



Town of Frederick Board of Trustees Agenda

Frederick Town Hall
Board Chambers
401 Locust Street
Tuesday, January 30, 2024

6:00 P.M. Work Session

1. Draft Landscape Code
2. Portable Water Infrastructure Master Plan Presentation

Board of Trustee Work Sessions are not livestreamed. Interested parties are invited to attend the meeting in person. The next livestreamed meeting will be held on Tuesday, February 13, 2024 at 7:00 PM at Town Hall (401 Locust Street). If you have questions about meeting attendance, work sessions, regular meetings or matters related to Board of Trustee Meetings please contact the Town Clerk's Office:

Kelly Green, Deputy Town Clerk
kgreen@frederickco.gov
720-382-5500

Or

Emily Nitcher, Assistant Town Clerk
enitcher@frederickco.gov
720-382-5500

Built on What Matters.



TOWN OF FREDERICK

Board of Trustees

Information Memorandum

Tracie Crites, Mayor

Dan March, Trustee
Mark Lamach, Trustee
Kevin Brown, Trustee

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Windi Padia, Trustee
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Proposed Landscape Code Update – Land Use Code Section 2.14

Agenda Date: Town Board Work Session - January 30, 2024

Attachments:

- a. Draft Landscape Code
- b. 10-Year Water Supply Plan Excerpt
- c. Long-Term Water Supply Plan Excerpt
- d. Water Efficiency Plan Excerpt

Submitted by: Kylie Couch
Civil Engineer

Approved for Presentation: Bryan Ostler
Town Manager

Strategic Plan Alignment:



Strategic, Reliable & Sustainable Infrastructure – Incorporating water conservation into land use and municipal code is discussed in the Town’s 2022 Water Efficiency Plan. The Water Efficiency Plan aligns with the Town’s dedication to investing in strategic, reliable, and sustainable infrastructure in supporting water conservation programs that will help create a sustainable future for the Town of Frederick.

Summary Statement:

On June 13, 2023, Town Staff asked the Board for feedback about what they would like to see in an update to the landscape design section of the Town’s Land Use Code. Based on that feedback and community outreach, Town Staff has worked with the Town’s Land Use Attorney to create a draft of new, more water-wise landscape code.

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Detail of Issue/Request:

Updating the Town's landscape ordinances to support efficient water use was included in the 2022 Water Efficiency Plan as one of the next steps the Town would take to conserve water. Additionally, outdoor water conservation is integrated into the Town's 10-Year and Long-Term Water Supply Plans. The 10-Year Water Supply Plan assumes that outdoor conservation programs implemented over a 10-year period would be capable of reducing potable water demands by 5%; updating the Town's landscape ordinances will contribute to achieving this goal.

The update proposed here includes a full rewrite of Section 2.14 of the Land Use Code, which dictates landscape design for all land uses except parks and open space. After getting input from the Board in June 2023 and collecting data on the community's landscaping preferences (data will be shared at work session), Town Staff and the Town's Land Use Attorney have drafted a landscape code that promotes water conservation and high-quality landscaping. To achieve this, the draft contains some standards that are substantially different than those in the current code:

1. Not more than 30% of any landscaped area may be planted with turfgrass, except that:
 - a. Larger areas of turfgrass are allowed for athletic fields, playgrounds, and public recreation areas; and
 - b. Up to 50% of the front yard of a single-family detached, duplex, or multiplex residential form may be planted with turfgrass. (*No requirement or limitation for backyards.*)
2. Landscaped areas shall be designed such that a minimum of 50 percent of groundcover is living material and not inorganic or non-living material.
3. Artificial turf is allowed in public parks and playgrounds, but shall not be used as a groundcover in other settings. The Director may approve the use of artificial turf on private nonresidential property if it is demonstrated that natural turf or alternative groundcover is not a viable alternative due to the nature or intensity of use of the area proposed to be covered by artificial turf.

The proposed new code language will encourage aesthetically diverse landscaping in limiting the amount of allowable turf, promoting installation of low-water plants, and prohibiting landscaped areas from being covered exclusively in wood/rock mulch. Notably, it is the intention for existing development to be grandfathered into the new code with existing landscaping. Landscaping in these areas would be required to meet code only if the landscaped area is being updated.

