



Water Efficiency Program

Socially distanced learning!

Frank Kinder, Water Efficiency Program Manager, Northern Water

Who is Northern Water?

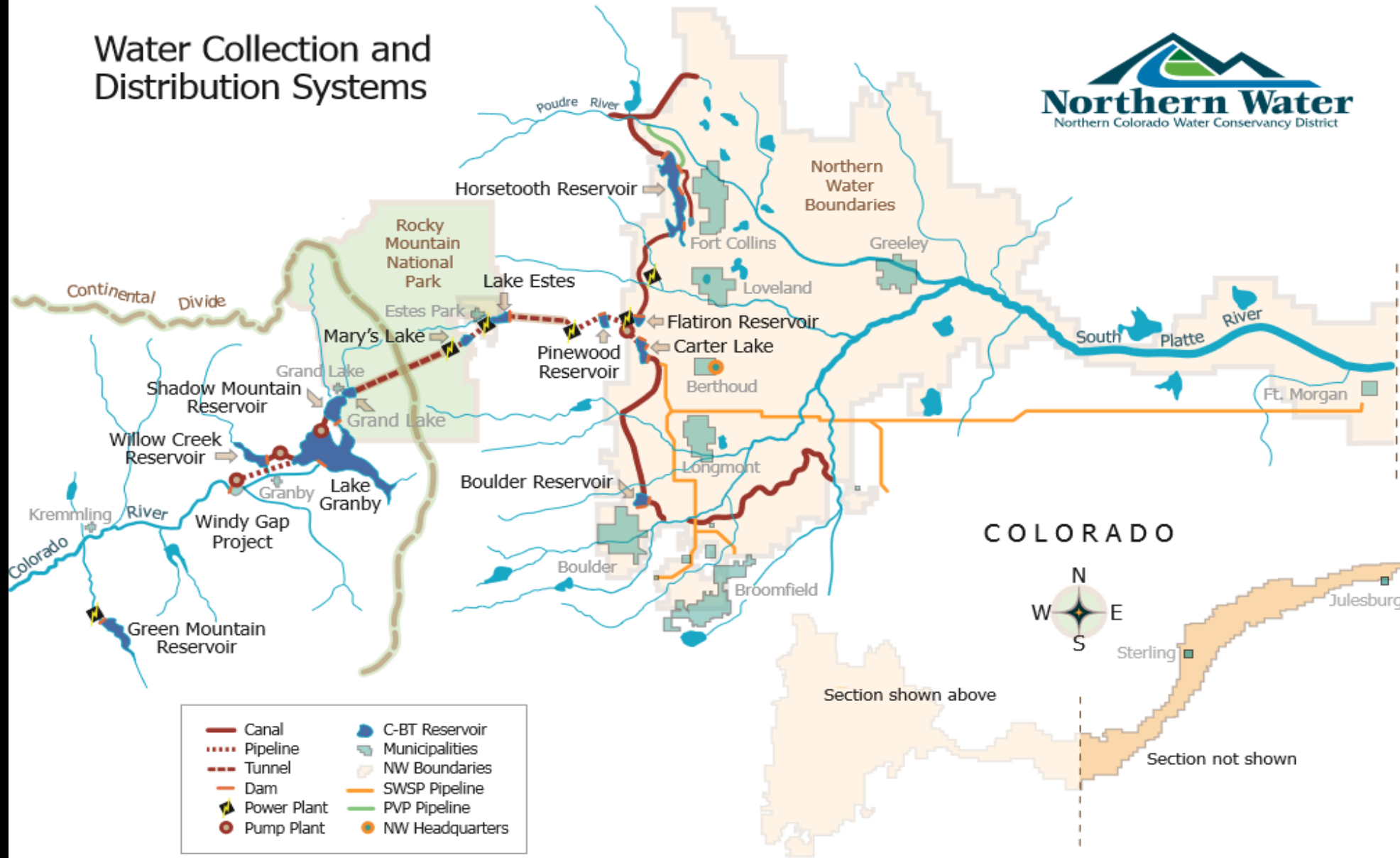
Colorado Big Thompson Project

33 Cities

29 Districts

6 Industrial

Water Collection and Distribution Systems





Northern Water



Water Efficiency History

- Conservation Gardens
 - Plant and design demonstrations
- Irrigation Studies
 - Lawn, irrigation technology, plant & ag efficiency
- Urban Water
 - Tools, Education, Policy and
 - Messaging

