

A scenic landscape photograph of a lake at sunset. The sky is filled with warm, orange and pink clouds. The water is calm, reflecting the sky and the surrounding forest. In the foreground, a line of colorful buoys (blue, red, and white) stretches across the water. In the background, a line of evergreen trees and some houses are visible along the shore.

Cascade Water Alliance

STANTEC PROPOSAL FOR

Cascade Supply Program - Program and Engineering Support

JULY 25, 2025



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SECTION 1

Cover Letter



Dear Mr. Bartle,

The Cascade Supply Program (CSP) is a significant opportunity for Cascade Water Alliance and its Member Agencies. With tight timelines and complex technical challenges ahead, you need a program partner that can deliver from day one: with a clear plan, strong collaboration, and proven technical expertise.

That's exactly what the Stantec Team offers. We bring local Pacific Northwest expertise in program management, large-diameter pipeline engineering, and community engagement. We also bring a team dynamic that makes us easy to work with. We reduce stress by solving problems quickly, communicating clearly, and fostering a culture of collaboration, communication, and safety that allows everyone to do their best work.

The Stantec Team combines Stantec's leadership in program delivery, Carollo Engineers' deep technical expertise and collaborative mindset, and eight trusted subconsultants with experience in every aspect of pipeline design and construction. We've worked together on large-scale water programs like the \$1.6B Willamette Water Supply Program, one of the closest parallels to CSP in the region, as well as on the water systems of your Member Agencies. We're familiar with the people, systems, and conditions of the CSP, so we're able to deliver the program efficiently, through a seamlessly integrated team.

The team we proposed in our Statement of Qualifications is the team you will work with. We have staff in key roles who are already living in the Metro area or able to relocate to support this program in-person full time, and every person in a key role is committed to providing you with the in-person collaboration needed to provide consistent support throughout the full fifteen-year duration of the program.

Cascade's mission to provide reliable, cost-effective, and environmentally responsible water supply through regional cooperation aligns perfectly with our team's experience and values. We are proud to support that mission and contribute to a sustainable water future for the region.

Thank you for the opportunity to present our approach. Should you have any questions please do not hesitate to contact Proposed Consultant Project Manager **Gabe Solmer** or Proposed Program Principal **Gavin Gilchrist**.

Respectfully submitted,

Stantec Consulting Services Inc.

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Gavin Gilchrist

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Cover Letter

TO

Brian Bartle, Program Executive
Cascade Water Alliance
11400 SE 8th St, Ste. 400
Bellevue, WA 98004

DATE

July 25, 2025

REFERENCE

Proposal for Cascade Supply
Program – Program and
Engineering Support

PRIMARY POINT OF CONTACT

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READY ON DAY ONE

We've already started working on key program items. You'll find these elements, marked with our 'Ready on Day One' symbol and ready for Cascade's consideration, throughout the proposal.



ACKNOWLEDGMENT OF ADDENDA

Stantec acknowledges receipt of Addendum #1, dated July 11, 2025.

SECTION 2

Background of the Firm

Background of the Firm

THERE ARE NO CHANGES FROM OUR SOQ

SECTION 3

Organization Chart

Organization chart

Changes to the organization chart

Under **Task 8. Construction Support**, we are removing a non-key Stantec staff member, Matt Pease, PE from the Project Construction Managers. We are deeply saddened to share that he has recently passed away. In light of this loss, we have respectfully removed him from the Organization Chart. Matt and his contributions to the construction phase of the Willamette Water Supply will be remembered with great appreciation. There are no other changes from the Organizational Chart submitted in the SOQ.

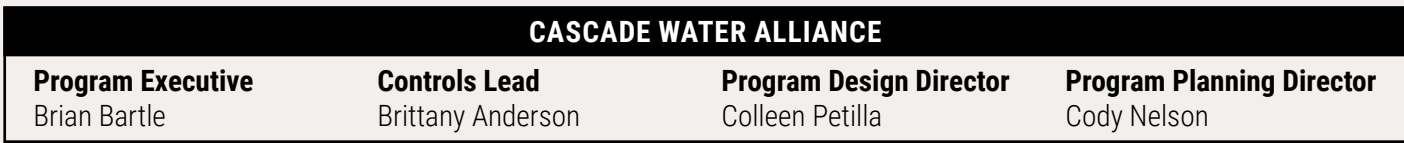
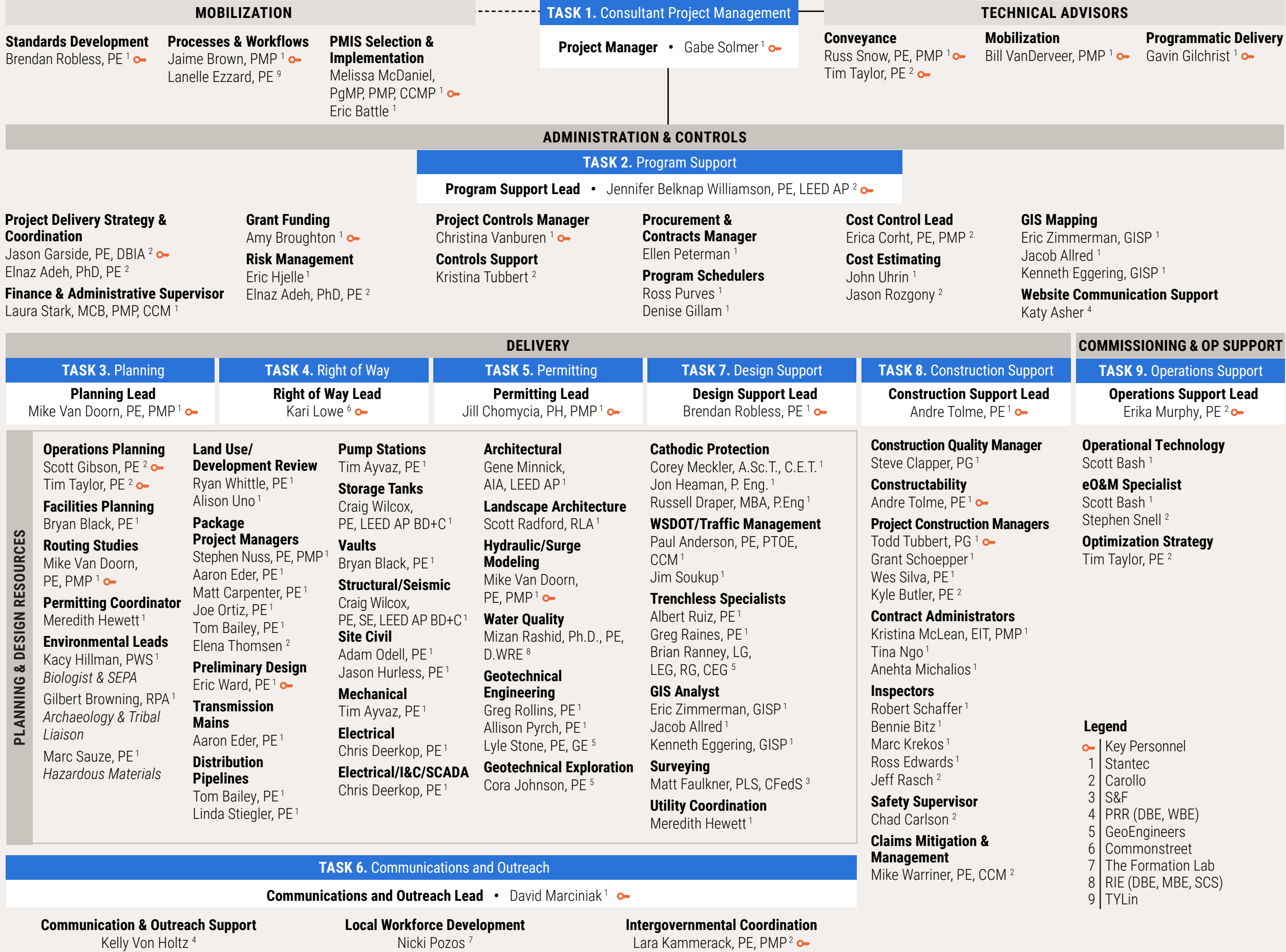


FIGURE 3.1: ORGANIZATION CHART



Organization Chart

The Stantec Team brings together program and project resources experienced in delivering large water supply programs and conveyance pipelines throughout the PNW and US. Our organization chart illustrates a well-rounded team structure with clearly defined roles and responsibilities. Each key staff member shown is not only committed to this program but also positioned to actively support Cascade's needs throughout the duration of the program. This provides continuity, responsiveness, and the ability to maintain momentum at every stage of delivery.

Key Staff	Availability	
	Y1%	Y2%
Gabe Solmer	90%	100%
Jennifer B. Williamson	80%	100%
Mike Van Doorn	100%	100%
Kari Lowe	50%	40%
Jill Chomycia	30%	100%
David Marciniak	30%	100%
Brendan Robless	50%	100%
Andre Tolme	10%	100%
Erika Murphy	10%	100%
Russ Snow	25%	25%
Tim Taylor	20%	30%
Bill VanDerveer	50%	50%
Gavin Gilchrist	100%	100%
Jaime Brown	30%	30%
Melissa McDaniel	50%	50%
Christina Vanburen	50%	50%
Jason Garside	20%	20%
Amy Broughton	25%	25%
Scott Gibson	25%	100%
Eric Ward	100%	100%
Lara Kammerack	40%	60%
Todd Tubbert	5%	25%

SECTION 4

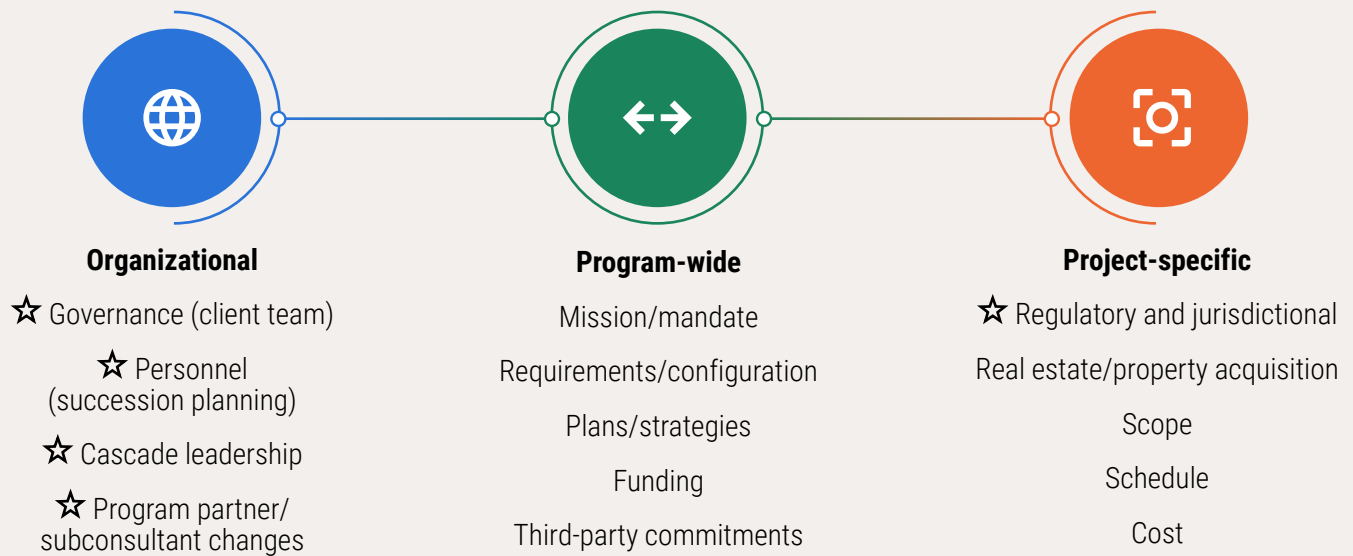
Change Management

Change management

Change is a constant in any long-term infrastructure program—and while it can be disruptive, it can also be a powerful force for innovation and improvement. We do not fear change; we plan for it. The CSP is a generational investment in regional water resilience, a megaproject that will evolve over decades and inevitably encounter changes both large and small. Our experience delivering complex, long-duration infrastructure programs has shown that the most successful outcomes are rooted in proactive, structured change management at every level. By anticipating uncertainty and embedding flexibility into our processes, change becomes a catalyst for better outcomes, not a barrier to progress.

Figure 4.1 illustrates the three levels of change the CSP is likely to experience: organizational, program-wide, and project-specific. Our approach is designed to efficiently manage the full spectrum of potential CSP changes.

Figure 4.1. CSP's exposure to change



☆ Indicates an RFP-listed change and discussed further on pages 4-3 through 4-5

As illustrated in **Figure 4.2** on the following page, we use a set of Guiding Principles that serve as the foundation for managing both expected and unforeseen changes. These principles are not theoretical; they are operationalized through proven tools, processes, and behaviors that provide continuity, accountability, and knowledge transfer across the life of the program. By treating change as a core program function and not a reactive task, we will position CSP for long-term success, resilience, and adaptability.



This change icon in the text indicates a component of change.

