water saving targets and issue appropriate citations or other forms of documentation/penalties to end users for infractions.

Dominion's future Retail Districts may consist of a combination of those with dual metering and water budgets while others simply rely on traditional metering without any assigned budgets. Tables 8 and 9 below provide recommendations for outdoor irrigation drought response measures for the metering and water budget approach and for the more traditional water restrictions approach, respectively. Retail districts should identify what approach is best suited for them and incorporate the corresponding recommendations when developing their individual Retail DMRP. Table 10 provides drought response measures for new landscaping as well as for indoor use and other non-irrigated related measures that should also be incorporated into Retail DMRPs.

Table 8: Irrigation Drought Response Measures for Retail Districts with Metering and Individual Customer End Use Water Budgets

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Retail District Water Savings Target	**n/a**	**10%-25% outdoor**	**25% - 85% outdoor**	**100% outdoor Consider maintaining established trees Possible indoor target**
Single Family (SF) Outdoor	Education to residents on existing budgets and other water efficiency measures	Intensive outreach to homes exceeding current budgets. Monitoring of accounts to ensure target reduction is being achieved. Penalties may be imposed on those not meeting budgets.	Water budgets are adjusted to facilitate the targeted reduction coupled with intensive outreach. Penalties may be imposed on those not meeting targets.	Eliminate outdoor irrigation. If possible, consider and implement methods for maintaining established trees.
Multi Family (MF) Outdoor	Education to residents on existing budgets and other water efficiency measures	Intensive outreach to MF exceeding current budgets. Monitoring of accounts to ensure target reduction is being achieved. Penalties may be imposed on those not meeting budgets.	Water budgets are adjusted to facilitate the targeted reduction coupled with intensive outreach. Penalties may be imposed on those not meeting targets.	Eliminate outdoor irrigation. If possible, consider and implement methods for maintaining established trees.
Commercial landscape irrigation	Targeted education to those responsible for any over irrigation on commercial accounts	Focused outreach to account holders responsible for irrigation. Monitoring of accounts to ensure target reduction is being achieved. Penalties may be imposed on those not meeting budgets.	Water budgets are adjusted to facilitate the targeted reduction coupled with intensive outreach. Penalties may be imposed on those not meeting targets.	Eliminate outdoor irrigation. If possible, consider and implement methods for maintaining established trees.
Large irrigation accounts	Targeted education field technicians and managers responsible for water use	Focused outreach to account holders responsible for irrigation. Monitoring of accounts to ensure target reduction is being achieved. Penalties may be imposed on those not meeting budgets.	Water budgets are adjusted to facilitate the targeted reduction coupled with intensive outreach. Penalties may be imposed on those not meeting targets.	Eliminate outdoor irrigation. If possible, consider and implement methods for maintaining established trees.

Table 9: Irrigation Drought Response Measures for Retail Districts without Water Budgets

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Retail District Water Savings Target	**n/a**	**10%-25% outdoor**	**25% - 85% outdoor**	**100% outdoor Consider maintaining established trees Possible indoor target**
Low priority turf - passive, very little to no foot traffic	Irrigation prohibited between 10 am to 6 pm.	Irrigation limited to once a week for two 20-minute cycles. Penalties opposed on those exceeding limit.	Irrigation is not allowed.	Irrigation is not allowed.
Medium priority turf - residential lawns and active turf, trafficked in public spaces	Irrigation prohibited between 10 am to 6 pm.	Irrigation prohibited between 10 am to 6 pm. Best management practices (BMPs) are followed to make irrigation as efficient as possible. Irrigation limited to 2 days a week.	Irrigation prohibited between 10 am to 6 pm. BMPs are followed to make irrigation as efficient as possible. Irrigation limited to 1 day a week.	Irrigation is not allowed.
High priority turf - sports fields	Irrigation prohibited between 10 am to 6 pm. BMPs are followed to make irrigation as efficient as possible.	Irrigation prohibited between 10 am to 6 pm. BMPs are followed to make irrigation as efficient as possible.	Irrigation prohibited between 10 am to 6 pm. BMPs are followed to make irrigation as efficient as possible.	Irrigation is not allowed.
Home and community vegetable gardens, trees, shrubs, and perennials	Irrigation by automatic system on any day and by hand at any time. Not automatic system irrigation from 10 am and 6 pm.	Irrigation by automatic system on any day and by hand at any time. No automatic system irrigation from 10 am and 6 pm.	Only irrigation by hand, drip, deep root mechanical bubblers or subsurface irrigation.	Irrigation not allowed with exception to established trees irrigated by hand, drip, deep root mechanical bubblers or subsurface irrigation.

Table 10: Non-Irrigation Drought Response Measures

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Retail District Water Savings Target	**n/a**	**10%-25% outdoor**	**25% - 85% outdoor**	**100% outdoor Possible indoor target**
Residential Indoor	Promote efficient water use and importance of not wasting water.	Promote efficient water use and importance of not wasting water.	Encourage water saving behavior (e.g., taking short showers).	For Retail Districts with indoor budgets – make enforcement more stringent. For Retail Districts without indoor budgets – require development of budgets and enforcement where possible.
Construction water - soil compactions, dust control, architectural uses, concrete mix.	Allowed with no wasting of water.	Allowed with no wasting of water.	Construction water use must be approved by DWSD.	Not allowed.
Commercial livelihood (indoor use & industries relying on water)	Promote efficient water use and importance of not wasting water.	Promote efficient water use and importance of not wasting water.	Develop means to reduce water use by targeted amount agreed on with Retail District.	Develop means to reduce water use by target or amount agreed on with Retail District.
Car washing at home	Allowed with shut of nozzle and bucket.	Allowed with shut of nozzle and bucket.	Not allowed.	Not allowed.
Power washing - Power washing is regulated by the Colorado Dept of Health, Water Quality and Control Division.	Approved for cleaning purposes as long as the maximum flow rate does not exceed three gallons per minute.	Not allowed.	Not allowed.	Not allowed.
Home pools and hot tubs	Allowed - minimize waste.	Allowed - minimize waste.	Asked to voluntarily not operate.	Not allowed to operate.
Community pools and hot tubs	Allowed - minimize waste.	Allowed - minimize waste.	Allowed - minimize waste.	Operation must be approved by Retail District.
Water pipeline flushing	BMPs are to be implemented. Only use to meet health and safety requirements. When practical, use tanker trucks to capture and reclaim water during flushing.			
Pipeline pressure testing	BMPs are to be implemented. Only use to meet health and safety requirements. When practical, use tanker trucks to capture and reclaim water during flushing.			
Events	Water use for special event must be approved by Retail District. Retail District must notify Dominion.			

