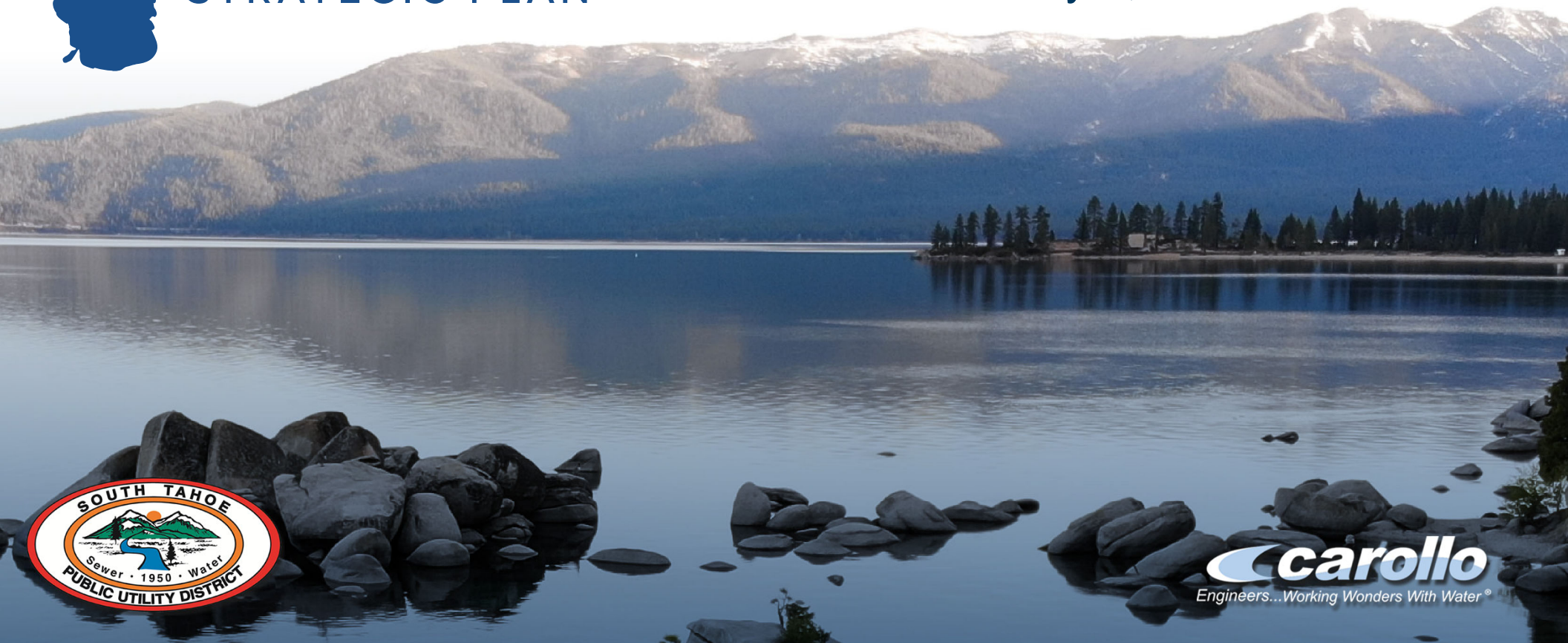


SOUTH TAHOE PUBLIC UTILITY DISTRICT
**RECYCLED WATER
STRATEGIC PLAN**

Public Information Meeting

February 8, 2022

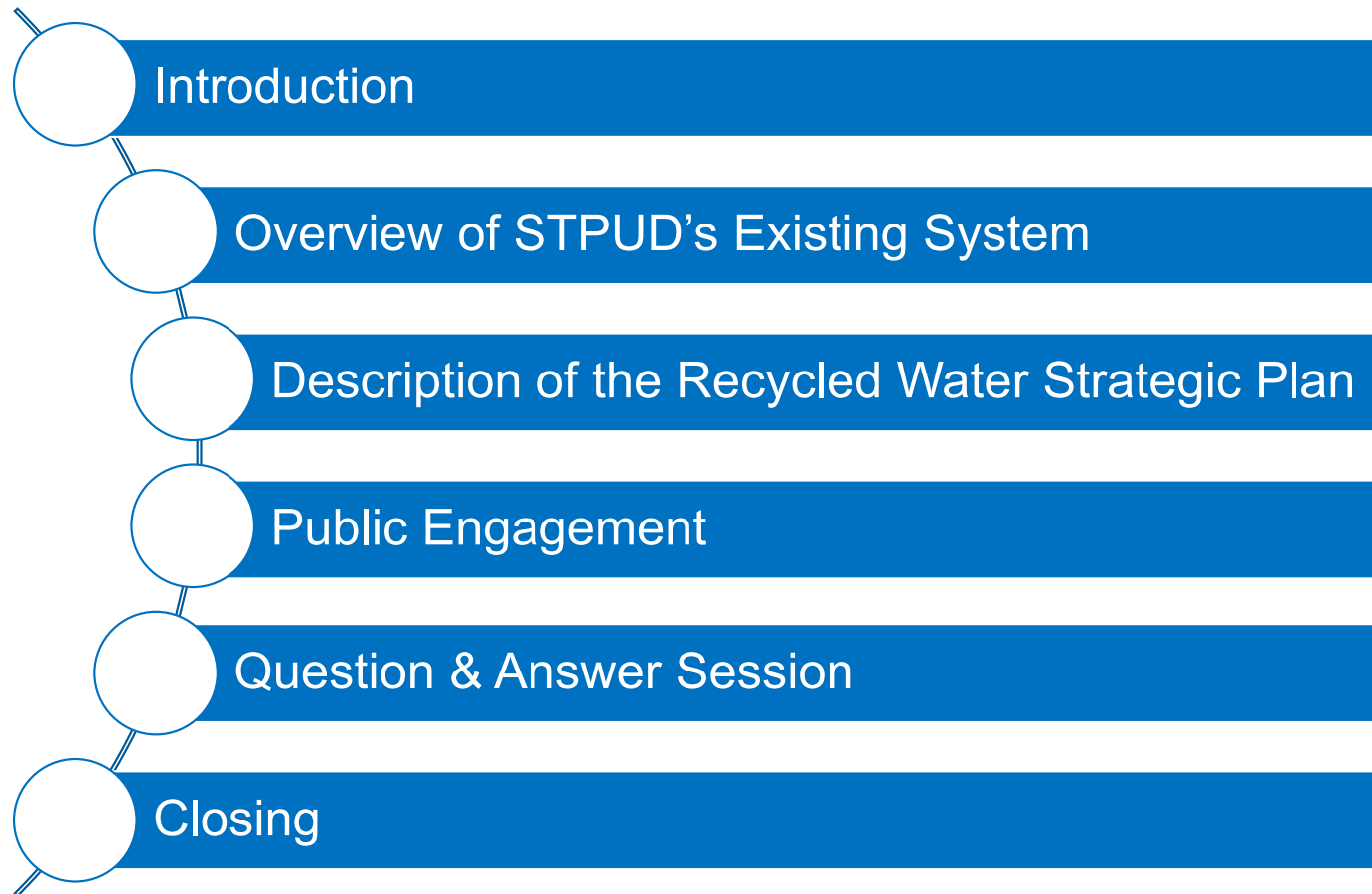


Meeting Outline



SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// Meeting Outline



Introduction to the Plan and Project Team



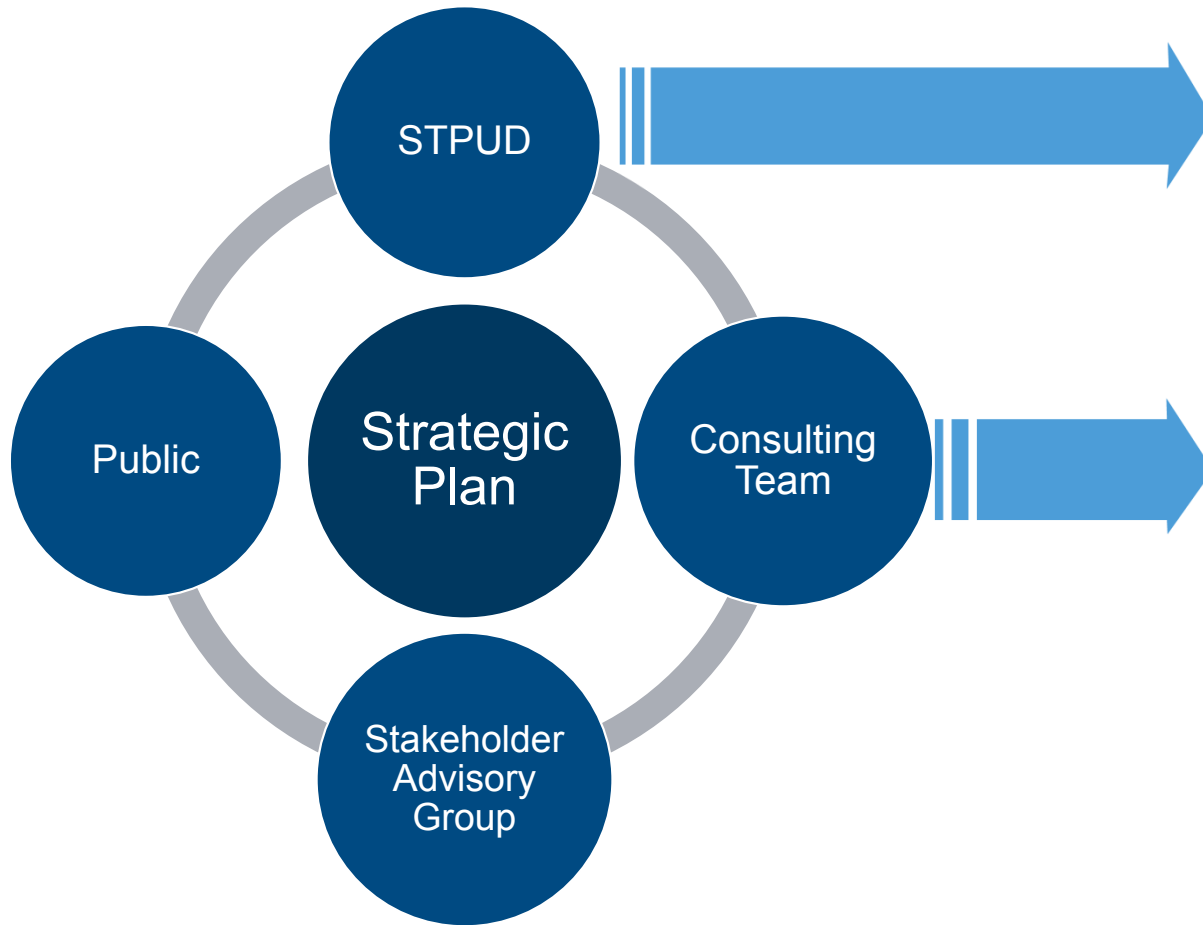
SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// Why are we here today?