Guiding Principles to enable CSP to adeptly handle routine and novel changes

1

Plan and prepare for changes

- Expect changes and take a comprehensive approach to controlling their impact on the CSP's mission and mandate
- Embed change avoidance and minimization measures in the CSP's design and ongoing execution while also actively seeking to preserve the CSP's flexibility and potential adaptive responses
- Identify and prepare for reasonably foreseeable changes
- Establish appropriate contingencies and reserves within the CSP's Baseline (the formally-adopted scope, schedule, budget, and cash flow) to absorb reasonable changes and maintain momentum
- Establish robust plans and processes to prevent avoidable disruption and enable detection and thoughtful response to emerging changes
- Provide clear decision authorities and issue escalation paths to expedite change resolution

✔ **Benefit: CSP has greater flexibility, control, and resiliency**

2

Detect and communicate changes

- Implement and maintain systems to enable early detection and visibility of potential and realized changes
- Promote a CSP-wide culture of change awareness, communication, and responsiveness
- Intentionally manage interfaces CSP-wide, which can be a major source of avoidable changes or points of collaboration

✔ **Benefit: CSP proactively responds, minimizes risks, and acts strategically**

3

Respond to changes

- Actively monitor for potential changes and track identified changes to closure
- Assign clear responsibility for handling each change
- Employ a bias for action to address changes promptly
- Vet potential changes rigorously, drawing appropriately on subject matter expertise to assess both risk and potential value
- Examine alternatives to proposed changes when appropriate
- Intentionally seek to avoid escalation of changes into potentially more impactful claims
- Prepare tailored responses to selected changes
- Document the process for handling each change, including the basis for decisions

✔ **Benefit: CSP acts with well-documented solutions that minimize disruption and enable adaptation**

4

Close and follow-up on changes

- Communicate final change disposition to affected members of the CSP team
- Incorporate approved changes into the CSP's Baseline and other "plan of record" documentation
- Learn from potential and realized changes, adapting the CSP's plans and approaches for remaining work based on experience

✔ **Benefit: CSP finalizes changes with transparency, keeping team informed and ready**


Figure 4.2. CSP's Guiding Principles for effective change management

1. Change management plan and process

A streamlined process for identifying, evaluating, and implementing changes is essential to prevent delays, reduce risk, and protect cost and schedule without creating unnecessary bureaucracy. Managing change is a core responsibility of the CSP leadership team. Change handling must support delivery of the CSP and its component projects in accordance with the approved CSP definition, schedule, and budget, project execution plan defined as our Program Management Plan (PgMP), and other directives and commitments.

Structured change management framework

Effective change management consists of a continuous process of identifying and documenting potential (or proposed) changes, evaluating each change for its merit and consequences, obtaining approval by authorized personnel, and communicating and implementing the change. CSP requires an efficient process for initiating, reviewing, approving, or rejecting a change to prevent delays; reduce risk of potential claims with design consultants, construction contractors, and other service providers or suppliers; protect from potential liabilities; and help manage cost, schedule, and asset performance.

 Our change management framework was developed and refined on major water programs (e.g., Pure Water, Willamette, SDS, and San Jose programs). Customized for CSP, the Change Management Plan will define the tools and processes to document, request, review, and decide on project- and program-level changes. The core will be an integrated change control process administered through CSP's Project Management Information System (PMIS) as shown in **Figure 4.3**, logging potential changes and tracking them in real time.

Our PMIS-enabled change management workflow provides efficiency and transparency

Potential Change				Pending Change	Approved/Rejected Change	Implement Approved Change
Step 1 Identify change and record in change log	Step 2 Analyze change and determine authority level	Step 3 Update change log	Step 4 Complete change request	Step 5 Secure Cascade's review and approval of proposed change	Step 6 Communicate change outcome to the CSP Team File completed change documentation	
Trend Committee				Change Committee		
<i>Include in CSP reports and dashboards</i>				<i>Authority levels defined in CSP's management authority matrix</i>		

Figure 4.3. CSP's PMIS-enabled workflow for managing changes

Hallmarks of our framework include:

- Assess how each change could affect scope, schedule, budget, and risk
- Document evaluations and routing requests to the right reviewers, including a Trend Committee for change tracking and vetting
- Use clear approval levels (based on CSP's Management Authority Matrix)
- Make decisions through a CSP Change Committee or other designated groups
- Keep a record of all decisions for transparency and accountability
- Communicate decisions clearly to the team
- Implement approved changes through CSP's established processes
- Monitor progress using dashboards and regular check-ins

This structured approach keeps everyone aligned and makes sure changes are handled consistently.

Stakeholder engagement

People are at the heart of every successful change. That's why we focus on early, open, and ongoing communication with all stakeholders. We start with a Personal User Manual, a document outlining how someone operates best in a professional setting; their communication preferences, working style, decision-making approach, values, pet peeves, even their favorite snacks!

For significant changes, we host interactive workshops to align goals, surface concerns and ideas, and build shared understanding. We also assess how changes might impact different groups and address challenges before they grow. Throughout the CSP, we keep everyone informed through newsletters, briefings, website updates, and town halls.

This people-first approach builds trust, reduces resistance, and helps better decisions move forward faster—with stronger support behind them.

2. Governance (client team) changes

The biggest potential impact for Cascade's Member Agencies (Bellevue, Issaquah, Kirkland, Redmond, Sammamish Plateau Water, Skyway Water & Sewer District, and Tukwila) will come from leadership changes or the addition of a new agency. These transitions are key moments for CSP—and managing them well is essential to keeping the program on track.

The Stantec Team has helped clients navigate all of this before. Here's how:

Continuity through documentation

We keep things running smoothly with clear, organized documentation. Meeting notes, decision logs, and change records are all stored in a central system, so new team members can jump in without missing a beat. We also use onboarding guides and checklists, and we host live handoff meetings to make sure nothing gets lost in transition.

Relationship management

Strong relationships keep the program steady—even when people change. We stay in sync with Cascade's leadership through regular check-ins, while our technical teams work closely with their counterparts day to day. We use stakeholder maps to track who's who and how they like to communicate, and we manage transitions with joint meetings and shared knowledge.

Customized onboarding

We create tailored onboarding plans to help new folks get up to speed fast. Each plan includes a CSP overview, key documents, current priorities, and how their role fits in. We also provide a library of reference materials and examples of recent work to show how things get done. This approach provides fast, informed onboarding and helps maintain momentum during transitions.

If a new agency joins, we'll:

- Engage with a broad cross-section of the incoming agency's staff and consultants
- Begin an investigative process to understand the incoming agency's capacity and infrastructure requirements
- Incorporate those requirements into the CSP's plans, design, and Baseline schedule and budget
- Support amendments to Cascade's governing agreements and incorporating changes in CSP's processes and systems, including accounting and reporting

3. Succession planning

For a long-term program like CSP, smooth personnel transitions are essential. Our proactive, structured, and proven success planning approach is modeled after our work on major programs like the \$7.5B Iona Island WWTP.

Design for continuity with documented knowledge and tools

Building a strong culture of collaboration will make successional changes and adding new team members easy. Having a well-established framework for delivering the CSP will enable successors to be effective quickly. Documented plans and decisions will provide them with history and context; up-to-date information, including registers of risks, issues, and in-progress activities will help focus their efforts; and mature processes and systems will support their work activities.

Proactive role mapping

We maintain up-to-date succession plans that identify key roles and backups with the qualifications, knowledge, skills, and abilities to fulfill the functions and responsibilities of the identified position. These plans are reviewed annually—or sooner if there are major changes—to maintain continuity and readiness.

Find and train successors

We don't wait for vacancies to start preparing. Through mentorship, shadowing, and cross-training, we build a strong bench of future leaders. This increases team flexibility and reduces single points of failure.

Capture and transfer knowledge

We use collaborative tools like SharePoint, SOP libraries, and decision logs to make sure critical knowledge is captured and accessible. Transition briefings, recorded walkthroughs, and interactive onboarding sessions help new team members get up to speed quickly, keeping momentum strong even during change.

Respond to Succession Events

When a change happens, we work with Cascade to review the role, update it if needed, and implement the succession plan. We aim for overlap between outgoing and incoming staff whenever possible to facilitate a smooth handoff.

Rapid response when it counts.

If a sudden departure occurs, we act fast—drawing from our deep bench of CSP and Stantec talent (more than 30,000 strong) to cover critical roles immediately. Once the urgent need is met, we follow our standard process to provide a thoughtful, lasting transition.

“As part of our succession plan, after eight years as Permitting Manager, I transitioned into the Deputy Program Manager role on the WWSP, assuming many responsibilities previously held by the Program Manager. My prior experience supporting these functions, combined with a detailed Transition Plan and close collaboration with both outgoing and incoming Program Managers, equipped me to step confidently into this expanded leadership role.”

—Jill Chomycia
Permitting Lead

4. Program partner/ subconsultant changes

While we aim to keep our partner and subconsultant team consistent, we're prepared for the unexpected. Our approach mirrors key staff succession planning—but with a wider perspective applied.

Clear onboarding protocols

If a partner joins midstream, we don't leave them without a paddle. Our onboarding process includes kickoff templates, a Partner Handbook, tailored checklists, and orientation sessions. We even pair new folks with experienced team members for a smoother start. Early feedback check-ins help us catch and fix any gaps fast, so everyone's aligned and ready to contribute regardless of when or how new team members join.

🔍 Performance monitoring

We keep a close eye on how things are going, we track progress and flag issues early. Monthly check-ins and 360-degree feedback loops keep communication open and performance on point. This consistent, collaborative approach not only drives continuous improvement but also strengthens trust and alignment across the entire program team.

🔍 Plan for potential partner/subconsultant turnover

Ben Franklin's adage, "Failure to plan is planning to fail" is well-known for a reason. We use our Program Close-out Plan to handle mid-program transitions. From verifying in-progress work to managing records and software handoffs, we make sure nothing slips through the cracks. We also prioritize using commercial, transferable tools to reduce reliance on proprietary systems.

🔍 Respond to partner/subconsultant turnover

For any substantive change to one of our partners or subconsultants we'll work with Cascade to create a tailored transition plan. That includes inventorying assignments, selecting replacements or redistribution, onboarding new team members, and creating a smooth handoff—without missing a beat on quality, schedule, or budget.

5. Regulatory and jurisdictional changes

With a multi-decade timeline, the CSP will inevitably face shifting regulations and jurisdictional boundaries. The Stantec Team is ready. We take a proactive, flexible approach that blends regulatory awareness, early engagement, and adaptive program governance—so the project stays on track, no matter what changes come our way.

🔍 Policy scanning

Our compliance specialists, legal advisors, and professional networks continuously monitor the regulatory landscape. We flag emerging legislation, permitting and jurisdictional shifts, and coordination needs early. Our Change Management Plan—built into the PgMP—helps assess impacts on scope, schedule, and budget, and guides mitigation strategies.

🔍 Active engagement

Led by Permitting Lead Jill Chomycia, we maintain strong relationships with regulatory agencies and jurisdictional authorities. We document potential changes in the risk register and develop mitigation strategies early. When changes do occur, we're ready to respond quickly—minimizing disruption and keeping delivery moving. Early, frequent coordination also gives Cascade a chance to help shape changes before they're finalized.

🔍 Scenario planning and adaptive management

We plan for multiple futures. During WWSP, for example, we tracked shifting federal wetland rules and documented site conditions thoroughly—so when the law changed, we didn't miss a beat. In other cases, we've advanced two design options to 30% to gain clarity, then used a planned "off-ramp" to choose the best path forward. These processes are embedded in our PMIS and linked to our integrated change control workflows, making sure that regulatory and jurisdictional changes are not only tracked and addressed, but also documented and communicated across the CSP Team. With this approach, the CSP will remain compliant, agile, and aligned with the evolving regulatory environment—without compromising delivery momentum or stakeholder trust.



Proactively responding to uncharted regulatory waters with the Pure Water Program

When Phase 1 of the Pure Water Program launched, it was ahead of its time—moving forward while California was still developing regulations for potable reuse. This created a major challenge: how to meet rules that didn't yet exist. To address this, the Stantec Team worked closely with the City and the California Division of Drinking Water (DDW) over many months, discussing technical details and laying the groundwork for future approvals. That collaboration paid off. The project earned a first-of-its-kind NPDES permit to add purified water to the Miramar Reservoir—setting a precedent for future potable reuse projects.

SECTION 5

Program Approach

Program approach

General approach to task-order style contracts

You are about to embark on your largest capital project to date. This complex system improvement is crucial for the future of your water service and the growth and development of Cascade’s seven member agencies. The Stantec Team has developed the following program approach to address complexities that will arise throughout the program lifecycle to efficiently and successfully deliver the CSP.

