Brown AND Caldwell

Prepared for Cascade Water Alliance

Cascade Supply Program Program and Engineering Support

PROPOSAL

July 25, 2025

Transforming
the region's water supply

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Cascade Supply Program
Program and Engineering Support

PROPOSAL

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Transforming
the region's water supply

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Cover Letter

SECTION 1

Brown AND Caldwell

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www.brownandcaldwell.com

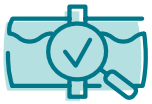
July 25, 2025

Mr. Brian D. Bartle, PE, Program Executive
Cascade Water Alliance
11400 SE 8th Street, Ste. 400
Bellevue, WA 98004

Subject: Proposal for Cascade Supply Program | Program and Engineering Support

Dear Mr. Bartle and members of the selection committee,

Partner for the Long Haul



Secure Optimized Pipeline Routes

Preserve Future Flexibility

Earn and Maintain Stakeholder Support

The Cascade Supply Program (CSP) is a transformative shift for Cascade Water Alliance (Cascade)—both in the way you source and supply water and in project size and scale. The program is poised to serve as a model for responsible stewardship by maximizing use of existing water resources, partnering with a more affordable wholesaler, and increasing reliability and resilience through connection to multiple sources. Your members—and the region—will reap the benefits for generations, and you will inspire others with this powerful model of regional collaboration. We're inspired, and we'd be delighted to join you over the next 15-20 years to help bring your vision to life. **What makes the Brown and Caldwell (BC) team the right fit?**

- **We are the right size and have the right culture.** An employee-owned company, BC is one of the most stable firms in the business, with a deep bench and succession planning to cover all services needed.
- **We know how to work together to deliver large water supply programs.** Nearly all key staff and most team members have worked together to deliver benchmark programs. And we work best with hands-on clients like you.
- **We understand the challenges involved in a program of this scale.** With transferable experience from the area's largest water supply programs, our team will work with you to develop tailored solutions to manage budget and schedule, identify the best pipeline route, preserve flexibility to accommodate change, and earn and maintain support from an array of stakeholders.

There are no changes to our key staff, however, we have added a contractor subconsultant, franchise agreement specialist, and public engagement expert, as described in Sections 2 and 3. We acknowledge receipt of Addenda 1 and commit to the CSP schedule and timeline. Please contact Jon at 503.977.6609 or jrholland@brwncald.com with any questions. We look forward to taking the next step in this landmark journey together.

Very truly yours,

Mr. Jonathan R. Holland, PE
Project Manager
701 Pike Street, Ste. 1300
Seattle, WA 98101-2310

Mr. Michael Puccio, PE
Managing Director of Operations,
Authorized Signatory
18500 Von Karmen Ave., Ste. 800
Irvine, CA 92612

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Background of the Firm

SECTION 2

Brown AND Caldwell

Program management excellence + large-diameter pipeline prowess

More than simply executing on time and budget, BC knows how to use program management tools to deliver real benefits and lasting success for complex, large-scale investments.

As one of the largest engineering consultants in North America focused solely on water, BC is among the most stable firms in the business, with nearly 80 years of continuous employee ownership. We help clients build project and capital program strategies, structures, and tools that empower their staff to excel; provide adaptive strategies to read and model risk and opportunity landscapes; and foster economic growth and community development. BC offers a depth of specialists in program start-up and initiation, program delivery and controls, cost estimating and scheduling, risk management, alternative funding, strategic engagement, and decision science.

Our program expertise is complemented by our industry-renowned technical capabilities in planning, design, construction, owner advisory (OA), asset management, utility performance, and digital water. A recognized leader in pipeline planning, design, and construction management (CM), BC has also served as program manager for water transmission infrastructure programs across the country, with a center of excellence right here in the Pacific Northwest.

COMPANY FOUNDED
1947

TOTAL EMPLOYEES
2,350+

PNW EMPLOYEES
260+

LOCAL OFFICE
Seattle
701 Pike St., Ste 1300
Seattle, WA 98101

50+ offices across
North America and the Pacific

Partners for the Long Haul

BC is successfully delivering the largest, most complex water programs in the PNW.

1. LOTWP Water Supply Program
2. Bull Run Filtration Program
3. P1 Pressurization Program
4. Willamette Water Supply Program
5. Lake Oswego Interceptor Sewer Program

$20B+ in water programs over the last 10 years

Subconsultant Overview

Our team includes key partners with expertise to secure optimized pipeline routes, earn and maintain stakeholder support, and preserve future flexibility. BC has long working histories with most of these firms—including our exclusive partners, KJ, Delve, DEA, and R&T—delivering large projects and programs throughout the Pacific Northwest, such as the Lake Oswego Tigard Water Partnership (LOTWP) Water Supply Program, Bull Run Filtration Program, Tacoma Water's Pipeline 1 (P1) Pressurization Program, and the Willamette Water Supply Program (WWSP). With these proven partnerships, our team brings established trust and continuity amongst key team members to efficiently transition from these successful programs to the CSP—to help you build a program delivery standard that brings your vision to life.

Table 2.1. Partners for the long-haul // The BC team will leverage proven subconsultant partnerships developed on major Pacific Northwest projects and programs to efficiently deliver the CSP.

Firm Name/Role	Years in Business	Areas of Specialization	Number of Employees	Office Location
✓ **Commonstreet Consulting** (CC) RIGHT OF WAY (ROW)	8	ROW	60	Seattle, WA
✓ **Confluence Engineering Group** (CEG) WATER QUALITY	17	Water Quality, Water System Planning, Regulatory Compliance	8	Seattle, WA
✓ **David Evans and Associates** (DEA) PERMITTING, SURVEY, TRAFFIC ENGINEERING	49	Environmental and Land Use Permitting, Roads and Highways, Survey	1,100+	30+ offices including Bellevue, Seattle, Renton, and Tacoma, WA
✓ **Delve Underground** (Delve) GEOTECHNICAL, SEISMIC, AND TRENCHLESS	76	Trenchless, Tunnels/ Underground, Geotechnical Engineering, CM	350	25 offices including Seattle, WA
✓ **GeoEngineers Inc.** (GEI) GEOTECHNICAL, ENVIRONMENTAL ASSESSMENT	45	Geotechnical Engineering, Earth Sciences	400+	20+ offices including Seattle and Tacoma, WA
Historical Research Associates (HRA) ● CULTURAL RESOURCES	51	Cultural Resources Management, Archaeology	62	9 offices including Seattle, WA
✓ **KBA, Inc.** (KBA) CM AND INSPECTION	31	CM and Inspection, Project/ Program Management	110	Seattle, Bellevue, Tacoma, and Mt. Vernon, WA
✓ **Kennedy Jenks** (KJ) PLANNING AND DESIGN SUPPORT	106	Water Treatment, Pipeline Alignment Planning/Design, Pump Station Design, Construction Management	525	30+ offices including Seattle, WA
✓ **Lettis Consultants International** (LCI) ● SEISMIC HAZARD ANALYSIS	14	Seismic Hazard Analysis, Geologic Hazard Services	52	Concord, Valencia, and Sacramento, CA
✓ **Norton Corrosion Limited** (NCL) CORROSION CONTROL	66	Cathodic Protection, Corrosion Engineering	20	Woodinville, WA
Pond and Company (Pond) AC INTERFERENCE MITIGATION	60	Engineering, Architecture, Planning, Program Management	800+	19 offices, including San Diego, CA
✓ **PRR, Inc.** (PRR) ● ● COMMUNICATIONS AND OUTREACH	43	Community Engagement	117	Seattle, WA
NEW ✓ **R&T Pipeline Consulting LLC** (R&T) PIPELINE CONSTRUCTABILITY	9	Pipeline Construction, Cost, Schedule, Access, Staging in Planning/Design	2	Monmouth, OR

✓ *Past History with BC* **Diversity, Equity, and Inclusion Notation |** ● *WBE* ● *DBE* ● *SBE*

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Organization Chart

SECTION 3

Brown AND Caldwell

New team members to provide the best combination of depth and expertise

There are no changes to our key staff, however we have added the following supplemental staff:

1 Why Aubrie Koenig?

Aubrie Koenig rejoined BC post-statement of qualifications (SOQ) submittal. She leads strategic planning and communications for agencies coast-to-coast to build awareness and support critical infrastructure investments. While with a subconsultant to BC from 2018 to 2025, Aubrie was the primary strategic communications consultant on the Portland Water Bureau (PWB) Bull Run Filtration Program, supporting outreach and land use permitting efforts. She looks forward to helping develop and guide CSP strategies with Rachel Garrett and PRR.

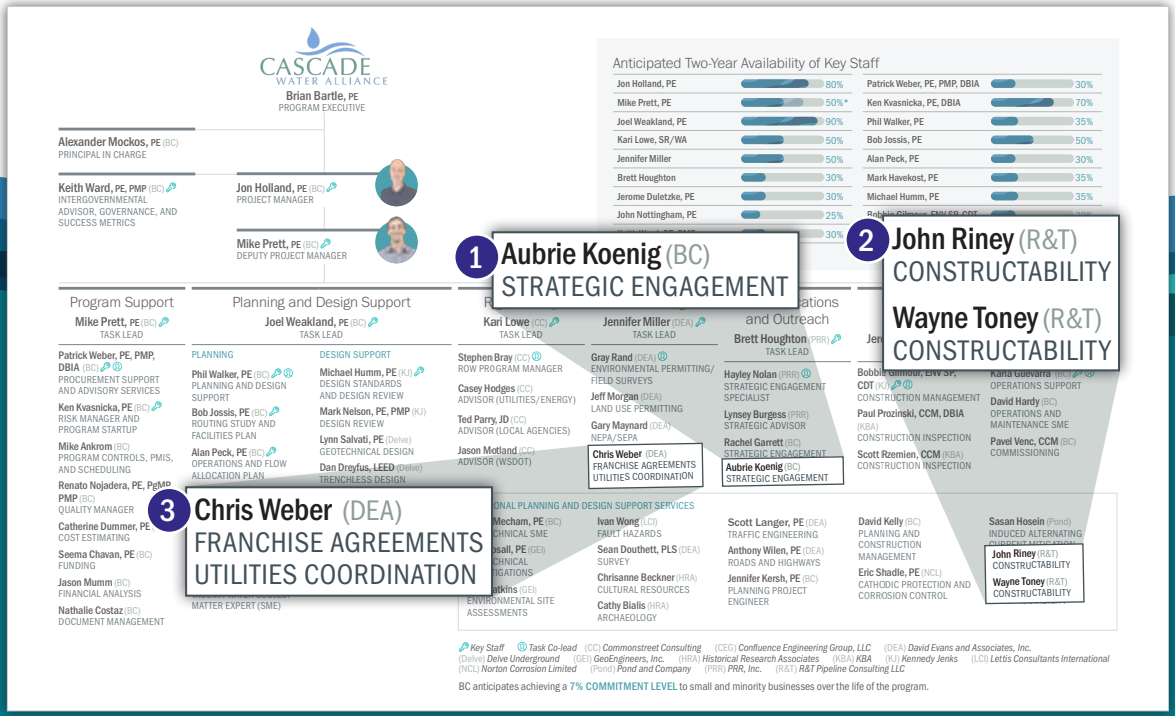
2 Why R&T?

John Riney and **Wayne Toney** bring a combined 66 years of experience constructing underground utilities. They committed post-SOQ, upon confirming availability. We join forces again following the LOTWP Water Supply Program, where they built 30,000 linear feet (lf) of pipeline; WWSP, where they advised our design team during routing studies and design; and Bull Run, where they advised our planning team. They will enhance our team's analyses through:

- Budget and schedule refinement
- Impact assessments for alternative design standards
- Route constructability

3 Why Chris Weber?

Chris Weber (DEA) was brought on for expertise in franchise agreements (particularly in Washington). She will supplement the CC team to address all ROW needs for the CSP. Chris has 30 years of experience in utility coordination, ROW permitting, and franchise agreements. This includes working for utilities to respond to relocation requests, as well as state and local agencies to resolve conflicts with franchise utilities. She has managed the acquisition of hundreds of miles of easements, ROW permits, and franchise agreements. Chris worked closely with Kari Lowe from CC on the WWSP.



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CASCADE WATER ALLIANCE

Brian Bartle, PE
PROGRAM EXECUTIVE

Alexander Mockos, PE (BC)
PRINCIPAL IN CHARGE

Keith Ward, PE, PMP (BC)
INTERGOVERNMENTAL ADVISOR, GOVERNANCE, AND SUCCESS METRICS

Jon Holland, PE (BC)
PROJECT MANAGER

Mike Prett, PE (BC)
DEPUTY PROJECT MANAGER

Anticipated Two-Year Availability of Key Staff

Jon Holland, PE	80%	Patrick Weber, PE, PMP, DBIA	30%
Mike Prett, PE	50%*	Ken Kvasnicka, PE, DBIA	70%
Joel Weakland, PE	90%	Phil Walker, PE	35%
Kari Lowe, SR/WA	50%	Bob Jossis, PE	50%
Jennifer Miller	50%	Alan Peck, PE	30%
Brett Houghton	30%	Mark Havekost, PE	35%
Jerome Duletzke, PE	30%	Michael Humm, PE	35%
John Nottingham, PE	25%	Bobbie Gilmour, ENV SP, CDT	30%
Keith Ward, PE, PMP	30%	Karla Guevarra	30%

**increasing to 70% in Fall 2026*

Program Support

Mike Prett, PE (BC)
TASK LEAD

Patrick Weber, PE, PMP, DBIA (BC)
PROCUREMENT SUPPORT AND ADVISORY SERVICES

Ken Kvasnicka, PE (BC)
RISK MANAGER AND PROGRAM STARTUP

Mike Ankrom (BC)
PROGRAM CONTROLS, PMIS, AND SCHEDULING

Renato Nojadera, PE, PgMP, PMP (BC)
QUALITY MANAGER

Catherine Dummer, PE (BC)
COST ESTIMATING

Seema Chavan, PE (BC)
FUNDING

Jason Mumm (BC)
FINANCIAL ANALYSIS

Nathalie Costaz (BC)
DOCUMENT MANAGEMENT

Planning and Design Support

Joel Weakland, PE (BC)
TASK LEAD

PLANNING

Phil Walker, PE (BC)
PLANNING AND DESIGN SUPPORT

Bob Jossis, PE (BC)
ROUTING STUDY AND FACILITIES PLAN

Alan Peck, PE (BC)
OPERATIONS AND FLOW ALLOCATION PLAN

Mark Havekost, PE (Delve)
GEOTECHNICAL & TRENCHLESS PLANNING

Andrew Fugal, PE (BC)
HYDRAULIC AND SURGE ANALYSIS

Chris McMeen, WMD4 (CEG)
WATER QUALITY AND TACOMA WATER SUBJECT MATTER EXPERT (SME)

DESIGN SUPPORT

Michael Humm, PE (KJ)
DESIGN STANDARDS AND DESIGN REVIEW

Mark Nelson, PE, PMP (KJ)
DESIGN REVIEW

Lynn Salvati, PE (Delve)
GEOTECHNICAL DESIGN

Dan Dreyfus, LEED (Delve)
TRENCHLESS DESIGN

James Bowland, PE (KJ)
CONDITION ASSESSMENT

Jon Harper, PE, SE (BC)
FACILITIES AND STRUCTURAL

Right of Way

Kari Lowe (CC)
TASK LEAD

Stephen Bray (CC)
ROW PROGRAM MANAGER

Casey Hodges (CC)
ADVISOR (UTILITIES/ENERGY)

Ted Parry, JD (CC)
ADVISOR (LOCAL AGENCIES)

Jason Motland (CC)
ADVISOR (WSDOT)

Permitting

Jennifer Miller (DEA)
TASK LEAD

Gray Rand (DEA)
ENVIRONMENTAL PERMITTING/ FIELD SURVEYS

Jeff Morgan (DEA)
LAND USE PERMITTING

Gary Maynard (DEA)
NEPA/SEPA

Chris Weber (DEA)
FRANCHISE AGREEMENTS UTILITIES COORDINATION

Communications and Outreach

Brett Houghton (PRR)
TASK LEAD

Hayley Nolan (PRR)
STRATEGIC ENGAGEMENT SPECIALIST

Lynsey Burgess (PRR)
STRATEGIC ADVISOR

Rachel Garrett (BC)
STRATEGIC ENGAGEMENT

Aubrie Koenig (BC)
STRATEGIC ENGAGEMENT

Construction Support

Jerome Duletzke (BC)
TASK LEAD

Bobbie Gilmour, ENV SP, CDT (KJ)
CONSTRUCTION MANAGEMENT

Paul Prozinski, CCM, DBIA (KBA)
CONSTRUCTION INSPECTION

Scott Rzemien, CCM (KBA)
CONSTRUCTION INSPECTION

Operations Support

John Nottingham, PE, WDM (BC)
TASK LEAD

Karla Guevarra (BC)
OPERATIONS SUPPORT

David Hardy (BC)
OPERATIONS AND MAINTENANCE SME

Pavel Venc, CCM (BC)
COMMISSIONING

ADDITIONAL PLANNING AND DESIGN SUPPORT SERVICES

Elliott Mecham, PE (BC)
GEOTECHNICAL SME

Ben Upsall, PE (GEI)
GEOTECHNICAL INVESTIGATIONS

Cris Watkins (GEI)
ENVIRONMENTAL SITE ASSESSMENTS

Ivan Wong (LCI)
FAULT HAZARDS

Sean Douthett, PLS (DEA)
SURVEY

Chrisanne Beckner (HRA)
CULTURAL RESOURCES

Cathy Bialis (HRA)
ARCHAEOLOGY

Scott Langer, PE (DEA)
TRAFFIC ENGINEERING

Anthony Wilen, PE (DEA)
ROADS AND HIGHWAYS

Jennifer Kersh, PE (BC)
PLANNING PROJECT ENGINEER

David Kelly (BC)
PLANNING AND CONSTRUCTION MANAGEMENT

Eric Shadle, PE (NCL)
CATHODIC PROTECTION AND CORROSION CONTROL

Sasan Hosein (Pond)
INDUCED ALTERNATING CURRENT MITIGATION

John Riney (R&T)
CONSTRUCTABILITY

Wayne Toney (R&T)
CONSTRUCTABILITY

Key Staff *Task Co-lead* (CC) *Commonstreet Consulting* (CEG) *Confluence Engineering Group, LLC* (DEA) *David Evans and Associates, Inc.* (Delve) *Delve Underground* (GEI) *GeoEngineers, Inc.* (HRA) *Historical Research Associates* (KBA) *KBA* (KJ) *Kennedy Jenks* (LCI) *Lettis Consultants International* (NCL) *Norton Corrosion Limited* (Pond) *Pond and Company* (PRR) *PRR, Inc.* (R&T) *R&T Pipeline Consulting LLC*

BC anticipates achieving a **7% COMMITMENT LEVEL** to small and minority businesses over the life of the program.