- ✓ To explain why the STPUD is embarking on the Recycled Water Strategic Plan
- ✓ Understand the strategic plan development process
- ✓ Understand how you can stay involved



// Who will you hear from today?



// Brief History of Existing System



- STPUD established in 1950
- The District began exporting recycled water to Alpine County in 1968
- Porter Cologne Act (1969) required export of treated wastewater out of Tahoe Basin by 1972
- STPUD history of innovation / achievement
 - First tertiary treatment plant in the U.S.
 - USEPA #1 Plant of the Year in 1994 and 2001
 - 100% of treated effluent is reused
 - 100% of biosolids recycled as fertilizer
 - Electricity produced off the Export System
 - 380 MWh saves 100 tons of GHG per year
 - Equivalent to about 50 homes

// Why is STPUD embarking on a Recycled Water Strategic Plan?

In the past
50
YEARS

Technological advancements
in wastewater treatment

Acceptance of water reuse
in California

STPUD is taking a proactive approach in planning for the future. The plan will analyze and identify options to determine the most cost-effective, innovative, and environmentally conscious way to manage recycled water in the future.



Overview of STPUD's Existing System



SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// STPUD's Recycled Water System

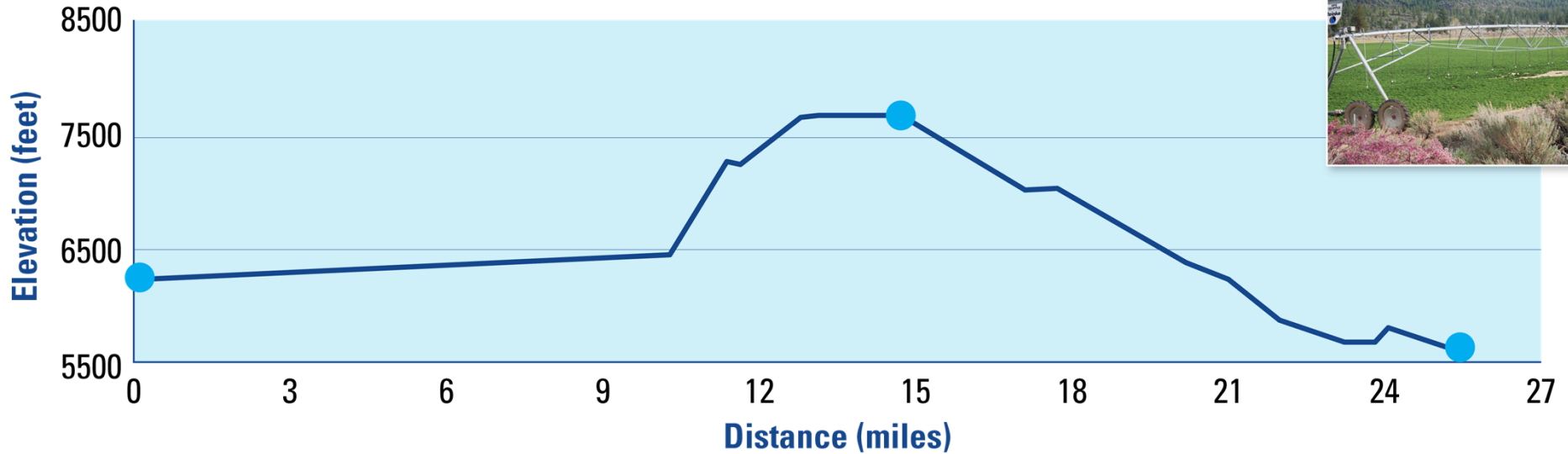
WWTP



Export Pipeline



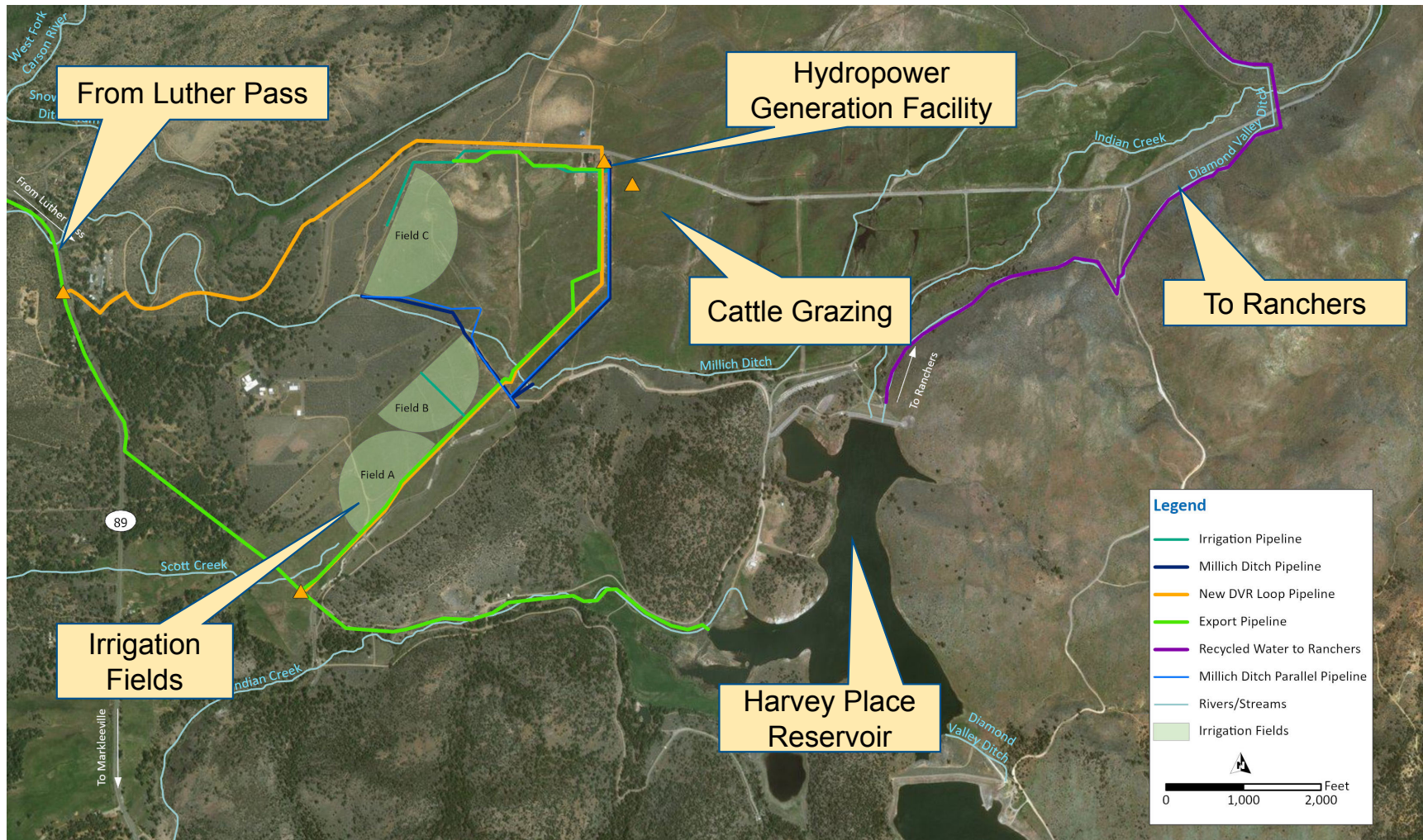
Reuse in Alpine County



// California Reuse Options

Treatment Level	Approved Uses
Indirect Potable Reuse	<ul style="list-style-type: none">▪ Drinking Water
Disinfected Tertiary Recycled Water	<ul style="list-style-type: none">▪ Spray Irrigation of Food Crops▪ Landscape Irrigation▪ Nonrestricted Recreational Impoundment
Disinfected Secondary – 2.2 Recycled Water	<ul style="list-style-type: none">▪ Surface Irrigation of Food Crops▪ Restricted Recreational Impoundment
Disinfected Secondary – 23 Recycled Water	<ul style="list-style-type: none">▪ Pasture for Milking Animals▪ Landscape Irrigation (restricted)▪ Landscape Impoundment
Undisinfected Secondary Recycled Water	<ul style="list-style-type: none">▪ Surface Irrigation of Orchards and Vineyards (limited harvesting)▪ Fodder, Fiber and Seed Crops

// Recycled Water System in Alpine County

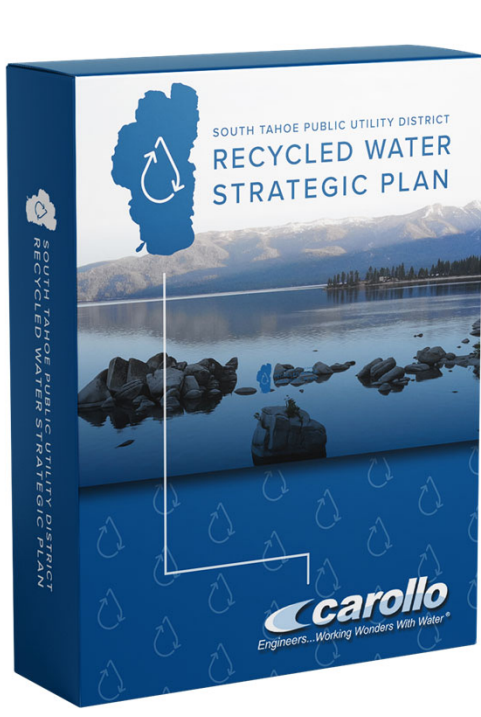


Recycled Water Strategic Plan



SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// Outcome of the Recycled Water Strategic Plan