Stantec currently has nine water programs in North America that are task order based, some of which go back 20+ years. On these programs, we have successfully delivered hundreds of successful Task Orders (TO). Drawing on this key lessons learned from experience, we will facilitate CSP success by:

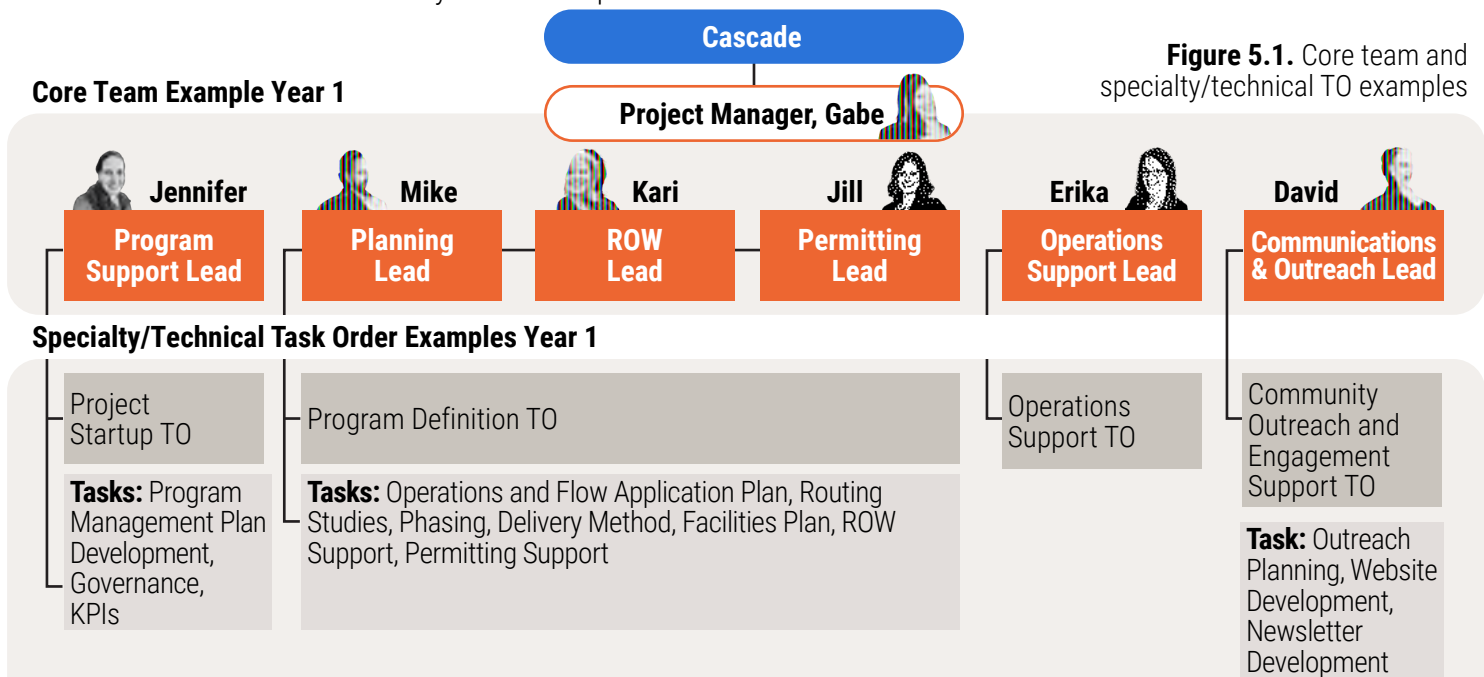
- 1) Assigning Core Team Leads to oversee each task to streamline PES leadership oversight over each work assignment and facilitate effective reporting to Cascade, and
- 2) Standardizing our approach to TO development to create an efficient process for timely TO initiation.

Our recommended approach to TO-based contracts/work packages aligns with Cascade’s approach described in the RFQ. It begins with establishing a Master Services Agreement (MSA) scope of work, as an umbrella to the TOs, which facilitates your ability to use the PES consultant for both near-term and long-term activities. This would include the nine tasks Cascade has currently established in addition to language in the MSA scope of work to cover unforeseen tasks that the PES may be asked to perform.

TO contracts can be implemented in several ways. One TO approach that has been successful in other programs, such as the Pure Water San Diego Program (over 100 TOs), is establishing an annual “Core Team: Task Order” that enables PES key staff members (e.g., Project Manager, Program Support Lead, Planning Lead) to provide services based on their role and FTE assumptions. This approach would allow Cascade and the Stantec Team to collaboratively develop and agree upon the program delivery support needed from year to year in alignment with the CSP annual Baseline and forecasted work planned for the upcoming year. This approach keeps services “right-sized” as projects move through planning, design, and construction, and includes the appropriate service types for each year.

In addition to providing staff augmentation services to Cascade to help oversee the CSP, the Core Team manages the resources, scope, schedule, and budget of the discrete Specialty and Technical Services TOs, such as the examples provided in **Figure 5.1**.

Figure 5.1. Core team and specialty/technical TO examples



Managing multiple work assignments

To successfully manage multiple work assignments simultaneously, our approach is to establish a TO Lead from the Core Team to oversee each of the Specialty and Technical Services TOs. The benefit of this approach is that it 'rolls up' TO oversight to the appropriate PES leadership that have intimate knowledge of the CSP, minimizes the number of personnel acting as TO Lead, and facilitates efficient administration and reporting.

Each Core Team TO Lead will be the primary point of contact for their assigned Specialty/Technical Services TO and oversee the TO from inception through completion. In collaboration with the Specialty/Technical TO personnel, they will develop the TO scope, schedule, budget, and resource plan using a standardized, phased TO development approach that streamlines TO development and review. This phased approach obtains Cascade's input early so that valuable time is not wasted developing a detailed scope that does not fully align with Cascade's needs and expectations. The result of this process is an agreed upon, well-defined TO scope, schedule, and budget—key elements needed to effectively manage TO delivery.

The Core Team TO Lead will then oversee the TO, holding regular TO progress meetings, providing guidance, and performing initial QA/QC and deliverable review for the TO. The Core Team TO Lead will provide regular progress reports as part of Core Team meetings, helping elevate preliminary findings, challenges, and coordination needs to PES and CSP leadership. An example of this approach is illustrated in **Figure 5.2**.

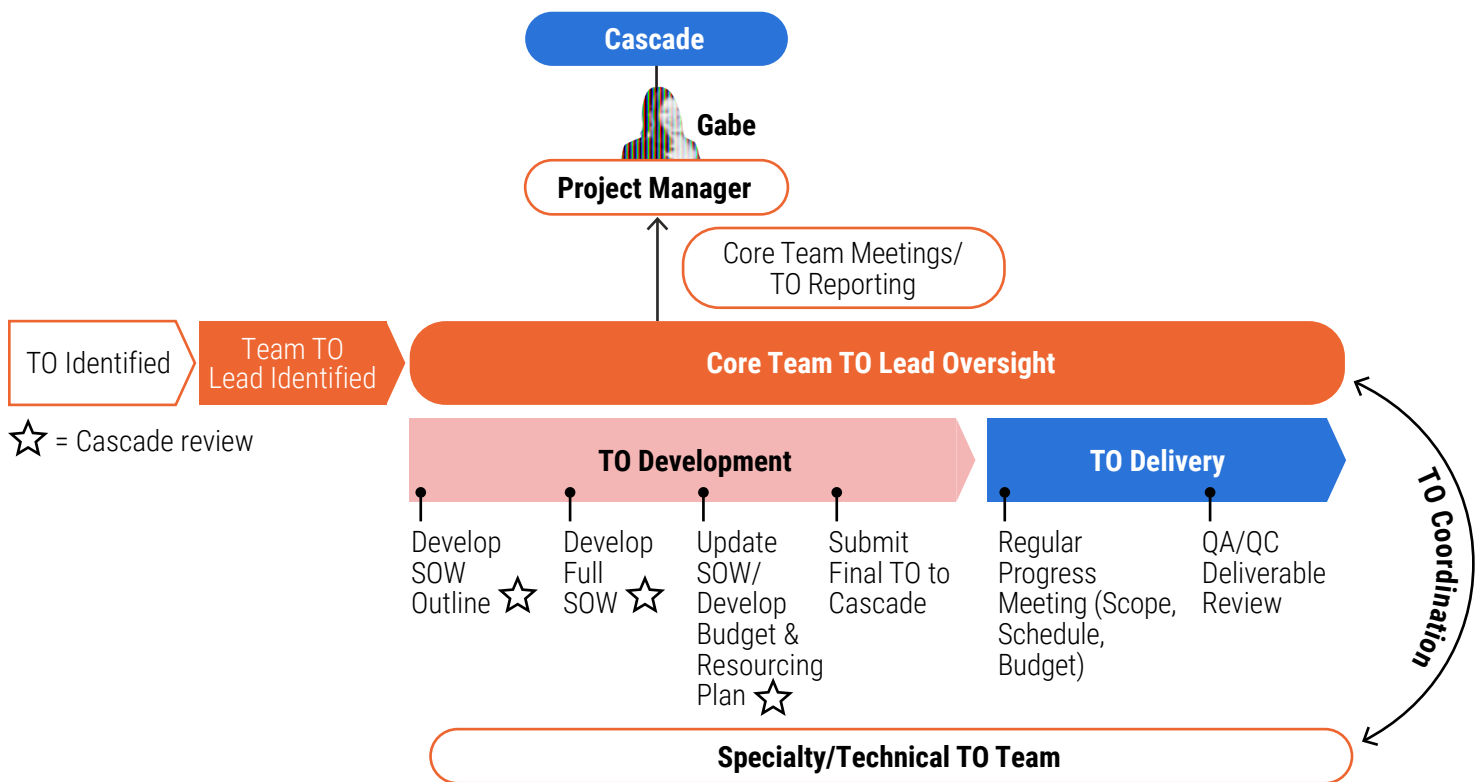


Figure 5.2. Example approach to managing multiple work assignments

Project management

We share Cascade’s vision for a program to deliver well-designed, resilient infrastructure with strong community and stakeholder engagement, financial accountability, and respect for the communities served. Critical to the success of any large infrastructure program is maintaining a consistent approach to delivery that is based on sound guiding principles and coordination with stakeholders. Our proven approach to project management, illustrated in **Figure 5.3.**, will make sure that the team has a clear understanding of their roles in planning, monitoring, and delivering the plan, while supporting successful integration with Cascade’s staff. Our approach involves leaving behind a legacy that will benefit Cascade long after program completion.

1 Plan the Plan

Our experience has shown that the level of investment and commitment at the start is a key indicator of a program’s long-term success.

During CSP start-up Gabe and our mobilization team (**Brendan Robless, Jaime Brown, and Melissa McDaniel**) will lead our collaboration with Cascade to stand up the PMO, define governance processes and procedures, and perform the technical work needed to define the CSP. We have developed a draft CSP Start-up Work Plan (discussed on page 5-11) to guide these elements in the ‘Plan the Plan’ phase. This will result in an established program definition including a cost-loaded schedule for delivery, as well as the project delivery strategy. In turn, these strategies will guide the development of Standard Operating Procedures (SOPs), design guidelines, and plans that will be implemented throughout program delivery. This information will be stored in the PgMP and be delivered using the Project Delivery System (PDS)—the two primary outputs of the Plan the Plan phase.

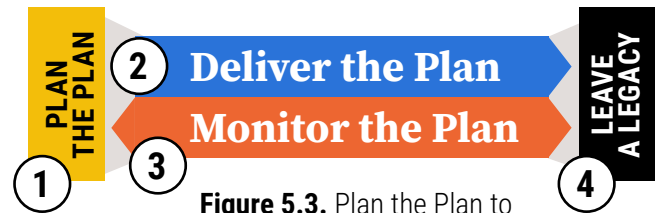
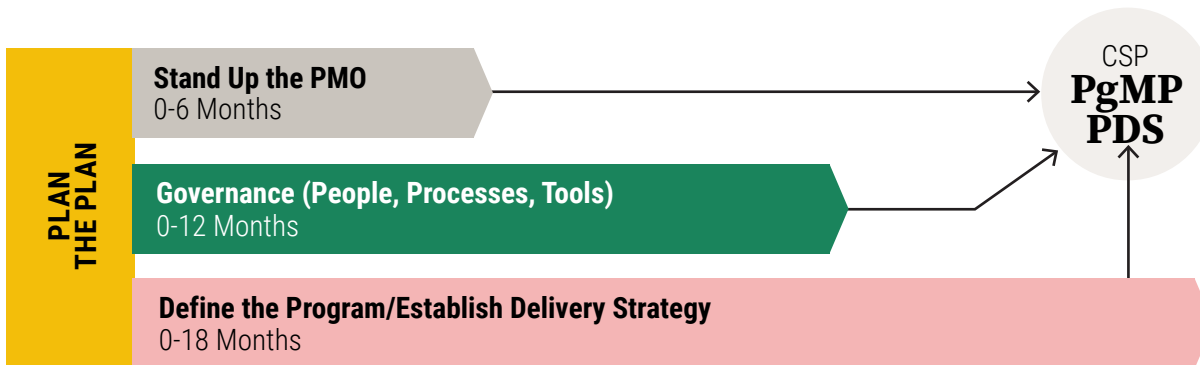


Figure 5.3. Plan the Plan to ‘Our Integrated CSP Project Management Approach’



PMO

- Establish and charter the team
- Build program culture and norms
- Develop CSP Organization, roles and responsibilities
- Stand up the Virtual PMO

Governance

- Perform needs assessment
- Prepare core governance procedures
- Prepare outreach, intergovernmental affairs, and financing strategies
- Develop Project Delivery System
- Select, configure, and deploy controls software (e.g., PMIS)
- Develop initial PgMP

Program Definition

- Develop and evaluate alternatives (including necessary studies and key stakeholder engagement)
- Select preferred alternative
- Prepare delivery, permitting, and real estate, strategies
- Prepare preliminary scope, schedule, and budget estimate
- Secure formal adoption of preferred alternative with schedule/cost/cash flow
- Begin pursuing funding

Figure 5.4. CSP Start-up Work Plan

2 Deliver the Plan

By focusing on efficient, effective execution and delivery of quality products, our program delivery approach will drive achievement of cost and schedule goals.