Legal Comments:

Based on feedback from the Board, Staff will continue to work with the Town Attorney and Land Use Attorney's to complete a final draft of the new landscape code.

Alternatives/Options:

The Board could choose to change any of the recommendations outlined in the draft of the Landscape Code.

Financial Considerations:

Based on feedback from the Board, Staff will continue to work with existing Town outside legal counsel to bring final drafts to the Board for adoption on March 26.

Staff Recommendation:

Staff in Engineering, Planning, and Economic Development are supportive of the updates in the provided draft. Staff recommend the Board receive the presentation on January 30th and provide feedback to Staff on next steps. Staff will be present at the January 30th Work Session to present these proposed changes in detail and solicit input from the Board.

- (4) Screens unsightly land uses and structures from view from public rights-of-way and neighboring residential properties and contributes to the mitigation of off-site impacts of dust, noise, and external lighting;
- (5) Provides tree canopies over, and landscaping within, paved areas, to enhance community aesthetics, reduce the urban heat island effect, and slow stormwater runoff;
- (6) Preserves existing trees, conserves and efficiently utilizes water, and prioritizes the planting of native species (when appropriate), and enhances valuable habitat, all of which promote natural resource stewardship;
- (7) Promotes health, wellness, community vitality, interest, public safety and physical comfort; and
- (8) Provides for structured and non-structured recreation areas.

Sec. 17.1.2. Applicability.

The standards of this Article apply to all new development, redevelopment, or substantial improvements to existing sites or buildings.

Sec. 17.1.3. Landscape Plan Required.

a. *Applicability and exceptions.*

- (1) All land development or redevelopment applications shall be accompanied by an appropriate site analysis and landscape plan. Building permit applications for individual single-family residences will not require landscape plans, but landscaping shall comply with applicable requirements of this Article.
- (2) Any portion of existing landscaping that is renovated and requires an irrigation system or issuance of a plumbing permit for an irrigation system shall comply with this Article. Renovations include expansions and rehabilitation of landscape materials (except pruning) and components installed (except replacement of rocks or mulch) prior to the adoption of these regulations.

b. *Landscape plan requirements.*

- (1) All final and approved landscape plans shall be developed and stamped by a professional Landscape Architect who is certified by the State of Colorado, or an equivalent approved by the Director. Landscaping improvements on a lot used for single-family detached or duplex purposes are exempt from this requirement, except as may be provided in an agreement between the Town and the developer.
- (2) Landscape and utility plans shall be coordinated.

Table 17.2.2
MINIMUM LANDSCAPE AREA BY ZONING DISTRICT

Zoning District	Low Density Residential Uses: Single-Family Detached, Duplex, Multiplex, Manufactured Home, & Group Home ^{1, 2}	High Density Residential & Commercial Uses: Townhome, Group Home ² , Multifamily, Assisted Living or Congregate Care, Boarding and Rooming House, Residential mixed-use, Nursing Home, Memory Care, Alzheimer's Care, Protective Care, & all uses in tables 3-2, 3-4, 3-5, & 3-6 ³	Industrial Uses⁴: All uses in tables 3-7 ⁵ , 3-8, 3-8, & 3-10 ³
R-E	20	30	n/a
R-1	15	20	n/a
R-2	15	15	n/a
R-3	10	10	n/a
R-MH1	10	n/a	n/a
R-MH2	15	n/a	n/a
D-A	10	0	n/a
D-B	15	0	n/a
C-N	15	10	n/a
C-C	n/a	10	10
C-H52	15	10	10
C-E	15	10	10
BLI	n/a	10	10
I	n/a	10	5

TABLE NOTES:

¹ Only front yards of residential uses may count toward minimum landscape area.

² Group homes are allowed in low or high density residential uses.

³ Refer to tables in Article 3. Zoning.

⁴ Agricultural uses are exempt from the minimum requirements of 17.2.2.

⁵ Resource Extraction (Oil and Gas) uses are exempt from the minimum requirements of 17.2.2. However, these uses are not exempt from other landscape, screening, and buffer requirements provided elsewhere in this Code.

- c. *Stormwater areas.* No more than 40 percent of the area of vegetated stormwater detention ponds and stormwater retention ponds may be counted toward the minimum required landscape area of a site.