colorado
waterwise

Water Efficiency Expansion Motivations

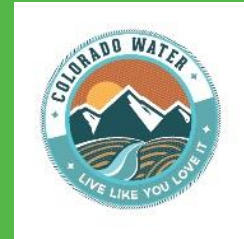
Planning



Sustainability



Partners



Rocky Mountain Section



Landscapes add
value to life



We love green space!

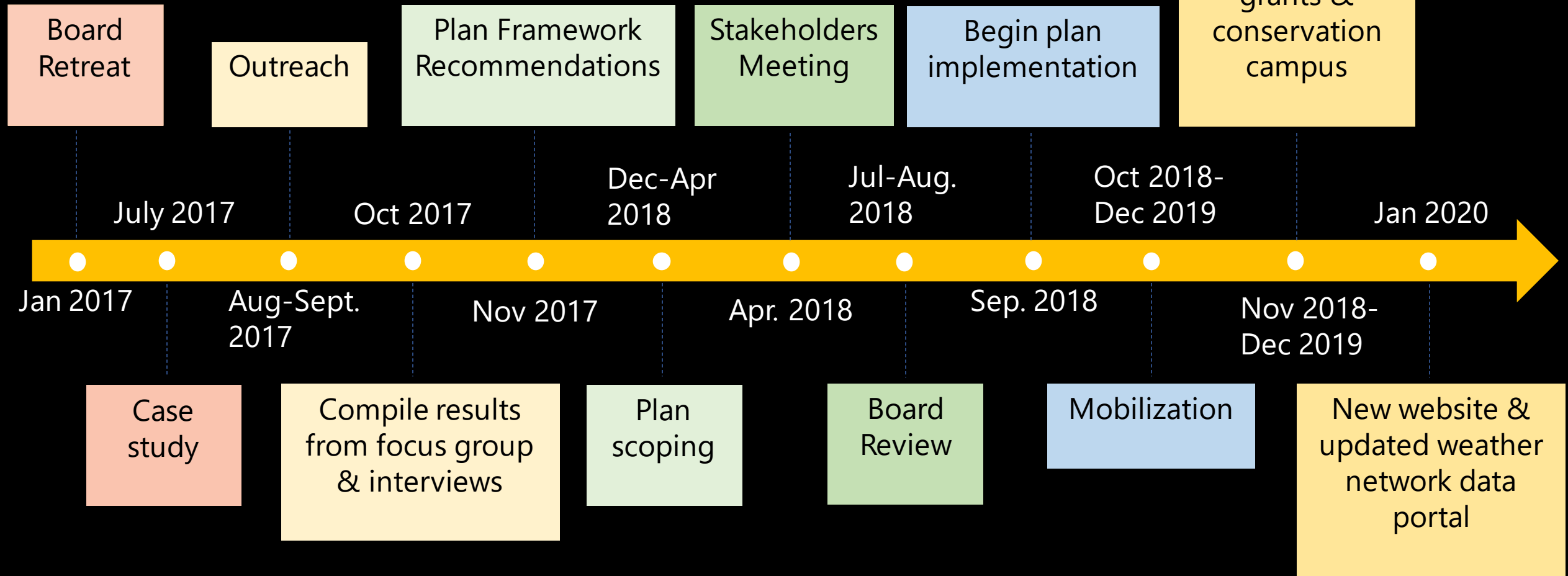
Systems decay,
some don't make
sense,
new technology
works!