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Change Management

SECTION 4

Brown AND Caldwell

BC brings proven experience managing change on multi-decade programs.

For long-term programs like the CSP, change isn't the exception—it's the rule. Our approach will transform inevitable shifts in scope, team, and stakeholders into opportunities for alignment, resilience, and better outcomes for Cascade. **We will achieve this with:**

- An experienced team with a proven record of commitment
- A clear vision for thoughtful succession planning
- A positive team culture grounded in collaboration and fun
- Proven tools and strategies to navigate change

Jon Holland, Mike Prett, and Joel Weakland provide a cohesive, transferable leadership team to seamlessly transition to the CSP. They have worked together to deliver legacy programs throughout the Pacific Northwest. As these programs progressed, Mike and Joel took on increasing leadership roles under Jon's guidance. For example, on the LOTWP Water Supply Program, Mike succeeded Jon as program manager (PM) during the final years of construction to drive operations and management (O&M), asset management, and final closeout. Similarly, Joel advanced from project engineer to PM on WWSP design projects.

Bringing you the veteran project management team from the region's largest water supply programs

Jon, Mike, and Joel are ready to join you in providing steady leadership continuity for the CSP.

Jon Holland	Mike Prett	Joel Weakland
PM	Deputy PM	Planning and Design Support Task Lead
8 PNW programs	**5** PNW programs	**3** PNW programs
26 years at BC	**19** years at BC	**12** years at BC

12+ YEARS OF PARTNERSHIP

*"Jon, Mike, and BC were outstanding partners for our water program. They were adept and nimble in meeting our many challenges. If asked '**would you hire BC again?**' the answer is a resounding '**YES!**' BC has earned a valued relationship at all levels within the City that is built on trust, technical prowess, and their client-for-life philosophy."*

— JOEL KOMAREK, Project Director, City of Lake Oswego

A. SUCCESSION PLANNING

Long-duration programs like the CSP face staff turnover, not only due to retirements and role changes, but also from shifts in project phasing, staff development, and life events. Accordingly, we invest in mentoring, cultural, and documentation practices that make our program team resilient, regardless of who fills individual roles over time.

Successful delivery requires evolving in line with the progressing scale and needs of the program over the long term. This starts with proactive, upfront succession planning. We have identified clear successors (referred to as co-leads on the organization chart) for all key leadership (task leads) and functional positions across the program management team (Figure 4.1). This intentional pairing enables the transition of personnel with minimal disruption.

The CSP offers an incredible opportunity to develop the next generation of leaders who will serve Cascade for years to come. Our team is ready and committed to partnering with you for the long haul by establishing the solid foundation necessary to achieve your objectives.

Through intentional succession planning on the City of Boise Recycled Water Program (RWP), Mike Prett stepped into the PM role to meet evolving needs as the program shifted out of the pilot phase. Mike's deputy will be prepared to take the lead when the RWP moves into construction in 2026.

Partners for the long haul

When the CSP is complete, delivery will have spanned an engineering generation. Our staffing and succession strategy has been purposely calibrated to provide continuity throughout the program.

PM **Jon Holland** will be succeeded by **Mike Prett**. As Deputy PM (DPM) and Program Support Task Lead, Mike has extensive background in utility program management and will play a central leadership role in daily operations and strategy.

When Mike transitions to PM, **Patrick Weber** will assume the Program Support Task Lead role. As Procurement Support and OA Lead, Patrick will be involved in program controls and reporting, positioning him to lead core management systems.

While Planning and Design Support Task Lead **Joel Weakland** is expected to serve through the full duration of the program, his local co-lead, **Phil Walker**, will remain closely involved and be able to seamlessly step into the role if needed.

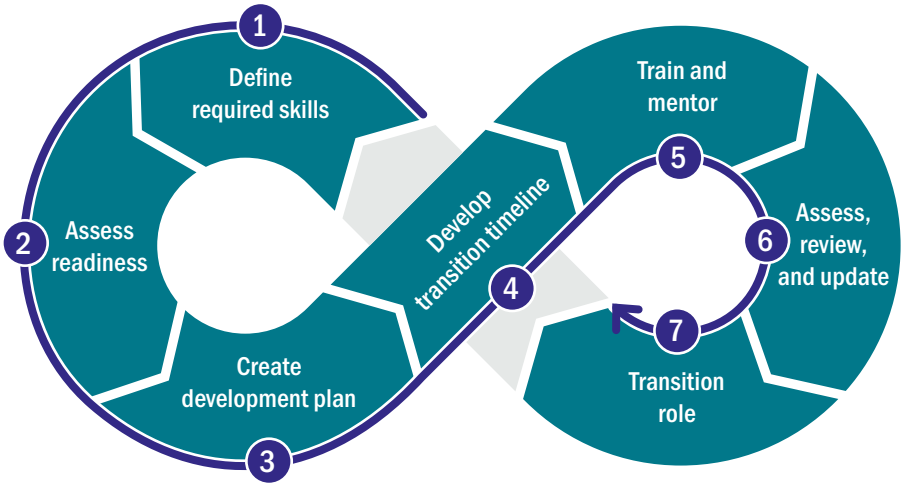
All other task leads have named co-leads who will be directly involved in work planning and execution, client coordination, and internal decision making to seamlessly transition to the lead role, as needed.

Kari Lowe → Steven Bray (ROW)
Jennifer Miller → Gray Rand (Permitting)
Brett Houghton → Hayley Nolan (Communications)
Jerome Duletzke → Bobbie Gilmour (Construction Support)
John Nottingham → Karla Guevarra (Operations Support)

Figure 4.1 // Our thoughtful approach to succession planning builds resilience and flexibility for the future.

Rooted in a culture of growth

We will plan for the natural transitions of promotions, retirement, and departures, transforming them into growth and career opportunities.



Starting in the first year of the program, each task lead/co-lead pair will embark on a journey of growth that includes the following steps:

1. **Define required skills.** Working collaboratively, the task lead and co-lead will define the skills and competencies required to be successful.
2. **Assess readiness.** This will allow the task lead to continuously assess the co-lead's readiness and identify areas of development and growth.
3. **Create development plan.** The initial assessment will result in a personalized development plan that outlines specific training activities and opportunities to bridge the skill and experience gap.
4. **Develop transition timeline.** The development plan will include a schedule with milestones for when the co-lead takes on increasing responsibility and a timeline for transitioning into the task lead role.
5. **Train and mentor.** Throughout the year, the task lead will provide on-the-job training, including delegation, oversight, and monitoring.
6. **Assess, review, and update.** The plan will be reviewed annually to assess progress and readiness, with updates, as needed, to advance through the milestones toward a planned handoff.
7. **Transition role.** Succession planning is cyclical. When the co-lead receives the call to action and is ready to assume the task lead role, they will work with program leadership to identify the best successor and start the journey with them.

Figure 4.2 //BC's development strategy will elevate the next generation of leaders to support Cascade throughout the CSP.

Jon and Mike will build rapport, trust, and shared ownership across the team from the start by implementing an intentional mentoring and development plan (Figure 4.2) that enables growth within the program. This will allow us to elevate team members to higher-responsibility roles as they are ready. **We are effectively implementing this same strategy on decade-plus programs throughout the Pacific Northwest, including the Bull Run Filtration Program, City of Boise RWP, King County Wastewater Treatment Division (WTD) South Treatment Plant Engineering Services Program, and the Metro Vancouver Annacis Island Wastewater Treatment Plant Stage 5 Improvements Program.**

We pair this organizational foresight with practical tools, such as detailed decision logs, onboarding playbooks, role-specific standard operating procedures (SOP), and structured transition processes to preserve and transfer knowledge (discussed further in Section 4F).

BC is one of the most stable firms in the business. With more than 78 years of continuous employee-ownership, our turnover rate averages just 8.2% percent—well below the industry average.

Creating a Positive Culture to Promote Retention

While we plan for inevitable turnover, our first priority is preventing it. We believe that people are more likely to stay when they feel valued, respected, and engaged. This extends across our subconsultant and client partnerships through a team culture that promotes personal ownership in program success. Key strategies include:

- Promoting mutual respect, inclusion, and psychological safety—every team member, regardless of role, is encouraged to contribute ideas, voice concerns, and engage in open dialogue
- Reinforcing purpose by connecting daily work to the long-term impact on regional water resilience and public trust
- Offering professional development and advancement opportunities through mentoring, rotation across functional areas, support for certifications, and conference participation
- Modeling team-first behavior—leaders reward collaboration, humility, and knowledge-sharing, and we address competitive or siloed behaviors quickly and constructively
- Recognizing excellent behavior and providing coaching early and often when behavior doesn't align with team values through clear, supportive feedback and, in rare cases, adjustments to preserve team cohesion
- Recognizing contributions consistently through informal feedback, team spotlights, and shared celebrations for milestone achievements

B. CHANGE MANAGEMENT

Despite succession planning and retention efforts, turnover will occur. We will proactively monitor and manage this risk in the program risk register, with a focus on specific critical roles as they evolve through program phases. This includes maintaining a list of potential temporary fill-ins from within the program team as well as permanent replacements from any source.

When changes do occur, we will move quickly and collaboratively to maintain momentum. We will promptly notify the program team, including Cascade, and work to identify candidates from within BC, existing subconsultant partners, new subconsultants, and/or Cascade. We will base selection on experience, skills, and availability. Once we collectively determine the best fit, we will proceed with appropriate recruiting, contracting, and onboarding processes to make the transition as smooth as possible.

C. SUBCONSULTANT CHANGES

We bring trusted subconsultant partners to provide you a team with a shared vision and culture. Our core team includes only individuals with a project-first mindset to prioritize the success of the CSP. We have teamed with KJ, Delve, DEA, CC, KBA, Confluence, and R&T to deliver large programs across the region. By maintaining these partnerships, we will readily transition to the CSP and minimize changes over the course of the program. We bring our shared experience with **KJ** to provide a deeper bench of management resources for design and construction, **Delve** to understand and address geotechnical and seismic concerns, **DEA t**o identify permitting challenges and strategies, **CC** to support property acquisition needs, **KBA** to provide additional construction inspection and management staff, **CEG** to mitigate water quality risks, and **R&T** to provide constructability input. We look forward to working with **PRR** and our strategic engagement experts to develop a stakeholder outreach and communications plan.

While we have selected our subconsultant team to minimize turnover, we understand they will also experience changes over the duration of the CSP. We will proactively prepare for this by structuring subconsultant roles, contracts, and internal workflows with long-term continuity in mind. This includes designating primary and backup staff for key functions and involving subconsultant staff in mentoring and development programs. We will also embed subconsultants within integrated teams, where their knowledge is documented in shared systems, not siloed within firms. Our contracts include continuity provisions that define transition expectations, including client approval for key role changes, and we will apply a structured transition protocol, including joint debriefs and formal handoffs, to reduce rework and delay.

D. REGULATORY AND JURISDICTIONAL STAFF CHANGES

Because permitting, land acquisition, and construction inspections are often subject to coordination with multiple external agencies, we assume from the outset there will be turnover within those organizations. In particular, staff changes at permitting agencies can significantly delay projects unless proactive continuity strategies are in place. We implement practices that create institutional memory and shared understanding to minimize delay due to misalignment with newly assigned regulators. Our approach will be informed by the LOTWP Water Supply Program and WWSP, where DEA implemented the following practices to successfully secure program permits:

- Centralizing all permitting correspondence, strategy documents, decisions, and contacts in the program's document management system
- Maintaining annotated permitting logs with histories of conversations, agreements, pending issues, and resolution strategies
- Preparing agency onboarding packets for new regulatory staff to provide high-level context, phase-specific details, and program alignment strategies
- Coordinating regularly with both agency line staff and leadership to confirm program understanding survives staff turnover or reorganization
- Building long-term relationships based on shared goals (e.g., water resilience, regulatory compliance, community impact), rather than relying solely on transactional interactions

E. CLIENT TEAM CHANGES

Staffing changes within Cascade's team may occur as priorities shift, leadership transitions, staffing capacity evolves, or turnover occurs. To prepare for this, we invest early and continuously in documentation, onboarding tools (see Section 4F), and shared decision-making practices that maintain clarity and continuity across personnel transitions. This continuity reduces the impact of staffing changes to preserve program direction, stakeholder relationships, and decision-making.

In addition, as part of Cascade's succession planning program, our team can provide your staff with mentoring and training, as we've done with the City of Boise via videos and interactive workshops hosted by BC subject matter experts (SME).

For the City of Boise RWP, our team developed short training videos on a variety of topics. These knowledge transfer capsules, prepared by BC SMEs, supplement SOPs to expedite onboarding for new City and consulting staff.

F. TOOLS AND PROCESSES FOR KNOWLEDGE TRANSFER

On the previous pages, we've highlighted our approaches for succession planning, retention, and efficiently filling key staff vacancies. We will further support continuous strong performance by bringing new staff up to speed quickly using specific, well-defined tools and repeatable processes, as described in Figure 4.3.

Mike Prett, Keith Ward, and Ken Kvasnicka are Prosci-certified in change management. This comprehensive methodology further equips our team with the tools and expertise needed to lead successful organizational change.

Proven tools and practices facilitate knowledge transfer across all program phases.

Onboarding playbooks

We maintain updated virtual onboarding binders that include program objectives, major decisions, governance model, current program status, stakeholder roles/sensitivities, risks, dependencies, and SOPs in a simple, digital format that makes it easy for new team members to find information and execute quickly.

Centralized document control

Our structured document management system is the single repository for program records. It is an organized, searchable archive with version tracking to support status reporting and provide ready access for program team members, even newcomers, to quickly find what they need.

Automated dashboards

Real-time visualizations of budget, schedule, risks, and milestones provide new team members with on-demand, current program insights. Accompanying how-to guides foster quick proficiency.

Real-time decision tracking

We maintain jointly-owned decision logs that document alternatives considered, stakeholders consulted, final outcomes, and justifications. This allows new and long-time program staff to learn or recall the history of important decisions.

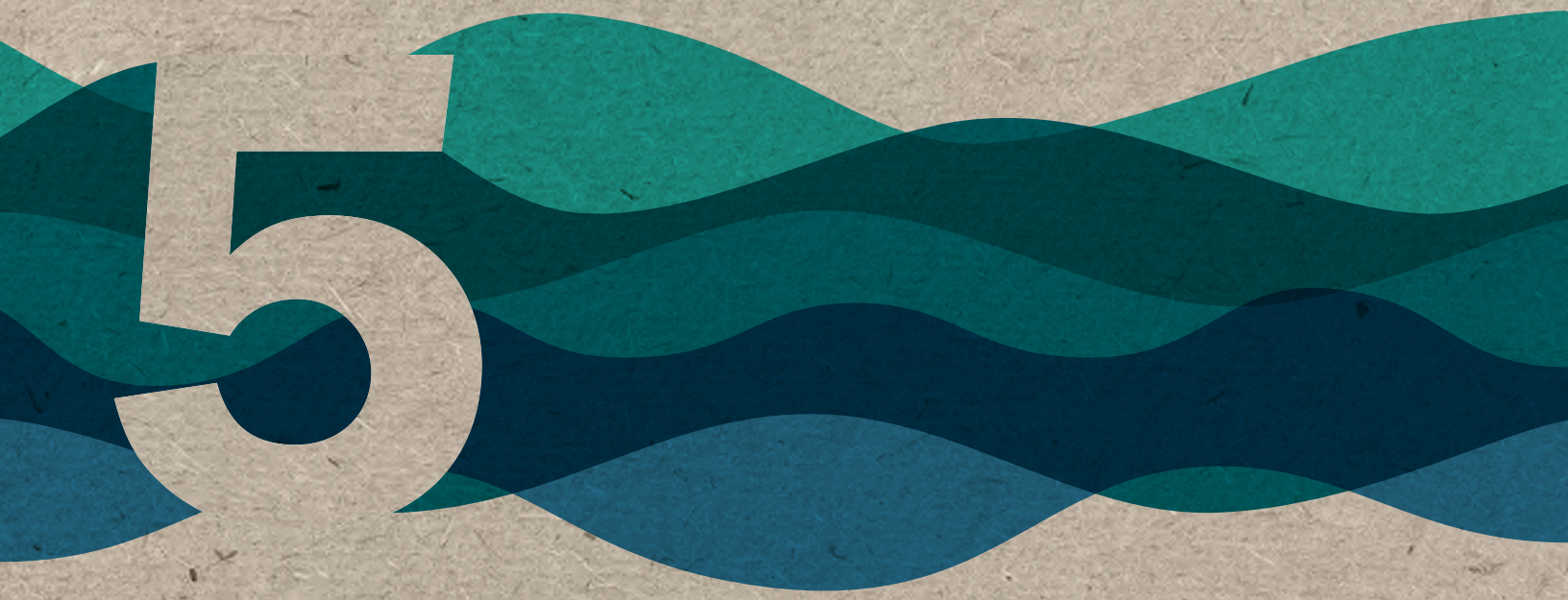
Quarterly knowledge reviews

We conduct regular, formal reviews of key lessons learned, and integrate updates into applicable standards that are reinforced with staff at weekly meetings to support continuous team-wide improvement.