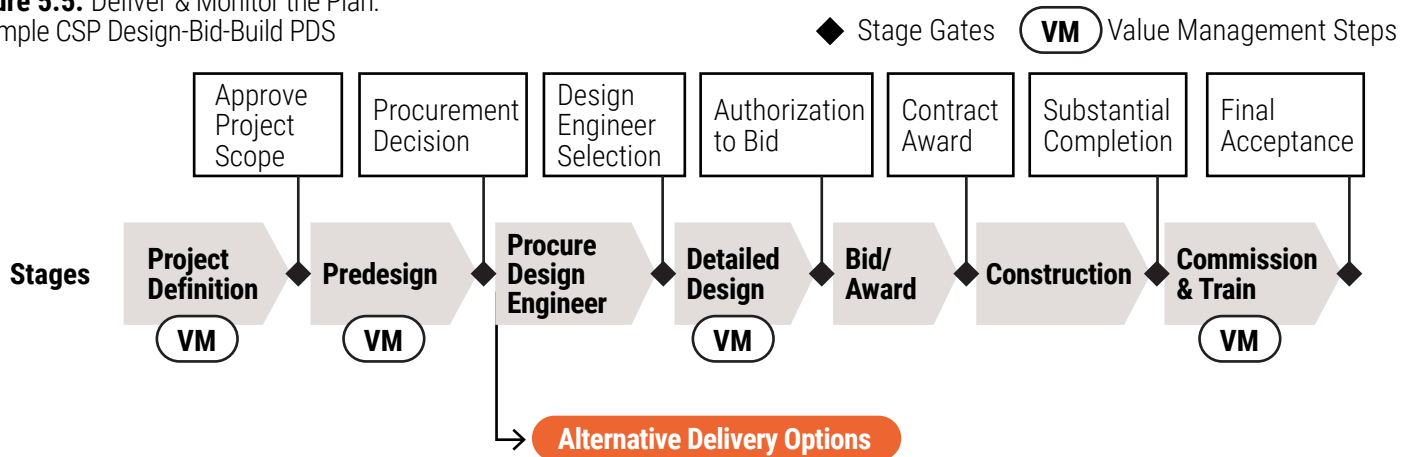
Guided by the CSP PgMP, program delivery activities include planning and design, construction, and commissioning and operations. Throughout delivery, individual CSP projects will be executed following the PDS, which drives project consistency, quality, and efficiency throughout all phases of a project's lifecycle. The PDS establishes a standardized project delivery framework, defines the overall project lifecycle, and provides project managers with specific, step-by-step processes on how to deliver CSP projects from inception through completion. The PDS provides a standardized decision-making process, called Stage Gates, for project delivery that: defines a set of criteria to base decisions against, requires deliberate reviews of projects at critical points in delivery, and documents the decisions and commitment to move the project forward.

3 Monitor the Plan

Effective, accurate, and timely communication of relevant information and quality assurance are critical components to continued stakeholder endorsement and overall success of the CSP.

During delivery, our Program Controls Manager, **Christina Vanburen** and her team will monitor the program against the CSP Baseline to make certain that individual projects and the overall program are delivered successfully through the proactive application of processes and procedures. Identified changes are fed back into the process to inform updates to the Baseline, and periodic monitoring of program performance is imperative to maintain accurate, relevant plans for the CSP's remaining fiscal years. This helps to identify and mitigate issues related to political/economic change and governance and take advantage of opportunities. Our approach to monitoring/refining the plan is further described on page 5-9, Schedule, Cost, and Project Controls.

Figure 5.5. Deliver & Monitor the Plan:
Example CSP Design-Bid-Build PDS



4 Leave a Legacy

The CSP is a legacy-building program for Cascade and your stakeholders. As such, it is our goal to leave a legacy of talented professionals, efficient processes, and approaches for sustainable project delivery and operations long after the hard infrastructure has been constructed and put into operation.

This will provide extended benefits to Cascade as an organization, utility, and the operator of these critical facilities for generations to come. To this end, we have developed an asset and knowledge management approach that we will begin to implement during the start-up phase. Every document, training, event, and conversation is an opportunity for knowledge capture and transfer. Developing organizational goals related to operations, knowledge transfer, and asset management will help to identify specific areas of focus for our team's efforts.

Program support and development of governance and KPIs

In our experience, the most important element of successful project delivery is establishing clear external and internal governance. Governance encompasses the system by which a program is controlled and operates, and the mechanisms by which it, and its people, are held to account. Ethics, risk and change management, compliance, planned coordination with member agencies and stakeholders, and delivery protocols in support of project management, decision making, and achievement of KPIs are all examples of governance required to deliver CSP on time and on budget.

1 Well begun is half done. To develop CSP governance, Stantec has developed a draft CSP Start-up Work Plan (SWP) based on the three primary 'Plan the Plan' elements (stand up the PMO, establish governance, and define the program). The SWP highlights the workflows needed to establish governance and initiate the program and leverages our experience mobilizing other major programs like the CASA Award winning, \$2.2 billion San José-Santa Clara Regional Wastewater Facility CIP Program. We are ready to hit the ground running. To expedite delivery, we've also already built a Day One collaboration site and content outline of the PgMP using our extensive resource library from previous program mobilizations, efficient PgMP development.

While the SWP will guide development of numerous governance processes, we've focused on two key governance processes in this section—decision making/issue resolution and KPIs.



We will collaborate with Cascade to refine the draft CSP SWP to yield the most effective strategy for gathering input on governance processes/tools without overburdening staff. This approach will enable the team to integrate more effectively, demonstrate early progress, and build consensus while creating a clear path forward for program-wide implementation (see page 5-11 for more on the SWP).

Governance and decision making/issue resolution

A core element of governance is creating a clear management structure that contains a hierarchy for decision making and issue resolution authority early during start-up. This will help Cascade expedite decisions made during program definition and elevate appropriate challenges for leadership support.

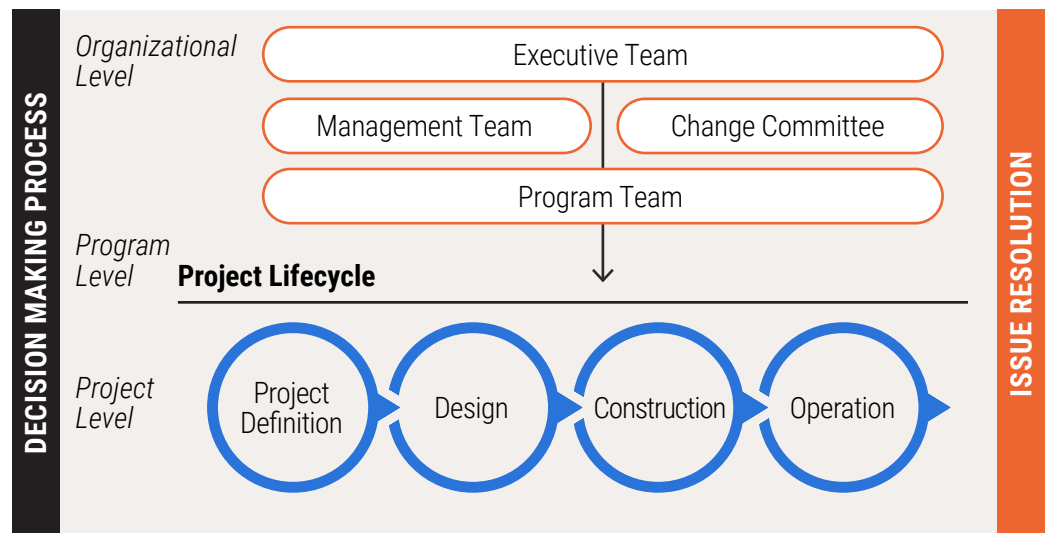


Figure 5.6. Decision making/issue resolution

The program definition phase is vulnerable to ‘analysis paralysis’, where there is no clear path towards decision-making on program components (e.g., route, size), causing the planning phase of the program to run over schedule. Therefore, one important factor to schedule control is defining a clear path and escalation process for elevating decisions/issue resolution to the management team, change committee, or executive committee. After decisions have been made, it is equally important to capture information on the decision, including what the decision was, why it was made, and the result. This helps keep the program moving forward on schedule and reduces the likelihood of revisiting/reassessing decisions.

Key performance indicators (KPIs)

Having a clear and easy-to-understand set of KPIs that flow down from the CSP charter (mission, vision, goals) is an important element of Monitoring the Plan. We have found that establishing thoughtful KPIs drives program goals from the leadership level to the team level, creating a culture of delivery. Stantec has developed a performance management practice that guides effective KPI development and is centered around three best practices:

1 Leading and lagging indicators

Lagging indicators offer little opportunity to affect change. Incorporating KPIs for leading indicators supports on time/budget delivery, providing the time needed to affect change.

2 SMART goals

The SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) KPI approach is the good test of KPI appropriateness and drives detailed thinking into KPI goals/metrics.

3 KPIs for capital asset delivery and leaving a legacy

In addition to KPIs that are tied to delivery (e.g., safety, schedule, cost), we recommend including KPIs that are tied to leaving a legacy (e.g., customer satisfaction, asset integration) to holistically measure success.












 With the above concepts in mind, we have developed an initial list of additional KPIs that could be tracked to measure program success for CSP, as shown in **Figure 5.7**. During CSP start-up, Gabe will lead the collaboration with you to develop the CSP Charter, mission, and vision and KPIs in alignment with your goals and objectives.

Figure 5.7. Example CSP KPIs

Draft CSP KPIs			
People		100% Retention Rate	Have a high performing, collaborative team that is well led, dedicated, appropriately resourced
Health & Safety		0 Incidents	Delivery of the program and its component projects in a safe manner with zero accidents or reportable incidents
Schedule		100% On Time	Report on schedule and forecast to mitigate slippage and achieve on-time delivery of CSP projects per Baseline
Cost		99% Within Budget	Program-wide and project-level delivery consistent with budgetary expectations
Procurement/Contracts		90% Forecast vs Planned	Consultant and contractor procurements
Member Agency Coordination		100% Completion	Timely collaboration and transparent reporting on progress, risks, and decisions
Public Outreach and Engagement		5 Events	Engage residential and business stakeholders to enhance awareness and support of CSP
Environmental		0 Violations	Achieve regulatory and permitting certainty with zero permit violations
Sustainability Principles		10 Projects Delivered	Sustainability principles used in project decisions
CSP Plans, Processes, and Technology		10 Projects Using Risk Register	Consistent implementation of the CSP PgMP, PMIS, and PDS by all members of the integrated program management team

Collaboration and team work with Cascade

Collaboration is key to success. The PES will be your partner throughout all phases of program delivery—we will celebrate successes and overcome challenges together as a team. That’s why our approach to collaboration begins with CSP start-up, which sets the foundation for teamwork, and continues throughout program delivery and closeout.

Building the Cascade Way

One team, one identity: We operate as one integrated team, not as separate entities. Whether it’s a Stantec cost estimator, a Carollo package project manager, or a right-of-way (ROW) specialist from Commonstreet, we will introduce ourselves as CSP team members. With Cascade’s concurrence, we propose that PPE will be CSP-branded to reinforce our shared purpose and build trust with internal and public stakeholders.

Tools that keep us connected: We propose to use shared CSP email addresses, calendars, and communication platforms like Microsoft Teams. Everyone will be able to ping each other easily, check availability, and jump into conversations without barriers. These tools allow us to stay connected and aligned no matter where we’re working from.

Culture of openness and respect: We support psychological safety—CSP is a place where ideas can be shared freely, including the ones that might seem “bad” at first. We believe that open dialogue leads to the best solutions. We don’t act like consultants—we act like coworkers. That means being honest, direct, and supportive. Everyone is encouraged to speak up,

ask questions, and challenge assumptions without fear of embarrassment or retaliation. When people trust that their voices matter, they’re more engaged, more accountable, and more committed to the success of the program.

Decision-making with clarity and confidence: We foster robust discussion on key issues, and we also understand that decisions must be made and executed. The Program Director or delegate is the final decision-maker. Our role is to advise, recommend, and question thoughtfully, then support the decision fully once it’s made. We don’t second-guess. We execute. This approach balances frank discussion with clear accountability, maintaining momentum and unity.

Direct communication across all levels: We encourage communication across roles and levels. Team members don’t need to go through levels of bureaucracy to get information—they can talk directly to inspectors, engineers, or field staff closest to the topic. This approach reduces delays, avoids miscommunication, and allows decisions to be based on first-hand knowledge.

Collaboration in Motion

CSP Start-up: Getting the team on the same boat, rowing in the same direction

To kick things off, **Gabe Solmer** and **Jennifer Belknap Williamson** will immediately begin working with Cascade to establish the CSP PMO, define the program, and shape Cascade’s governance structure. See this in more detail in CSP SWP on page 5-11. We’ll form an integrated program team with a shared understanding of success, starting with the development of the CSP charter. This charter will outline the mission, vision, and goals. From the start, we’ll set expectations around work quality, safety, and team culture—building a strong, supportive environment.

From Sandwiches to Stage Gates

We have found a number of formal and informal ways to build strong, collaborative integrated teams. For the City of San José, our Program Manager facilitates a monthly 1-hour lunchtime session during which leadership provides an update on recent activities on the CIP. There is a spotlight feature on any aspect of the program that is considered valuable to share with the integrated team, examples being a description of the stage gate and procurement processes, schedule best practices, overview of specific projects, etc. These sessions have promoted a culture of learning and sharing across the entire team and enabled the team to apply these lessons to keep the **\$1.4B** program on-schedule and budget.