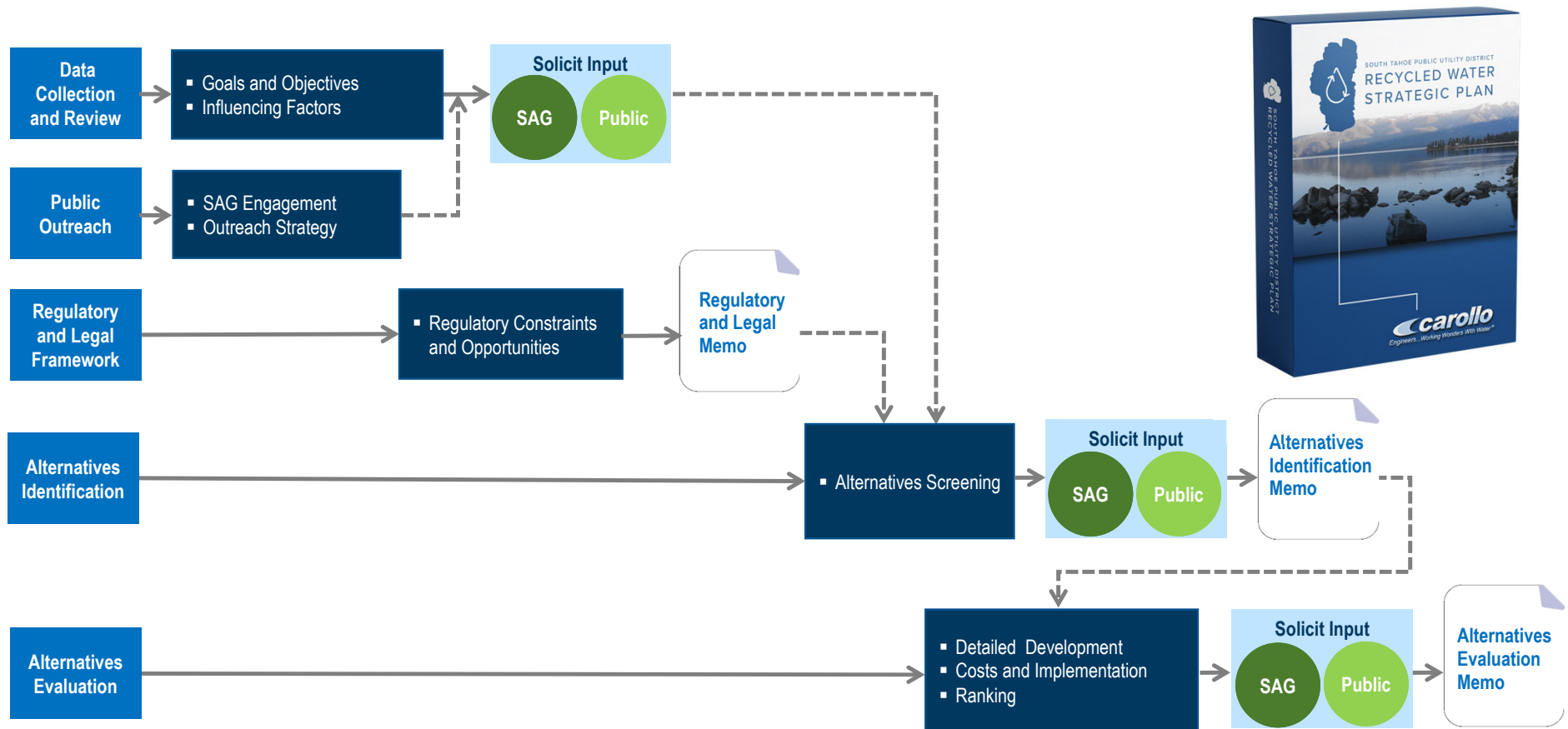
- Overall direction for recycled water system
- Factors that may trigger change and associated alternative pathways

VS.

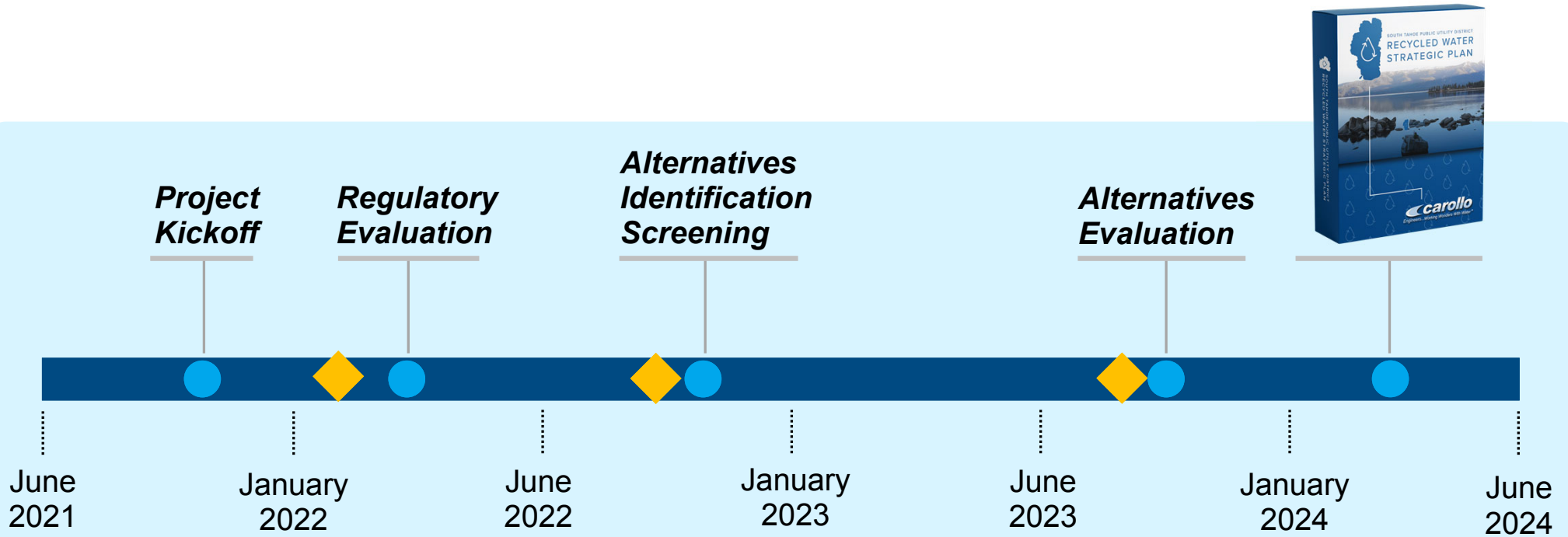
Master Plan

- Specific objective
- Alternatives evaluation
- Selection of preferred alternative or “project”
- Project CIP

// Recycled Water Strategic Plan Development



// Recycled Water Strategic Plan Schedule



- Milestones
- ◆ SAG and Public Workshops

// What might influence change in the way recycled water is treated and used?