Transition protocols

With support from task/program leaders, departing staff complete a structured handoff process to ramp up new staff understanding of current priorities, active issues, open tasks, and context that may not be captured in other documentation.

Figure 4.3 // Our tools allow us to handle transitions predictably and professionally so that knowledge and performance are retained across the life of the program.



Program Approach

SECTION 5

Brown AND Caldwell

SECTION 5: PROGRAM APPROACH

Our tested strategies have delivered lasting success on 120+ programs worldwide.

With a goal of regional resilience, Cascade is embarking on its largest investment to date. Success will rely on a clearly defined program strategy, a team focused on clarity and purpose, and a structure to manage risks and challenges. **We will turn your vision into reality by delivering:**

- A prioritized startup plan and tailored program management structure
- A culture of collaboration across the program team
- Clear program governance and robust project controls

A. GENERAL APPROACH TO TASK-ORDER STYLE CONTRACTS

A task-order style contract provides flexibility to address unknowns and adapt to evolving program needs, but requires a flexible team that is adept at delivering under a task order structure within the context of a larger program. We will work with you to set a solid foundation for the CSP, leveraging the proven program management practices our team has refined on large water infrastructure programs including the City of Boise RWP and LOTWP Water Supply Program, both delivered via task-order contracts.

Successful implementation of a large, multi-project program hinges on an intentional approach to subdividing and allocating work. PM Jon Holland and DPM Mike Prett bring extensive experience working within and managing long-duration programs via a task-order model. Their approach to task-order style contracts is grounded in flexibility, clarity, disciplined management, and practical program alignment.

For a long-term, complex initiative like the CSP, task orders may be issued based on durations (e.g., annual program management services), functional areas (e.g., controls, ROW, permitting support), defined program deliverables (e.g., Facilities Plan, Operations and Flow Allocation Plan, design standards), non-program tasks that benefit Cascade generally (e.g., tools/systems development), or hybrid assignments that evolve over time. We understand how to accommodate that variability while preserving consistency, responsiveness, and integration across the full program.

Practical Structure, Integrated Execution

We treat task orders not as isolated work efforts, but as interdependent pieces of a unified program. Some may be short and discrete, others broad and ongoing, but all are managed in the context of a shared vision and delivery framework. Our structure allows each task order to have clear lines of responsibility and budget control, while still connecting seamlessly to related efforts and overarching program goals.

Approach based on task-order type. When a task order is duration- or function-based, program staff assignments will be made and adjusted with evolving scope. For targeted, well-defined efforts, we will apply focused delivery teams with clear milestones and deliverables. Where task orders overlap or evolve into blended scopes, we will provide continuity and integration through shared team members, coordinated reporting, and cross-task communication, led by our program management core.

Programmatic Focus

On the City of Boise RWP, we have managed 12 task orders to date—many simultaneously—while delivering on scope, cost, and schedule by maintaining a programmatic focus.

As task orders progress over time, we focus on maintaining clarity and alignment across the entire program to confirm that every task is delivered with discipline and purpose to contribute meaningfully to overall program objectives. We do this by helping team members at every level understand not just their immediate task, but how it connects with what has come before and what comes next.

Task Leadership and Oversight

Every task order will be led by a named task lead who is accountable for delivery, coordination, and communication. Task leads will actively participate in weekly integration and planning sessions with Jon and Mike as well as other leads across interdependent scopes. This structure provides strong ownership for each task while keeping a continuous thread across the broader effort.

We will initiate each task order with a shared understanding of what success looks like to you, including scope, schedule, deliverables, budget, and coordination expectations. That information will be rolled into our overall program work plan, where we manage alignment across task orders and identify potential overlaps, constraints, or opportunities for streamlining. Importantly, we will collaborate with you to define these scopes at a level of specificity that fits the task.

Scalable, adaptive delivery approach. While we will employ standard tools and reporting templates to inform monthly status reports, we do so with a "fit-for-purpose" mindset. Our approach is to equip you with visibility and control through tools that are intuitive, accessible, and adaptable.

Managing Simultaneous Task Orders

For the CSP, we anticipate overlapping work across functional areas—program support, planning, permitting, design, outreach, ROW, communications and outreach, construction, and operations—each of which may generate concurrent task orders. To manage this complexity, we will base coordination on three key practices:

1. Forward-looking coordination through a rolling look-ahead across all active and upcoming task orders
2. Resource balancing and cross-task awareness through weekly task lead coordination, led by Jon and Mike
3. Simple, shared tracking tools that highlight critical intersections and upcoming deliverables across tasks, without overburdening staff with redundant reporting

This structure allows us to maintain control and foresight even as the number and type of task orders grow. We will also track and manage tasks at the program level to provide maximum delivery visibility and risk management.

B. PROJECT MANAGEMENT

Managing a large, multi-year program requires a collective focus on overall goals and outcomes. We will develop and deploy a fit-for-purpose and disciplined project management structure, along with plans, processes, and systems to achieve your program vision. Rather than pulling a prescriptive format off the shelf, we will work with you to tailor a right-sized approach (Figure 5.1) that fits your organizational structure and needs, empowering your staff to scale up the program as it evolves. Each project within the program will adopt a scalable and consistent method to effectively manage scope, schedule, budget, risk, and quality.

The Program Management Plan (PgMP) includes plans, processes, and tools to guide delivery:

- Program Goals and Objectives
- Stakeholder Management
- Program Governance
- Risk Management Plan
- Schedule Management Plan
- Cost Management Plan
- Quality Management Plan
- Communication and Outreach Plan
- Roles and Responsibilities
- Health and Safety Plan
- Procurement Management Plan
- Change Management Plan

Figure 5.1 // Our project management approach begins with an early start on critical path activities, transitions quickly to initiation and planning to build out the program, and then moves into execution and long-term, regular monitoring.

EARLY START

Establish strong working relationships
Hold early teaming sessions to get acquainted and set the foundation for productive and collaborative relationships

Conduct preliminary route screening
Establish focus for subsequent, detailed routing analyses
Begin research on permitting requirements and property ownership

Begin early schedule development
Test assumptions for permitting and property acquisition
Assess number/timing of design and construction packages
Build high-level program schedule

Determine early collaboration tools
Identify file and information sharing methods as bridge until permanent system is in place
Begin evaluating Project Management Information System (PMIS) and other program management tools

Develop early risk register
Identify high-level program riskss before projects are defined

Prepare for exploratory outreach to jurisdictions
Identify key connections and contacts
Develop early understanding of potential jurisdictional benefits and roadblocks

Keith Ward has led teaming sessions for multiple programs, setting up high performing teams for efforts including the SPU CSO Program and Ship Canal Water Quality Project.

Joel Weakland has led the planning of more than 21 miles of large diameter pipeline through dense urban environments and complex geotechnical conditions.

Mike Ankrom has set up PMIS and project controls for large programs including DC Water's $1.8B Sewer Management Program. He will use Cascade's desired criteria to quickly shortlist potential tools.

INITIATE & PLAN

Charter program and establish governance framework
Create shared vision and set tone and direction for CSP, including objectives and definition of success
Update shared list of high level program risks
Establish governance framework to assign roles/responsibilities and decision-making/ escalation process

Develop initial outreach plan and engage key jurisdictions
Develop comprehensive outreach plan and CSP branding, then update CSP website
Engage jurisdictions to build awareness and understand opportunities/roadblocks to inform route planning

Develop Quality Management Plan (QMP) and select PMIS
Outline quality assurance/quality control (QA/QC) processes and procedures
Select PMIS and establish project controls strategy

Develop program schedule and budget
Identify key milestones and risks
Incorporate float/contingency
Review/update current estimate
Plan for early delivery

Launch key technical tasks
Initiate Operations and Flow Allocation Plan
Initiate Facilities Plan
Establish critical permitting and easement/acquisition needs

Develop PgMP

Brett Houghton's facilitation expertise coupled with Rachel Garrett's experience leading public involvement for large local programs like SPU's Ship Canal Water Quality Project will be key to early interactions with key jurisdictions.

Mike Prett will bring experience from the LOTWP Water Supply Program and Boise RWP to reach consensus on reliable baselines.

EXECUTE & MONITOR

Implement PgMP
Operationalize governance structure
Implement full project controls processes
Launch fully configured PMIS and begin tracking key performance indicators (KPI)

Formalize risk register
Implement and regularly update full risk register as projects are defined

Lean into technical analysis
Advance Operations and Flow Allocation Plan, Facilities Plan

Develop permitting and property/ROW plan
Advance technical work to identify key ROW constraints and support critical-path permits and property acquisitions
Begin property acquisition and permitting activities

Launch and manage outreach activities
Launch formal outreach to public and augment interactions with special interest groups and jurisdictions
Implement and manage all aspects of Communication and Outreach Plan

Monitor and control
Implement regular, long-term program monitoring

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Ken Kvasnicka has 25 years of risk management experience for large programs, including King County's $950M Offsite Facilities Program.

Working together to manage property acquisition and permitting on WWSP, Kari Lowe and Jennifer Miller understand challenges, risks, and timelines to inform route selection.

The PgMP is an operational playbook for how the CSP will be managed.

It will include SOPs for use by all program participants to maintain consistency and efficiency. The PgMP will be continually updated as the program evolves, including at key transition points (e.g., planning to design, design to construction, etc.) Keith Ward and Mike Prett have successfully used this approach on the SPU Ship Canal Water Quality Project and City of Boise RWP, where pausing to review lessons learned ahead of key milestones helped proactively identify staffing needs and communication changes.

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C. PROGRAM SUPPORT AND DEVELOPMENT OF GOVERNANCE AND KPI

Successful program delivery will require a clear governance structure to drive sound and durable decisions. KPIs are an effective tool to maintain course, keep team members informed, and report program status.

Program Governance

Multiple internal stakeholders will play a pivotal role in CSP success: the CSP Program Executive, directors, and leads; the Chief Executive Officer (CEO); the Board; the Resource Management Committee (RMC); and Cascade and member agency staff. A clear governance structure that establishes roles and responsibilities, decision-making authority, and escalation protocols is key to effective collaboration and accountability.

Keith Ward helped implement stage gates at SPU to elevate key decisions around risk, cost, and schedule, driving all early action CSO reduction projects to completion by the consent order deadline.

Governance and Success Metrics Lead Keith Ward and our team will work closely with you to formalize a flexible, transparent governance structure that is tailored to your organization. It is critical to begin defining these elements early (as soon as chartering), as role and decision-making clarity will help set the foundation for trust. The governance structure will be documented in the PgMP and become an integral part of the CSP operating playbook.

This structure will include the following:

- **Responsibility Matrix.** This tool clearly identifies who is Responsible, Accountable, Consulted, and Informed (RACI) for each major element within the program. We understand you have begun developing a RACI matrix and will help you build it out with additional decisions and key activities identified as part of the PgMP.
- **Governance Hierarchy.** This hierarchy establishes decision makers and delineates escalation pathways. The overarching goal is to align various categories of decisions (and their significance) with the right level of authority within Cascade's organization.
- **Stage Gates tied to Program Milestones.** Predefined checkpoints throughout the program lifecycle provide structure and enforce quality and risk management, enabling us to assess progress, review deliverables, and make informed decisions. For a long-term, high-stakes effort like the CSP, this builds internal stakeholder confidence at critical junctures (e.g., route selection, environmental review, design milestones, etc.).
- **Standardized Governance Procedures.** This includes meeting cadences and decision documentation protocols.
- **Integrated Program Controls.** We will integrate governance with program controls and reporting to promote transparency and traceability.

The Value of Governance in Major Infrastructure Programs

Key Performance Indicators

As the program moves into full execution, it is essential to have a set of objective measures to meet your cost, schedule, quality, and other objectives. Clear, quantifiable success metrics will allow the program team to proactively course-correct and build internal and external stakeholder confidence in CSP performance. To support oversight and continuous improvement, our approach to KPIs includes the following:

Collaborative KPI development. Keith Ward, Mike Prett, and Mike Ankrom will help you define metrics that align with CSP objectives and are supported by readily collectible data.

Meaningful metrics. Our team relies on industry-standard, phase-appropriate metrics and develops program-specific metrics to provide a holistic view of delivery effectiveness, including:

- Cost Performance Index and Schedule Performance Index: Measure cost efficiency by comparing earned value to actual cost and progress relative to the baseline schedule, including understanding trends over time
- Quality Metrics: Evaluate deliverable quality and outcomes to confirm they meet required standards and inform adjustments to the quality program as delivery complexity increases through design and construction
- Safety Performance: Uses lagging and leading indicators to track potential/actual safety incidents to confirm a safe working environment
- Stakeholder Satisfaction and Team Health: Measures satisfaction of team members, partner agencies, and community stakeholders to confirm communication and teaming performance
- Permit and Easement Acquisition Status: Tracks the number, priority, and status of permits and easements relative to key milestones

KPI dashboards. KPIs will be visualized in intuitive dashboards within your selected PMIS and updated monthly for use by Cascade leadership and teams.

Program Support

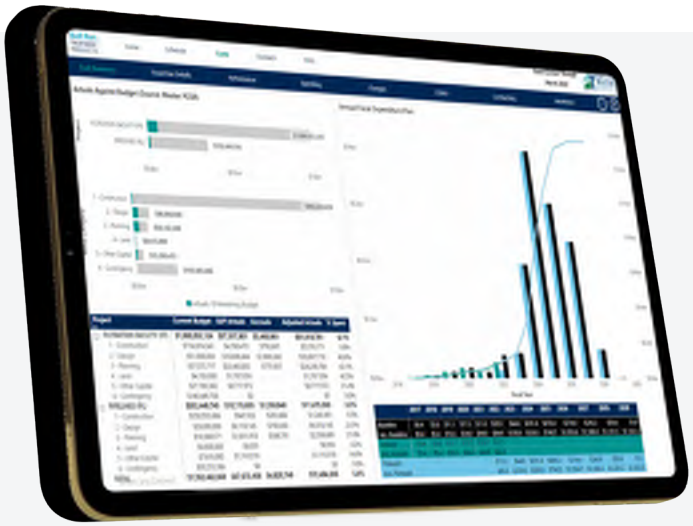
In addition to working with you to establish governance, set KPIs, and develop and execute the PgMP, our team will provide additional program support functions, including:

GIS mapping. We will create integrated geographic information system (GIS) databases and mapping tools to support planning, stakeholder engagement, and permitting.

Communications support. BC's outreach experts, Rachel Garrett and Aubrie Koenig, will work with Brett Houghton, Hayley Nolan, and the PRR team to develop and implement a communications and outreach plan (see Section 6D) to address stakeholders and the public, including tailored website content, infographics, and FAQs.

Procurement strategy. We will assist in developing a procurement plan that balances control, competition, risk, and schedule (see Section 7A).

Grant funding applications. Funding Lead Seema Chavan will identify opportunities, craft compelling applications, and coordinate submissions for local, state, and federal funding (see Section 7D).



Customized Dashboards

On the Bull Run Filtration Program—and many others—we used dashboards to track project progress, resulting in better meeting facilitation and communication to key stakeholders.

Our team configured dashboards using Power BI and SharePoint to create a PMIS tailored to PWB's program needs: P6 for schedule, Excel for cost, Power BI dashboards for easy data collection, SharePoint for document sharing, and other tools for CM. We can develop similar views from your selected PMIS to track CSP metrics, such as cost summary, fiscal year details, performance, spending, changes, schedule, quality management, risk register, and decision log.

D. COLLABORATION AND TEAMWORK WITH CASCADE

Working relationships naturally take time to develop, as we earn trust by demonstrating integrity and accountability. We support this process by creating space in our day-to-day work for humility and humor, which opens the door for honest dialogue, strengthening collaboration and problem-solving.

Guiding Values for Working Together

Leadership sets the tone

We believe it is important to lead with intention, modeling the program culture we want to build with you. We will align with Cascade's mission and values around cooperation, strong relationships, collaboration, transparency, and open and honest communication. These aren't just words—they are intrinsic principles that led us to select the firms and leaders we have chosen for our team and will guide how we conduct our work together.

Trust is the cornerstone

Integrity is a prerequisite for trusting relationships. We treat all team members and stakeholders with the same honesty and respect we extend our staff to create an environment where people speak openly, raise concerns early, and resolve challenges together. Jon Holland, Mike Prett, and team demonstrated these values on the challenging 9-year Lake Oswego Interceptor Sewer (LOIS) Program. Our team was subsequently selected for the LOTWP Water Supply Program based on the trusted relationships we developed. We will work to earn this same level of trust with you and your member agencies.

Culture enhances performance

Feelings are reciprocal and contagious. Recognizing and celebrating contributions is just as important as identifying issues. Leaders need to know when things are trending in the wrong direction, but must also recognize and reinforce good performance. We will help you share praise, highlight wins, and promote a positive feedback loop to develop a culture of mutual respect. This is more than team building; it is performance-building. This philosophy is also embedded in our succession planning framework (see Section 4), which encourages shared leadership, mentorship, and continuity.

We believe that **strong working relationships** are essential to long-term program success.

On the LOWTP Water Supply Program, we set up mini-golf in the program office to foster personal connection and fun over the multi-year program. These connections and a shared sense of purpose deepen motivation, helping teams work more effectively, especially over a multi-decade program.