Division 17.3. Landscape Design Principles

- (1) Building orientation, site design, and planting schemes should address climatic and micro-climatic conditions to promote the wise use of water and energy resources;
- (2) Plant and turf selection and placement should focus on minimizing energy, water use, and maintenance requirements;
- (3) Soil moisture should be maintained, and evaporation reduced, through the optimal use of layered landscaping (e.g., organic mulch, ground cover, shrubs, forbes, and over-story landscaping);
- (4) Plant materials should be organized into hydrozones according to microclimatic needs and water requirements;
- (5) Soil should be augmented as needed to promote plant health and longevity;
- (6) Irrigation systems should be efficient, with weather and rain gauges to minimize resource consumption, waste, and optimize the efficiency of water use;
- (7) Landscapes should be attended to with appropriate maintenance, care, and irrigation schedules;
- (8) Where landscaping is adjacent to a transportation corridor, it should be designed to provide for the safety and comfort of all users of the transportation corridor, provide access to all ages and abilities, and reduce opportunities for illicit activity or behavior;
- (9) As appropriate to Colorado's climate and to the extent allowed by Colorado water law, materials (e.g., permeable pavers), systems, and landscape designs that minimize storm water runoff and maximize infiltration while reducing the potential for non-point source groundwater pollution should be used;
- (10) Native species and natural drainage ways should be protected;

Table 17.4.1 MINIMUM SIZE OF LANDSCAPE MATERIALS	
Type of Plant Material	Minimum Caliper, Height, or Container Size
Evergreen Trees	6 ft. Height
Deciduous Shade Trees	2 in. Caliper ¹
Deciduous Ornamental Trees	2 in. Caliper ¹
Shrub	5 gallon minimum; If used in buffers, estimated growth to 3 ft. in height within 3 years
TABLE NOTE: ¹ Multi-trunk trees shall have three or more canes, and be 6 inches in diameter measured 4 inches above ground, and shall be a minimum of 5 feet in height	

- c. *Specification of landscape materials.* All plant material shall be true to type, form, species, quality and free of injury, broken root balls, pests and diseases as well as conform to the minimum requirements described in “American Standards for Nursery Stock” (ANSI Z60.1), published by AmericanHort, as may be amended from time to time, and follow the Green Industries of Colorado (“GreenCo”) Tree Planting Recommendations, as may be amended from time to time. Plant materials shall have normal, well-developed branches and vigorous root systems.

Sec. 17.4.2. Tree Preservation Credits.

- a. *Applicability and exceptions.* Existing trees that are preserved on a subject property count towards the planting requirements of this Article, provided that:
- (1) They are established for at least five years and not a species that is prohibited by this Article; and
 - (2) They are not overmature, diseased, poor in form, leaning heavily over buildings, too close to building foundations, damaging sidewalks and driveways, or impacting utilities.
- b. *Calculation of credits.* Preserved trees may count as more than one tree for the purposes of the landscaping requirements of this Article, as set out in Table 17.4.2, *Tree Preservation Credits*.

Table 17.4.2 TREE PRESERVATION CREDITS			
DBH of Tree to be Preserved		Tree Credit	Landscape Area Where Credit May Be Applied
Min. Diameter	Up to, But Not Including		
none	10 inches	1	Location of preserved tree.

Table 17.4.2 TREE PRESERVATION CREDITS			
DBH of Tree to be Preserved		Tree Credit	Landscape Area Where Credit May Be Applied
Min. Diameter	Up to, But Not Including		
10 inches	15 inches	2	Location of preserved tree.
15 inches	20 inches	3	Location of preserved tree, or any other location except a buffer.
20 inches	no limit	5	Location of preserved tree, or any other location except an industrial buffer.

- c. *Restrictions within dripline or critical root zone of trees used for credit.*
Construction activities around trees that are used for credit pursuant to this Section are restricted, within the larger of the perimeter of the dripline or the critical root zone.

- (1) The following are construction activities are not allowed:
 - (a) Cutting or filling;
 - (b) Storage of building materials or debris;
 - (c) Disposal of wastes;
 - (d) Installation of buildings, structures, or impervious paving.
- (2) The larger of the dripline or the critical root zone shall be barricaded during construction to prevent damage to the preserved trees and their roots by construction equipment.