To keep the team focused and aligned, we'll identify KPIs that support the charter and drive a culture centered on project success. The PMO will use cloud-based tools for day-to-day collaboration, while reserving in-person time for high-impact activities like leadership meetings and strategic planning. We'll also establish a clear process for decision-making and issue resolution, helping us spot challenges early and respond quickly. And to keep things fun and connected, we'll encourage team bonding through casual activities like potlucks and informal gatherings. We're already building a collection of PEZ dispensers to be our PES avatars.

CSP Delivery (Planning, Design, Construction): Making sure collaboration and communication is consistent so the ship stays on course

We view collaboration not just as coordination, but as shared accountability for outcomes, with clear roles and mutual respect. We'll hold regular standing meetings to clarify work activities, assignments, and deliverables, keeping everyone aligned and moving forward. To maintain accountability and transparency, we'll use internal reporting tools to brief leadership, support decision-making, and flag any project challenges early.

We'll engage with different internal stakeholders according to their needs. Cascade's internal experts will be vital to provide input on design for a smooth transition to operational readiness. Our Team will support Member Agencies by helping to define their system needs and help them prepare for the new water source.

To strengthen team cohesion, we'll share successes and lessons learned throughout the project. And to keep learning front and center, we'll host "Lunch and Learns"—informal, one-hour sessions led by CSP staff, design consultants, suppliers, and others to share insights on technical and delivery topics.

CSP Completion (Closeout): Docking smoothly and wrapping up the voyage

As the CSP moves toward completion, we'll keep the momentum going with the same focus on collaboration and communication that guided us from day one. The Stantec Team will support closeout activities by capturing lessons learned and finalizing documentation for a seamless handoff to operations. We'll celebrate milestones, recognize contributions, and make sure every detail is buttoned up—so Cascade is set up for long-term success and ready for what's next.

Case example of collaboration in practice

Scenario: The team evaluates open-cut trenching or a trenchless method (e.g., microtunneling) for a pipeline segment through a dense urban neighborhood. Trenchless is more expensive but reduces surface disruption and community impact.

Step 1: Pre-meeting input gathering

We survey the relevant program disciplines (engineering, permitting, community engagement, construction) to gather initial thoughts, offering an anonymous comment box to share feedback privately.

Step 2: Structured decision workshop

We facilitate a workshop using ground rules to encourage open dialogue. The facilitator uses a round-robin format to solicit everyone's opinions.

Step 3: Inclusive discussion

A junior inspector raises a concern about soil stability that might impact feasibility. The engagement lead shares news of a new school opening nearby. Project controls staff review cost and schedule implications of both methods.

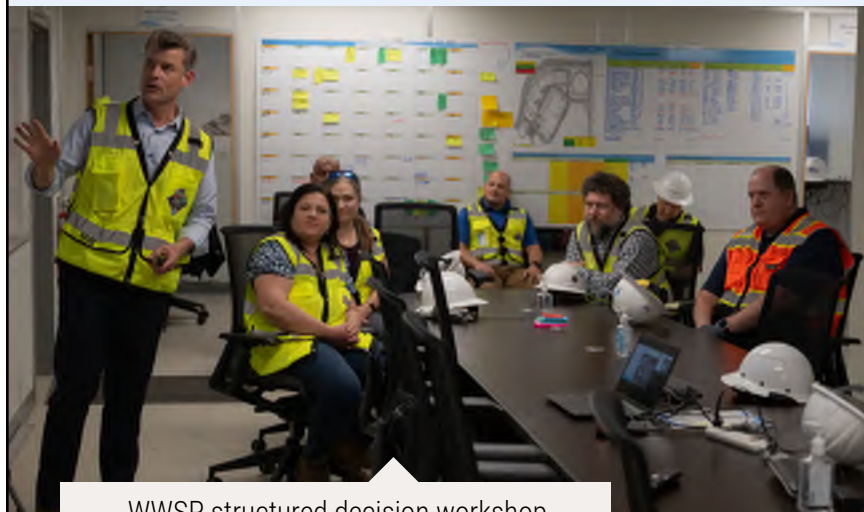
Step 4: Decision-making

The facilitator summarizes input. The Program Director has a chance to ask clarifying questions. The Program Manager, or delegate makes the decision to proceed with trenchless construction due to maintaining community goodwill and risk mitigation. The rationale is documented and shared with the entire team.

Step 5: Post-decision alignment

After a debrief to confirm next steps, even those who preferred open-cut trenching commit to the decision and start planning accordingly. The decision is not revisited unless new data emerges.

Outcome: The team feels heard, respected, and aligned. A decision is reached and documented. The program moves forward with clarity.



WWSP structured decision workshop

Schedule, cost, and project controls

Effective program controls will give Cascade the confidence in schedule and cost to clearly communicate progress and future milestones. The result is transparency and accountability, and increased trust from your stakeholders.

Ultimately, program controls are about establishing one set of data to drive decision making, track progress, detect potential issues, and report on goals. Stantec proposes to use our proven Monitor the Plan program controls approach, which is centered around People, Processes, and Technology.

People

Without the right oversight, guidance, and support, processes and technology are neither efficient nor effective. The first step in our approach is defining the responsibilities of the Program Controls Team and the Project Managers across all of the CSP. This includes key roles and responsibilities for the implementation and upkeep of Program Controls focused around cost, schedule, change management, cost estimating, PMIS, and financial forecasting and reporting.

Processes

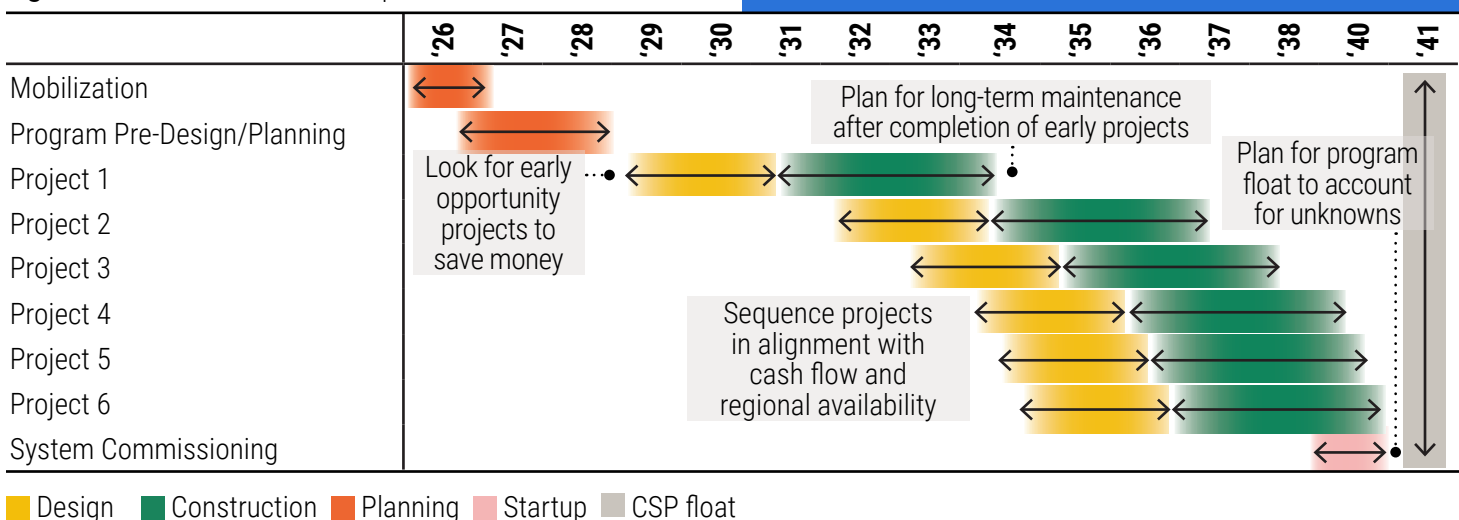
Consistency is key to effective program management. It is critical to establish a set of standard procedures to define project and program delivery expectations. As part of our approach, **Christina Vanburen** will collaborate with you to establish:

- **CSP Work Breakdown Structure (WBS)** that builds on the standard project lifecycle, establishes the levels of detail by which the project will be managed, and sets the standards for schedule and cost management. The CSP WBS serves as the basis for schedule creation, where we fully integrate predecessor and successor logic relationships, identifying the critical path.

- **Cost and Schedule Baseline** that enables the identification of key project milestones and activities, areas of slippage, potential cost overruns, and trends at both the project and program level. Upon completion and approval, this becomes the Baseline plan for the duration of the project and is revisited annually. CSP is a complex program that will span over a decade. To accommodate for the future 'unknowns,' we recommend that in addition to the opinion of probable cost, the CSP Baseline include the appropriate risk reserves, escalation considerations, and contingencies. See the key aspects of schedule development and management in **Figure 5.8** below.
- **Funding/Financial Model** that is a program-wide funding model to be used to forecast cashflow expenditures (how much money is needed when). This is especially important during construction, when at peak construction many of our \$1B+ programs complete more than \$1M of construction each day.

On the SDS Program, we collaborated with Colorado Springs Utilities to apply cost management practices such as commodity-driven forecasting combined with competitive bidding. Schedule acceleration would have negatively impacted affordability and cash flow. As a result, the program was delivered within the original schedule with \$160M of savings across the \$985M program.

Figure 5.8. CSP Schedule Development



- **Reporting Needs and Cadence**, including a monthly activity and reporting calendar in line with a financial calendar. These reports will focus on the health of the project, identify any areas of concern, provide information to aid in decision making, and include an in-depth analysis of any deviations from the Baseline plan and recommendations for potential mitigation plans to improve progress. In addition, through the use of dashboards, project internet sites, newsletters, and quarterly reporting, our team will lead efforts with Cascade to complete timely, quality project status reports.

Technology

Given the large scale of the CSP, leveraging the appropriate tools is critical to program success. During the CSP Start-up phase, Christina and our controls team will initiate a collaborative effort with Cascade to establish a Program Controls Plan (as part of the PgMP) to identify processes and tools (e.g., PMIS, P6) and meet the unique needs of Cascade. The PMIS should give the Project Controls Team the tools they need to do their jobs—so they can measure, track, and report project data based on the planned budget and schedule, and do so on time. A key part of any PMIS is a cloud-based data warehouse, where data is uploaded, stored, and shared using commercial software tools.

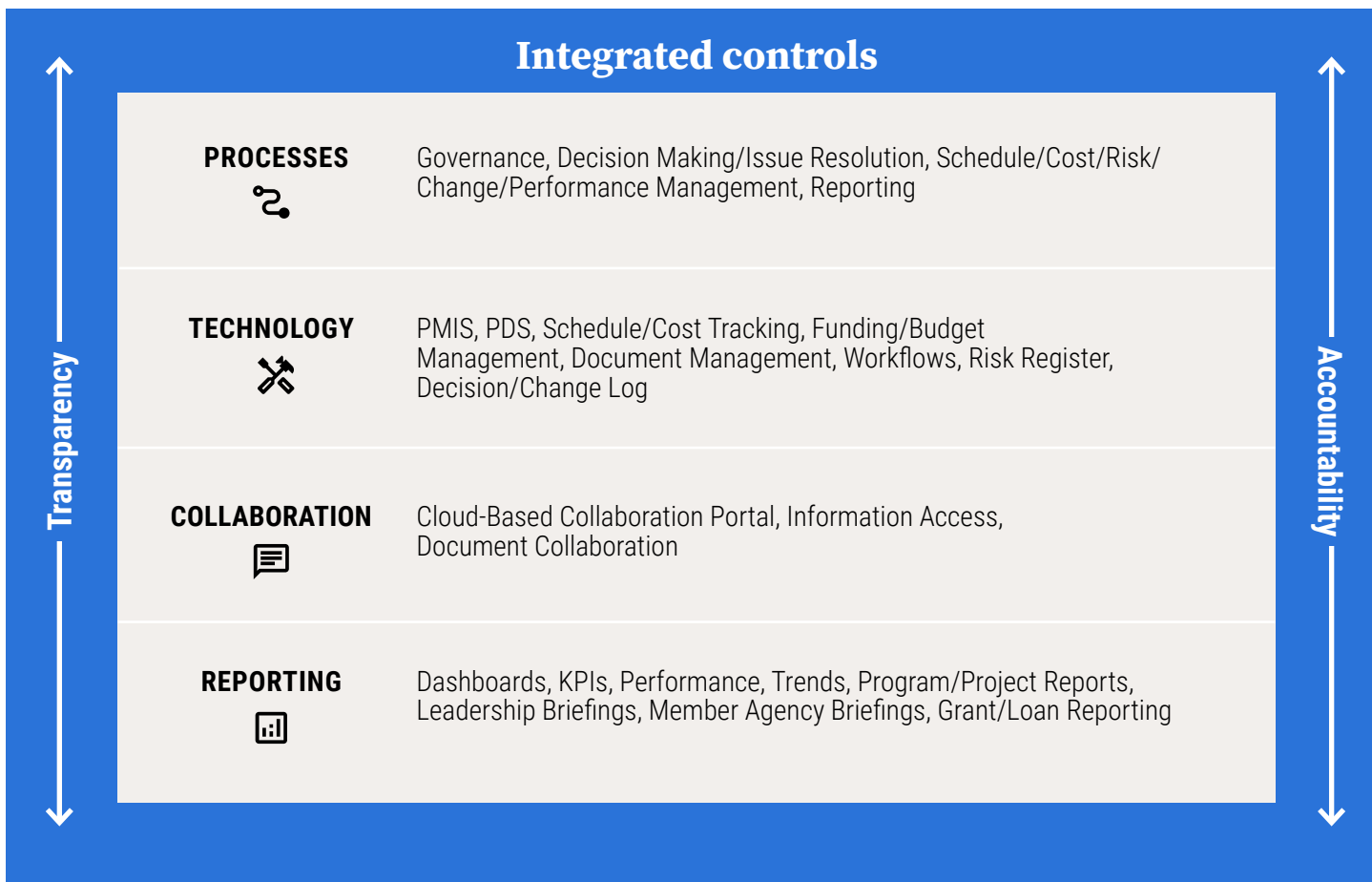
The Cascade PMIS must support at least the following features: schedule and budget management, dashboards and reporting, document management, risk management, contract and change tracking, design and construction management, and automated workflows and approvals.