Managing workload sustains morale

The CSP is an ultra-marathon. Steady, sustainable pacing with measured progress will achieve the best results and produce a motivated, engaged team operating at peak efficiency. We will proactively adjust staffing to meet evolving needs and recognize milestone achievements together. During the complex, multi-year, Bull Run Filtration Program land use permitting process, we brought in additional staff to recalibrate team workloads. This enabled a sustained effort and helped secure required approvals.

Synergy with healthy debate improves outcomes

Conflicts are inevitable in any large program. Successful conflict management is a defining characteristic of a successful team. We will work with you to create an environment where a range of viewpoints is welcomed and debated constructively to harness the benefits of diverse perspectives and expertise. This means building trust early and establishing escalation protocols before issues occur. Our approach encourages respectful disagreement in service of the best ideas. We also share lessons learned and encourage feedback to support a culture of continuous improvement.

Streamlined procedures help navigate bureaucracy

Large-scale programs must navigate multiple layers of bureaucratic review, each with its own set of procedures. What can feel like red tape is often rooted in legitimate accountability. Ken Kvasnicka recently completed an assessment for the King County WTD Offsite Facilities Program with the support of Jon Holland, Keith Ward, Patrick Weber, and Karla Guevarra. This effort identified opportunities to accelerate the project delivery lifecycle to support WTD's goal of increased capital improvement project throughput. We will work with you to identify and streamline procedural bottlenecks, such as signature thresholds, while upholding strong governance. You are well on your way in this regard with your plan to have the Master Services Agreement approved by the Board and task orders authorized by the CEO.

Shared accountability is key

From day one, we will strive to operate as an integrated team with shared goals. Our team will help clarify roles, responsibilities, and expectations across Cascade staff, consultants, and contractors to reduce confusion and promote alignment.

We understand what's at stake with this program. While the technical challenges are significant, it is team culture that will set the stage for successful delivery. This requires team members with a project-first mindset that show up for one another day in and day out. The BC team is deeply committed to the success of Cascade and the CSP. From kickoff to confident operations, we will work side by side with you—listening, adapting, supporting, and achieving together.

E. APPROACH TO COST, SCHEDULE, AND PROJECT CONTROLS

Project controls are more than simply a support function—they are critical to achieve the CSP's long-term benefits. We approach project controls through clear communication, consistent processes, and experienced leadership. Our team will work with you to provide meaningful, actionable information that keeps the program on track and supports confident decisions, with flexibility to adapt over time. Whether resolving a budget variance, assessing a schedule shift, or communicating with your Board or member agencies, our controls practices and timely reporting will bring structure, certainty, and accountability to program delivery. Figure 5.2 shows the key elements comprising our controls approach.

Driving a collaborative and consistent program controls process. Before tools and systems, our first priority is developing an effective program controls strategy. In the PgMP, we will outline processes, plans, and activities to integrate cost, schedule, risk, and performance into a consistent framework focused on benefits management and strategic goals. Partnering with Cascade's Program Controls Lead, we will build a practical, scalable solution with the necessary rigor to monitor, supervise, forecast, and report on all projects and critical activities. We have proven success building customized solutions on large, complex projects and programs.

Program Controls Lead Mike Ankrom brings 40 years of combined experience as a contractor and consultant. He will work closely with DPM Mike Prett and be fully integrated with our task leads, providing the perspective to anticipate challenges, recognize opportunities, and apply lessons learned from his long history functioning in a similar role on large-scale programs.

Tailored, state-of-the-art tools combined with experienced judgment. Technology supports our work, but the real value comes from how our team interprets and uses data—making sense of it in the context of a complex, long-term capital program. We will tailor the right systems and tools to increase efficiencies, minimize delivery risks, support compliance, and improve productivity. During early start activities, our program controls team will collaborate with you to identify PMIS software to be used as part of a comprehensive program delivery approach. In alignment with the PMIS evaluation, we will evaluate and recommend data warehouse, PMIS systems integrations, and data analytic tools (e.g. Power BI) to provide end-to-end data, business process, and reporting solutions. This will provide a consistent method to manage project data and develop information dashboards.

Schedule development and control strategies—a master schedule built on details, updates, and risks. We will work with our task leads and your staff to develop and maintain an integrated master schedule that includes input from Planning and Design Lead Joel Weakland, Construction Support Lead Jerome Duletzke, Permitting Lead Jennifer Miller, and designers and contractors (as they join the program). Informed by our experience on the LOTWP Water Supply Program, Bull Run Filtration Program, WWSP, and City of Boise RWP, our initial schedule will include realistic durations and logical sequencing.

The following scheduling strategies will be of key importance to the success of the program:

- Validate each major schedule component and activity, then combine into the master baseline schedule to coordinate delivery within the capacity of the local construction industry and materials suppliers
- Make continuous schedule updates, with forecasts adjusted regularly (we recommend monthly), based on actual progress and evolving conditions
- Analyze critical path relationships, dependency logic, and float value to confirm the schedule is realistic and achievable, with clearly identified critical path items to drive project and program completion
- Conduct schedule (and budget) risk modeling at key milestones using Monte Carlo simulations to support contingency planning
- Monitor and incorporate updated program risks, refining our outlook based on both new information and observed performance

Figure 5.2 // Tailored program controls, processes, and tools support effective collaboration and regular reporting.

Cost control strategies—estimates, baselines, trends, risks. Our cost estimators will validate planning, design, and construction estimates with input from technical, design, and construction specialists. Initially, this process results in a solid baseline budget with risk-based contingency to minimize surprises. As we progress, we will make budget updates, informed by the latest estimates, and use earned value principles to monitor progress, identify trends, and forecast outcomes. Forecasting is driven by live data and refined monthly based on performance. We will highlight cost drivers and track deviations to provide you with timely, useful information for reporting and making informed decisions on adjustments or future scope.

Some of the most meaningful opportunities to manage cost arise outside of traditional controls. These include:

- Value engineering, ideally on the draft Facilities Plan, when significant ideas can be evaluated
- Maximizing competition among qualified contractors and suppliers through tailored procurement strategies
- Producing high-quality design and bid documents, including clear specifications and thorough investigations to minimize claims

Consistent rigor in monitoring, forecasting, reporting, and corrective actions. We maintain a continuous process for monitoring performance and productivity to identify potential issues early. Mike Prett and Mike Ankrom will work closely with our task leads and technical staff to provide context to interpret data, apply sound judgment, and adjust proactively.

While we don't aim to track every data point, we focus on the trends and indicators that most influence program outcomes. We will work with our project teams to produce periodic reports with meaningful performance metrics and status updates. Program performance is reported monthly, with real-time dashboards available for visibility. These visual tools highlight KPIs, such as total program budget status, earned value versus actuals, schedule progress, and contingency draw down. We will work with your Controls Lead to set cost and schedule reporting standards for designers and contractors to efficiently process large volumes of data.

Our systems are built around consistent work and cost breakdown structures that mirror project, contract, and task-level budgets. This allows the program team to drill down from overall program performance into meaningful subcomponents.

Quality control and continuous improvement provide the foundation. Reliable program controls depend on sound information. The effectiveness of budget forecasts and schedule updates depend on the quality of inputs—scope assumptions, design documents, production rates, utility research, and other planning data. We apply structured QA processes across workstreams to confirm that estimates and schedules are based on the most complete, current, and validated information available.

Quality is not limited to deliverables and design reviews; it is foundational to cost and schedule control. We apply a continuous improvement mindset to our controls processes to improve accuracy and reduce surprises over time.

F. OTHER ASPECTS

Practical Risk Management that Drives Action

Risk management is a core component of BC's program management strategy and critical to delivering the CSP successfully. Our philosophy is simple: the best way to reduce risk is to identify and address it as early as possible, before it escalates into issues that impact cost, schedule, or quality. We apply a practical, accessible, and scalable approach to risk management that will evolve in complexity and precision as the CSP is defined and the program matures.

As part of the PgMP, Risk Manager Ken Kvasnicka will collaborate with you and our program leads to develop a comprehensive Risk Management Plan that will outline procedures, roles, and tools to identify, evaluate, monitor, and respond to risks throughout the program lifecycle.

As shown in Section 5B, during the Early Start and Initiate & Plan phases, we focus on identifying high-level strategic and delivery risks, such as permitting constraints, property acquisition challenges, funding timing, and schedule bottlenecks. This early risk register—scaled to the current level of definition—serves as a starting point for proactive management. As the program transitions through planning, design, and construction, we will expand and evolve the risk register to reflect new insights, emerging risks, implemented mitigation strategies, and lessons learned. It will include both program and project risks and define the phase during which the risk might occur and its likelihood.

We have developed an initial list of key challenges and risks to address (see Table 7.2) and built a team and approach around each, as explained throughout this proposal.

To support timely decision-making, risk review will be a standing item at all program management meetings, with updates communicated through dashboards and summarized in monthly reporting. We also integrate risk data into program forecasting to understand how it affects critical path activities, task order performance, and resource allocations.

In addition to known risks, we explicitly account for uncertainties in program cost and schedule estimates using Monte Carlo simulations—probabilistic models that simulate a range of possible risk combinations and outcomes. These simulations use the risk register as input to model thousands of scenarios, yielding data-driven contingency estimates that replace guesswork with improved probabilistic certainty. BC used these simulations on the Bull Run Filtration and LOIS programs; Keith Ward leveraged similar outputs on the Ship Canal Water Quality Project.

We also account for unknowns, which by definition are not individually identifiable. These are anticipated through experience on similar programs and robust contingencies, especially in early phases.

Using a **Monte Carlo** analysis for the Bull Run Filtration Program, we developed a probability distribution of risk cost impacts on the program budget.

This approach allowed PWB to select a confidence limit, which provided a rational basis for determining contingency funding. This type of analysis is often more appealing to owners than arbitrarily assuming how much risk to fund in a program budget. A similar analysis was performed for schedule risk.

Regular O&M Input for Enduring Service

Incorporating O&M input from kickoff through commissioning will make caring for your new investment easier and safer so it can reliably serve for at least 100 years. Our structured approach, shown in Figure 5.3, will allow us to proactively identify, avoid, and mitigate O&M issues; support your operational readiness; and prepare you to integrate the new assets with your members' systems. A partial list of topics to discuss and resolve during the process includes:

- Identifying Cascade's O&M representatives, perhaps from a member agency or Tacoma Water, to serve as a counterpart to John Nottingham
- Reducing O&M needs by building only required assets; for example, direct routing reduces pipe length and appurtenances, and proper pipe sizing could eliminate the need for future pumping if additional flow is secured from Tacoma Water
- Providing safe access to vaults for in-line valves and pipeline entry points, blowoffs (drains), and combination air release/vacuum valves (CARV)
- Incorporating redundant systems, such as CARVs, in locations critical for surge mitigation or a second pipeline to enhance reliability, prevent outages, and allow shutdowns for inspections and repairs
- Preventing corrosion with proper linings and coatings and designing proven corrosion protection systems that can be easily monitored over time
- Preparing for operations through training, asset data collection, and an intuitive, accessible electronic O&M (eO&M) manual
- Preparing for asset management using a BC-developed tool (in use on the Bull Run Filtration and King County Offsite Facilities programs) for accurate asset data collection and transfer to your computerized maintenance management system (CMMS)
- Considering special procedures associated with filling and draining operations
- Defining transition logistics for the gradual switchover from SPU to Tacoma Water
- Preparing emergency response plans for a variety of real-world scenarios

Operations Support Task Lead John Nottingham is a Washington-certified Water Distribution Manager IV. He brings experience as an owner and consultant working on water distribution systems to lead our continuous O&M approach.

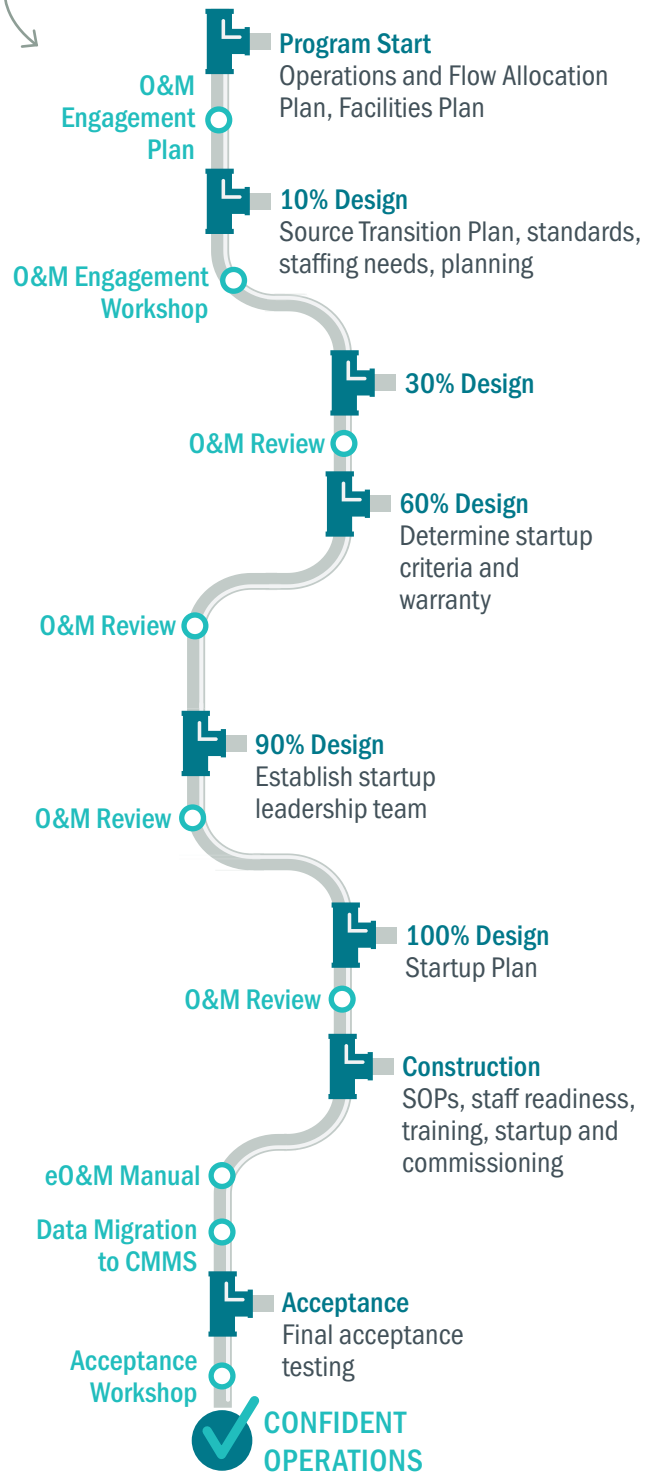


Figure 5.3 // Continual O&M engagement lays the foundation for reliable, maintainable, and long-lasting assets.

6

Technical Approach

SECTION 6

Brown AND Caldwell

Coordinated delivery from start to finish

Extending more than 25 miles through multiple jurisdictions with diverse stakeholder interests and a range of engineering hurdles, the CSP presents significant routing and construction challenges. **Our technical approach is designed to meet these challenges head on with:**

- Integrated teamwork to address diverse stakeholder needs and perspectives
- Early and sustained risk management focus across all technical service areas
- Flexible staffing to meet evolving priorities and the specific needs of each program phase
- Continuity across phases and packages to achieve quality and uphold commitments

A. PLANNING FOR MAJOR INFRASTRUCTURE PROJECTS

Planning for major infrastructure in a busy corridor requires thorough evaluation by an experienced, multi-disciplined team to reach durable, supported decisions. We will consider a range of options, apply tested criteria, and solicit stakeholder input to provide a solid foundation for your investment.

Together, we will develop a comprehensive suite of deliverables to guide permitting, design, and construction. The Operations and Flow Allocation Plan, one of two program-defining planning documents, will identify demand and supply sources, flow rates, and transfer methods for each member agency. It will serve as the basis for system requirements, such as pipeline sizing, turnout demands, and phasing/commissioning strategies for transition to the Tacoma Water/ Tacoma Public Utilities (TPU) supply. These requirements will inform the concurrently developed Facilities Plan, which will identify the preferred alignment and tank site to advance to environmental permitting and design.

Operations and Flow Allocation Plan. Planning infrastructure to meet uncertain water demands over a 100-plus-year horizon requires balancing current and future needs. We will use modeling results to inform pipeline and tank sizing to accommodate projected demand scenarios while balancing water age concerns. We will also evaluate single versus dual transmission pipes and existing points of delivery (POD) and interties between Cascade members. There are 34 PODs (SPU turnouts) that must be evaluated to determine if they should be repurposed for TPU supply or remain SPU connections.

In addition, there are several member-to-member interties between systems. Through close coordination with member agencies, we will determine the optimal configuration of PODs and interties. The analysis will be shaped by the timing and routing of new infrastructure (e.g., Tacoma Cascade Transmission Line [TCTL], Bellevue-Kirkland-Redmond [BKR], parallel Bellevue-Issaquah Pipeline BIP]), transition to TPU, system hydraulics, and geographic layout.

Facilities Plan. The most critical element of the Facilities Plan will be a thorough route study for the transmission pipeline. Every viable corridor—whether a roadway, utility corridor, trail, easement, or a combination—must be fully vetted for feasibility, permitting, and ROW risks and tradeoffs. As shown in Figure 6.1, we start by identifying a wide range of possible routes, including arterials and shared high-voltage (HV) utility corridors (some of which are currently occupied by other major pipelines [e.g., Olympic Pipeline, SPU transmission mains]). From there, a fatal flaw screening will narrow options. Each remaining alternative will be evaluated holistically using a proven set of criteria—consistent with our work on the LOTWP Water Supply Program, Bull Run Filtration Program, and WWSP. These include environmental and permitting, constructability, social/community impacts, seismic resiliency, opportunities, O&M, system compatibility, and cost. To support this analysis, we will perform desktop and field-based investigations for geotechnical, environmental, cultural, traffic, utility, trenchless, and ROW, and leverage multi-criteria decision analysis framework to reach final consensus on the preferred route.