// What might influence change in the way recycled water is treated and used?

Regulations

- More stringent requirements on land application of recycled water
- Regulatory frameworks for other types of recycled water



// What might influence change in the way recycled water is treated and used?

Legal

- Unfavorable future contracts
- Revisiting Porter-Cologne Act



// What might influence change in the way recycled water is treated and used?

Economics

- Energy optimization and/or recovery
- Revenue opportunities for recycled water



// What might influence change in the way recycled water is treated and used?

Community

- Acceptance of water reuse
- Ideas for improvements



// What might influence change in the way recycled water is treated and used?

Sustainability

- Climate change
- Enhanced beneficial uses of recycled water



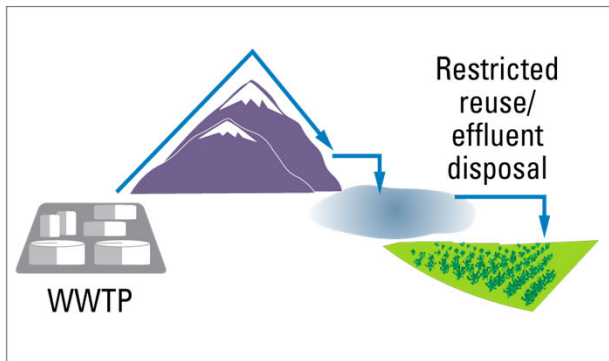
// What might influence change in the way recycled water is treated and used?

Technology

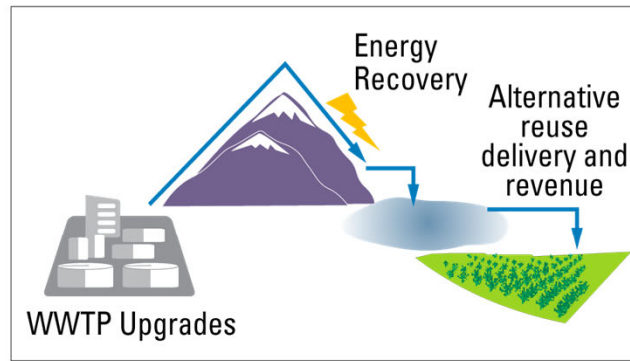
- Advanced treatment processes for wastewater purification
- Technology related to energy recovery



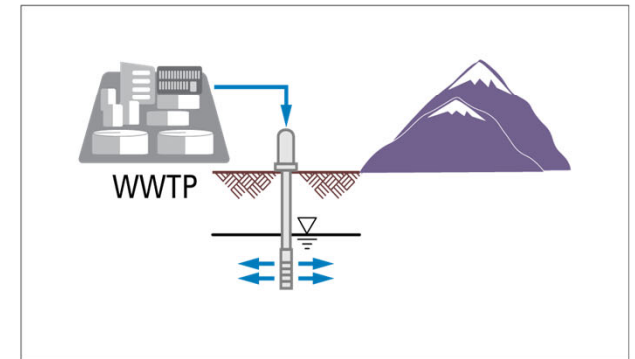
// What categories of alternatives may be considered?



Existing System – Maintain Functionality



Existing System – Optimize Functionality



New System – Different Functionality

Public Engagement



SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// Public Participation - Attend. Learn. Engage.

- Project webpage: <https://stpud.us/recycled-water-strategic-plan/>
- E-blast updates/public meeting notices/questions:
 - Email your name to recycledwater@stpud.us
- Phone: (530) 544-6474 x 6202
- Social media sites:



Instagram: www.instagram.com/southtahoepud/



Facebook: www.facebook.com/SouthTahoePUD



Twitter: @SouthTahoePUD

Questions & Answers



SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// How to ask questions

- Computer participants:
 - Ask question in the chat box of GoToMeeting
 - Un-mute to speak
- Mobile participants
 - Press “*6” on phone (for land lines)
 - Un-mute to speak