9 Operational and Administrative Framework

This section focuses on the communication and actions necessary for Dominion and its Retail Districts to coordinate and implement successful drought and shortage response efforts.

9.1 Operations Under Normal Status

During "normal" periods when Dominion and its Retail Districts are not under a drought or water shortage declaration, communication and monitoring still play an important role in preparedness. Dominion's Water Program Manager or staff appointee will coordinate this effort. Dominion and its Retail Districts will meet at minimum three times a year. Dominion's Water Program Manager (or staff appointee) will be responsible for providing a "drought outlook," providing data on its latest monitoring activities and indicators (e.g., see Table 5 for specific indicators). In addition, Dominion will facilitate the exchange of information on drought-related concerns, long-range water supply planning, water efficiency practices, challenges/lessons learned, etc. Retail districts will present information on their monthly demands patterns by customer end use sector and any observed trends.

At a minimum, three drought monitoring meetings will be conducted each year focusing on the following:

- End of January – Review of Retail District monthly demand patterns from previous year and projected annual demands for the current forthcoming year.
- April – Anticipated new developments, challenges, goals, etc. for the upcoming irrigation season.
- October – Summary of water demand trends and any significant events that occurred over the irrigation season.

In addition to these meetings, Retail Districts will also be responsible for providing Dominion electronic data of their monthly customer end use sector demands for the previous year every January. This information informs the Water Supply Index as well as the allocation of Retail District water saving targets if a declaration is to occur.

9.2 Drought and Shortage Declaration Process

The frequency of drought monitoring meetings discussed in Section 9.1 should increase if drought indicators are suggesting that there is an increased likelihood of a declaration. Dominion staff will be responsible for determining the most appropriate drought stage and subsequent demand reduction target to recommend to Dominion's Board. This will also include the allocation of water saving targets for each individual Retail District (see Section 7.2). Dominion's Retail Districts will actively engage with Dominion's communication efforts conveying any challenges, questions or concerns to Dominion.

If conditions warrant a declaration, Dominion staff will provide recommendations to Dominion's Board for a formal decision. This process is described in the Rules and Regulations:

DWSD shall use the Water Supply Index defined in Section 8.06(d), the indicators identified in the DWSD Drought Mitigation and Response Plan, and their professional expertise to make a recommendation to the DWSD Board on the declaration of specific drought or water shortage stage. Such a recommendation shall be made to the DWSD Board in writing, with accompanying data to support the recommendation.

Upon receiving the recommendation, the DWSD Board shall have the opportunity to discuss the recommendation to further understand the implications for such a declaration prior to any formal decision. Upon the DWSD Board's decision to issue a declaration, a Resolution will be filed, officially documenting the declaration. The DWSD Board shall reserve the right to make subsequent escalation and de-escalation changes to the declaration (e.g., move from Stage 2 to Stage 1) based on monitoring efforts and input from DWSD staff. Examples of such changes include increasing the severity of the stage to better reflect worsening drought conditions, or the termination of the declaration once drought conditions improve. – DWSD's Rules and Regulations, Section 8.07.

A drought and water shortage declaration is not a straight-forward decision made by Dominion. There are a lot of climatic, operational, and community factors to take into consideration. Monitoring data coupled with professional expertise and other critical factors inform the final decision. The timing of a declaration will be an important consideration by both Dominion staff and the Board. If a water shortage declaration is made too late, and actions are not taken early enough to reduce water use, water storage can be severely depleted and result in impacts that would have been less or otherwise avoided. Conversely, premature declarations can result in unnecessary actions and messaging where Retail Districts and their communities can lose confidence in leadership.

Dominion staff are responsible for communicating the Board's declaration to Retail Districts and regional providers. Upon declaration, Dominion staff will officially inform Retail Districts of the declaration, Dominion's total demand reduction factor, and the assigned Retail Districts' water saving targets. This will subsequently trigger the Retail Districts' drought declaration and processes laid out in their individual Retail DMRPs. As much advanced notice will be provided to Retail Districts on the potential status of such a declaration prior to Dominion Board's final decision, enabling Retail Districts to mobilize their drought and water shortage response planning efforts as soon as possible.

9.3 Coordination and Implementation of Drought and Shortage Response

Following declaration of a water shortage or drought, a "Response Team" consisting of Dominion and representatives of each Retail District will, at a minimum, meet monthly. Dominion's Water Program Manager (or designated staff appointee) shall provide routine updates to Retail Districts on the drought conditions, status of the water shortage situation, and any new developments that could impact future water supplies. Retail Districts shall provide Dominion with routine status updates on their response efforts, successes, challenges, public messaging efforts, and key performance indicators (KPI's) such as outdoor use and per capita water use through duration of the declaration. In addition, each Retail District will be responsible for demonstrating, based on demand data, how it is meeting its water saving target during the declaration. It is the responsibility of each Retail District to implement its Retail DMRP which includes a Customer Drought and Shortage Information Campaign. All information presented by the Retail Districts will be made available to Dominion for documenting in Dominion's central drought and shortage repository filing system discussed in Section 9.6.

9.4 Enforcement

Per Section 8.09, Dominion reserves the right to impose penalties as a means of enforcement if a Retail District is negligent in implementing and meeting their water saving target. Enforcement will be managed on a case-by-case basis but will generally consist of the following process.