Additional technical planning tasks include:

- **Hydraulic and surge analyses** to confirm reliable system performance and capacity
- **Operations plan** to identify long-term O&M strategies
- **Condition assessment** to evaluate existing infrastructure (e.g., SPU tanks, BIP)
- **Water quality and blending analysis** to confirm compatibility between TPU and SPU supplies
- **Delivery methodology assessment** to determine the best strategy to deliver the program through final design and construction (see Section 7.A)

Securing an optimized pipeline route will be complex and challenging.

The conceptual alignments shown are just the start. Many hybrid variations will be developed and evaluated to select the preferred route(s).

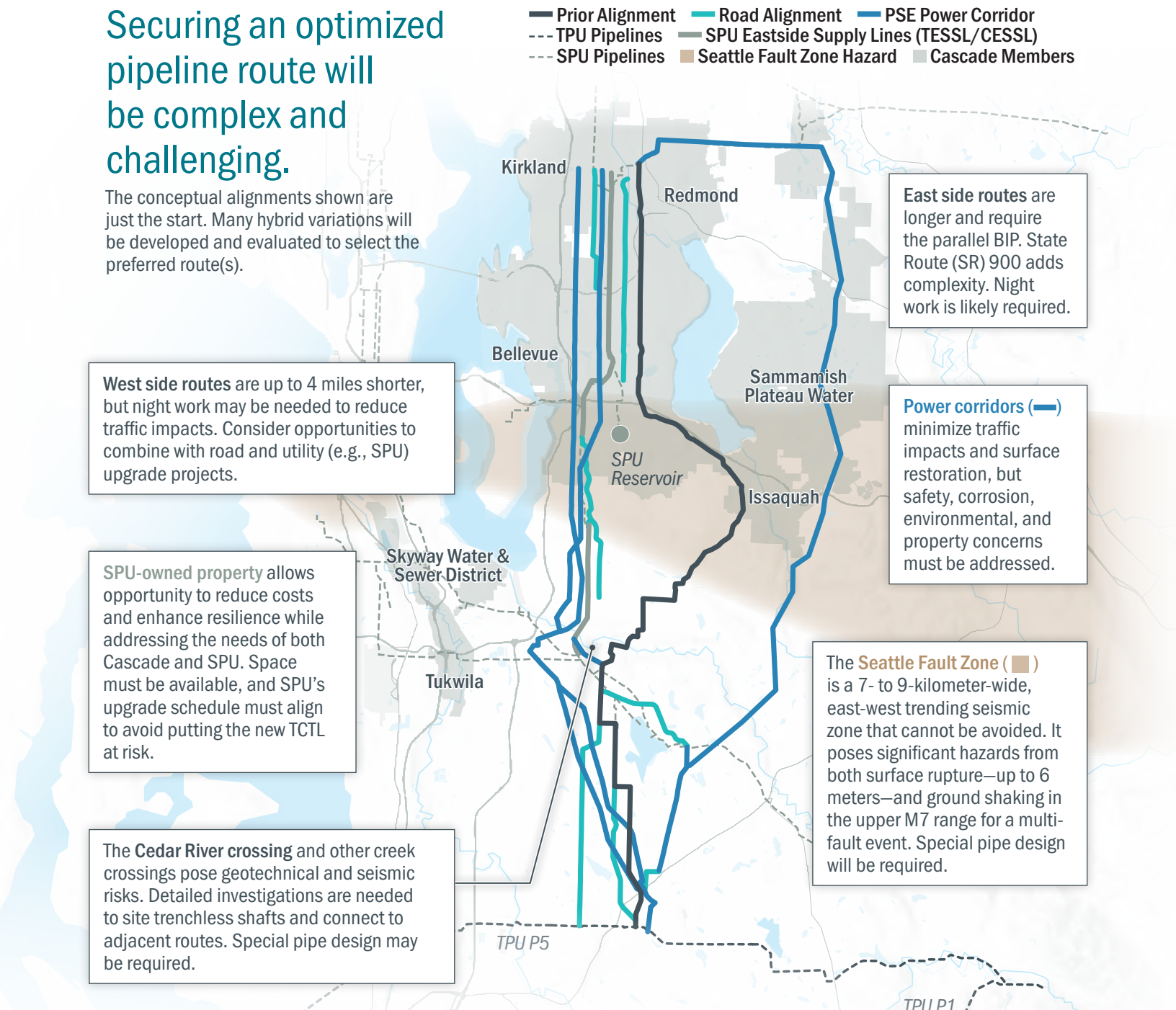


Figure 6.1 // We will conduct a transparent, technically sound evaluation of all route options.

B. OBTAINING FRANCHISE AGREEMENTS, PERMANENT AND TEMPORARY EASEMENTS

We will support real estate acquisition with early coordination, practical risk management, and innovative negotiation strategies—minimizing impacts and keeping the program moving.

Permanent and Temporary Easements

Early research and temporary access agreements expedite future negotiations and transactions. The easement acquisition process begins with thorough data review and targeted research to verify property ownership, tenancies, unique characteristics, and usage. Kari Lowe and Stephen Bray (CC) will catalog all easements required for construction, access, and ongoing maintenance, including replacement rights for third parties and utilities, and work with landowners to secure temporary rights of entry needed for onsite investigations. Our team will advise and coordinate with Cascade, your member agencies, and project partners.

Phased analysis and property rights determination clearly define the scope of needed acquisitions. Our phased approach progresses from preliminary property access needs to identifying all permanent and temporary rights for construction. CC will analyze and define the scope of rights needed, distinguishing between full-fee acquisitions, permanent easements, and temporary construction easements (TCE). This analysis will include consideration of construction needs, future access and O&M requirements, and potential impacts on private properties and third-party access.

Identifying high-risk parcels and prioritizing early possession and use agreements accelerates negotiations. CC will develop mapping and obtain preliminary title reports for potentially impacted properties. Kari and Stephen will identify high risk areas (e.g., long-lead acquisitions, complex ownership, sensitive business or regulatory constraints), prioritizing these sites for early action. For high-risk parcels, we will consider presenting possession and use agreements to get an early indication of the need for eminent domain. We will also identify opportunities to advance early ROW activities that do not require full design and mapping or for properties owned by Cascade members.

Avoiding and resolving conflicts and aligning regulatory requirements saves time and money. Workshops with team members from planning, design, legal, environmental, utilities, construction, and third parties (e.g., public agencies, utilities, local jurisdictions) will identify and resolve overlapping rights and potential conflicts. We will analyze the impacts of alignment and facility siting; consider options to avoid, reduce, or mitigate ROW impacts though design refinements and/or deviations (e.g., variances and exceptions); and, when necessary, develop relocation plans for affected utilities and access routes. Kari and Stephen will coordinate closely with Permitting Lead Jennifer Miller (DEA) and regulatory agencies to align easement acquisitions with permitting requirements, including confirming approvals and agreements are in place for ongoing access and O&M.

Our ROW Acquisition Management Plan will outline the required steps, timing, and governmental/ regulatory requirements for each acquisition, assigning risk levels to each parcel and tailoring acquisition activities to achieve the project schedule and mitigate cost escalation.

As the lead ROW consulting firm for Puget Sound Energy (PSE) large-scale real estate projects, CC brings decades of experience leading acquisition, relocation, title, and property management for PSE utilities and complex energy infrastructure. Led by Casey Hodges, CC will leverage existing relationships and familiarity with PSE's internal processes to help our team efficiently determine whether ownership and encumbrance issues can be overcome to make PSE corridors attractive alternatives viable for pipeline routing.

Transparent, fair negotiations—in compliance with regulations and Cascade's vision—smooth the acquisition process. While technical analyses are underway, we will begin negotiations for temporary and permanent easements. Our team will establish open, transparent communication with landowners, explaining project need and the benefits of cooperation. We will enter negotiations with accurate data, enabling efficient resolution of compensation and transaction terms. If early temporary property access is needed for site investigations, we will secure TCEs through clear documentation and defined terms. For permanent easements, we will negotiate the acquisition terms, including rights for construction, access, and ongoing maintenance, in compliance with regulatory requirements and Cascade's operational vision.

We maintain flexibility, allowing for advance notice of eligibility and early relocation support for affected parties when full acquisition is unavoidable. This supports timely property clearance to allow construction activities to begin on schedule. Throughout the acquisition process, we will maintain open lines of communication with all project partners and stakeholders, documenting progress, adapting our approach to evolving conditions, and providing frequent updates to CSP leadership.

Franchise Agreements

Franchise agreements must be mutually beneficial and minimize risk of future relocation. Negotiating utility franchise agreements with municipalities that do not receive benefits can be challenging, but will likely be required for pipeline routing. The ability to negotiate agreements that are mutually beneficial will be critical to successfully routing pipelines. Agreements should consider opportunity projects—joint efforts that address host jurisdiction needs and leverage Cascade's focus on regional collaboration.

DEA's extensive review of related municipal codes, ROW permits, and existing utility franchise agreements in the municipalities and unincorporated King County along potential pipeline alignments indicate the following:

- Codes and agreement terms vary by jurisdiction but include common elements (e.g., performance standards, maintenance and restoration requirements, indemnification language, duration, relocation requirements)
- Modern agreements are typically 10 to 20 years in duration
- Older franchise agreements typically include fees in addition to actual costs; more recent agreements only allow recovery of actual costs
- Washington law restricts how cities and towns make use of franchise fees and taxes

With experience researching, negotiating, and applying franchise agreement conditions for similar linear utility projects and water supply programs like WWSP, DEA understands how to ascertain franchise application fees and actual costs, determine jurisdictional approval criteria, identify opportunities to negotiate agreements, and mitigate relocation requirements. The most concerning risk for Cascade is that a jurisdiction will demand future relocation of a portion of the TCTL. This can be mitigated through close coordination and by avoiding route segments with one or more of the following, or similar, attributes:

- On bridges, which will likely require replacement before the pipeline, and have seismic concerns
- In Washington State Department of Transportation (WSDOT) ROW, as major state transportation projects may be prioritized and access to pipelines can be heavily restricted
- In Sound Transit's Link expansion corridors (e.g., South Kirkland-Issaquah line, scheduled for completion in 2041)
- In roadways that may be widened, with new or upsized utilities to serve future growth areas, or require regrade (e.g., hillsides)
- In congested roadways where access for routine O&M is likely restricted

Chris Weber, DEA's Senior Utility and ROW Specialist, and Anthony Wilen, DEA's Puget Sound Roads and Highway Leader, will partner with BC's planning team to identify the most viable ROW corridors. Chris worked closely with Kari Lowe (CC) on WWSP, and Anthony has deep knowledge of local jurisdictions' transportation needs.

C. PERMITTING

We will navigate the complex layers of federal, state, and local authorizations with a proven permitting strategy to secure project approvals and preserve flexibility for design and construction.

From a permitting perspective, the CSP is unique from other water supply projects in that there is no new water source. Since the CSP will rely on TPU's existing diversion on the Green River, there are no intake upgrades required. This will likely simplify the Endangered Species Act (ESA) consultation. While some ESA-related impacts are expected and a Biological Opinion is likely required, federal permitting will be less onerous because no withdrawal authorizations are needed. However, because construction will traverse a dense, urban environment, an array of local approvals (see Table 6.1) will be required.

Our permitting team will be engaged from beginning to end. Local authorizations and State Environmental Policy Act (SEPA) compliance will be shaped by the political landscape of cities, King County, and Tribal governments—each with its own priorities, land use frameworks, and public sentiments. Navigating this landscape will require clear and consistent communication with all stakeholders and a program management team operating in absolute alignment though the life of the program. DEA will be involved from conceptual design through construction and commissioning, providing continuity and permitting support at all stages, including development of communications strategies and implementation plans (see Section 6D).

Our transparent approach will minimize surprises and build trust for a smooth, collaborative process that mitigates risk (see Table 6.2). Jennifer Miller (DEA) and team engaged in a similar fashion as part of BC's LOTWP Water Supply Program team and supported all project partners on the WWSP.

A thorough multi-discipline alternatives analysis is the path to Least Environmental Damaging Practicable Alternative (LEDPA). The highly developed urban corridor presents challenges for siting the TCTL, which we will address through a comprehensive routing analysis. We must balance community/traffic impacts and public opposition to siting the pipeline primarily within ROW against the likely greater environmental impacts of selecting a route primarily within private property or utility corridors. Our integrated permitting, ROW, and planning team will develop comprehensive evaluation criteria consistent with National Environmental Policy Act (NEPA) and Clean Water Act Section 404(b)(1) alternatives analysis requirements to select the LEDPA. For example, following an existing HV transmission corridor could increase impacts to wetlands, waterways, and ESA habitat. However, impacts may be reduced with trenchless crossings or resource restoration/enhancement following construction. This could increase construction costs but may be worthwhile in the face of opposition.

DEA's **Jennifer Miller** led the environmental and land use permitting for the 30-mile-plus WWSP, working closely with the owner and design teams to focus preliminary design to support permitting.

Jennifer and team participated in a thorough routing analysis and developed an effective permitting strategy. This included conceptual-level plans of resource crossings and a permit modification strategy, with approval from the agencies, to streamline permit modifications as design and construction progressed. DEA also conducted environmental, hazardous materials, and cultural baseline surveys, and supported the program through construction by providing compliance and environmental monitoring support.

Table 6.1 // Potential Required Local Jurisdiction Permits

Agency	Land Use	Utility Extension/Civil	ROW
City of Bellevue	Conditional Use Permits (CUP) in all zones	Utility Extension (UE) Agreements for water mains	Franchise Utility ROW Permit (TJ) or ROW Permit for Government Projects (TK)
City of Redmond	CUP (regional utilities not permitted in OT, AP, TWNC, BC, VV, TR, SMT, TSQ, RVBD, RVT, CTT, EH RR, BCDD1, BCDD2 zones)	Utility Permit (UP) for water meters, main connections, hydrant use; Civil SITE Permit (combines clearing, grading, utilities)	ROW Use Permit
City of Renton	CUP in all zones	UP for water	ROW Permit
City of Issaquah	Major Utility/Minor Utility Permits	Utility Service Application (included in site work); Stormwater Report per WA Manual	ROW activities bundled in site work; may require separate ROW permit
City of Kent	Minor CUP in all zones	UE using civil/utility permits via Public Works	ROW Construction Permit; may require franchise agreement
City of Covington	Permitted or CUP	Utility/ROW Permit via Public Works	Non-franchised Utility ROW Permit
Unincorporated King County	Special Use Permit	Special Use Permit (civil review; detailed water-service application)	Limited or Extended ROW Use Permit

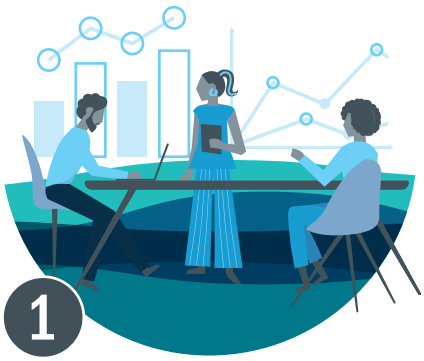
Table 6.2 // Permitting Risks and Mitigation Strategies

Risk	Mitigation Strategies
Schedule Delays	– Maintain early, transparent, consistent stakeholder communication – Implement conservative permitting strategy (evaluate U.S Army Corps of Engineers [USACE] 10-year individual permit and project-specific Biological Assessment versus nationwide permit and programmatic Biological Opinion to obtain approvals that span construction and provide program-wide coverage) – Conduct robust routing alternatives analysis that considers permitting criteria to secure LEDPA approval – Incorporate potential permit appeals into permitting and master program schedule scenario – Incorporate change management process to account for design progression, extended construction periods, regulatory changes, and agency staff turnover
Authorizations Challenged or Withheld	– Maintain early, transparent, consistent stakeholder communication – Lay groundwork for land use approvals prior to submittal by meeting regularly with staff and leadership – Add project to comprehensive plans and/or capital improvement plans, where needed – Implement necessary zoning changes, where needed, to facilitate allowed use – Conduct SEPA Environmental Impact Statement (EIS) process instead of checklist to incorporate stakeholder engagement process and minimize risk of appeal
Compliance During Construction	– Embed DEA permitting representative within construction team – Facilitate permit amendments (e.g., in-water work extensions) – Identify creative solutions to stay within existing permit conditions – Monitor site restoration efforts
Stormwater/ 6PPD-quinone	– Develop stormwater management approach to describe how the CSP will comply with evolving stormwater requirements to address 6PPD-quinone impacts to salmonids – Vet approach with stormwater permitting agencies prior to the submitting permit applications – Propose stormwater management only for project facilities that generate new impervious surface

D. STAKEHOLDER ENGAGEMENT AND OUTREACH

The CSP will have disruptive impacts for a variety of stakeholders across several member agencies and host jurisdictions. We will build trusted relationships through targeted, frequent, and strategic communications to minimize impacts, earn support, and enhance Cascade's regional standing.

Our strategy, grounded in research and community engagement best practices, is centered around three broad audience groups: Jurisdictional, General Public, and Institutional/Special-Interest. We will tailor tactics for each group based on specific goals for each program phase: Routing/Planning, Design, and Construction.



Jurisdictional Engagement

Jurisdictional engagement focuses on coordination with cities, King County, Tribal governments, permitting agencies, and utilities that have regulatory authority or are directly impacted by the pipeline. These stakeholders play a critical role in planning, permitting, design, and managing construction impacts.

General Public Engagement

Public engagement addresses residents, businesses, and civic groups. The strategy will evolve through program phases, focusing on early awareness and trust building, transparency and influence during design, and timely communication and responsiveness during construction.