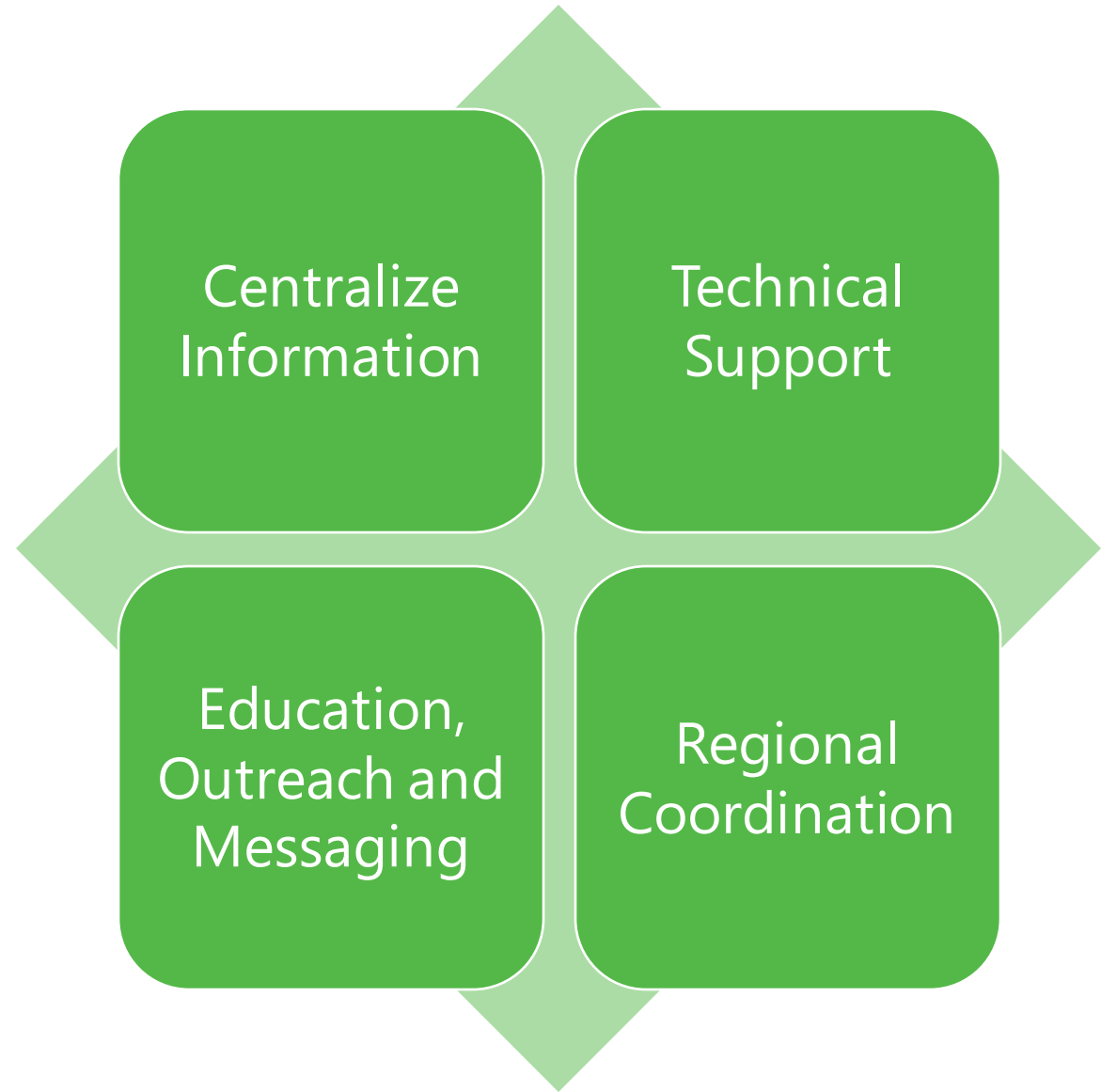
Issues that need to be addressed

- Design
- Performance
- Waste

Water Efficiency Program Timeline



Identified Priorities



Water Efficiency Programs & Partners

Landscape Consultations



Water Use Audits



Landscape Demonstration
Grants



Trainings & Certification



Conservation Gardens



Resources and Tools



Head Quarters Conservation
Campus



Weather Network



Irrigation Innovation Consortium





Education,
Outreach &
Messaging

Periodic Stakeholders
Meeting

Drought response
communications plan

Water efficiency
messaging

Allottee Assistance

Centralize Information &
Connect Regional Partners

Functional water
efficiency website



Centralized resources
(plans, ordinances, local,
programs information, data,
watering schedules,
online tools...)