- Status Meeting - If a Retail District cannot demonstrate that it is meeting its water savings target during a Drought declaration, an initial meeting between the Retail District and Dominion will be held to discuss the Retail District's challenges in not being able to meet their water savings target, identify actions the Retail District will take to increase savings, and an established probation period under which the Retail District must increase savings.
- Probation – Status conference(s) will be held during the probation period to closely monitor the Retail District's water demands relative to its water saving target and discuss efforts being taken to reduce demand.
- Penalty is imposed – If the Retail District cannot meet its water saving target after a specified period, Dominion will enact an appropriate penalty to further incentivize water savings. Such penalties may include an increase in fees overtime. Any disputes must follow the protocol provided in Section 10.02 of DWSD's Rules and Regulations.

9.5 Revenue Implications and a Financial Budgeting Plan

Reductions in water demands attributed to drought-related water reduction targets and restrictions could impact Dominion's revenue stream. Additional staff time and increased expenditures to implement the supply-side drought response strategies listed in Section 5.2 are also anticipated. Costs for contractual supplies may also increase. As discussed in Section 5.3, Dominion may implement a water shortage surcharge on Retail District deliveries when costs for its contractual water supply have increased due to drought and/or a water shortage. Surcharges would be used by Dominion on a temporary short-term basis to ensure Dominion can meet budgetary challenges associated with the increase cost in water.

A reduction in customer end users water use during periods of droughts and shortages reduces water sales and consequently could also result in a revenue shortfall for Dominion's Retail Districts. Additionally, increased costs associated with implementation of the Retail Districts' DMRPs could further intensify the shortfall. Each Retail District will be responsible for mitigating and managing such potential impacts.

9.6 Documentation and Data Repository

Dominion will maintain an electronic repository of drought and shortage related information that is available to Dominion and its Retail Districts (Program Portal). This Program Portal will provide a valuable archive of institutional knowledge that Dominion and its Retail Districts can refer to for informational purposes. Such information will include the drought outlooks from each of the monitoring meetings, meeting minutes, demand data from each of the Retail Districts, status of drought response, and any other relevant information. During periods of a drought and water shortage declaration, additional information on Retail Districts drought response, lessons learned, challenges and accomplishments will be documented as appropriate.

10 References

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Appendix A

Retail District Drought Mitigation and Response Plan Template

Instructions

This appendix provides a template for Dominion's Retail Districts for developing Retail DMRPs. Retail districts are to use the following materials when developing and updating their drought mitigation and response plans:

1. Drought mitigation and response template provided in this appendix

2. Dominion's Drought Mitigation and Response Plan

3. Chapter 8 of Dominion's Rules and Regulations.

Other references are also encouraged during development, such as CWCB's 2020 Drought Management Planning: A Guide for Water Providers and 2020 Drought Management Planning: Worksheet template for drought response plans.

Any major deviations from this template should be discussed with DWSD in advance of developing the Retail DMRP to ensure DWSD is in approval of such changes. Minor template deviations may be addressed during the Retail DMRP review process once the Retail District has completed the first draft of its plan for DWSD review. All Retail Districts should fill in the blanks outlined below along with incorporating the appropriate text in italic font for their final submission to DWSD. Please note, all italic text should be deleted prior to submission to DWSD.

Enter Name of Retail District

Drought Mitigation and Response Plan

Enter Date Plan is Adopted

Section 1 – Introduction

1.1 Background: *Enter name of Retail District* is a retail water district servicing a population of *enter population* in Douglas County. It currently receives wholesale water supplies from Dominion Water and Sanitation District (Dominion or DWSD). As a condition of receiving DWSD services, it must file a retail Drought Mitigation and Response Plan (Retail DMRP) to Dominion for approval.

1.2 Purpose: The purpose of this Retail DMRP is to provide *enter name of Retail District* the guidance necessary to ensure that drought and water shortages are addressed in a proactive manner, minimizing long-term impacts, and ensuring that sufficient water is available for the health, safety, and community livelihood during water shortages.

1.3 Definitions:
Drought and water shortage: Section 3.01 of Dominion's Rules and Regulations define Dominion's definition of a drought and water shortage.

Note to Retail Districts: Choose one of the following two options to complete this section:

1) These definitions also apply to *enter name of Retail District* water supply system and service area.
2) These definitions were modified for *enter name of Retail District* to *provide new definitions*. These changes were made to *provide reasoning on why changes were made*.

Mitigation and response: Section 3.01 of Dominion's Rules and Regulations defines mitigation and response. These definitions also apply to this plan.

1.4 Retail DMRP Development: This Retail DMRP is an

Note to Retail Districts: Choose one of the following two options to complete this section:

1) an update to *enter title of previous Retail District.*
2) a new Plan.

This Retail DMRP meets Dominion's drought and water shortage planning requirements set forth in DWSD's Rules and Regulations as well as in DWSD's Drought Mitigation and Response Plan. Table 1 lists the Drought Committee members who were instrumental in developing this Retail DMRP. *Enter number* meetings were held with the Drought Committee to discuss key components of this Plan and provide input.

Note to Retail Districts: The Drought Committee should include a broad spectrum of staff and possibly other community members that represent key aspects of the Retail District's services and end use customer interests when it comes to drought (e.g. public works director, treatment plant supervisor, water planning staff, parks, those responsible for enforcement under mandatory restrictions, water efficiency/conservation staff, emergency coordinator, financial/billing department, land developers, land use planning, key HOA leads, etc.).

Table 1: Drought Committee

Member	Position/Title	Contribution to Plan
List member	*List position*	*List role(s) of individual in developing plan*
List member	*List position*	*List role(s) of individual in developing plan*
List member	*List position*	*List role(s) of individual in developing plan*

Note to Retail Districts: A 60-day public review process is required once 10 percent buildout is achieved. Conduct a public review process and provide documentation on the public comments in an appendix, incorporating the following text if 10 percent buildout has occurred.

A 60-day public review process was carried out to receive input from the public on the Retail DMRP. This public review process consisted of posting the Retail DMRP online for comment and *enter steps taken to receive input on the Retail DMRP (e.g., advertised online and via bill inserts, hosting a public open house, conducting a public survey, etc.).* Comments received by the public are documented in Appendix *A.*

1.5 Coordination with Other Planning Efforts: This Retail DMRP will be implemented in coordination with the following local and regional planning efforts: 2040 Douglas County Comprehensive Master Plan, Douglas County Natural Hazard Mitigation Plan, Metro Basin Implementation Plan, Colorado Water Plan, the Colorado Drought Mitigation and Response Plan, DWSD's Drought Mitigation and Response Plan, and enter any additional applicable planning efforts.