As part of Plan the Plan, during CSP start-up **Melissa McDaniel** and Christina will develop the CSP PMIS framework, incorporate workflow outputs, and develop a proof of concept for the PMIS and iterate on it until we have completed the PMIS solution requirements.

Figure 5.9 below summarizes our integrated controls approach for CSP, building from established CSP-specific processes, that are then automated and controlled via industry best practice technologies (e.g., P6, PMIS) to maintain consistency and one source of truth.

This foundation provides a strong basis for increased collaboration between all CSP parties (e.g., Cascade, PES, Designers, Contractors), providing transparency and accountability. Finally, an efficient and transparent reporting structure allows information to be shared to support decision-making and reporting, helping to sustain stakeholder endorsement. We’ve found that this method helps the team get the information they need to monitor the program’s health, spot problems early, and keep stakeholders updated on progress and key results.

Figure 5.9. Our integrated controls approach provides greater transparency and accountability across all facets of the CSP




Cascade Start-up Work Plan

Anticipated Calendar Schedule

			Month 1			
Scope of Work Task	Workflow Title	Working Group Leaders	Week 1	Week 2	Week 3	Week 4
Stand Up the PMO	Task 1: Consultant Project Management	Mobilize Team & Initiate Charter	Brian Bartle Gabe Solmer	Kickoff Meeting - Objectives & Draft of Startup Work Plan	Program Leadership Collaboration	Team Vision, Mission, Values, and Goals Meeting
	Task 1: Consultant Project Management	Organizational Structure, Staffing Plan	Brian Bartle Gabe Solmer	Task Group Formation / Key Staff Onboarding	Initial Discussion on Organizational Structure and Year 1 Staffing Plan	Resource Identification and Gap Analysis Review
	Task 1: Consultant Project Management	Internal Communications/ Meetings	Brian Bartle Gabe Solmer	Task Group Formation	Stantec Team and Cascade Interfaces Identification Meeting	Draft Program Communications Processes and Refine with Team

Stand Up the PMO is a primary focus in month 1. We will kick off the CSP charter, focus on staffing for year 1, and establish internal communications.

Start-up Work Plan 
 The early days of a program of this size are filled with collaboration and planning. The SWP brings intention to our movements, focusing the Stantec Team and Cascade on making key decisions around procedural guidelines, tools, and requirements. By taking the time to move deliberately at the start, we set the stage for program success.



A snapshot of our SWP for the CSP is shown below and to the left. You can view the full draft using this QR code. We look forward to refining the SWP with you further.

Anticipated Calendar Schedule

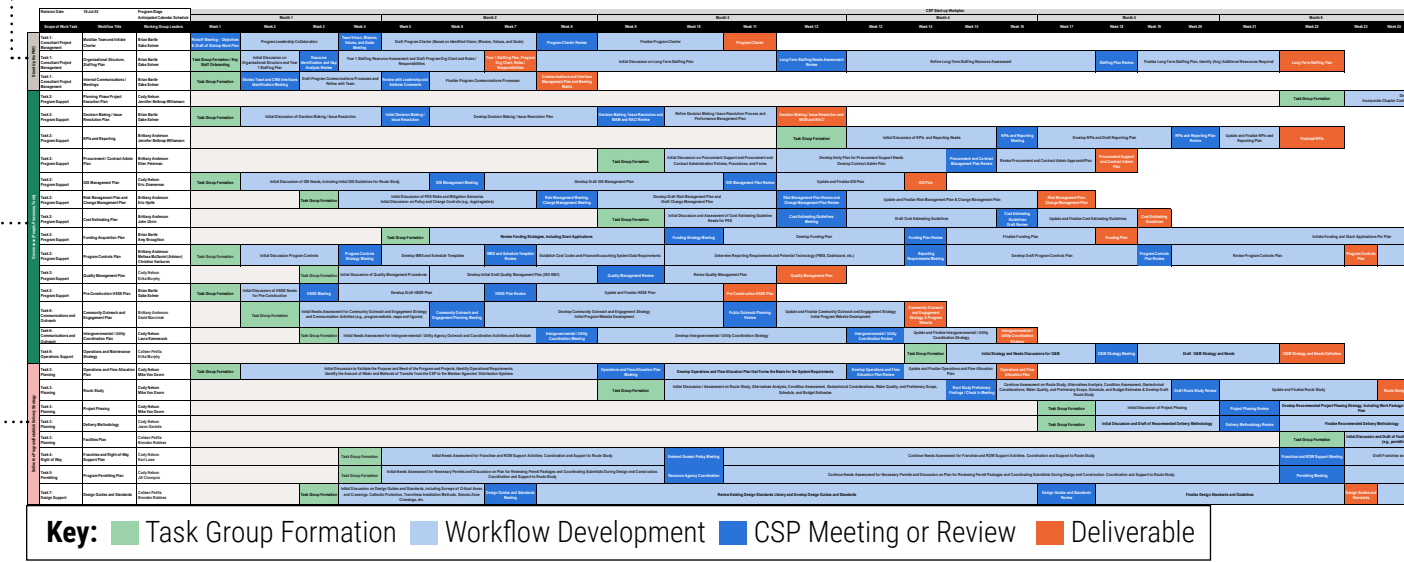
			Month 3			
Scope of Work Task	Workflow Title	Working Group Leaders	Week 9	Week 10	Week 11	Week 12
Governance (People, Processes, Tools)	Task 2: Program Support	Cost Estimating Plan	Brittany Anderson John Uhrin	Task Group Formation	Initial Discussion and Assessment of Cost Estimating Guideline Needs for PES	Cost Estimating Guidelines Meeting
	Task 2: Program Support	Funding Acquisition Plan	Brian Bartle Amy Broughton		Funding Strategy Meeting	Develop Funding Plan
	Task 2: Program Support	Program Controls Plan	Brittany Anderson Melissa McDaniel		Determine Reporting Requirements and Potential Technology (PMIS, Dashboard, etc.)	
	Task 2: Program Support	Quality Management Plan	Cody Nelson Erika Murphy	Quality Management Review	Revise Quality Management Plan	Quality Management Plan
	Task 2: Program Support	Pre-Construction HSSE Plan	Brian Bartle Gabe Solmer	Update and Finalize HSSE Plan		Pre-Construction HSSE Plan

While some Governance elements such as GIS, program controls, and decision making/issue resolution plans begin in month 1, we've staggered others to move expeditiously without overburdening staff.

The SWP outlines all initial program tasks, activities, and deliverables, defining what needs to happen, when, by whom, and how. It offers a detailed schedule of activities, meetings, and deliverables where each Workflow directly populates the PgMP, reducing the risk of rework or confusion down the line. This process and timeline keeps ownership with Cascade while leveraging our team's capacity. The result is a strong foundation that launches CSP effectively and efficiently.

Anticipated Calendar Schedule

			Month 6			
Scope of Work Task	Workflow Title	Working Group Leaders	Week 21	Week 22	Week 23	Week 24
Define the Program/Establish Delivery Strategy	Task 3: Planning	Route Study	Cody Nelson Mike Van Doorn	Update and Finalize Route Study		Route Study
	Task 3: Planning	Project Phasing	Cody Nelson Mike Van Doorn	Project Phasing Review	Develop Recommended Project Phasing Strategy, Including Work Package Matrix and Sequencing Plan	
	Task 3: Planning	Delivery Methodology	Cody Nelson Jason Garside	Delivery Methodology Review	Finalize Recommended Delivery Methodology	
	Task 3: Planning	Facilities Plan	Colleen Petilla Brendan Robless		Task Group Formation	Initial Discussion and Draft of Facilities Plan with Indicative Baseline and Integration of Enabling Strategies
	Task 4: Right of Way	Franchise and Right-of-Way Support Plan	Cody Nelson Kari Lowe		Franchise and ROW Support Meeting	Draft Franchise and ROW Support Plan Considering Route Study Outputs
	Task 5: Permitting	Program Permitting Plan	Cody Nelson Jill Chomycia		Permitting Meeting	Draft Program Permitting Plan



The longest start-up work streams are set around Defining the Program, because they build on one another - the Operations/Flow Allocation Plan and Route Study inform other Workflows (phasing, delivery method), and feed into the Facilities Plan. By Month 6, all these elements will be in full swing.

Figure 5.10. Proposed Cascade SWP snapshot

SECTION 6

Technical Approach

Technical approach

Planning for major infrastructure projects

The planning phase of the CSP defines what needs to be built, how it will operate, and how we'll deliver it. Our approach is rooted in collaboration, technical precision, and a clear understanding of regional needs. The effort is organized around four key components: the Operations and Flow Allocation Plan, the Route Study, the Delivery Methodology and Project Phasing, and the Facilities Plan. Each component is essential to developing a reliable, efficient, and community-focused water supply system, and will be led by a dedicated expert supported by a multidisciplinary team.

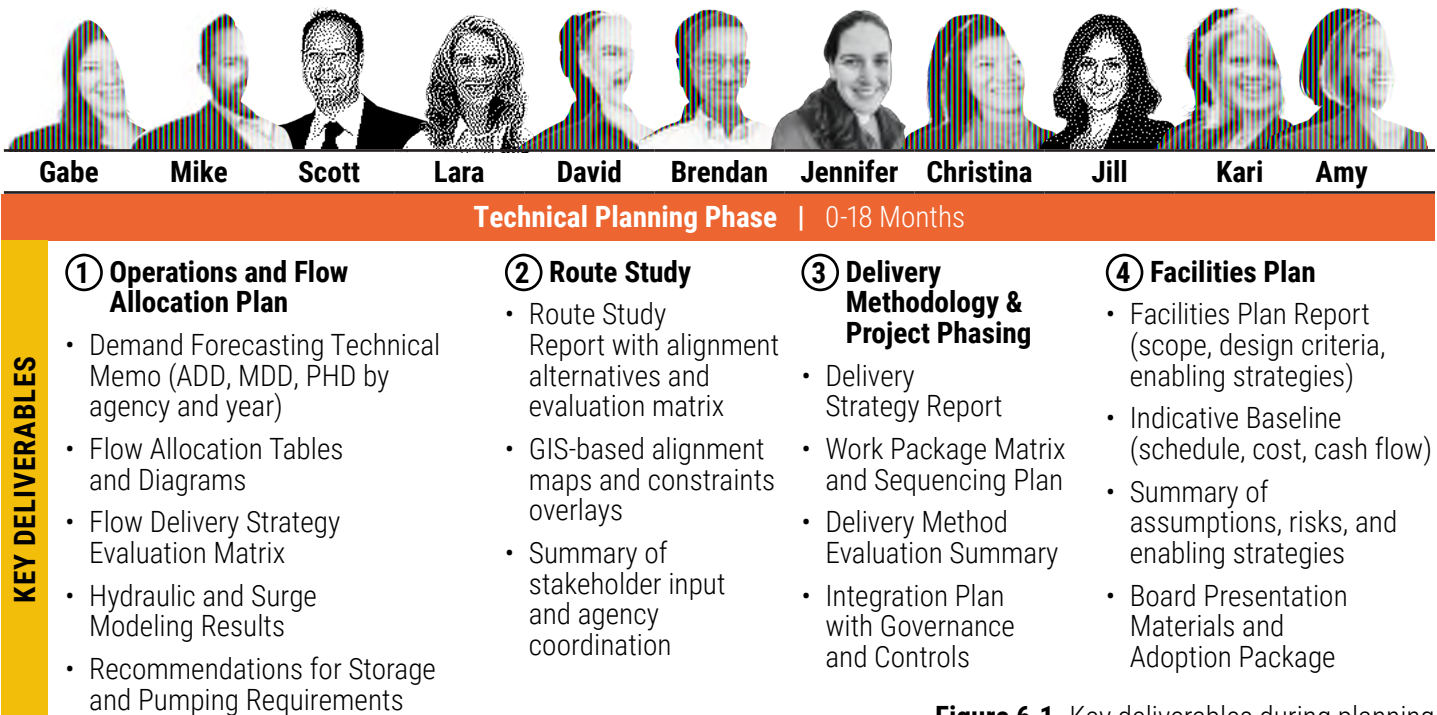


Figure 6.1. Key deliverables during planning

① Operations and Flow Allocation Plan: laying the groundwork

The Operations and Flow Allocation Plan sets the foundation for CSP. **Mike Van Doorn** leads the effort, supported by **Scott Gibson** on operations strategy and **Gabe Solmer** and **Lara Kammerack** on stakeholder alignment.

Demand forecasting and allocation modeling: Gabe & Lara will engage member agencies to forecast water needs through 2042, with Mike's team providing technical support. Together, they'll define Average Day, Maximum Day, and Peak Hour Demands—grounded in historical consumption trends, land use plans, and each agency's unique growth trajectory.

Flow delivery strategy evaluation: Scott will guide the team through delivery options—Fixed, Variable, and Hybrid—while Mike's modeling team simulates impacts on infrastructure and energy use. Scott and Mike will work closely to develop an operational strategy that is both efficient and resilient.