Not
Yet

Grant
Programs
Facilitation



Connecting Partners



Irrigation
Innovation
Consortium



RESOURCE
central



Allottee Assistance

Technical Support



Expanded
Training and Certification



Conservation Campus



Garden Demonstrations driven
by stakeholders needs (design,
installation, maintenance)



Water Audits



Landscape Consultations



Collaborative Landscape Grant
Program



Education and Training

To facilitate access and coordinate trainings and certification programs for identified target audiences.



Irrigation Auditor Trainings

Irrigation Association Classes and Exams

Watershed Wise Landscape Professional

Sustainable Landscape Management

Native Grass Workshops

AWWA M36 Water Audit Training

ICI Trainings Industrial, Commercial, and Institutional Water Conservation

Target Audience

Water Professionals
Industry Professionals

Program

In the process of identifying the focus
and opportunities



How Does Organic Matter Benefit Drought Tolerance & Water Conservation?



First of all, what type of soil do you have?

Soil organic matter (SOM) certainly has a lot to do with the urban landscape, but knowing what types of soil you have is key to getting started. The types that are encountered by most people are:

- Sands
- Loams
- and clays

There are many combinations of soil types, and differences among soil types affect water infiltration and pore space (air space).

Sands have the largest particles and the least water holding capacity.

Clays have the smallest particles and the highest water holding capacity.

Water Efficiency Documents

Conservation Gardens Brochure

Tools to Help in Your Water Efficiency Efforts

Northern Water has created several fact sheets that outline best practices, tips and more.

Conservation Campus and Gardens Plant List

Northern Water's Berthoud headquarters, our Conservation Campus and Gardens include a wide variety of plants that grow well in our Colorado landscapes. This comprehensive list includes all plants on our campus with details about flowering seasons, colors, water needs and more.



- Aesthetic beauty
- Functionable outdoor living
- Increased property values

- Habitat for flora and fauna
- Interaction with nature
- Recreation and exercise

- Air and water quality improvement
- Reduction of urban heat island effect
- Storm water mitigation

Renovation

provide MANY BENEFITS to communities and their citizens ...

Over time, landscape designs, functional features may not meet the needs of the community or they may need to be replaced to a point where they need to be replaced.

Resources
Tools,
FAQs, Tours



Conservation Garden Fair



Target Audience

General Public



Programs Focus

Outdoor Water Efficiency Seminars
Landscape Plant Education
Connecting the Public with Industry
Family Friendly



Northern Water Conservation Campus

Transition to a more sustainable, water efficient landscape on 40-acre campus.

- Irrigation
 - Audits
 - Scheduling
 - Upgrades
- Landscape modifications
- Plant inventory
- Tree stories and examples
- Esri story maps/website
- Future Expansions

Conservation Gardens

- Moving away from studies
- Focus on practical demonstrations
- Plant Select Showcase Garden
- Open to the Public during daylight hours
- Future Expansions



Irrigation Audits

Contracted with
Resource Central and
Irrigation Analysis.



WATER-WISE YOUR BUSINESS OR HOA

FREE Outdoor Irrigation Consultation for your Commercial Property



Save water easily

Trained technicians will test your system and recommend a customized watering schedule that could save thousands of gallons of water per year.



Lower your water bill

Ensure your sprinklers are running efficiently and aren't putting a big dent in your water bill.



Know your sprinklers

We'll identify any major system inefficiencies, adjust what we can, and make recommendations on how to better optimize your system's efficiency and reduce water waste.