1.6 Plan Adoption: Resolution *enter resolution/ordinance number* was passed on *enter date* by *enter entity adopting Plan (e.g., Board)* adopting the *enter name of Retail District* DMRP. This resolution is provided in Appendix *enter appendix number*. The following policy changes and or new resolutions were enacted to implement this Retail DMRP *describe policy and or resolutions if applicable*. Agreements developed to implement the Retail DMRP entail *enter agreements if applicable*.

1.7 Periodic Review and Update:
Note to Retail District: Retail DMRP updates are required at the earliest of the following: 1) every 5 years or 2) when buildout occurs at 20%, 40%, 60%, 80%, and 100% intervals.

The next update of this Plan will be completed by *enter date or at relevant buildout percentage,* depending on which occurs earlier. Staff responsible for taking the lead on updating the Plan include *list staff and title(s).*

Section 2 – Objectives and Operating Principles

2.1 Objectives: This Retail DMRP better prepares *enter name of Retail District* for drought and water shortages and provides an action-based guidance framework to respond to drought and water shortage when it occurs. The objectives of this Retail DMRP are provided below.

Note to Retail District: Retail Districts are to develop a set of objectives. The following examples are objectives Retail Districts may adopt and/or revise.

1. *Ensure public health and safety and drought response that ensures achievable water savings.*

2. *Coordinate development review and approval process to ensure the Retail DMRP meets DWSD approval and is properly coordinated with Dominion's Drought Mitigation and Response Plan.*

3. *Foster an engaging interactive process between Dominion and enter name of Retail District on monitoring, declaring, and implementing drought and water shortage response that is mutually beneficial and results in achievable water savings.*

2.2 Operating Principles: The following operating principles are reflective of *enter name of Retail District's* values and were developed as means to assist with this Retail DMRP. They also provide guidance when it comes to decision-making and implementation of drought response. The operating principles are as follows:

Note to Retail District: Retail districts are to develop a set of operating principles. The following bullets are examples Retail Districts may adopt and/or revise.

1. *Work in close coordination with Dominion in the monitoring of drought and in the implementation and enforcement necessary to achieve DWSD's required water savings target. (See Section 8 of DWSD's Drought Mitigation and Response Plan).*

2. *Provide clear communication and consistent messaging with end use customers on drought monitoring findings and the necessary response of individual customers at the onset and during a drought or water shortage declaration.*

3. *Encourage drought tolerant and low water use landscaping within the Retail District's service area, providing greater drought resiliency.*

2.3 Water Use Priorities – Table 2 presents *enter name of Retail District* prioritization of customer-use during periods of a water shortage. Customer uses of highest priority consist of services essential to public health and safety such as indoor residential use, hospitals, schools, and firefighting. During periods of shortage, *enter name of Retail District* will work with its customers to ensure that these essential needs are met. Depending on the severity and duration of the water shortage, lower priority customer uses may be reduced or prohibited in very severe situations.

Note to Retail Districts: The table below reflects the priorities in Dominion's 2023 Drought Mitigation and Response Plan. Review the table along with Dominion's most current Drought Mitigation and Response Plan and make any modifications necessary to reflect the priorities of the Retail District's service area. These changes will need to be discussed with Dominion during the plan review process. These priorities are to inform how to set up the drought response framework and hence is a good exercise to do prior to developing a stage specific drought response framework in Section 7 below.

Table 2: Water Use Priorities

Priority	Description	Water Use Types
First Priority	Health and safety	Indoor essential uses (residential, hospitals, schools, long-term care facilities, restaurants, commercial services, government facilities & community centers), firefighting, water pipeline flushing.
Second Priority	Highly valued functional landscaping, construction water, commercial	Established trees, private and commercial vegetable gardens, construction water for new development, car washes using recycled water
Third Priority	High priority and efficient irrigation	Established landscaping using drip irrigation (perennials, shrubs), sports fields
Fourth Priority	Medium priority and efficient irrigation	New low water use plants on drip, established shrubs/perennials not on drip, active turf on Parks (heavily used but not sports field)

Priority	Description	Water Use Types
Fifth Priority	Turf irrigation & inefficient uses	All established and newly installed turf including passive (low foot traffic) areas at parks, HOA shrubs/perennials, outdoor pools, medians, power washing, low efficient businesses (car washes not using recycled water)

2.4 Background

Note to Retail Districts: *This section is optional. It is recommended that it is added if it provides contextual benefit. It entails providing a general overview of the Retail District's service area (e.g., population, key facilities, development progress, etc.), a profile of the Retail District's existing supplies, and customer water use profile including historical customer water demands by sector and per capita water use by customer sector).*[12]

Section 3 – Drought Impact and Vulnerability Assessment

3.1 Historical Drought Impacts: – DWSD's Drought Mitigation and Response Plan provides an overview on historical droughts and any historical drought-related impacts experienced by DWSD.

Note to Retail Districts: Choose the following applicable option(s) to complete this section:

1. *_Enter name of Retail District_ is at the initial phases of development and consequently has not experienced historical impacts.*
2. *These historical droughts, impacts, and response also apply to _enter name of Retail District_ water supply system and Service Area. _Enter name of Retail District_* has not experienced any additional impacts.
3. *In addition to the ____ drought(s) discussed in DWSD's Drought Mitigation and Response Plan, _enter name of Retail District_ experienced a water drought/shortage in X year(s). _enter name of Retail District_ has experienced the historical/current impacts addressed in the table below.*[13]

Table __: Historical and Current Drought-Related Impacts

Description of Impact	Year of Impact	Severity of Impact
List impact	*List year*	*Rank severity (high, medium, low)*
List impact	*List year*	*Rank severity (high, medium, low)*
List impact	*List year*	*Rank severity (high, medium, low)*

3.2 Future Vulnerabilities: – *Enter name of Retail District* relies on DWSD to meet an average of *enter percentage* of *enter name of Retail District* supplies on an annual basis.