Sec. 17.4.3. Selection and Arrangement of Trees.

- a. *Tree spacing.* Trees shall be spaced as provided in this Section. Exceptions to these requirements may be approved by the Director where utilities are not located in their standard designated locations, or where the landscape design is otherwise compatible with existing and planned utility installations. Tree and utility separations shall not be used as a means of avoiding the planting of required street trees.
- (1) Tree spacing shall allow for adequate growth of plants at maturity and for intersection visibility.
 - (2) Landscaping near pedestrian and vehicle intersections shall meet sight triangle requirements as noted in the *Town of Frederick Design Standards and Construction Specifications*.
 - (3) Trees that reach a mature height of more than 25 feet shall not be planted within 20 feet of an overhead utility line.
 - (4) Trees shall be spaced from street lights as follows:

- (1) Trees shall be planted in all general landscaping areas at a rate of not less than one tree per 2,000 square feet of general landscaping area, with fractions dropped, and excepting out the following areas from the calculation of general landscaping area:
 - (a) Areas within and extending up to 15 feet from plazas, play fields, golf greens and fairways, or other outdoor gathering spaces or recreation areas, the use of which would be diminished by the presence of trees;
 - (b) Areas within designated outdoor storage or outdoor work areas;
 - (c) Areas within, and within five feet of, irrigation ditch property or easements, or within 35 feet of the outer toe of the ditch bank if the easement does not have delineated boundaries;
 - (d) Areas used for agriculture or gardens;
 - (e) Wetlands and waterbodies;
 - (f) Utility and drainage easements;
 - (g) Areas where ground-mounted solar panels (of any type) are installed, and any areas around them that must be kept clear of vegetation to avoid shading of the panels in order to optimize their use;
 - (h) Permeable areas that are less than eighty (80) square feet that are enclosed by any combination of buildings, structures, impermeable surfaces such as asphalt or concrete; and
 - (i) Areas in which the soils or topography are not suitable for the establishment and growth of healthy trees, and which cannot reasonably be made suitable using soil amendments or grading. Soil and topography must be appropriate for plant species.
 - (2) Areas within vegetated stormwater detention ponds and stormwater retention ponds that are counted towards landscaping requirements shall be used for the calculation of tree planting requirements. However, the resulting required trees shall be planted elsewhere on the subject property.
 - (3) The tree planting requirements are not spacing requirements. Trees may be planted in formal or informal arrangements.
- c. *Waiver or reduction of tree planting requirements.* The Director may waive or decrease planting requirements if the total number of trees that are required exceeds the number that can be reasonably planted on the subject property

- b. *Applicability and exceptions.* The standards of this Section apply to all required buffers, and are based on the classification of the required buffer.
- c. *Buffer classifications.* For the purposes of this Code, there are three classifications of buffers, as set out in Table 17.5.3., Buffer Classifications.

Table 17.5.3. BUFFER CLASSIFICATIONS					
Bufferyard Classification	Width	Required Trees per 100 Linear Feet			Berm, Opaque Fence, or Wall ¹
		Canopy	Understory	Evergreen	
Light	5 ft.	1	1	1	Not required
Medium	10 ft.	2	1	1	Not required
Heavy	25 ft.	2	2	4	6 ft. high
TABLE NOTE: ¹ If a fence or wall is used, all understory trees, and not less than 50 percent of the canopy trees and evergreen trees shall be planted on the outside of the wall.					

Sec. 17.5.4. Right-of-Way Landscaping.

- a. *Generally; Modifications and Waivers; Exceptions.*
 - (1) Generally. Landscaping within the right-of-way shall be provided as set out in this Section.
 - (2) Modifications and Waivers. The Town Engineer, after consultation with the Director, may waive or modify the requirements of this Section in order to resolve conflicts with utilities or street design requirements. Such waivers or modifications shall minimize reductions in the overall number of trees required by this Article, and off-site tree plantings may be used to mitigate necessary reductions in the right-of-way adjacent to a subject property.
 - (3) Exceptions. Right-of-way landscaping is not required in the Agricultural (A) zoning district.
- b. *Street trees in general.*
 - (1) Location.
 - (a) Street trees shall be planted by the developer within the tree lawn portion of the right-of-way with adequate spacing to allow for the mature spread of the trees.
 - (b) Where a tree lawn is not available within the right-of-way, street trees shall be planted on the subject property within 10 feet of the right-of-way boundary.
 - (2) Minimum number of street trees. For calculating the minimum required number of street trees, there shall be one tree for every 40 linear feet of

Section 6. Severability. If any part, section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be invalid, such invalidity shall not affect the validity of the remaining sections of the Ordinance. The Board of Trustees hereby declares that it would have passed the Ordinance including each part, section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more parts, sections, subsections, sentence, clauses or phrases be declared invalid.