TAKE CONTROL OF YOUR IRRIGATION

SIGN UP TODAY!



Call or Visit
303-999-3824

ResourceCentral.org/
slow-the-flow-business
water@resourcecentral.org



CONSERVATION MADE EASY



Irrigation System Efficiency Audits

Northern Water has expanded its Water Efficiency Program offerings to include in-depth irrigation system audits for commercial properties, thanks to a partnership with Irrigation Analysis. Irrigation Analysis assesses each landscape and evaluates the irrigation system to identify water savings opportunities and determine the best solutions to cost effectively improve or maintain the landscape quality while also reducing water use.



Initial Water Use Survey

- Review and analysis of past water usage and irrigation costs
- Review of any other pertinent site and system conditions

Water Audit & System Efficiency Analysis

- Collection of current programming and scheduling information
- Evaluation of system design and operating condition
- Zone-by-zone assessment to identify inefficiencies

Post Audit Report

- Recommended system efficiency repairs and upgrades
- Estimated cost of efficiency upgrade, plus expected return on investment
- Discussion of any additional water saving opportunities or possibilities
- Scheduling recommendations
- Historical and future water use projections

Audits may include all or most of listed items depending on site, system condition, and system efficiency needs encountered.

Audits are allocated per Northern Water's discretion. Appointments are limited and we cannot guarantee all requests for the service will be accommodated.

Learn more at
www.northernwater.org/consultationaudit

For additional details,
contact **Chad Kuhnle**
at 970-292-2566 or
ckuhnle@northernwater.org.



Who Can Participate?

Municipalities • Businesses
Schools • Churches
Industrial/Office Parks
Homeowner's Associations

*Other entities within
Northern Water's
boundaries*

Irrigate efficiently

- Heads, pressure, schedule, IE/DU
- Soil type, root depth, visual
- Baseline for conversation
- 12 entities audited
- Right on target to 2x the water!

Landscape Consultations for HOA's, Commercial and Municipalities

Goals

Understand challenges
Educate responsible parties
Equip with tools
Be objective and trustworthy
Facilitate efficiency upgrades
Multiple, mutual benefit

Outcomes

Create solutions
Provide direction
Support the market
Confidence for investment
Develop regional examples
Success, replicated



From passive water users

To active water managers

Landscape Consultations



2019

Visited 46 sites

8 Businesses

30 Homeowners Associations

7 Municipalities

1 school

Spread over 4 different Counties

14 in Boulder County

21 in Larimer County

10 in Weld County

1 in Broomfield County

2020

Visited 28 sites

0 Businesses

23 Homeowners Associations

3 Municipalities

2 school

Spread over 3 different Counties

2 in Boulder County

17 in Larimer County

9 in Weld County

Landscape Consultation are offered July 1 – October 15

Collaborative Water-Efficient Landscape GRANTS

WHO

- Public facilities and open spaces
- Businesses
- Schools
- Multi-family complexes
- HOA-managed landscapes

FOCUS

- Water Savings
- Colorado climate-friendly landscape
- Public education

COMMITMENTS

- 50% match
- Water use data
- Long-term maintenance plan
- Contract

REQUIREMENTS

- Consultation with Northern Water staff
- Landscape plan with site map and dimensions
- Plant list
- Cost break-down
- Attaining required permits and city approval from local entities

Collaborative Water-Efficient Landscape GRANTS

JUST THE NUMBERS

2020

- \$180,000 Budget
- \$15,000 max project request
- 50% match
- 2 projects rolled over from 2019
- 16 grants accepted
- 5 projects postponed or extended