Note to Retail Districts: Include the following if applicable.

In addition to DWSD's deliveries, *enter name of Retail District* water supply portfolio includes *list other sources of water supply* . *Provide brief summary of how water supply portfolio is operated and how the Retail*

[12] See DWSD's *Drought Mitigation and Response Plan* and Appendix A of *CWCB's Drought Planning: An Updated Guide for Water Providers.*

[13] Note: The CWCB worksheets provided in: 2020 Drought Management Planning: Worksheet template for drought response plans may be of assistance in developing a comprehensive list of historical and current impacts.

District's planning efforts strive to meet demands particularly during a drought. Provide additional details on climate change where relevant.

DWSD's Drought Mitigation and Response Plan provides an overview on DWSD's future vulnerabilities to drought and addresses the uncertainties associated with climate change.

Note to Retail Districts: Choose the following applicable option(s) to complete this section:

1. *The vulnerabilities provided in Table 3 of DWSD's Plan also apply to _enter name of Retail District_ water supply system and service area.*
2. *The vulnerabilities provided in Table 3 of DWSD's Plan also apply to _enter name of Retail District_ water supply system and service area. In addition to these vulnerabilities, _enter name of Retail District_, Table ___ lists other vulnerabilities associated with _enter name of Retail District_ water supply system and Service Area.*[14]

Table ___: Future Drought Vulnerabilities

Potential Drought Impacts	Vulnerability Assessment	
	Ranking of Potential Impact Severity	Likelihood of Potential Future Impact
List vulnerability	*Rank severity (high, medium, low)*	*Rank severity (high, medium, low)*
List vulnerability	*Rank severity (high, medium, low)*	*Rank severity (high, medium, low)*
List vulnerability	*Rank severity (high, medium, low)*	*Rank severity (high, medium, low)*

Section 4 – Drought Mitigation & Supply-Side Response Strategies

4.1 Mitigation: DWSD's Drought Mitigation and Response Plan provides an overview of the mitigation strategies Dominion is implementing to ensure its water supplies are sustainable and resilient. Such mitigation measures entail 1) drought and water shortage planning and coordination, 2) water efficiency, and 3) water supply system development and redundancy. *_Enter name of Retail District_* is also mitigating for drought and water shortages through its water efficiency program. This program includes: *_Provide a description of Retail District's water efficiency program including list of water efficiency measures it is implementing._*

Note to Retail Districts – add if applicable: In addition to these efforts discussed above, *_enter name of Retail District_* is implementing the following mitigation strategies: *_Provide a description of any additional mitigation strategies the Retail District is implementing or is planning on implementing during the tenure of this Retail DMRP._*

4.2 Supply-Side Response Strategies: DWSD's Drought Mitigation and Response Plan provides an overview of the supply-side response measures Dominion plans to implement when in a drought declaration.

Note to Retail Districts: Choose the following applicable option(s):

[14] Note: The CWCB worksheets provided in: 2020 Drought Management Planning: Worksheet template for Drought response plans may be of assistance in developing a comprehensive list of future vulnerabilities.

1. *_Enter name of Retail District_ is not implementing any additional supply-side response strategies.*
2. *_Enter name of Retail District_ is implementing the following supply-side response strategies: _enter supply-side response strategies and provide additional detail on how these strategies are appropriate_.*[15]

Section 5 – Drought Monitoring

DWSD's Drought Mitigation and Response Plan addresses how DWSD will monitor climate, drought and water-shortage conditions. *_Enter name of Retail District_* will attend the monitoring meetings held by Dominion and provide the information addressed in Section 9.1 of Dominion's Drought Mitigation and Response Plan. During a drought declaration, *_enter name of Retail District_* will participate as a member of the "Response Team" and engage in the activities addressed in Section 9.3 of Dominion's Drought Mitigation and Response Plan.

Note to Retail Districts – Add if applicable: In addition to these efforts, _enter name of Retail District_ conducts the following monitoring activities that provides additional information on its drought declaration process outlined in Section 8.2 of this Retail DMRP. _Describe additional activities._

Section 6 – Stages and Water Saving Targets

DWSD's Drought Mitigation and Response Plan addresses Dominion's process in declaring a specific drought stage and the indicators supporting the decision. Dominion's total demand reduction target is equitably distributed among its Retail Districts based on the proportion of total Dominion deliveries each Retail District receives and the level of water efficiency of each individual Retail District. Each Retail District is assigned a water saving target based on this distribution.

*_Enter name of Retail District_* is responsible for declaring a drought stage based on its DWSD's assigned water saving target. Table ___ below shows *_enter name of Retail District's_* stages and corresponding water saving targets.

Table ___: Stages, Water Saving Targets, and Response

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Retail District Water Saving Targets	n/a	10%-25% outdoor	25% - 85% outdoor	100% outdoor Consider maintaining established trees Possible indoor target
Summary of Response	Normal operations	Focus on large users Potential Water Shortage Surcharge	Focus on outdoor uses Increase outreach Potential Water Shortage Surcharge	Focus on all indoor & outdoor uses Increase outreach Likely Water Shortage Surcharge
Outdoor restrictions	n/a	Voluntary to mandatory	Mandatory	Restricted except established trees

[15] Note: The CWCB worksheets provided in: 2020 Drought Management Planning: Worksheet template for drought response plans may be of assistance in identifying additional supply-side response strategies.

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Indoor restrictions	n/a	n/a	Voluntary	Voluntary to mandatory Possible rations

Note to Retail Districts: When Dominion enters a drought or water shortage declaration, all Retail Districts are required to meet their individual Retail District water saving target specified by Dominion. However, it is the responsibility of the Retail District to determine which specific response measures are best suited to accomplish this. The table above provides a set of guideline parameters to assist Retail Districts in this selection process. Retail districts may modify/refine this framework; however, all changes need to be approved by Dominion.

Section 7 – Staged Drought Response Program

7.1 Staged Response Program: Table(s) below provides *enter name of Retail District's* drought response measures according to each individual stage.