Section 7. Effective Date. This Ordinance shall become effective immediately.

Section 8. Necessity. The Board of Trustees of the Town of Frederick finds that this Ordinance is necessary for the immediate preservation and protection of the health, safety, welfare and property of the inhabitants and owners of property in the Town of Frederick.

Section 9. Certification. The Town Clerk shall certify to the passage of this Ordinance and make not less than one copy of the adopted Code available for inspection by the public during regular business hours.

INTRODUCED, READ, PASSED, ADOPTED AND ORDERED PUBLISHED THIS
__ DAY OF _____, 2024.

ATTEST:

TOWN OF FREDERICK

By:

By:

Town Clerk

Tracie Crites, Mayor

Appendix A Approved Plant List

Generally:

(to be developed by Town Staff)

Street Trees Approved for Right-of-Way Landscaping:

(to be developed by Town Staff)

Infrastructure costs to implement the potable conversion project are still being evaluated by Town staff. For comparison against other projects under consideration, a planning-level cost of \$4.3 million for infrastructure was used based on information in the 2008 Plan.¹⁰ This planning-level analysis indicates that the cost to implement the potable conversion project is approximately \$94,000/AFY of demand reduction.

3.2.4 OUTDOOR CONSERVATION

The Town is evaluating opportunities to reduce potable demands through outdoor conservation programs that will be implemented under the forthcoming 2021 WEP update; however, preliminary planning-level demand reduction values have been incorporated into the 10-Year Water Resources Plan analyses for comparison against other projects. It has been assumed that outdoor conservation programs implemented over the 10-year planning period would be capable of reducing outdoor potable demands by 5%, which would result in a demand reduction of approximately 100 AFY in 2030.

A robust water conservation program would be necessary to achieve outdoor demand reductions on the order of 5% over the 10-year planning period. It is also important that the selected programs continue to be implemented over time so that the savings are maintained. Following are examples of the types of measures being evaluated with Town staff.

- Improved utility water loss control.
- Rebates for landscape irrigation technology such as irrigation controllers that adjust watering due to actual weather conditions.
- Landscape water budgets and water rates tied to each customer's budget.
- Turf replacement incentive program.
- Water-efficient landscape ordinances for new construction, redevelopment, and municipal facilities.

The preliminary annual budget for implementing the outdoor conservation program is estimated at \$200,000 per year in 2022 and \$450,000 per year in subsequent years through 2030 with adjustments for inflation. These planning estimates are based on a review of six recent WEPs published by Colorado Front Range utilities and include a combination of program and infrastructure costs.¹¹ The planning estimate includes the addition of a full-time equivalent staff person to focus on implementing the selected programs, as success is unlikely without a dedicated staff member.

The total planning-level cost for the outdoor conservation program over the 10-year planning period is \$4.3 million. This indicates that the cost to implement this project is approximately \$43,000/AFY of demand reduction; however, the costs would be ongoing beyond the 2030 planning horizon. The projected costs will be further refined as part of the WEP and Long-Term Water Resources Plan.

3.3 POTABLE ALTERNATIVES

The Town's current C-BT and Windy Gap supplies are insufficient to meet the projected potable demands through 2030. Four alternative combinations of the projects described above in Section 3.2 (Alternatives 1 – 4) were originally prepared for consideration by Town staff and the Board of

¹⁰ Based on information in the 2008 Raw Water Infrastructure Master Plan to construct Systems B, E, and F, adjusted by inflation for this report.

¹¹ Implementation of certain types of water loss control projects could far exceed these costs and are not accounted for in this plan.