Institutional/Special-Interest Engagement

This addresses organizations that may not govern directly but are key influencers or collaborators in technical, regulatory, or operational success, including regional/state agencies, utility/infrastructure owners, land conservancies, cultural/environmental community-based organizations (CBO), school districts, emergency service providers, and large landowners.

Managing Opposition

As with any high-visibility program, the CSP will face scrutiny and, at times, opposition. Resistance may include concerns about environmental impacts, community disruption, interagency tensions, and perceived inequities. Left unaddressed, this could erode trust, delay permitting, and drive up costs. To manage opposition, we have matured the following key tactics on the Ship Canal Water Quality Project and Bull Run Filtration and LOTWP Water Supply programs:

1. Anticipate and plan for response to opposition when it occurs; consider engaging specialized public affairs experts
2. Counter erroneous information or opinions with technically sound information—do not let others determine the narrative
3. Identify local CSP champions to magnify program benefits and steer opposition towards productive outcomes

The $710M, multi-decade Ship Canal Water Quality Project included a 2.7-mile, 18-foot-diameter tunnel through the Ballard, Fremont, Wallingford, and Queen Anne neighborhoods. BC's Rachel Garrett (former SPU Project Communications Lead) and PRR developed an engagement plan to join King County and SPU priorities, focusing messaging around project benefits and aligning activities to program phases. During the first 6 months alone, they briefed 11 regional boards, reached nearly 500 community members, and created a project video that received more than 1,000 views.

Engagement Strategies

We have used the following goals and engagement strategies for previous programs. BC's strategic engagement specialists Rachel Garrett and Aubrie Koenig will partner with Brett Houghton, Hayley Nolan, and the PRR team, collaborating with you to tailor this approach for the CSP.

	1 Jurisdictional	2 General Public	3 Institutional/Special-Interest
ROUTING/PLANNING PHASE	**GOALS: Build awareness; align with local priorities; proactively identify risks, constraints, and opportunities** **STRATEGIES/TACTICS:** – Engage key staff and officials from affected jurisdictions individually and through a collaborative advisory structure such as a Jurisdictional Advisory Committee – Build relationships with governing bodies through early, non-binding briefings and listening sessions – Maintain consistent engagement with Cascade Board and member agencies through regular briefings and listening sessions	**GOALS: Educate and build program awareness; gather targeted input; build trust in program need and value** **STRATEGIES/TACTICS:** – Develop program identity/brand and messaging focused on public benefit – Build program awareness and support through direct community engagement, using interactive tools – Gather public input on specific elements relevant to program planning through outreach to neighborhood councils, homeowner associations, and civic groups	**GOALS: Build awareness; proactively identify risks, constraints, and opportunities** **STRATEGIES/TACTICS:** – Engage key staff from utility/infrastructure owners, agencies, CBOs, water partners, wholesale customers and other interested parties – Create shared-benefit messaging to frame participation in terms of mutual benefits (e.g., redundancy, fire protection, shared access corridors)
DESIGN PHASE	**GOALS: Confirm design feasibility; coordinate efficient permitting process; align to infrastructure plans** **STRATEGIES/TACTICS:** – Continue ongoing coordination with jurisdictions through recurring technical meetings and design summary packets – Continue ongoing briefings with elected officials and agency department heads – Initiate pre-application consultations with permitting agencies	**GOALS: Maintain trust; communicate benefits/potential impacts; respond to community needs** **STRATEGIES/TACTICS:** – Provide accessible, consistent messaging via a project website – Offer opportunities for input at key touchpoints by partnering with CBOs; conducting small-group roundtables with schools, businesses, and advocacy groups; and hosting open houses and virtual public meetings during environmental review	**GOALS: Facilitate coordination; mitigate risk; leverage shared value** **STRATEGIES/TACTICS:** – Hold one-on-one partner briefing sessions with regional agencies and wholesale partners – Host technical forums including regular design and routing coordination meetings with utilities and infrastructure owners – Use memorandum of understanding/formal agreements to clarify roles, commitments, and expectations
CONSTRUCTION	**GOALS: Manage disruption; prevent surprises; maintain goodwill; coordinate closely with local agencies** **STRATEGIES/TACTICS:** – Continue ongoing coordination with jurisdictions through periodic construction look-ahead updates; briefing memos ahead of major construction (e.g., road closures) – Collaborate with jurisdictions and local agencies on traffic management, access plans, and emergency service coordination	**GOALS: Minimize frustration; prevent surprises; provide timely updates; resolve issues quickly** **STRATEGIES/TACTICS:** – Provide proactive, accessible updates at regular intervals and ahead of major construction activities through weekly construction maps and advance notices – Provide accessible tools for stakeholders to report issues, offer feedback, and resolve issues	**GOALS: Manage disruption; prevent surprises; maintain goodwill; provide timely updates** **STRATEGIES/TACTICS:** – Provide regular updates ahead of major construction activities – Hold select one-on-one briefings, as needed

E. THIRD PARTY CONSTRUCTABILITY AND DESIGN REVIEWS

Constructability and design reviews are built into our process early—improving coordination, reducing surprises, and aligning with program standards across multiple packages.

We have assembled a team of experts with local and regional knowledge across all relevant review disciplines. Their insights will help secure optimized solutions and confirm design feasibility. To maintain the continuity needed to carry early decisions through to construction and closeout, we prioritize staff retention. For example, Joel Weakland will transition from Planning Support Lead to Design Support Lead as the program advances. This intentional staffing decision will allow us to preserve institutional knowledge and program context over the life of the CSP.

Constructability Review Strategy

Early involvement sets the tone. Constructability reviews will begin prior to the 30-percent design milestone and continue through each subsequent phase. While formal reviews are scheduled at major design milestones, our team engages even earlier—during route selection and initial program planning—to inform key alignment and phasing decisions. These reviews are fully integrated into the design team's workflow and aligned with key decision gates to provide maximum impact.

Our reviews go beyond desktop-based analyses. We prioritize onsite reconnaissance, engaging constructability leads, designers, CM staff, and environmental/permitting specialists in the field. This boots-on-the-ground perspective confirms that design assumptions are grounded in real-world conditions to identify potential issues such as access constraints; buried and overhead utility conflicts; traffic control and impacts; and limitations on work zone widths, staging, or laydown areas before significant design progression.

Design Review Process

In parallel with constructability efforts, we will conduct independent, discipline-specific reviews across all major technical areas in accordance with the program's QMP. We will conduct formal reviews at 30/60/90/100-percent design milestones. During each review, we will evaluate technical accuracy, specification completeness, constructability/biddability, permitting/environmental alignment, O&M and safety considerations, cost, risk, and schedule.

Reviews will also allow us to validate consistency with program-wide standards and specifications to confirm uniformity across design packages and improve contractor biddability to gain pricing confidence. We will log review comments in a central tracking system to provide traceability and facilitate structured resolution. Our program team will conduct internal interdisciplinary reviews and facilitate collaborative review sessions with design teams and key stakeholders to confirm resolution before advancing to the next design milestone.

To streamline workflows and maintain alignment across design teams, we will use a cloud-based collaborative review platform (e.g., Bluebeam Studio) to enable real-time, multi-user markups and comment tracking. We will clearly define reviewer roles and include cross-functional participation. Customized digital markup tools and templates will support consistency, reduce rework, and minimize manual data handling. We have successfully implemented this approach on past programs, including the Bull Run Filtration Program, where our team coordinated timely design reviews involving hundreds of commenters.

John Riney and Wayne Toney (R&T) bring hands-on experience constructing more than 10 miles of large-diameter pipeline for the LOTWP Water Supply Program and providing constructability guidance to our team throughout the WWSP and Bull Run Filtration Program. Their expertise will directly inform route selection, construction staging, traffic control feasibility, night work planning, and utility coordination. More than reviewers, they are strategic advisors, working with the planning team from the outset to shape practical, buildable solutions that limit community impacts.

Cost Estimate and Construction Schedule Reviews and Validation

Projects can go over budget due to underestimated complexity, volatile market conditions, and evolving scopes. At each design milestone, we will review and validate the Engineer's Opinion of Probable Construction Cost (EOPCC) to confirm alignment with scope, design, and current market trends. We'll assess unit pricing, key cost drivers, escalation, allowances, and design contingencies, while accounting for project-specific challenges like access, traffic control, trenchless work, and staging.

We will conduct construction schedule reviews at each milestone to validate construction phasing and sequencing assumptions, confirm realistic timelines, and align program goals and community impacts. Early schedule validation supports proactive risk management and mitigates costly delays during construction.

At the program level, we'll monitor EOPCCs across all projects to identify outliers, track cost evolution, and maintain alignment with the overall budget. We can also bring a risk-based approach to program contingency funding as discussed in Section 5. This structured, milestone-based approach brings transparency and credibility to cost forecasting, supporting informed decisions and helping control costs in an uncertain environment.

Why our review process works:

- Reviews begin early, before 30-percent design
- Field reconnaissance grounds assumptions
- Constructability consultant has extensive large-diameter pipeline construction experience
- Design QA/QC covers all disciplines
- Program standards maintain consistency
- Cost estimates validated as projects evolve

Leveraging Lessons Learned on Prior Pipeline Supply Programs

Our committed team brings extensive experience across the full project lifecycle— from planning and design through construction. Collectively, our team delivered more than 26 miles through the LOTWP Water Supply Program, WWSP, and Bull Run Filtration Program. We have encountered and resolved a wide range of challenges and issues—lessons we're ready to apply to the CSP.

To uphold design and construction quality, our team will implement several targeted strategies that are especially vital for large-diameter, steel pipelines where field rework is both difficult and costly. **Key strategies include:**

- Verify survey datum. This is critical when multiple projects are delivered by different designers and surveyors. For example, WWSP's PLM_4.0 included three different datums across four construction packages due to multiple county-led opportunity projects.
- Review pipe connections between segments to verify alignment and elevation at all tie-in locations between construction packages.
- Conduct independent potholing to supplement design team investigations at select, high-risk utilities. At a minimum, major utilities will be potholed twice, once during design and again during construction to mitigate conflict risks and limit the potential for costly change orders.
- Monitor contractor pressure testing activities and valve operations during system startup. This will help avoid surge-related issues and facilitate proper commissioning.

These QA measures are just a subset of the practices we will deploy to confirm the CSP meets schedule, budget, and quality expectations and achieves your goals for long-term reliability.

F. CONSTRUCTION MANAGEMENT

Successful construction management for a multi-site program requires clear structure and strategic foresight. We will sequence work packages thoughtfully, coordinate concurrent efforts for efficiency, and maintain continuity across sites to keep priorities on track.

Optimized sequencing will achieve the program schedule within capacities. Constructing 25-plus miles of pipeline, storage tanks, chlorination facilities, and connections to Cascade member systems will require concurrent construction packages to meet the 2041 target with comfortable float time. However, compressing too much work into a narrow window risks exceeding contractor and supplier capacity, Cascade's preferred expenditure schedule, acceptable traffic and community impacts, and the bandwidth of CSP staff and construction management resources.

To mitigate these risks, our phasing strategy limits the number of major pipeline packages under construction at any one time—typically no more than two—while allowing flexibility to break out critical packages when warranted (e.g., key trenchless crossings). This approach will maintain manageable workloads and reduce the potential for schedule conflicts or resource bottlenecks. Strategically sequencing discrete construction packages will also allow us to select the best delivery method for each component and support potential opportunity projects with other utilities or jurisdictions. Our proposed construction phasing and packaging strategy is shown in Figure 6.2.

Optimized construction packaging allows us to:

- **Build schedule resilience.** Strategically sizing packages allows float to absorb delays due to permitting challenges, opposition, construction setbacks, and supply chain disruptions.
- **Reduce strain on resources.** Phased work prevents overload on finite regional resources (e.g., designers, contractors, pipe suppliers), helping control costs, mitigate risks, and maintain quality.
- **Increase local opportunity.** Right-sized work packages, aligned with local bonding capacities, increase participation and foster competition.
- **Keep costs in check.** Grouping segments by attributes (e.g., trenchless, seismically-resilient pipe) enables contractors to achieve economies of scale and reuse tunneling equipment.
- **Enable strategic coordination.** Aligning pipe limits with opportunity projects (e.g., road widenings, stormwater upgrades, fish passage restoration) minimizes duplicate work, allows cost-sharing, and builds community support by consolidating impacts.
- **Allow multiple delivery types.** Delivery methods can be tailored based on scope, risk, and market conditions to maximize value, maintain schedule, and adapt to evolving program needs.

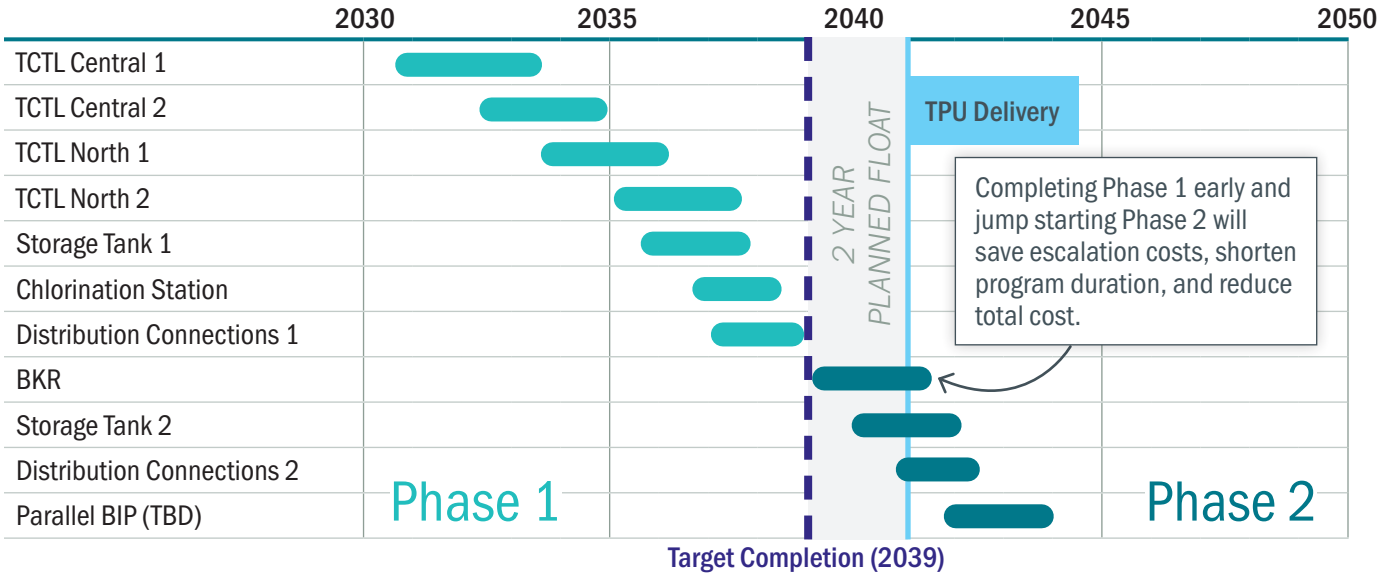


Figure 6.2 // Our preliminary schedule builds in two years of float.

A deep construction management bench enables teams to manage concurrent packages. Executing concurrent construction projects across a regional footprint requires a seasoned, scalable construction management team. Our team includes a large pool of construction management professionals from BC, KJ, and KBA to adapt to evolving program needs. We bring relevant experience from similar pipeline programs, including LOIS Program, WWSP, Bull Run Filtration Program, and the LOTWP Water Supply Program. Backed by a flexible and seasoned workforce, our structure includes the following designated roles:

- **Construction Support Task Lead.** Jerome Duletzke will oversee all construction management staff and serve as the primary advisor on program-wide construction issues
- **Construction Support Task Co-Lead.** We have incorporated succession planning into our organizational structure through dedicated co-leads. In addition to continuity and knowledge retention, Bobbie Gilmour (KJ) will provide local oversight and participate in work planning, coordination, and internal decision making. Throughout the construction phase, Bobbie will lead internal coordination meetings to maintain alignment across all active projects
- **Project-Specific Construction Managers.** Construction managers will oversee daily field coordination, contractor interface, issue resolution, and progress tracking to confirm each project stays on schedule and within scope
- **Safety Manager and Field Safety Staff.** Dedicated safety staff will promote a proactive, program-wide safety culture, review contractor work plans, audit job sites, enforce compliance, and advise field teams, as needed
- **Field Inspectors.** These mission-critical team members will serve as the first line of defense in the field for construction quality. They will enforce standards; document work daily; support change order evaluation; and help maintain project scope, budget, and schedule

Proven construction management practices reduce risk and preserve team capacity. By setting expectations early, we deliver efficiency, accountability and quality. We will leverage the following proactive approaches to reduce budget and schedule risks and preserve team capacity:

- Engage constructability subject matter specialists early to support design reviews and provide ongoing input during construction to identify risks, improve means and methods, and streamline field execution
- Prequalify contractors for design-bid-build (DBB) delivery to enhance quality and competition
- Prevent differing site conditions claims, particularly for tunneling and unknown utilities, by conducting geotechnical investigations during design and potholing major utilities early and again during construction (via contractor allowance bid items)
- Integrate claims prevention and resolution into daily workflows, supported by a dedicated expert or team focused on issue management; address change orders promptly, while details are fresh and before key personnel transition to the next project
- Allocate contractor risk appropriately by assigning to the party best equipped to manage it and reduce change orders/claims through contract terms
- Streamline coordination across program with user-friendly construction management software for effective communication, tracking, and documentation
- Implement a proactive, all-encompassing quality testing program (including joint testing, backfill compaction, pipe deflection, hydrostatic pressure testing, corrosion/cathodic protection testing, and asphalt testing) to avoid rework, control costs, progress construction on schedule, and deliver 100-year design life
- Prepare detailed agendas (informed by field walks and focused on active issues) for advance distribution to the contractor, Cascade, and other relevant parties, followed by post-meeting notes that emphasize issue resolution and contractor commitments with follow-up field visits, as needed

Question Responses

SECTION 7

Brown AND Caldwell

SECTION 7: QUESTION RESPONSES

A. COLLABORATIVE VERSUS TRADITIONAL DELIVERY METHODS

Comprehensive collaborative delivery experience facilitates confident decisions in a competitive market

Collaborative Delivery: When and Where?