Table ___: Response Measures

	Normal	Stage 1 Severely Dry	Stage 2 Exceptionally Dry	Stage 3 Emergency Conditions
Water Savings Target	n/a	10%-25% outdoor	25% - 85% outdoor	100% outdoor Consider maintaining established trees Possible indoor target
Response strategy 1	*"n/a" or if applicable, enter action*	*Stage 1 measure*	*Stage 2 measure*	*Stage 3 measure*
Response strategy 2	*"n/a" or if applicable, enter action*	*Stage 1 measure*	*Stage 2 measure*	*Stage 3 measure*
Response strategy 3	*"n/a" or if applicable, enter action*	*Stage 1 measure*	*Stage 2 measure*	*Stage 3 measure*
Response strategy 4…. etc.	*"n/a" or if applicable, enter action*	*Stage 1 measure*	*Stage 2 measure*	*Stage 3 measure*

Note to Retail Districts: Refer to Section 8.3 in DWSD's Drought Mitigation and Response Plan for recommendations on how to approach populating the table above with response measures. Tables 8, 9, and 10 in DWSD's Plan, provides a suite of response measures that should be incorporated into a Retail District's' response program, where applicable to the Retail District's service area. Additional measures and deviations from these tables should be discussed with Dominion during the review process of the Retail DMRP.

7.2 Customer Drought and Shortage Information Campaign: During normal periods, when there is not a pending or existing drought or water shortage, *enter name of Retail District* will rely on its water efficiency program to increase customer awareness on the importance of efficient water use. The Customer Drought and

Shortage Information Campaign will be initiated at the onset of a drought or water shortage, educating customers on the implications, and promoting additional water savings beyond what is typically achieved through the water efficiency program. The frequency of messaging and staff effort focused on reaching out to the customer will be elevated to ensure that the community understands the implications of the drought and/or water shortage and what they can do to contribute to achieving additional water savings. The focus of the Customer Drought and Shortage Information Campaign will depend on the drought stage as reflected in the bulleted items below.

- Normal – Routine communication with customers on the values of water and need to be efficient.
- Stage 1 Severely Dry – Focuses on customers on any mandatory restrictions as well as at a broad community level to promote water savings.
- Stage 2 Exceptionally Dry – Escalates education on the situation and emphasizing the necessity to reduce water use at a broad community level.
- Stage 3 Emergency Conditions – Focuses on the need to conserve water for health and safety, urgency of the situation, and ways to save water from an indoor perspective.

Note to Retail Districts: The bullet points above may be adjusted per discussion with Dominion during the Retail DMRP review process.

Prior to the formal declaration of a water shortage, *enter Retail District department/staff leading effort* will take the lead in developing the Customer Drought and Shortage Information Campaign which will include key messages, groups to focus messaging on, frequency of messaging and communication tools. [16] Key messages will include the following:

- *Insert key messaging*
- *Insert key messaging*

The following media will be used *list the media to be used.*

Coordination with other entities is an important component of the Customer Drought and Shortage Information Campaign. Efforts will be made to capitalize on synergistic opportunities with other conservation-oriented entities including Dominion, other Dominion Retail Districts, and nearby water providers in Douglas County. *Enter Retail District* will also track other local water providers' drought-related response activities, water use restrictions, and means of enforcement. This will enable *enter Retail District* to explain to its customers their similarities and differences between *enter Retail District's* drought response activities and neighboring urban areas as well as in building a regional response effort.

Section 8 – Drought Response Operational and Administrative Framework

8.1 Operations under Normal Status: During "normal" periods when *enter name of Retail District* is not under a drought or shortage declaration, communication and monitoring still play an important role in preparedness. *enter name of Retail District* will work closely with Dominion and form a "Monitoring Team" with Dominion and other Dominion Retail Districts. The Monitoring Team will meet at least three times a year.

[16] Note: The CWCB worksheets provided in: 2020 Drought Management Planning: Worksheet template for Drought response plans may be of assistance in identifying Drought related information to convey to customers, the targeted audiences, and communication tools/media.

During these meetings, Dominion will provide a Drought outlook and *enter name of Retail District* will present information on its monthly demands patterns by customer sector and any observed trends. Additional information on these meetings is provided in Section 9.1 of DWSD's Drought Mitigation and Response Plan. In addition to these meetings, *enter name of Retail District* will be responsible for providing Dominion electronic data of its monthly customer sector demands for the previous year every January. This information informs the Water Supply Index as well as the allocation of Retail District water saving targets if a declaration is to occur.

8.2 Drought and Shortage Declaration Process: The frequency of monitoring meetings discussed in Section 9.1, will increase if indicators are suggesting that there is an increased likelihood of a declaration. Dominion staff will be responsible for determining the most appropriate drought stage and subsequent demand reduction target to recommend to Dominion's Board. This will also include the allocation of water saving target percentages for each individual Retail District. Additional details on this process is provided in Section 7 of DWSD's Drought Mitigation and Response Plan. *Enter name of Retail District* will actively engage with Dominion's communication efforts conveying any challenges, questions or concerns to Dominion. During this period of time, *enter name of Retail District* will initiate planning efforts to prepare for implementing a drought response program.

If conditions warrant a drought and shortage declaration, Dominion staff will provide recommendations to Dominion's Board for a formal decision. Upon the Board's official declaration, *enter name of Retail District* will be designated a water savings target. This response target is the main trigger for *enter name of Retail District* in declaring a drought stage. *enter name of Retail District* will make a recommendation to the *entity for Retail District that is responsible for declaration* for final decision and official declaration of the appropriate drought and water shortage stage for *enter name of Retail District*'s Service Area. *Provide any additional information on the drought declaration process.*

8.3 Coordination and Implementation of the Staged Drought Response Program: Following declaration of a water shortage or drought, a Response Team, consisting of Dominion and its representatives of each Retail District will collaborate and coordinate applicable drought response efforts. This "Response Team" will meet monthly or more frequently, as needed. Dominion shall provide routine updates to Retail Districts on the drought conditions, status of the water shortage situation, and any new developments that could impact future water supplies. *Enter name of Retail District* will provide Dominion with routine status updates on its response efforts, successes, challenges, and key performance indicators (KPI's) such as outdoor use and per capita water use through duration of the declaration. In addition, *enter name of Retail District* will be responsible for demonstrating, based on demand data, how it is meeting its water saving target during the declaration. All information presented by *enter name of Retail District* will be made be made available to Dominion for filling in Dominion's Program Portal as discussed in Section 9.6 of DWSD's Plan.