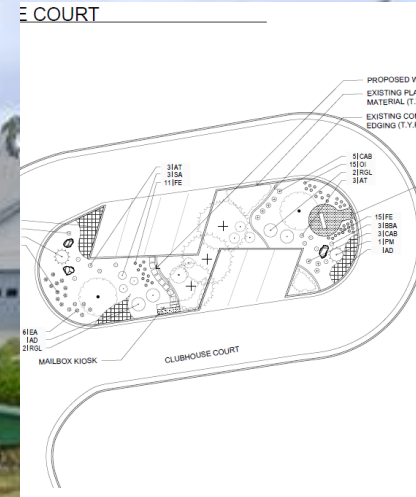
2019

- \$100,000 Budget
- \$15,000 max project request
- 50% match
- 12 grants accepted
- 10 completed
- Total payout \$109,291

Totals

- 23 projects will be completed by the end of October
- \$260,000 payout approximately

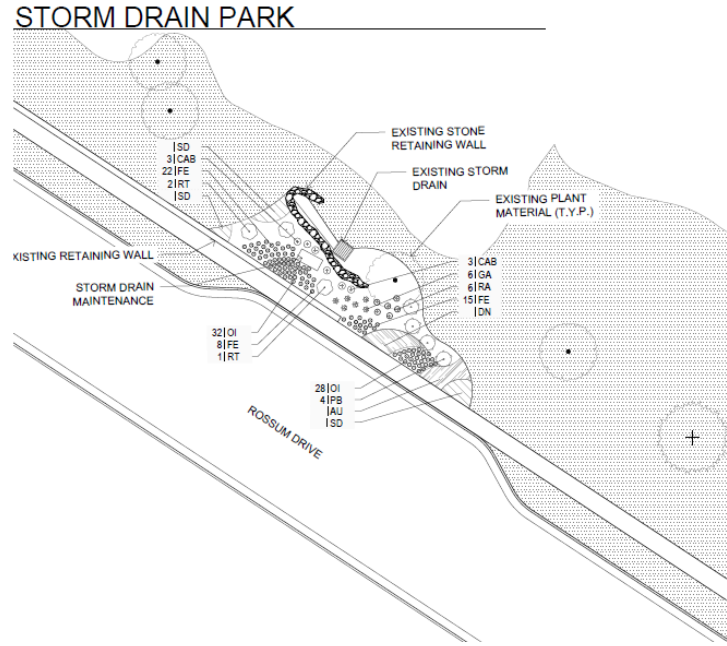
Fairway Ridge HOA



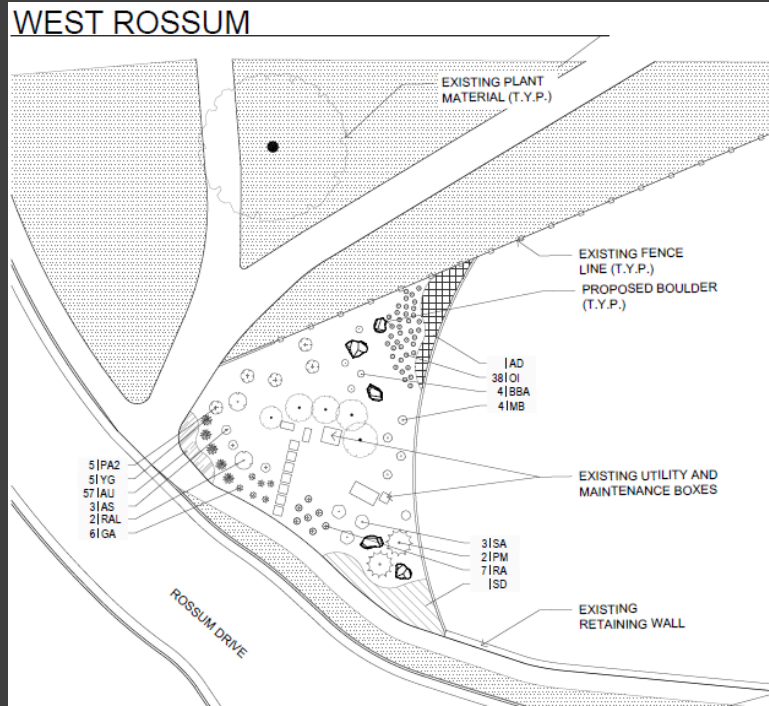
- Conversion of Kentucky Bluegrass to water wise plantings in three separate locations in the HOA.
- Modified the irrigation system around landscape changes.
- All labor was through volunteers from the HOA.