System integration and surge analysis: Mike will assess how the new CSP infrastructure will interface with Tacoma's system and Cascade's existing assets. Using advanced hydraulic modeling tools, Mike's team will simulate steady-state and transient conditions to evaluate system performance under a range of scenarios. This analysis will help identify pressure zones, control valve locations, and surge risks—making sure the system is not only functional but protected against pressure-related failures. The results will directly inform the design of pump stations, storage facilities, and operational controls.

Stakeholder coordination: Gabe, with support from **David Marciniak** and **PRR**, will lead workshops to validate assumptions and build consensus. She'll also help package findings for permitting, public engagement, and board briefings to maintain transparency.

2 Route Study: more than lines on a map

With the flow strategy in place, Mike and team will lead the charge to determine where CSP infrastructure should go.

Brendan Robless will define routing requirements, identifying seismic zones, wetlands, and other constraints. He'll coordinate closely with Cascade's permitting and real estate teams to begin early integration.

Mike and Brendan will then develop and evaluate multiple alignment options using field reconnaissance, GIS tools, and a triple bottom line lens—balancing cost, environmental impact, and community benefit. Brendan will also lead technical evaluations and facilitate collaborative working sessions with Cascade and Member Agencies to confirm alignment decisions are both sound and supported.

3 Delivery Methodology and Project Phasing: smart delivery, step by step

With the “what” and “where” defined, it's time to plan the “how.” Mike and Brendan will lead the development of a delivery strategy that breaks CSP into logical, phased work packages—pipelines, pump stations, and storage—aligned with permitting, funding, and operational priorities. Their approach draws on lessons from Joliet and WWSP, tailored to Cascade's needs.

Jason Garside will evaluate delivery models—Design-Bid-Build, Progressive Design-Build, and CMAR—using a structured analysis to recommend the best fit for each package based on risk, market, and schedule (see **Section 7, Question 1** for a detailed discussion of the use of collaborative delivery models in the CSP).

Jennifer Belknap Williamson will guide the strategy to align with Cascade's governance, integrating stage gates, performance metrics, and funding requirements to support clear, accountable decision-making.

4 Facilities Plan: where it all comes together

The Facilities Plan ties all planning elements into a cohesive infrastructure strategy. Brendan leads the effort, defining the scope—transmission mains, pump stations, storage, and interties—aligned with flow and

routing strategies. He'll set preliminary design criteria and coordinate with permitting and operations teams.

Christina Vanburen works with the Team and Cascade to develop the Baseline, outlining schedule, cost, and cash flow, while identifying key risks and assumptions.

Jill Chomycia, Kari Lowe, Gabe, and Amy Broughton integrate enabling strategies—permitting, real estate, outreach, and funding—to establish a viable plan on all fronts.

Finally, Gabe and Jennifer will support Cascade in presenting the plan for formal adoption, preparing materials and aligning stakeholders.

Big, bold water programs aren't new to Stantec

As Program Manager for Joliet's \$1.4B Alternative Water Supply Program, we tackled challenges nearly identical to Cascade's—flow allocation, routing, and phased delivery across multiple jurisdictions. Our team developed the flow strategy, mapped routes, and created a delivery plan that balanced urgency, funding, and constructability. The lessons learned in Joliet—like anticipating permitting hurdles and sequencing construction—give us a proven playbook to help Cascade move forward with confidence.



Obtaining franchise agreements, permanent and temporary easements

CSP will require property access in the form of franchise agreements for the use of public rights of way, and the acquisition of temporary easements, permanent easements, and/or fee title to public and/or private property. **Kari Lowe** and CommonStreet bring decades of experience acquiring property for linear projects, including the WWSP, for which they led the acquisition of 391 unique easements and 7 properties. **Lara Kammerack**, our Intergovernmental Coordinator, has worked with the member agencies and other jurisdictions within the CSP region since 2015 and will lead negotiations of franchise agreements for the CSP. Real estate acquisition is a vital function of the design and implementation process, not a reactive support function.

Early coordination on property acquisition, permanent and temporary easements will minimize impacts to schedule: With years of experience in Washington and beyond, we understand that many parts of the process can take longer than desired. To avoid delays and reduce the need for condemnation, we identify the unique challenges of each property and create strategies to address them.

Our real estate experts are involved from day one—helping identify risks, shape routing decisions, and confirm that each acquisition is well understood and legally sound. With a deep understanding of industry specific state and federal laws and guidelines, the Stantec Team also brings the right expertise to maintain compliance throughout the process. We also track and document any **commitments made to property owners**, such as restoration or landscaping, and follow through during construction to protect Cascade’s reputation as a responsible community partner.

Early access to public and private properties is essential for collecting technical data like **wetland and geotechnical surveys**, which inform route selection

and design. By engaging with property owners and local agencies early, we lay the groundwork for smooth, respectful, and timely acquisitions.

Franchise Agreements: While Washington does not require franchise agreements for the use of public right of way, any of the jurisdictions where CSP infrastructure is to be in public right of way could choose to require one. Our team believes that a well-crafted franchise agreement is equally protective for Cascade and the CSP assets after construction. By clarifying the rights and responsibilities of Cascade and the franchising jurisdiction, a franchise agreement helps avoid disagreements, litigation, and unnecessary costs in the long run. We will dedicate a lead coordinator for each jurisdiction from which a franchise agreement will be needed. Lara will bring her extensive experience within the region to lead the franchising process. She has worked with the Member Agencies, including the Cities of Bellevue, Issaquah, and Tukwila, and other jurisdictions within the CSP region including the cities of Auburn, Renton, and Covington.



Building pipelines and trust: When a staging area was needed in a dense urban area for the WWSP, the only viable site was a lawn in front of Whitford Middle School—property not eligible for condemnation and met with safety concerns from the school district. By working closely with the district, adjusting work hours, and implementing a flagger program to protect students and parents, our team addressed all concerns. As a result, we secured the temporary easement on time and at no additional cost to the program.

From clouds to clarity: a road trip with purpose

Eager to get boots on the ground and eyes on the proposed routes, the Stantec Team hit the road on a cloudy June day to explore the proposed alignment from Lake Tapps to Bellevue. This field tour wasn't just a scenic drive—it was a data-gathering mission. Along the way, we captured dozens of valuable insights, all logged into our ArcGIS webmap (Figure 6.2). By combining real-world observations with smart mapping technology, we have built a strong foundation for understanding the property types and easement needs that lie ahead.



Figure 6.2. Preliminary ArcGIS webmap demonstrating the current land use near the proposed Chlorination Station site.



◀ Team members Lara Kammerack, David Marciniak, Andre Tolme, and Jill Chomycia, visited the potential Cascade Chlorination Station site. Photo credit: Gabe Solmer.

Discussion of the permits required and path to obtaining them

Design managers can design the most brilliant plans, and construction managers can build with precision, but without permits, it's all just an expensive daydream. Permits are the green light that turns great ideas into real-world progress – or they can be the red light that turns progress into gridlock. CSP will require permits from a wide variety of authorities. Under the direction of **Jill Chomycia**, our Task 5. Permitting Lead, the Stantec Team will work closely with authorities to both understand the regulatory requirements ahead of construction, and to inform project design to avoid or minimize impacts on the environment. Transparency in communication with agencies and the public will enable our team to identify and avoid or minimize regulatory hurdles and take advantage of opportunities to preserve or enhance the environment and communities affected by CSP construction. Effective stakeholder engagement and comprehensive route evaluation processes are also key to successful permitting and integral to avoiding opposition and legal appeals.

Program-level permitting strategy development: While all permitting is project specific, the Stantec Team will apply our local and national experience to provide a program-level lens of the project elements that trigger permit requirements, from wetland impacts to night work. This expertise, along with early communications with King County, Pierce County, affected municipalities, US Army Corps of Engineers, US Fish and Wildlife Service, National Marine Fisheries Service, and Washington Department of Ecology, will inform a comprehensive Permitting Strategy. Reviews of zoning and other land use considerations, cultural and tribal resources, and hazardous materials will also inform the Permitting Strategy.

The Permitting Strategy will identify all environmental, land use, cultural resource, and preconstruction regulatory and permit requirements, and will develop a preliminary schedule (see **Figure 6.2**). It will delineate the process, schedule, potential conditions and mitigation requirements, potential Federal nexuses, likely lead Federal agency, and other factors for consideration during planning and design. The Permitting Strategy will also guide the team during the planning phase to avoid or minimize regulatory delays. For example, early identification of key sensitive areas will enable the identification of the least impactful route and design features which could eliminate the need for NEPA or SEPA permitting.

Sequencing for the permit acquisition phase

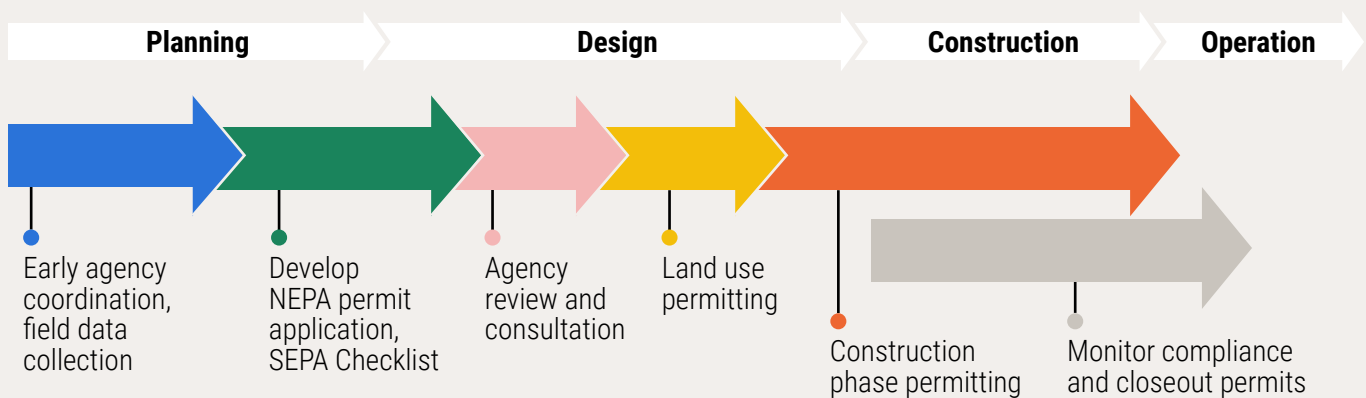


Figure 6.2. Permit acquisition sequencing

The permits that may be required for CSP, and our approach to obtaining those permits, are described below.

National Environmental Policy Act (NEPA) and Washington State Environmental Policy Act (SEPA):

These are the key federal and state laws which may be applicable to CSP. If Cascade seeks federal funding, or if CSP requires a federal permit or affects federal lands, a federal nexus will exist. The Stantec Team understands that avoiding the need for federal permits is preferred. Through thoughtful design and early, ongoing coordination with federal agencies, we will work to avoid conditions that could trigger NEPA/SEPA. The most likely federal nexus is the potential to impact wetlands or waterways which would trigger the need for a permit under the Clean Water Act, Section 404. The U.S. Army Corps of Engineers (USACE) is the most likely lead federal agency for the CSP.

If NEPA/SEPA cannot be avoided, our team will guide the permitting process to minimize schedule impacts while maintaining flexibility for final design. There are four potential NEPA pathways: (1) a programmatic permit with individual permits; (2) individual permits for each CSP element; (3) Nationwide Permits; or (4) a single permit for the entire program. The best path depends on project impacts. We have experience with all four and will work closely with USACE to select the appropriate and most efficient option.

If a programmatic or individual permit is required, we will pursue a Section 404 permit, through an Environmental Assessment (EA), and a Finding of No Significant Impact (FONSI). CWA has the authority to then review and adopt the EA and, after conducting a public comment period consistent with SEPA and making any revisions needed in response to comments received, issue a Determination of Nonsignificance (DNS). Our goal is to avoid the need for an Environmental Impact Statement (EIS) or Determination of Significance (DS) by working to avoid and minimize impacts through the planning and design processes reducing the risk of delays and keeping CSP on track.

Land Use: Each city or town where CSP infrastructure is planned has its own zoning and development codes. In unincorporated areas, county regulations apply. Our team will work closely with King and Pierce counties and local jurisdictions to identify site-specific opportunities and constraints and will submit required applications well in advance of construction.

Permitting requirements will vary depending on whether infrastructure is located entirely within public rights-of-way, extends onto private or public land, falls within zoning overlays (e.g., floodplains or habitat areas), or qualifies as a permitted use. Early

coordination with King County, Pierce County, and cities like Covington, Issaquah, and Bellevue will help clarify code requirements and timelines.

To reduce the risk of appeals or delays, we will implement strategies such as designing to avoid discretionary permits, accelerating applications for complex elements, and incorporating community benefits to build support and minimize opposition.

Construction Permits: Like land use permits, construction permits are those issued by the county or city where a project is located. Construction permits, acquired before construction begins, address issues such as erosion control, road closures, and night work. Similarly, the Washington Department of Ecology regulates stormwater runoff from construction sites through the Construction Stormwater General Permit. Our team will identify the construction permits and permit-specific considerations including review timelines, interdependencies between permits, and expiration periods to establish an effective schedule and sequence for permit acquisition.