Enter name of Retail District is responsible for implementing the drought response measures. Table __ below provides a general framework for the implementation of *enter name of Retail District's* Retail DMRP.

Note to Retail District: The table provided below is an example of a response plan framework for your reference purposes. A table of similar format should be provided with your draft plan for review by Dominion.

Table ___: Implementation Plan

Roles and Responsibilities	Timeframe	Staff Lead
Provide Dominion electronic data of monthly sector demands from previous year demands	January	_____
Participate on the Monitoring Team with Dominion and other Retail Districts	Meet on routine basis	_____

Roles and Responsibilities	Timeframe	Staff Lead
Initiate drought response planning efforts for implementing a drought response program including the Customer Drought and Shortage Information Campaign	ASAP once Dominion has conveyed it is considering declaring a drought or shortage	_____
Conduct drought declaration process to declare appropriate drought stage pending Dominion's assigned water savings target	ASAP once Dominion has officially made declaration and conveyed the Retail Districts' water savings targets	_____
Participate on the Response Team with Dominion and other retail providers	During Dominion's declaration period	_____
Estimate costs and staff resource needs for implementation of response measures.	ASAP prior to declaration	_____
Administer response measures and coordinate responsibilities among staff. Make adjustments as necessary.	During declaration period	
Closely monitor water demands and ability to meet water savings targets. Report to Response Team.	During declaration period	_____
Monitor revenue changes and expenses.	During declaration period	_____
Monitor enforcement actions	During declaration period	_____
Monitor irrigation use in relation to water savings target.	During declaration period	_____
Monitor water demands in relation to water use reduction target.	During declaration period	_____
Develop community messaging when coming out of a shortage or drought.	End of declaration	_____
Closely monitor and document response.	ASAP prior to declaration and during declaration period	_____

8.4 Enforcement of the Staged Drought Response Program: Prior to stage declaration, *enter name of Retail District* will determine the level of enforcement necessary and penalties assigned for infractions. The severity of penalty will depend upon the declared stage and number of infractions incurred by a customer. Penalties could range from *enter what the penalties could be* (e.g., *warning citations and monetary fines to the temporary shut-off of water services in severe cases).*

Enforcement will be managed by *enter department/staff that will be managing this* . Activities necessary to carry out enforcement include: *describe activities*.

Note to Retail Districts - If applicable add the following: Customers will also have an opportunity to appeal citations. Written appeals may be mailed/emailed to enter contact information providing justification for why the citation should be appealed. Provide any additional details on what could be considered an appeal if applicable.

8.5 Revenue Implications and Financial Budgeting Plan: A reduction in customer water use during periods of droughts and water shortages also reduces water sales and consequently could result in a revenue shortfall. Increased costs associated with implementation of the drought and shortage response, public education and

outreach, and enforcement could further intensify the shortfall. Any potential revenue losses will be addressed by conducting the following: *disclose how revenue losses will be addressed in the timing of these strategies relative to the declaration.*

Enter name of Retail District plans to use the following financial resources to implement the response measures *describe these financial resources.*

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Appendix B–Comments During Public Review

This appendix provides the comments collected during Dominion's 60-day public review period of the document. Section 1.5 provides additional information on the community engagement process.

CWCB Comments

Good morning Courtney:

Thanks for proactively getting CWCB onboard for our review during the public review process. I have completed my review of the Dominion Plan and think it looks good. There are a couple minor things I'd ask you to amend, if possible, before CWCB can give final approval.

- Can you add a staff member or role at Dominion that will be responsible for drought monitoring (more specifically than "Dominion staff")? I see that this role is called out for retail providers to identify a staffer in their plans, but within Dominion I didn't see the identification of a staffer/role who will be monitoring drought conditions. *Dominion Response: Dominion's Water Program Manager or staff appointee was added to Section 9.1 to coordinate the monitoring and coordination effort.*

- Can you also more clearly identify Dominion staff or roles tasked with implementing each mitigation action in section 5.1.3? *Dominion Response: Table 4 in Section 5.1.3 has been updated to include Dominion staff members.*

- And can you please also add some definition around who within Dominion will lead any drought related public campaign messaging and work with retail districts to define those messages/campaigns? *Dominion Response: As the wholesaler, DWSD plays a strong role in the coordination of the drought response between Dominion and its Retail Districts. Each Retail District is responsible for developing a Customer Drought and Shortage Information Campaign as specified in Section 7.2 of the Retail District Template (Appendix A). Additional text was added to Section 9.3 which discusses the coordination between Dominion and its Retail Districts. Dominion's Water Program Manager was specified as the DWSD staff leading the coordination effort between Dominion and its Retail Districts and public outreach efforts was added as additional information that each Retail Districts must provide Dominion. The following text was also added to delineate roles in Section 9.3. "It is the responsibility of each Retail District to implement its Retail DMRP which includes a drought public outreach campaign."*

Because the plan toggles between Dominion operations and referencing the drought response operations for retail providers it is possible I missed where these roles were defined for Dominion. If so, I apologize! Happy to have a conversation about it to better clarify if you think that would be helpful. Thanks for the chance to review and please reach out if you have any questions. This was an interesting plan to read through and I enjoyed learning more about Dominion's setup and proposed drought operations.