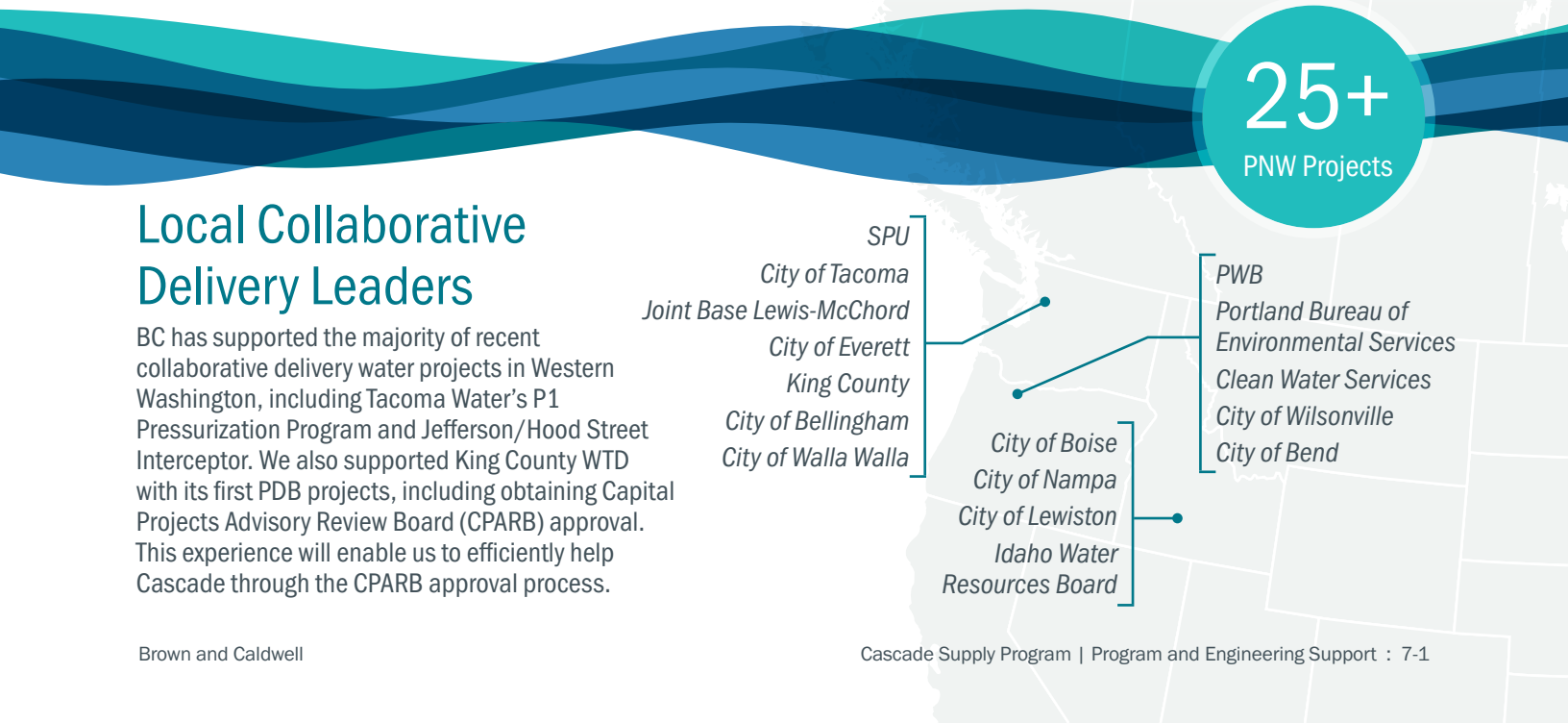
Collaborative delivery approaches such as General Contractor/Construction Manager (GC/CM) or Progressive Design-Build (PDB) may be advantageous for challenging pipeline segments, like crossings of WSDOT highways, creeks, the Cedar River, and other sensitive areas. The contractor can inform construction methods, alignments, profiles, shaft locations, geotechnical exploration, access/staging areas, sequencing, risk mitigation, and agency coordination to help select the most viable solution. The new Cascade storage tanks and chlorination facility may also benefit from GC/CM, PDB or Fixed-Price Design-Build (FPDB) delivery, particularly if Cascade acquires SPU's Eastside Reservoir site before it can be assessed and upgraded, as contractor input may allow us to move forward more confidently with construction planning, including permitting and property rights acquisition.

For standard open-cut pipeline work in right-sized packages, where the work is well understood and can be thoroughly designed, the cost advantage of competitive bidding offered through DBB among prequalified contractors likely outweighs the potential advantage of collaborative delivery. Our key leads have experience on similar pipeline work, leveraging our veteran construction managers and contractor advisors/subconsultants to provide insights on access/staging needs, work hours, traffic control, production rates, and cost control methods.

Our DBB prequalification process is rigorous, objective, and enforceable, with clearly defined ground rules and owner reference checks. This results in a bidder pool of competent firms with a track record of successful delivery. We used this approach for all pipeline work on the LOIS and LOTWP Water Supply programs. WWSP took a similar approach and hard bid most pipeline work. DBB can also provide excellent results for trenchless construction. The LOTWP Water Supply Program included a 3,900-foot horizontal directional drill Willamette River crossing, and WWSP included a 2,200-foot tunneled Tualatin River crossing (designed by Delve as part of the BC team), both procured with hard bid packages.

Local Collaborative Delivery Leaders

BC has supported the majority of recent collaborative delivery water projects in Western Washington, including Tacoma Water's P1 Pressurization Program and Jefferson/Hood Street Interceptor. We also supported King County WTD with its first PDB projects, including obtaining Capital Projects Advisory Review Board (CPARB) approval. This experience will enable us to efficiently help Cascade through the CPARB approval process.



Pros and Cons by Delivery Type

A key benefit of collaborative delivery is early contractor input during design. Table 7.1 shows additional pros and cons for each method.

Table 7.1 // Delivery Method Considerations

	⊕ Pros	⊖ Cons
DBB	Attracts most competition (if right-sized); provides increased owner control during design	Requires owner retain most risks; may extend schedule and increase claim/ change order frequency
GC/CM	Allows early contractor involvement, cost transparency, and risk mitigation; provides ability to select contractor based on qualifications	Requires more owner resources; obtaining competitive pricing can be challenging; designer and contractor may still point fingers
PDB	Allows early contractor involvement, cost transparency, and risk mitigation; provides ability to select contractor based on qualifications; offers single point of accountability	Requires more owner resources; obtaining competitive pricing can be challenging
FPDB	Provides early price certainty and single point of accountability	Limits owner involvement in design once fixed-price set

Delivery Method Selection Process

BC applies industry best practices from Design-Build Institute of America (DBIA) and Water Collaborative Delivery Association (WCDA) to facilitate unbiased delivery method evaluations by working with owners to understand key project drivers and objectives, and aligning them qualitatively or quantitatively with the method that best addresses project-specific needs (Figure 7.1). We will work with you to select the delivery method that best achieves project outcomes and balances control, competition, risk, and schedule.

Market Outreach

With current demand for new capital projects, contractors are more selective than ever. As part of delivery selection, we suggest conducting a market sounding by distributing a brief project summary and key questions to potential contractors, followed by short, confidential interviews to solicit candid feedback. This process helps determine the appropriate delivery method, generate early interest, refine procurement plans, and maximize competition.

Patrick Weber has led recent, informative market soundings and delivery method evaluations for King County WTD, Tacoma Water, City of Tacoma, and many other utilities across the Puget Sound region.

1 Screening

Project characteristics are screened against "Yes/ No" criteria to identify segments or projects that may be good candidates for collaborative delivery.

2 Criteria Development

CSP team selects/weights project-specific criteria.

	Sample Criteria
SCORES	*Risk allocation*
	Contractor input in design
	Owner control of design
	Schedule
	Competition
	Funding compatibility
	Cascade experience
	Market sounding results

3 Evaluation and Ranking

CSP team applies criteria and scores alternatives.

Owner's advisor facilitates objective evaluation with CSP leadership to match project objectives and justify selection.

Cascade Selects Delivery Method

Figure 7.1 // With our structured and transparent evaluation process—grounded in industry best practices—we will help you select delivery options that provide the best value in a competitive market.

B. INTEGRATING LOCAL/NON-LOCAL STAFF

Industry-leading program management capabilities grounded in deep local knowledge

BC partners with clients across the nation to deliver transformational programs, achieving award-winning results. We have executed programs valued from $90 million to $3.5 billion in total capital costs, including the most significant water supply programs in the region.

To bring you the best combination of program management expertise and local knowledge, we have built a team with experience delivering the area's most recent, relevant water infrastructure programs. Our team brings valuable lessons learned and a proven track record of collaboration—blended with a strong local presence that aligns with your goals for accessible, responsive program leadership.

Strategically structured to support you from start to finish

Our dual-lead team structure achieves three core objectives:

1. Provides consistent local presence and responsiveness for in-person meetings, jurisdictional coordination, and field support
2. Creates built-in coverage and continuity for succession planning over the duration of the program and for routine coverage during vacations
3. Combines deep, specialized knowledge with intimate local context, regulatory familiarity, and community understanding

Team Structure

Program Management

Our Pacific Northwest team is a nationally recognized hub of program management expertise that includes many of our firm's most experienced leaders, including Jon Holland and Mike Prett, who will apply industry-leading capabilities, grounded in deep local understanding. Jon is excited to return to the Puget Sound area and partner with Mike, once again, to manage this important program.

Jon and Mike have worked together since 2007 to deliver complex programs, including holding similar roles on the 9-year LOIS Program and the 8-year LOTWP Water Supply Program. Mike's exceptional acumen in business processes and tools, program controls, and risk management will allow Jon to engage more with the technical, permitting, political, and decision-making needs of the program. This combination puts to best use their strengths as well-rounded leaders, program managers, and communicators. Jon will be available for all in-person meetings, both scheduled and ad-hoc, and Mike will travel to Bellevue, as described on the following page.

Task Leads/Key Staff

Our team includes dedicated task leads and co-leads/successors, each responsible for a major program function (e.g., planning, permitting, stakeholder engagement) and selected for their deep technical and programmatic expertise.

While many of these individuals are local, to bring you the most experienced team, we have leveraged our proven track record on water supply programs throughout the region, drawing on Portland-area staff and pairing them with Seattle-based co-leads and a robust group of local key staff for critical roles such as program start-up and governance, intergovernmental advisement, ROW, permitting, communications, construction management, operations, procurement support, and OA services. These leaders are complemented by our broader network of technical experts, including BC's premier pipeline planning and design team, located right here in the Pacific Northwest.

Team Integration

BC's company-wide culture is to provide the best expertise for the project or program, regardless of where team members normally sit. Effectively working together as a mix of local/remote staff is part of our day-to-day. Our working model for the CSP is structured around close coordination between leads and co-leads, supported by collaborative tools, clear responsibilities, and a foundation of communication and accountability—all under Jon's and Mike's steady guidance.

Key elements include:

- **Defined roles and responsibilities.** Each lead and co-lead will have clearly delineated duties, harnessing the power of teamwork without redundancy. For example, Planning Lead Joel Weakland will guide the Facilities Plan, while his co-lead, Phil Walker, will oversee the Operations and Flow Allocation Plan; Permitting Lead Jennifer Miller will manage state and federal environmental permitting, while her co-lead Gray Rand will manage local jurisdiction permits (e.g., land use, ROW), and so forth. This will maximize efficiency for complex scopes.
- **Regular in-person presence.** In addition to Jon, many of our task leads and all co-leads are local and will attend weekly in-person team meetings as well as field visits and jurisdictional engagements. Out-of-state leads are committed to being on site for workshops, stakeholder meetings, and major milestones. They will travel, as described below, and provide consistent technical leadership and programmatic integration.
- **Onsite rotation weeks.** During the critical planning and design phases, we propose scheduling regular (typically monthly) in-person "rotation weeks" for out-of-state leads to embed with the local team and Cascade staff for the benefit of face-to-face collaboration. On the LOIS, Bull Run Filtration, Boise RWP, and LOTWP Water Supply programs, we found these regular, extended visits to provide more value than single, weekly meetings.

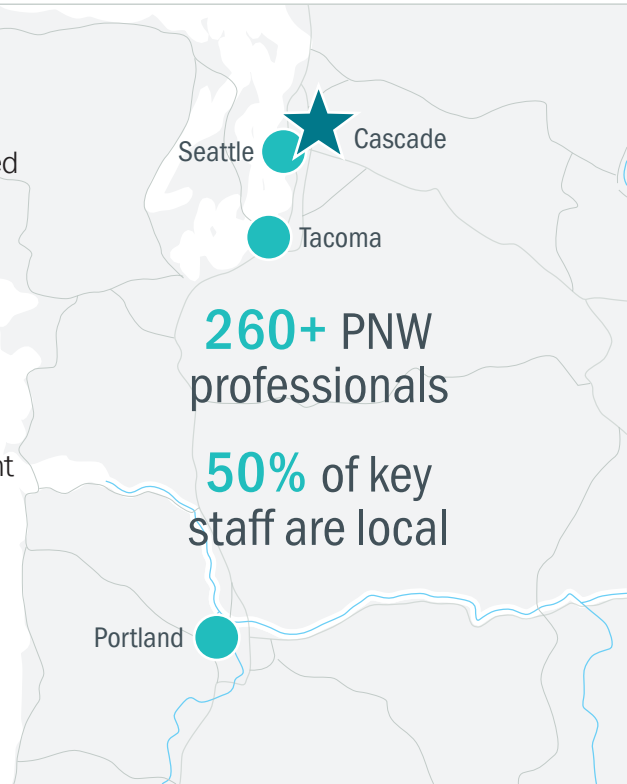
Other routine practices include:

- **Regular leadership coordination meetings.** Leads and co-leads will meet at least once a week virtually to align priorities, action items, and field needs, with a strong emphasis on readiness for local engagement.
- **Shared work platforms.** We use secure, cloud-based project management systems to provide seamless document sharing, schedule tracking, and issue resolution, regardless of location.

Commitment to Local Responsiveness

We are committed to providing you the same level of access, accountability, and face-to-face engagement that would be expected from an entirely local team. Our local co-leads are empowered to represent the team and coordinate frequently in-person with your staff on a day-to-day basis. Additionally, our broader in-state team includes junior and mid-level staff to provide a strong support presence and to grow future program leaders over the life of the program.

This hybrid structure is not a compromise; it is a strategic advantage. Cascade gains the best available expertise and relevant experience, without sacrificing local responsiveness or continuity. This structure also reflects our forward-thinking approach to managing a multi-decade effort—balancing stability, flexibility, and resilience across the entire program lifecycle.



C. BIGGEST CHALLENGES TO BUDGET AND SCHEDULE

Securing optimized pipeline routes and preserving future flexibility throughout a dynamic, multi-year program and beyond

With our team's direct experience delivering more than $4 billion in recent programs across Washington and the Pacific Northwest, we understand how to address the complex challenges associated with large-scale, long-term water supply programs. From our initial assessment of the CSP, we have identified the biggest challenges and potential mitigation approaches, detailed in Table 7.2.

1 All routes have drawbacks

There are downsides to all routes through the long, congested corridor. We will conduct a thorough, multi-disciplined evaluation of all options to select an optimized, sustainable route for your pipeline(s) that is defensible and supported by critical stakeholders.

2 Change is certain

Given the high stakes, long duration, and number of interested/impacted stakeholders, change is inevitable. Unexpected changes may cause delays and increase costs. We will proactively anticipate and plan for change, providing flexibility to adapt as the program evolves.

Table 7.2 // Program Challenges and Mitigation Strategies

Challenge	Approach
1 All routes have drawbacks	**Comprehensive evaluation to secure optimized pipeline routes**
Condemnation can delay property acquisition.	CC will help us avoid difficult properties/owners, if possible, as negotiation is preferred. Where needed, CC will request possession and agreements early so the process can begin sooner, if denied.
Locating in ROW may have onerous terms (e.g., relocation, access fees).	Wherever possible, routes will avoid WSDOT, other than crossings. DEA will identify fees and franchise agreement durations for others. We will reduce relocation risk by avoiding bridges; hillsides that may be regraded; and reasonably anticipated utility conflicts.
West side routes (north of Lake Youngs) have busier streets and are more fully developed.	PRR will lead early outreach to municipalities, King County, and SPU to identify opportunities for joint projects (e.g., roadways, culverts, trails, pipeline replacements). West side routes are most direct, allow for SPU partnership, avoid SR 900, and eliminate the need for a parallel BIP. We will consider night work to reduce traffic impacts.
East side routes (north of Lake Youngs) are longer and may involve SR 900.	Joel will lead early screening to determine feasibility of east side options (prior preferred route) and fully document the outcome.
PSE corridors have safety, corrosion, property ownership, environmental, and relocation concerns.	Sasan Hosein (Pond) can design for full mitigation of safety and corrosion risks. CC and DEA will identify tradeoffs of ownership complexities, fees, relocation risk, and environmental impacts versus open corridors with minimal traffic impacts.
Seattle Fault Zone, trenchless crossings (highways, creeks, Cedar River, Cedar River Pipelines Tunnel), and locating near vulnerable infrastructure could damage new pipelines.	Delve and LCI will determine whether there are any advantages between route alternatives and quantify potential extent and displacement of surface fault rupture to inform appropriate design mitigation. Delve and GEI will determine lowest risk trenchless crossing locations and methods.
Regulatory agencies require LEDPA route selection.	DEA will engage at program outset and conduct a range of field studies and agency coordination meetings to confirm the alternative evaluation is sufficient to support selection of the LEDPA route.
Decision is likely to be controversial and may be challenged.	PRR will conduct stakeholder engagement to identify partnership opportunities and community benefits to earn political support. DEA will lead a well-documented evaluation process with frequent check-ins to provide permitting agencies data for approvals.