Fairway Ridge HOA









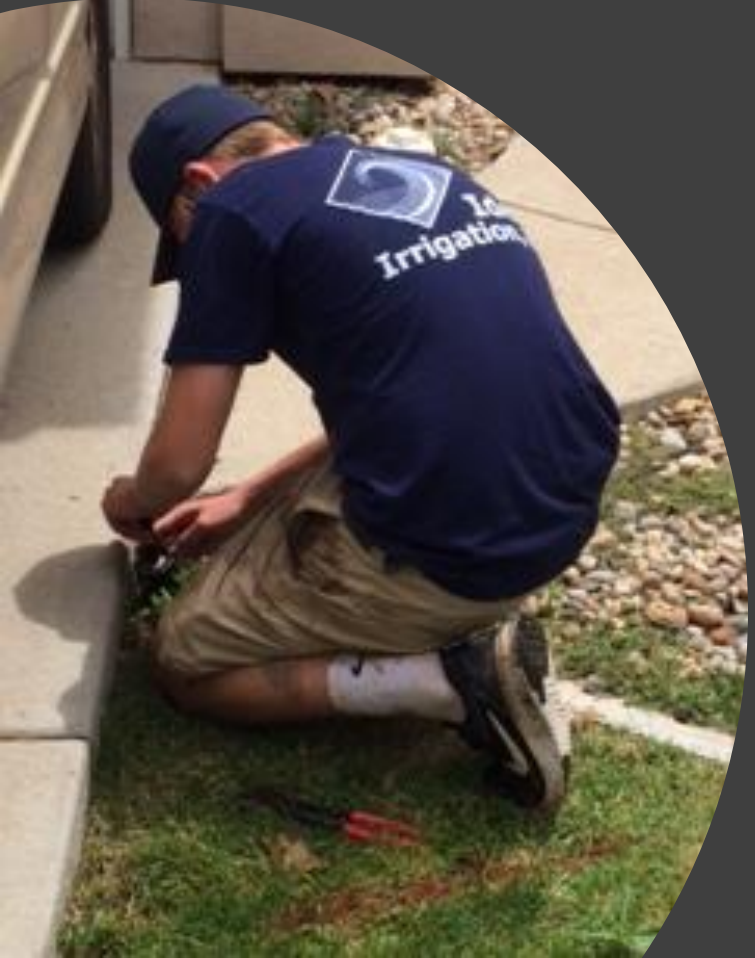
Fairway Ridge HOA



Champion Greens HOA

- Irrigation upgrades, including over 1,200 multi-stream rotator nozzles.
- Replacing heads with check valves where needed.





Champion Greens HOA

Oakridge Village VII
HOA



Oakridge Village VII HOA



- Conversion of 1.4 acres of Kentucky Bluegrass to Native Warm season mix (Buffalo and Blue Grama).
- Conversion of 525s.f. of Kentucky Bluegrass to a xeric planting bed.
- Irrigation work - add drip zones, reconfigure existing zones and upgrade controller.

Oakridge Village VII HOA



Oakridge Village VII HOA



Turf Conversion Project

Oakridge Village (filings VII & VIII and the Business Park) are implementing a grass conversion project of 1.4 acres. The purpose is to replace underutilized, high maintenance, Kentucky bluegrass with a more sustainable option for our climate. This project, along with irrigation modifications, will reduce the use of potable water by approximately one million gallons each year.

The bluegrass will first be treated to stop growth and then a mix of native grasses will be seeded. Simultaneously, modifications are being made to the irrigation system. The last step will be to install a xeric plant bed at the south entrance to the park.

This work should be completed by mid-July. This project is funded by the Oakridge entities named above and by a grant from Northern Water. For project questions, please contact the HOA VII Board at ov7pres@gmail.com.