Closing



SOUTH TAHOE PUBLIC UTILITY DISTRICT
RECYCLED WATER
STRATEGIC PLAN

// Closing

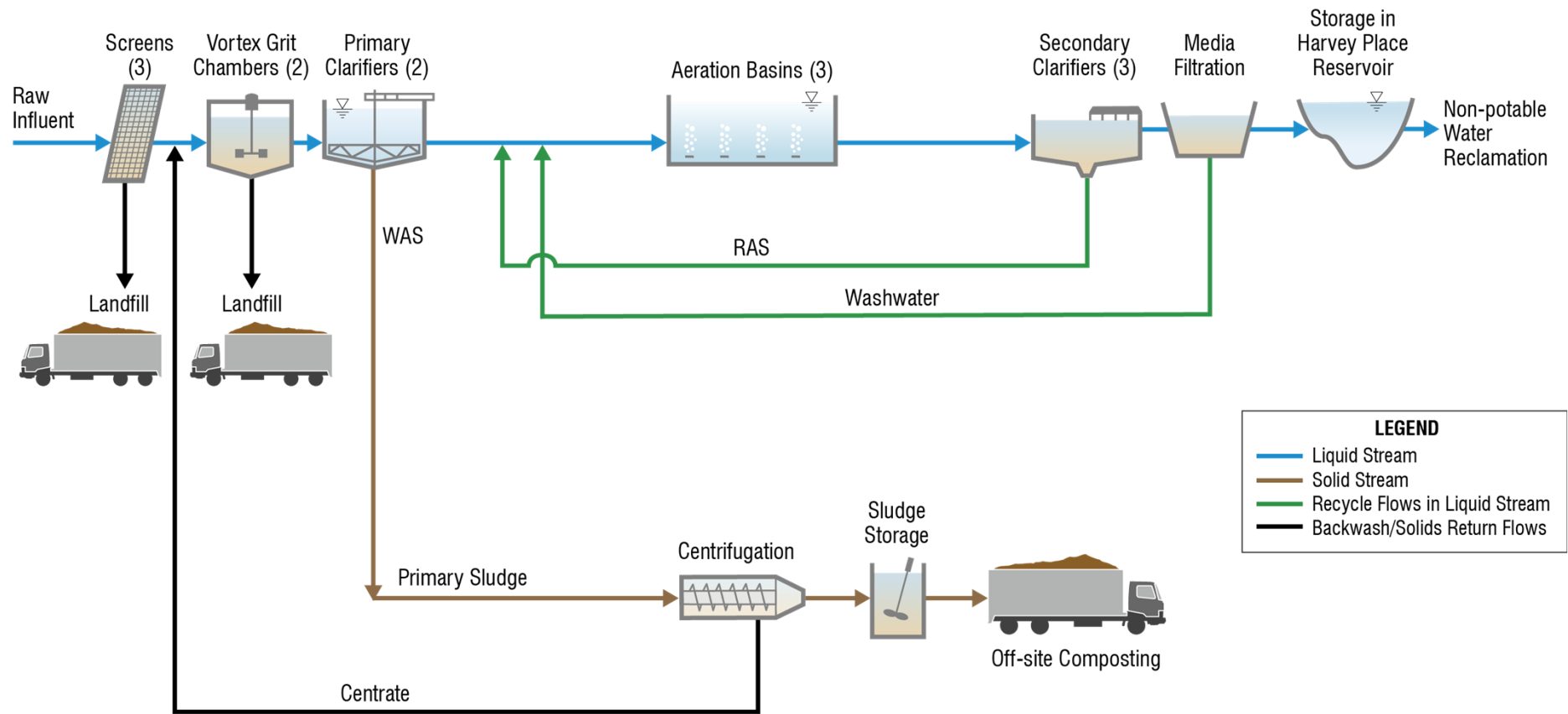
- Thank you for being here!
- Project webpage: <https://stpud.us/recycled-water-strategic-plan/>

The screenshot displays the website for the South Tahoe Public Utility District. At the top, there is a navigation bar with links for Home Page, Contact Us, Sitemap, and a 24/7 SERVICE number: (530) 544-6474. A search bar is also present. Below the navigation bar is a main menu with categories: WHO WE ARE, EMPLOYMENT, DOCUMENTS, CUSTOMER RESOURCES, DOING BUSINESS, WATER CONSERVATION, and NEWS & NOTICES. The main content area features a large banner for the "RECYCLED WATER STRATEGIC PLAN" with a logo of a water drop and a recycling symbol. To the left of the main content, there are three sections: "Explore Recycled Water Strategic Plan", "Upcoming Public Meetings - RWSP", and "Quick Links" which includes "WaterSmart Program" and "My Account". The main text on the page reads: "The South Tahoe Public Utility District is developing a Recycled Water Strategic Plan to determine the most cost-effective, innovative, and environmentally conscious way to manage recycled water in the future. This Plan will be developed over the next three years and involve opportunities for customers, agency partners, and the public to provide input. To receive email alerts on upcoming public meetings and project updates, send an email to recycledwater@stpud.us."



SOUTH TAHOE PUBLIC UTILITY DISTRICT
**RECYCLED WATER
STRATEGIC PLAN**

// STPUD's WWTP



LEGEND

- Liquid Stream
- Solid Stream
- Recycle Flows in Liquid Stream
- Backwash/Solids Return Flows

// STPUD Strategic Goals



Provide reliable and safe water, wastewater, and recycled systems

Foster a culture of efficient water use in our community

Promote public awareness of all District activities and the value of District services

Continue to be outstanding financial stewards

Maximize technology to improve operational efficiency and prioritize asset replacement



Protect and Improve Water Quality

Protect the Community Water Supply and Treatment/Delivery System

Manage Groundwater Sustainable Yield

Contribute to Ecosystem Restoration

Implement Integrated Watershed Management in Region



Economics

Environment

Sustainability

Public Acceptance

Technical Feasibility (design/construction/operation)

Regulatory Compliance

Legal Compliance

// Goals and Objectives – Recycled Water Strategic Plan

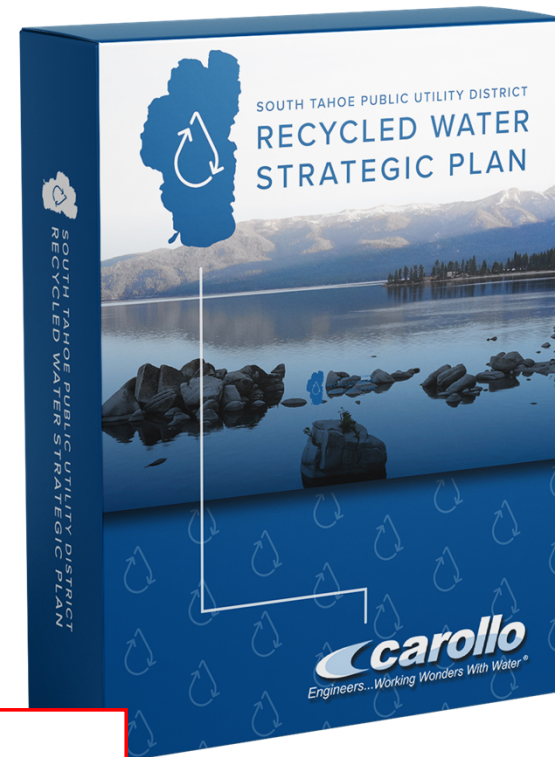
- Comprehensive
- Technically Sound
- Path Forward
- Incorporate Points of Flexibility
- Accepted by District Board and Community

Our Vision

Maintain a dynamic organization that can quickly and proactively meet an ever increasing environment of regulations and scarce resources.