- **Non-residential growth:** The Town’s planning department provided information about the amount of non-residential developed space that is expected at buildout, which was used to calculate the amount of future non-residential development. Non-residential developed space was projected to increase at a 2.5% annual growth rate under all of the Town’s planning scenarios, reaching the maximum level of development around 2060.
- **Non-residential indoor conservation:** As described in the Technical Update, it is impractical to develop non-residential indoor water usage benchmarks due to variations in customer types, developed space, and water use characteristics for commercial and industrial water customers. However, some amount of reduced indoor water use may be possible through future advances in fixture and appliance technology. Accordingly, the Town’s planning scenarios applied non-residential indoor water use reductions ranging from 0% to 5% from the baseline water use factors. Therefore, depending on the scenario, a certain percentage reduction is applied to the non-residential indoor baseline water use factor (AFY/unit) based on future indoor efficiency assumptions.
- **Outdoor water conservation:** Future outdoor water use may be reduced due to advances in irrigation system technology as well as more rigorous regulations should they be adopted by the Town. The Town’s recent 2022 WEP focuses on developing outdoor water efficiency programs in the shorter-term and future plan updates were assumed to continue advancing this effort. Actual outdoor water savings will be dependent on the outdoor efficiency programs, the regulations adopted by the Town, and the engagement level of customers. To reflect varying levels of water use reductions through efficiency programs, the Town’s planning scenarios applied outdoor water use reductions ranging from 5% to 20%.
- **Climate adjustment factor:** Future changes in climate are assumed to affect future outdoor water use, with warmer and drier conditions increasing evapotranspiration rates, extending growing seasons, and influencing customers to apply more water to outdoor use for longer periods. Climate drivers were prepared by County in support of the Technical Update for “In Between” and “Hot and Dry” conditions in the year 2050. Based on information prepared for the Technical Update for Weld County, the Town selected a climate adjustment factor of 14% that was applied to increase all outdoor water use in one of the scenarios. Climate change studies typically represent the impacts of climate change at a future point in time relative to current conditions rather than as an annual rate of impact. For illustrative purposes, the analysis assumes that the 14% increase is evenly distributed through 2050 when the full adjustment factor is reached, and no further adjustment is applied beyond 2050.

Table 1: Scenario Demand Drivers for Potable Demand Projections.

Scenario	Population Growth (%)	Res Indoor (gpcd)	Adoption Rate (%)	Non-Res Growth (%)	Non-Res Indoor Conservation (%)	Outdoor Conservation (%)	Climate Adjustment Factor (%)**
Low Conservation	2.5%	42.4	40%	2.5%	0.0%	-5%	0%
Moderate Conservation	4.0%*	36.4	55%	2.5%	-2.0%	-10%	0%
High Conservation	2.5%	36.4	75%	2.5%	-5.0%	-20%	0%
Highest Conservation with Climate	2.5%	33.3	75%	2.5%	-5.0%	-20%	14%

* Population growth is assumed to have an annual growth rate of 2.5% through 2034 and 4% from 2035 through buildout.

** Climate adjustment factor is based on information prepared for the Technical Update for Weld County by 2050.

4.3.2.3 OUTDOOR WATER USE MANAGEMENT OF TOWN PROPERTIES

The Town has identified 18 properties that are currently served by potable supplies that can physically and legally be supplied with raw water for irrigation purposes. Conversion of these properties, most of which are parks, will begin in 2022 and are expected to be completed by 2030. Based on historical metered use for these accounts, a reduction in potable water use of about 76.6 AFY is expected. Note that some of these properties are not owned by the Town.

The Town currently maintains a xeriscape demonstration garden at one of its parks. Over the coming years, the Town will install additional xeriscape demonstration gardens throughout its parks with the intent to replace irrigated turf with low water use landscapes and as an educational tool for customers.

Irrigation of the Town's parks is actively managed and current Public Works staff have identified the potential to remove or replace turf in some areas that are not actively used by the public. Staff has also identified opportunities to install smart controllers at public parks. Full development and implementation of a Town parks efficiency program will be managed by the Parks and Open Space Director. It is estimated that up to about 4.9 AFY of water could be saved through these efforts

4.3.3 ORDINANCES AND REGULATIONS

Local ordinances and regulations serve to support water efficiency programs through policies and enforcement mechanisms. The Town's Municipal Code currently includes Waste of Water and Water Shortage sections. The Town's Land Use Code includes requirements for landscape design and the Town's Design Standards and Specifications include both landscape and irrigation design standards.