Table 7.2 // Program Challenges and Mitigation Strategies

Challenge	Approach
2 Change is certain	**Anticipate and plan for change to preserve future flexibility**
SPU may reconsider collaboration or allow water wheeling from TPU.	We suggest continuing to strengthen relations with SPU and staying close to the CESSL corridor to enable future collaboration for mutual benefits (e.g., co-location, interconnects, joint phased pipeline construction, even wheeling).
Permitting agencies or host jurisdictions may not support the proposed projects.	We will engage agencies/jurisdictions early to gauge support for routes and opportunities for mutual benefits. We suggest Cascade consider conducting environmental work on a Plan B route as schedule insurance, in the event support is lost for the preferred option.
Environmental permitting can be delayed by shortcuts.	DEA will lead a robust EIS and SEPA processes to withstand challenges, prevent delays, and avoid and re-work.
Pipelines must be sized for near-term and uncertain 100-plus year needs.	Current agreements with TPU are for 32.5 mgd peak day flow, but Cascade's draft Water System Plan (WSP) notes future opportunity to contract for more. Demands are forecast only for the next 40 years, but the pipeline must serve for 100-plus years. Joel and his team will evaluate costs of various sizes and phasing scenarios to address long-term needs.
If a single pipeline is built, maintenance shutdowns will be disruptive.	Joel and his team will evaluate cost, schedule, and sizing for dual pipes and plan for continued use of SPU and member supplies when TPU's Green River Filtration Facility or Pipeline 5 are offline.
There are many causes for delays (e.g., permitting, jurisdiction support, budget issues, extra time to build dual pipes) and capacity shortfall could be sooner than 2041 per the WSP.	Jon and Mike will plan for a 2-year (or more) early finish from the outset, without rushing planning or permitting, by evaluating program and industry capacity to manage multiple simultaneous design and construction packages.
Some collaborative delivery methods can limit options.	We will maximize competition among local/regional firms for most pipeline work and include time for off-ramps if negotiated Guaranteed Maximum Prices are too high for packages warranting GC/CM or PDB delivery.
Organized opposition can develop quickly and become political.	We suggest proactive use of a public affairs team from the outset (perhaps including firms Cascade already uses for lobbying) to understand interests of influential stakeholders that can shape public opinion or political support.
Concerns from Cascade Board or members may erode confidence in the CSP.	Mike Prett will tailor regular, comprehensive status reports for the Resource Management Committee, Member Forum, and Cascade Board to understand the benefit of their investment as well as program progress and risks, preventing surprises from significant developments.

D. FUNDING SOURCES

Proven experience helping utilities navigate external funding opportunities and create innovative financing strategies

The key to securing external funding is early understanding of available state and federal opportunities and their associated implications on project costs, schedule, and delivery. BC has helped clients secure more than $5.4 billion in low interest loans, state and federal grants, and tax credits to deliver water infrastructure improvement projects, while reducing the burden on ratepayers.

External funding and creative financing solutions have become an integral part of overall water infrastructure financing strategies. While Cascade has the potential to access external funding for the CSP—particularly given its resiliency, economic development, and community benefits—a comprehensive evaluation and funding strategy is needed to align the program's purpose, priorities, and benefits with available programs.

We are pleased to offer our nationally recognized Senior Director of Strategic Funding, Seema Chavan, as part of our integrated team to support the CSP. The breadth and depth of her specialized expertise and relationships with federal and state agencies allow us to provide you with invaluable insights into the most applicable programs, strategies to maximize awards, implications of delivery mechanisms, administration of funding programs, and impacts of political trends.

Funding Sources

Federal. The U.S. Environmental Protection Agency (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) low-interest loan program is likely an attractive financing source especially for large infrastructure projects. The USACE Water Resources Development Act (WRDA) Program provides funding for water resources projects focused on water infrastructure through direct authorization and appropriations. The U.S. Bureau of Reclamation (USBR) may also provide opportunities through the WaterSMART Drought Resiliency Program, Water and Energy Efficiency Grants, or the Small Storage Program. The Federal Emergency Management Agency (FEMA) also provides grant funding opportunities, including the Hazard Mitigation Grant Program (HMGP). In addition, though congressional directed spending requests (earmarks) were not accepted in Fiscal Year (FY) 25, we anticipate a return in FY 26.

State. The Washington Department of Health (DOH) Drinking Water State Revolving Fund (DWSRF) and the Washington Department of Commerce Public Works Board (Commerce PWB) provide pre-construction and construction loans. The DWSRF program currently caps funding at $12 million per project/agency, and Commerce PWB is limited to $15 million per agency per biennium. Potential state earmarks through the Capital Budget Program for Local Community Projects may offer opportunities since the project provides important public benefits for the region.

Funding Strategy

We will work with you to develop a funding strategy that allows you to take advantage of opportunities as they arise. Recognizing that funding is fluid and can change quickly, we will prepare a dynamic funding strategy document and action plan to help you anticipate, track, prepare, and adapt the CSP to secure the best combination of opportunities. We will integrate the foundation of traditional funding mechanisms (e.g., Cascade cash, rates, and bonds; WIFIA; DWSRF) with external federal and state grants, earmarks, appropriations, and alternative funding mechanisms. The strategy will be informed by a clear understanding of CSP phases, schedule, anticipated costs (planning, design, and construction), and Cascade's financial capability (including bonding limitations) to identify overall funding needs and potential funding gaps. The plan will incorporate scenario planning to anticipate potential funding delays or reductions and identify contingency plans to address uncertainty.

As described on the following page, our team brings the insights to help you understand program complexities, adapt to an evolving funding landscape, and integrate financial planning to develop a clear path forward.

Understanding funding program complexities is crucial. Given both the uncertainty of the federal funding picture and increasing infrastructure funding needs, Seema's regular, timely input on program requirements and constraints will inform the overall funding strategy by:

- Aligning CSP benefits with the purpose and evaluation criteria of various funding programs
- Advising on funding program requirements that may influence costs (e.g., Davis-Bacon Wages, American Iron and Steel [AIS], Build America/ Buy America [BABA], NEPA)
- Informing collaborative delivery evaluations with procurement requirements, restrictions, and required deliverables (e.g., FEMA allows DB and PDB, but the review and approval process is onerous; the Economic Development Administration does not allow collaborative delivery)
- Aligning each program phase with anticipated availability of federal and state funding
- Highlighting grant administrative activities (e.g., quarterly reporting, disbursement packages, financial audits)

Preserving future flexibility allows us to quickly adapt Cascade's external funding targets. With the cancellation of initiatives like FEMA's Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) grant programs and anticipated reduction in federal investment through SRF programs, there is continuing uncertainty in the federal funding picture. Some states, including Texas and California, have passed measures to fund water infrastructure. There may be a case for Washington to do the same, given the benefits provided by the CSP. Seema understands how money is funneled through various programs and stays abreast of evolving priorities through her strong funding agency relationships.

Integrating financial planning provides a clear path forward, with flexibility for change. The CSP will be Cascade's largest capital investment for years to come. As such, we expect your financial professionals and economists have completed required financial evaluations and have a financial plan in place. Still, you may wish to have our Director of Strategic Financing, Jason Mumm, work with your staff to produce an updated, integrated financial plan that re-examines investment priorities and timing to match dynamic funding strategies, program evolution, and Cascade's financial capacity. Jason can assist your financial experts in developing a framework to understand the impacts of future uncertainties and the sensitivities of key assumptions. As a nationally recognized expert in cost of service ratemaking, he can also evaluate cost allocation approaches among Cascade members and other potential users.

Seema Chavan and Jason Mumm have a proven track record of helping clients develop financial strategies and secure funding.

Jason supports municipal utilities with long-range financial planning, while Seema creates innovative strategies to advance project implementation goals, including securing external funding through low interest loans, tax credits, and grants.

$5.4B+ in funding secured

BC has secured funding for the following water infrastructure programs:

- Bull Run Filtration Program: Portland, OR—$727M
- Recycled Water Program: Boise, ID—$260M
- Pure Water Program: San Diego, CA—$614M
- RiverRenew Program: Alexandria, VA—$321M
- Sites Reservoir Program: Maxwell, CA—$2.2B
- RESCU Program: Silicon Valley, CA—$218M
- Pure Water Southern California Program: Los Angeles, CA—$125M

E. ASPECTS TO BE RETAINED BY OWNER

The right balance of owner control and consultant support

Based on our experience, the following functions are best led by the Cascade, with our support as needed.

1 Strategic Governance and Policy Oversight

Establish program goals, set long-term policies, and resolve high-level issues

BENEFIT: These decisions reflect Cascade's public mission and require the authority and judgment of senior Cascade leadership and, in some cases, the Board. We will help you evaluate alternatives and develop recommendations for governance models.

2 Financial Strategy and Ratepayer Impacts

Set rates, issue bonds, prepare long-term financial plans, and manage funding approvals

BENEFIT: Financing decisions directly affect member agency ratepayers and are often governed by ordinances/statutes and Board-level authority. We will support by providing updated program financial information including cash flow forecasts and by preparing applications for grants or external financing.

3 Stakeholder and Member Agency Relationships

Engage with elected officials, member agencies, and regional partners

BENEFIT: These relationships are inherently political, strategic, and long-term (beyond the CSP timeline). Maintaining direct relationships reinforces trust, facilitates consistent messaging, and reflects Cascade's role as a regional leader. We will help prepare materials for these interactions as needed.

4 Communications Strategies

Approve strategies and set tone for messaging on CSP's mission, public benefits, rates, and status updates

BENEFIT: We will prepare strategy options and recommendations and lead day-to-day communications. Cascade should approve strategies to confirm internal alignment with broader initiatives.

5 Legal Counsel, Insurance, and Risk Management

Determine strategy, retain/manage outside counsel, and approve risk allocation

BENEFIT: Legal decisions require direct oversight and may carry precedent-setting implications. We routinely work closely with Owner or outside counsel on a variety of issues related to programs.

6 Long-Term Asset Ownership and O&M Planning

Determine whether to contract for O&M service, and establish O&M expectations, lifecycle cost, and asset management integration plan.

BENEFIT: Decisions affecting long-term performance must reflect internal standards, staff capacity, and strategic needs. We can help you develop the strategies, implementation plan, best practices, and systems and staffing needed.

7 Internal Standards, Procurement Policies, Policy Compliance, and Contracting

Define procurement policy, set standards for contracting, and confirm internal procedures are followed; execute contracts with designers and contractors, and permits with regulatory agencies

BENEFIT: Cascade must retain authority to confirm consistency with legal, ethical, and organizational policy. We will prepare the procurement strategy.

F. SOFTWARE NEEDS

A software environment as integrated and collaborative as the team delivering the program

Effective program management requires a carefully integrated suite of software tools to support controls, communication, coordination, performance tracking, modeling, design review, construction document management, and long-term asset management. We will implement a tailored combination of platforms that align CSP needs with Cascade's existing systems, staff capacity, and values. Our team will work closely with you to select, configure, and implement each tool in a way that supports shared visibility and long-term value.

A centralized PMIS will allow us to track and manage cost, schedule, contracts, changes, funding sources, and risks with dashboards and reporting that transparently support accounting needs. Document management, customer relationship, and CM capabilities can be included within the PMIS or managed with separate tools. Program Controls Lead Mike Ankrom and DPM Mike Prett have worked with most major providers and understand how to balance one-stop functionality, ease of use, cost of configuration/support, multi-user/organization access, long-term technical support, and integration with other non-proprietary PM tools, discussed below.

As part of a larger organizational improvement program, Mike Prett implemented a new PMIS to enhance project delivery across all project phases for the Honolulu Board of Water Supply Capital Projects Division. He set up a similar system for the LOTWP Water Supply Program. Mike also led evaluation, selection, and configuration of BC's internal PMIS, which tracks budget, schedule, risk, and quality with logs for change, decisions and lessons learned.

Together, we will evaluate current products to select and configure systems that best fit CSP needs.

For the Bull Run Filtration Program, BC developed a web-based tool to centrally track interactions with project neighbors and maintain a shared history of communications about specific properties—critical to managing a multi-year program with a large team and significant property owner interactions.

ROUTINE COLLABORATION will typically rely on standard platforms (e.g., MS Teams, MS Office 365 suite), allowing remote team members to easily participate in meetings and collaboratively co-edit documents.

SCHEDULE integration will be managed with Primavera P6 and MS Project to enable critical path analysis across the program lifecycle.

DOCUMENT MANAGEMENT can be done inside the PMIS or with a separate tool (e.g., SharePoint) to support version control, access permissions, and co-editing. This allows the entire team to collaboratively review and update materials in real time.

DESIGN COORDINATION AND BIM will be supported through the Autodesk Construction Cloud, allowing collaboration between Civil 3D, Revit, AutoCAD and other native Autodesk products. Using built-in Autodesk Construction Cloud functions aids in model reviews, clash detection, and project coordination between design teams. For reviewing design submittals and markup workflows, we recommend Bluebeam Revu, which allows multi-user markups, concurrent edits, and streamlined comment tracking.

MAPPING using ArcGIS and Google Earth will support route planning, permitting, and ROW tracking needs, and can integrate with future asset management systems.

CONTACT MANAGEMENT SYSTEMS such as Flairsoft will be used to manage property owner interactions, rights of entry, easements, and acquisition documentation.

PUBLIC ENGAGEMENT can be managed with a custom tool like we developed for the Bull Run program, providing a central hub for team members to log interactions.

PROCUREMENT/CONTRACT WORKFLOWS may be handled by your existing system, if sufficient to manage the solicitation process, scoring, and document tracking in alignment with procurement standards. The PMIS may have this capability.

CONSTRUCTION MANAGEMENT may be included in the PMIS or standalone. It should be straightforward for a variety of staff and contractors to manage requests for information (RFI), submittals, change orders, field reports, and punch lists, and include tools for geotagged photos to support QA/QC, issue resolution, and recordkeeping.

O&M work orders, schedules, and history are typically managed in a CMMS. Separate eO&M manuals and asset management tools may be needed or can be combined into a single asset management product (e.g., Cityworks, Infor, or Maximo) to smoothly transition from capital delivery to lifecycle O&M stewardship.

8

References

SECTION 8

Brown AND Caldwell

SECTION 8: REFERENCES

There are no changes from the Statement of Qualifications.

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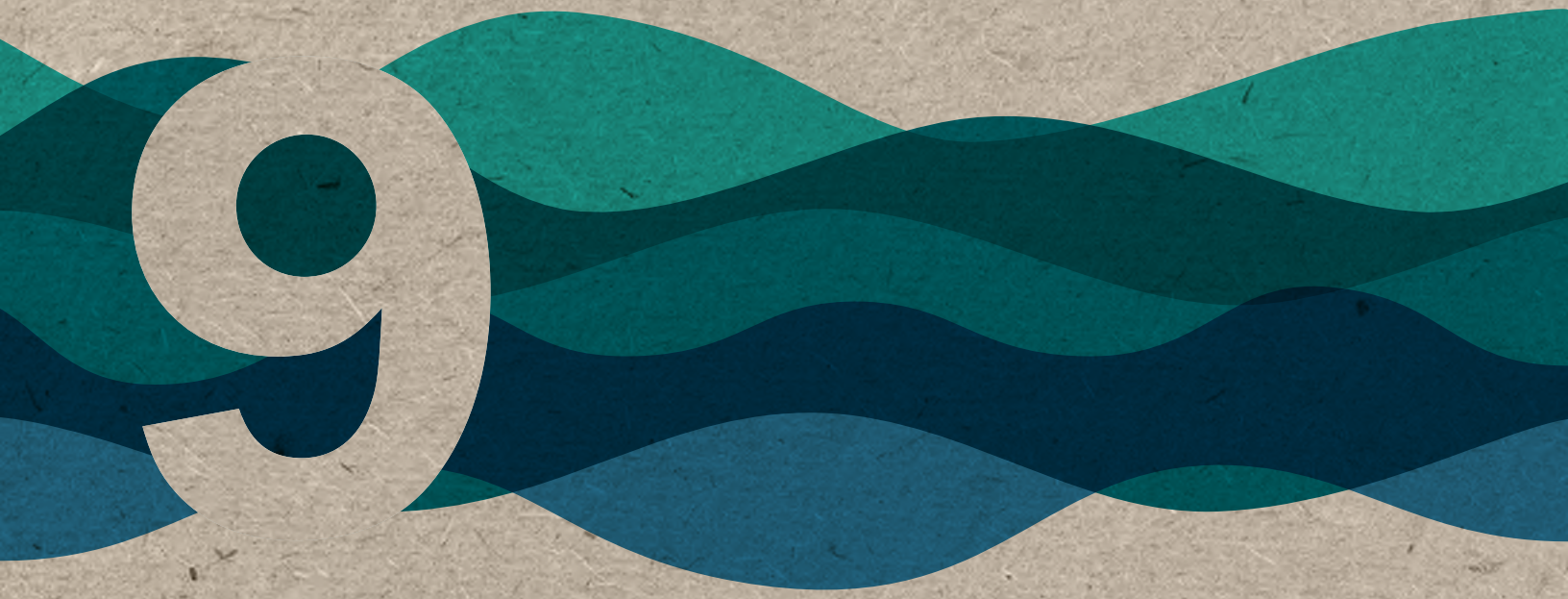

Resumes

SECTION 9

Brown AND Caldwell

SECTION 9: RESUMES

There are no changes from the Statement of Qualifications.

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