Our Mission

Furnish our customers with reliable water and wastewater services, and provide those services safely, efficiently, and cost effectively.



// Why now?

1971

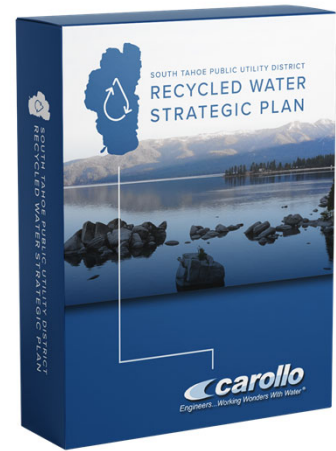
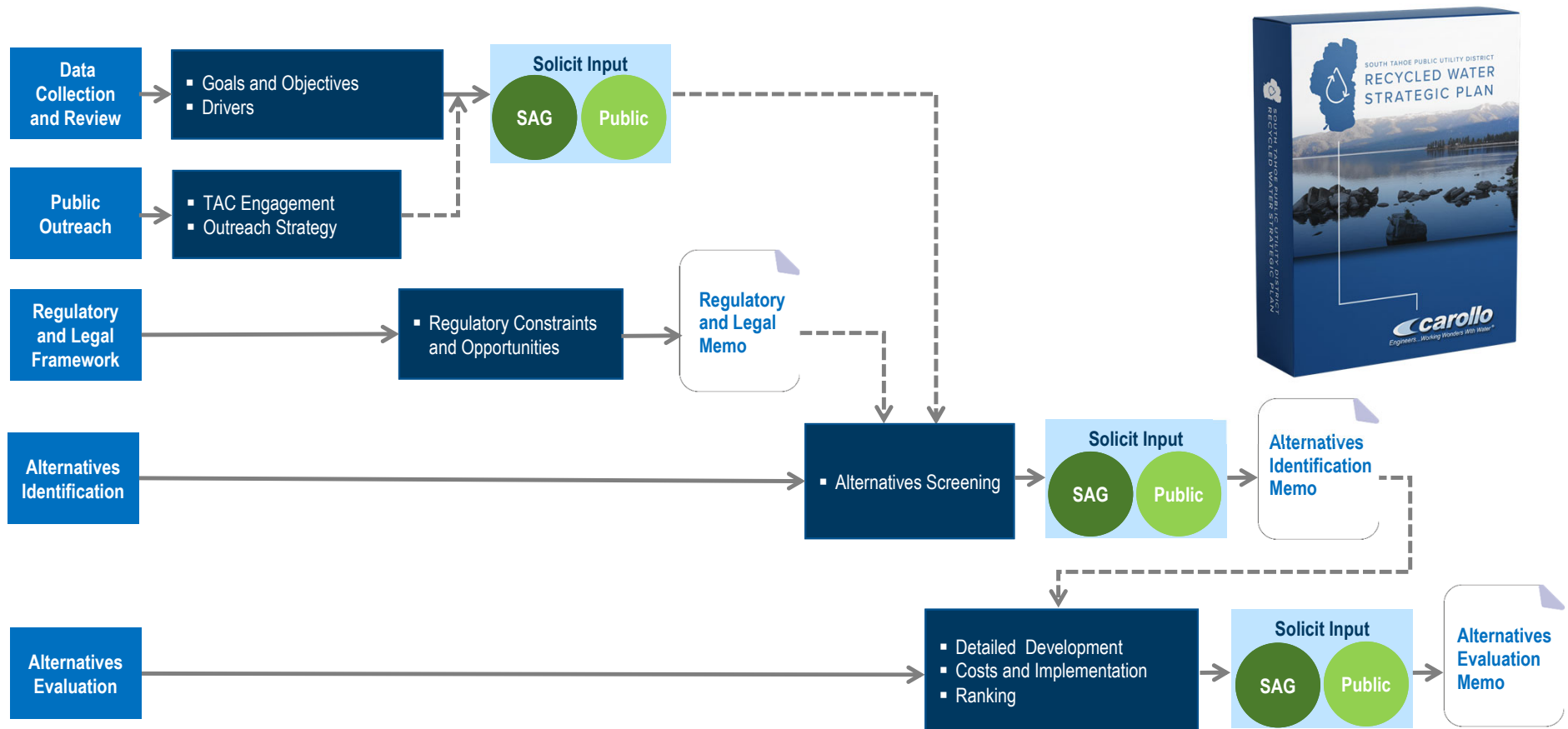
Porter-Cologne Act 1969
Clean Water Act 1972
Safe Drinking Water Act 1974
Secondary treatment

2071

Changes to landowner agreements?
Nutrient regulations?
Wastewater as resource/climate change?
Advanced wastewater treatment processes?
Direct potable reuse regulations?
Porter-Cologne modifications?



// Recycled Water Strategic Plan Development



// California Reuse Options

STPUD Recycled Water System

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Additional Recycled Water Options

Treatment Level	Approved Uses
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