Kind regards,

Kat Weismiller

Appendix B - Public Comments

First Name	Last Name	Address	Comments	Dominion Response
Andrew	Tuttle	9169 Swan River	Why are you still allowing grass yards? Front yards should be xeriscaped. Grass shouldn't even be an option. Meanwhile my stupid builder (richmond) put in grass when I asked for xeriscape and won't change it because they don't want to fight the CAB or spend money.	Sterling Ranch is committed to being a water sustainable community. We separate the water metering for indoor and outdoor usage to be able to track required maximum water usage. We encourage xeriscaping and drought tolerant, native plantings. The design standards have allowed for artificial turf in the rear yards for several years and we are excited to announce that Sterling Ranch passed guidelines for the installation of artificial turf in the front yards earlier this year. You can visit our website at www.sterlingranchcab.com to learn more about our landscape initiatives and water usage guidelines.
Seth	Perry	8161 Adams Fork Ave	I would like more information and transparency surrounding water reuse. I understand we currently receive indirectly reused water from Prairie Waters, but this plan proposes the CBWRF and maximization of water reuse. I would like to know how the CWBRF plans to treat wastewater and whether Dominion customers will be provided with direct/indirect reuse water in their potable supplies. I am primarily concerned about effects on health and property values.	Dominion's water supply portfolio includes water from Prairie Waters as part of our membership in Water Infrastructure Supply Efficiency (WISE) program. Additional information associated with treatment for WISE can be found here Prairie Waters - City of Aurora (auroragov.org). Dominion's WISE water is delivered through both Parker and Castle Rock prior to delivery to Dominion. Additional water supplies in the future will be reuse water that will be captured from a diversion structure on the South Platte River. The CBWRF will include state of the art MBR (membrane bioreactor treatment) and additional treatment as required by the Water Quality Control Commission prior to discharge to the South Platte River. Dominion will capture this water downstream at a diversion point on the South Platte River and convey to the Larry D. Moore WTP for additional treatment prior to distribution. All potable water deliveries will meet federal and state regulations for drinking water.
Craig	Naylor	8099 Mt Kataka St Littleton CO 80125	Sterling Ranch CAB currently does not allow imitation grass to count towards our planted requirements. Ornamental grass aka lawns) is a substantial water consumer. Most states that are part of the Colorado River agreement have now implemented plans to either remove existing ornamental grass, or legislate requirements to not allow ornamental grass in new developments to be installed.	Sterling Ranch is committed to being a water sustainable community. We separate the water metering for indoor and outdoor usage to be able to track required maximum water usage. We encourage xeriscaping and drought tolerant, native plantings. The design standards have allowed for artificial turf in the rear yards for several years and we are excited to announce that Sterling Ranch passed guidelines for the installation of artificial turf in the front yards earlier this year. You can visit our website at www.sterlingranchcab.com to learn more about our landscape initiatives and water usage guidelines.

First Name	Last Name	Address	Comments	Dominion Response
Craig	Naylor	8099 Mt Kataka St Littleton CO 80125	DWSD should encourage (of not demand) Sterling Ranch CAB to encourage lawns NOT be installed... and allow imitation grass which does allow natural watering (aka rain) to penetrate for ground water contribution... be counted as "planted" material and not considered "hardscape"... (like cement) in our landscape requirement.	Sterling Ranch is committed to being a water sustainable community. We separate the water metering for indoor and outdoor usage to be able to track required maximum water usage. We encourage xeriscaping and drought tolerant, native plantings. The design standards have allowed for artificial turf in the rear yards for several years and we are excited to announce that Sterling Ranch passed guidelines for the installation of artificial turf in the front yards earlier this year. You can visit our website at www.sterlingranchcab.com to learn more about our landscape initiatives and water usage guidelines.
Craig	Naylor	8099 Mt Kataka St Littleton CO 80125	If the intent is water consumption reduction... lest start outside, before we move to interior reduction needs. Encouraging alternatives to ornamental grass (lawns) would be a good first step.	Sterling Ranch is committed to being a water sustainable community. We separate the water metering for indoor and outdoor usage to be able to track required maximum water usage. We encourage xeriscaping and drought tolerant, native plantings. The design standards have allowed for artificial turf in the rear yards for several years and we are excited to announce that Sterling Ranch passed guidelines for the installation of artificial turf in the front yards earlier this year. You can visit our website at www.sterlingranchcab.com to learn more about our landscape initiatives and water usage guidelines.

Appendix C – Resolution Adopting Plan

RESOLUTION
OF THE BOARD OF DIRECTORS OF
DOMINION WATER & SANITATION DISTRICT

ADOPTING DROUGHT MANAGEMENT PLAN

WHEREAS, Dominion Water & Sanitation District (the "**District**") is a quasi-municipal corporation and political subdivision of the State of Colorado, duly organized pursuant to §§ 32-1-101, *et seq*., C.R.S.; and

WHEREAS, pursuant to § 32-1-1001(1)(h) C.R.S., the Board shall have the management, control and supervision of all the business and affairs of the District; and

WHEREAS, pursuant to the authority contained in Title 32, Article I, Part 10, C.R.S., and §29-1-203, C.R.S., the District has the authority to establish rules and regulations from time to time; and

WHEREAS, drought is common in Colorado's climate and can have a significant impact on the District's available water supplies, and in light of this, the District desires to anticipate and plan for droughts; and

WHEREAS, drought management planning is intended to preserve essential public services and minimize the adverse effects of a water supply shortage on the District's customers; and

WHEREAS, a drought management plan defines when a water supply shortage exists and measures to be taken to avoid, minimize, or mitigate the risks and impacts of drought-related water shortages; and

WHEREAS, District staff has developed a Drought Management Plan to include strategies to respond to periods of real or potential water shortages and the District desires to adopt the same.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE DISTRICT AS FOLLOWS:

1. Incorporation of Recitals. The above recitals are hereby incorporated into and made a part of this Resolution.

2. Adoption of Drought Management Plan. The District hereby adopts the Drought Management Plan set forth in **Exhibit A**, attached hereto.

[*Remainder of Page Left Blank Intentionally*]

APPROVED AND ADOPTED THIS 25th DAY OF July, 2023.

DOMINION WATER & SANITATION DISTRICT, a quasi-municipal corporation and political subdivision of the State of Colorado

DocuSigned by:
Jeffrey LaForte
F83ABE2E1B794E0...
Jeffrey LaForte, President

ATTEST:
Trina Hartman
Trina Hartman, Secretary

APPROVED AS TO FORM:

WHITE BEAR ANKELE TANAKA & WALDRON
Attorneys at Law

DocuSigned by:
Blair Dickhoner
D8CBCE3D5CA84CA...
Blair Dickhoner, General Counsel to the District