4.3.3.1 WATER EFFICIENT LANDSCAPING AND IRRIGATION STANDARDS

The Town currently has a comprehensive set of landscaping and irrigation design standards that support efficient water use. These standards are supported through the Town's Land Use Code with the primary focus of preserving the Town's character and integrating new development into the community by promoting quality landscape design. The Town will audit its current design standards to expand requirements to further target efficient water use focusing on new development with the intent to establish procedures for the design, installation, and maintenance of water efficient landscape and irrigation systems. Integration with HOAs will be evaluated as part of this review process.

A key planned addition to the Town's landscape design standards is the application of a landscape water budget for new development permit applications. Landscape designs would be required to stay within a maximum allowed water budget. The allowable water budget will be calculated based upon the local reference evapotranspiration and adjusted using plant factors for specific types of plant materials and the irrigation efficiency. Areas containing plants with similar water needs and within the same irrigation application type are referred to as "hydrozones". Water needs using a specified irrigation efficiency will be summarized by hydrozone and summed to determine the water demand for the full landscaped area. Introduction of the landscape water budget design requirement for new development will support future efforts by the Town to apply a water budget-based billing system.

Another potential addition to the landscaping and irrigation standards is the requirement for landscape and irrigation designers and installers to obtain and maintain a professional certification through an accepted program. The Town will evaluate potential certification programs such as the Qualified Water Efficient Landscaper (QWEL) and those offered by the Irrigation Association. The

Town will also evaluate opportunities to collaborate with neighboring water providers and Northern Water to develop a regional certification program. Upon implementation, selected Town staff with landscape and irrigation management responsibilities will also likely pursue certification. Contractor certification has unmeasured water saving benefits alone but will support savings estimated through the landscape standard revisions.

The Town will consider requiring landscape irrigation audits to be conducted by a third-party certified landscape irrigation auditor. The irrigation audit may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule, including configuring irrigation controllers with application rates, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming. Land Use Code revisions necessary to enforce landscape and irrigation standards will be reviewed and applied as needed. Up to 20 AFY of water savings is estimated by 2030 assuming standards are updated for all new development. Additional savings may be realized if standards also include requirements for redevelopment.

4.3.4 PUBLIC EDUCATION AND INFORMATION

Public education and information are a vital component to many of the Town's conservation programs. An informed and engaged public will more actively participate in adjusting behaviors with efficiency in mind. The Town plans to expand its current education and outreach programs to include additional customer water use workshops and pursue a messaging partnership with Northern Water. The Town will continue to have staff presence at the local Farmers' Market and will expand its printed resources for distribution through that event. The Town will also invite local contractors and businesses to the Farmers' Market to set up booths to provide the public with water use information. This may include landscaping, irrigation, or other professionals that support the efficient use of water. The Town will also organize a separate educational event with contractors and professionals to provide landscaping, irrigation, and water efficiency resources to the public. The planned new low water use and xeriscape gardens throughout the Town will potentially be used as a meeting location for public landscaping and efficient irrigation workshops. The Town sponsors an annual tree sale event, selling around 100 drought-tolerant trees to customers. The Town will consider how to expand this voucher program to include xeric plants. This provides another opportunity for expanded messaging and outreach. The new Conservation Specialist will work closely with the Town's Communications department to advance its conservation and efficiency messaging campaign and formalize an annual messaging schedule. This will include expanding efficiency messaging and resources through the Town's website. While conservation messaging programs help to support a water-wise culture and local stewardship, these programs typically do not result in water savings on their own, but rather support the entire suite of local conservation and efficiency measures.

4.3.5 INTEGRATION OF LAND USE EFFORTS

The Town is fortunate to have land use jurisdiction throughout its water service area. The Town intends to formalize arrangements for sharing data and information between departments that impact its management of water resources including Planning, Engineering, Public Works, and the newly formed Parks department. Regular communication between these departments is foundational to the integration between water and land use planning. These departments will also coordinate on code updates and associated implementation strategies, including the review and revision of the Town's landscape and irrigation standards.

The Town's current Municipal Code allows for a "demand analysis" to be completed when a development project has a dual water system with separate infrastructure that enables potable