CSP may require hundreds of unique permits, each with conditions that must be met before, during, or after construction. Through careful tracking and open communication with Cascade, the regulatory authorities, designers, and contractors, our team will manage compliance with regulatory requirements throughout the lifetime of CSP and help Cascade establish a process for compliance throughout system operations.



Discussion on stakeholder engagement and outreach

The CSP will touch project stakeholders and community members across multiple jurisdictions, with a large range of impacts and benefits.

Strong relationships are key to the success of the CSP. Our team is ready to hit the ground running with a stakeholder engagement and outreach strategy that's clear, coordinated, and community focused. With more than 600 local projects over 20 years in the Bellevue metro region, the Stantec Team brings the tools and talent to connect with your communities. Our approach is built on identifying, understanding, and responding to Cascade's different communities.

The CSP will touch project stakeholders and community members across multiple jurisdictions, with a large range of impacts and benefits. Some will have competing interests around property, construction, traffic, and environmental impacts. Our team will build and implement a consistent, transparent process that supports trusted partnerships.

Your A-Team for Engagement and Delivery: David Marciniak, with decades of experience on projects like CSP, will lead the Team for Communications and Outreach services for the PES. With support from outreach specialist **Kelly Von Holtz**, intergovernmental specialist **Lara Kammereck**, and local workforce development specialist **Nicki Pozos**, they will develop and implement the Communications and Outreach Plan alongside Cascade staff to guide internal and external engagement needs.

Stakeholders in Focus: Understanding who's impacted is step one. **Figure 6.3** highlights the diverse voices involved in the CSP from Member Agencies and permitting agencies to residents, businesses, and tribal governments, making sure no one is left out of the conversation.

1 From Planning to Pipeline: We've mapped engagement activities across every phase of the project from early planning through final construction (**Table 6.1**). Our communications approach is cross-disciplinary, fully integrating services into permitting, design, real estate, construction, and other areas. This coordination allows engagement and outreach to align with CSP needs to support decision-making and be responsive to ever changing stakeholder needs. Efforts will be supported by in-house experts to meet graphic design, website, social media, language interpretation, video production, facilitation, event coordination, and other needs.

Table 6.1. Activities during phases

<p>Mobilization Activities</p> <ul style="list-style-type: none"> • Perform needs assessment • Develop initial Communications and Outreach strategy <p>Program Definition Activities</p> <ul style="list-style-type: none"> • Finalize Communications and Outreach Plan • Set targeted strategy for impacted parties • Hold public meetings, receive feedback <p>Planning/Design Activities</p> <ul style="list-style-type: none"> • Implement proactive mitigation strategies • Integrate needs into design • Inform and educate impacted parties <p>Construction Activities</p> <ul style="list-style-type: none"> • Address and resolve concerns • Collaborate with contractors, implement proactive outreach • Hold milestone events <p>Ongoing Activities</p> <ul style="list-style-type: none"> • Manage Communications and Outreach Plan • Perform continuous audience analysis • Publish website, graphics • Be nimble and ready for changing needs 	<p>Example: As part of the King County Water Treatment Department's North Mercer Island and Enatai sewer upgrade project, the Team created input forms for bicyclists and motorists to weigh in on an alignment favoring a busy street or busy bike path. Wide support for the bike path alternative led to an informed decision and stakeholder endorsement.</p> <p>Example: The Team for the Colorado Springs Utilities Southern Delivery System in Colorado implemented a robust approach when faced with ratepayer concerns and stringent permitting requirements. Efforts won an AWWA Public Communication's Achievement Award for accomplishments in communication that inspires others to model behavior with the public that builds trust and credibility.</p>
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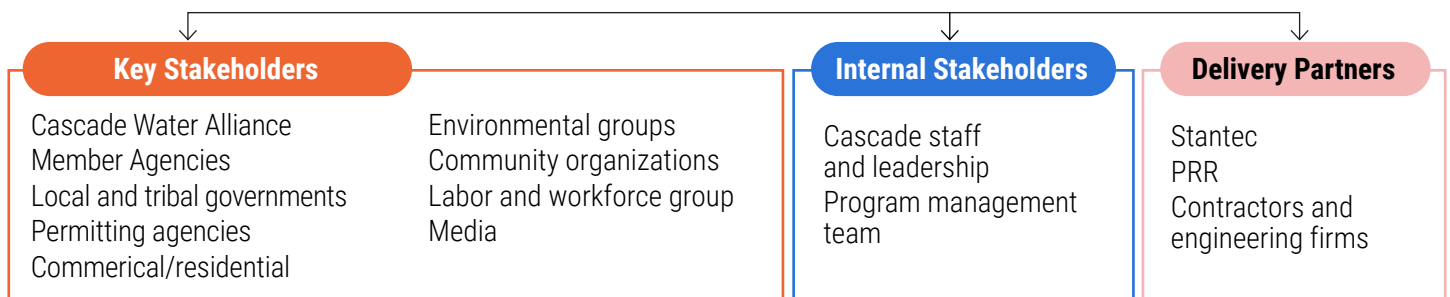


Figure 6.3. Impacted stakeholders

660 Projects

The Stantec Team's Area Experience

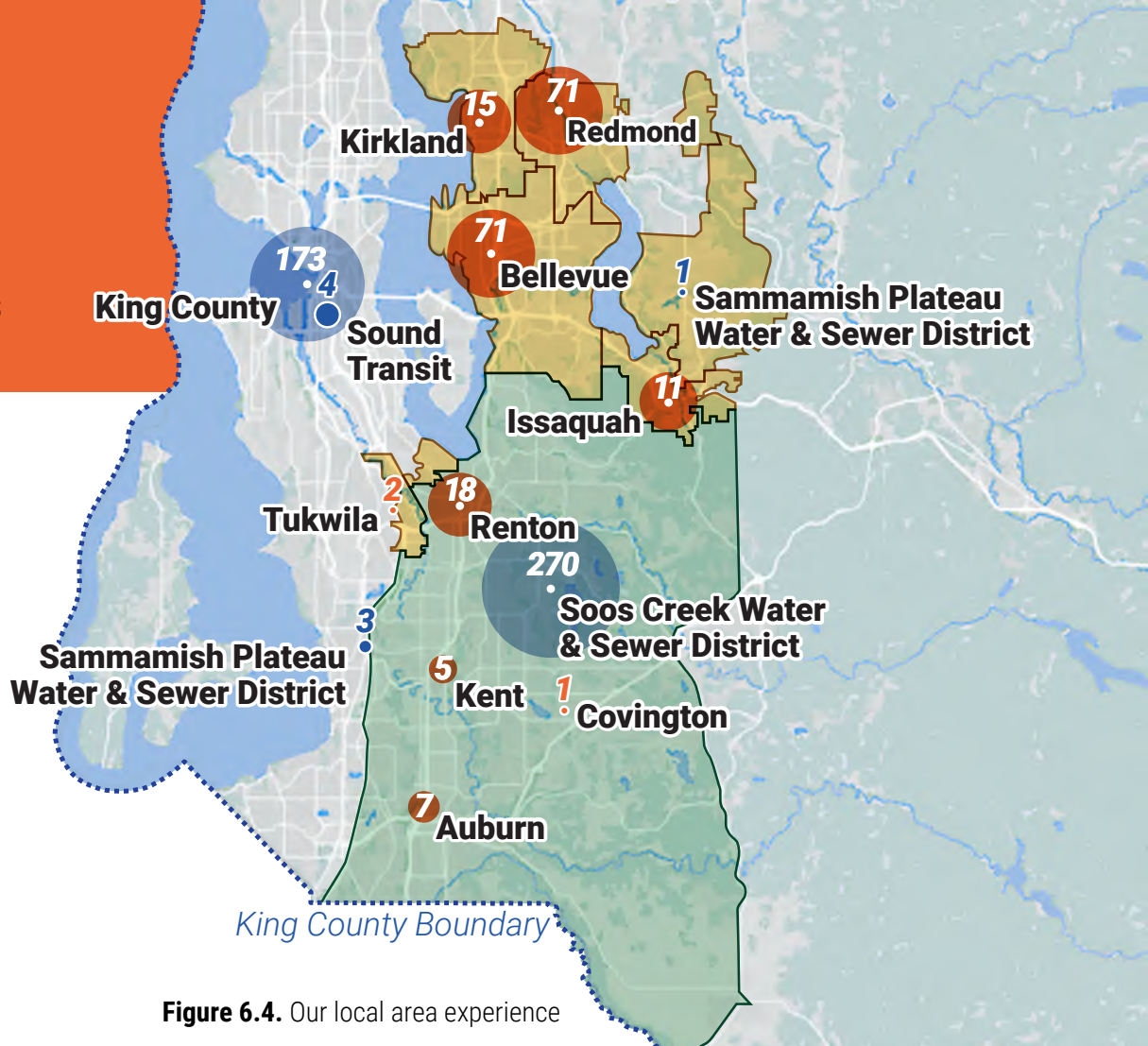
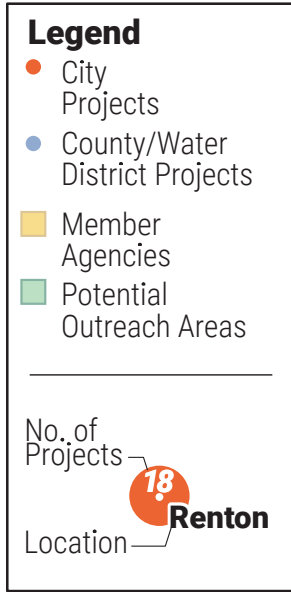
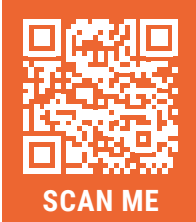


Figure 6.4. Our local area experience

Location. Location. Location: With decades of experience in the Puget Sound area, the Stantec Team knows how to connect with local communities. We've built trust on hundreds of projects—and we're bringing that same commitment to Cascade. This map shows a sampling of projects the Stantec Team has done in the area (Figure 6.4).

Our teaming partner for Communications and Outreach, PRR has experience working with stakeholder groups and CBOs across the 107-mile study area for the I-5 System Partnership and Near-Term Action project, across the City of Bellevue through its utilities on-call project, as well as the Kirkland Surface Water Management Plan.

Deliverables that drive progress: We don't just plan—we produce. From stakeholder maps and outreach plans to communication materials and engagement reports, our team delivers clear, actionable tools that keep the project moving and stakeholders informed. Deliverables include a Communication Plan established in the PgMP, informational mailers, presentation materials (e.g., materials for Board meetings, community meetings, stakeholder presentations, etc.), program newsletters, construction updates, website maintenance, social media content, and video production.



The Stantec Team has created a test website for CSP, available by private link: <https://cascadewatersupply.org/>.

At the conclusion of the start-up effort, the website requirements will be outlined and schedule established for implementation.

Login: cascade

Password: cascadesupplyprogram

Providing third party constructability and design reviews

Ultimately, the goal of design, constructability, and biddability reviews is to minimize bid costs and delivery risks while achieving CSP’s standards for operability, performance, and lifecycle costs. Clear and complete documents help contractors understand the work, which leads to more accurate and lower bids.

Standards That Start Ahead - Cascade Program Design & Delivery Guide: The Stantec Team has a library of standards specifications used on recently delivered large programs, including WWSP, Pure Water San Diego, and Joliet AWP. We will work with Cascade, its Member Agencies, and SMEs to quickly customize these industry-proven design specifications to create the **CSP Design & Delivery Guide**. This will serve as a foundational reference to codify design expectations, drawing standards, documentation protocols, and digital workflows (e.g., Civil 3D, Revit, ACC, Bluebeam). This guide will serve as a consistent roadmap for all design consultants, supporting third-party reviews by maintain alignment with Cascade’s goals, Member Agency needs, and infrastructure-specific requirements. The guide will streamline design reviews, reduce rework, and promote consistency across all future design contracts.

Our two-prongged approach to CSP design and constructability reviews includes: 1) setting the foundation with processes to facilitate effective review, including the early development of standards, a Design and Delivery guide, and design checklists; 2) implementing the process, focused on consistent SME input and safety-by-design.

1) Setting the Foundation

Early standards development facilitates third-party constructability and design reviews down the road. In the early stages of the program, **Brendan Robless**, Mobilization Standards Development Lead and Task 7. Design Support Lead will work with the broader Stantec Team and Cascade to develop and codify design goals. These goals relate to the desired level of resiliency, preferred operational parameters, and delivery methods and timeframes. The goals will guide specific engineering standards and construction details. This critical phase of the work is implemented by the Stantec Team’s subject matter experts (SMEs) working closely with Brendan, **Mike Van Doorn**, Task 3. Planning Lead, and Cascade’s technical experts.

2) Implement the Process

The Stantec Team’s focused and efficient reviews are part of our risk management strategy to minimize cost, quality, safety, and schedule risks. Biddability and constructability reviews on CSP will focus on consistency and clarity of the construction documents at each phase of the design lifecycle. Stantec will assign SMEs in each technical area to review all project designs. We will onboard the SMEs so that they understand Cascade’s goals, the Design and Delivery guide, and will make sure each design meets those expectations. This approach to SME review was used on the WWSP for every design stage deliverable and resulted in consistent design documents that met the program’s goals. Stantec’s **Section 3 Organization Chart** identifies critical SMEs and their areas of expertise. While other SMEs may be added, the core SME team is shown in **Table 6.2** below:

Table 6.2. Technical area subject matter experts

Civil	Structural	Mechanical	Geotechnical	Hydraulics	Cathodic Protection	Architectural
Adam Odell	Craig Wilcox	Tim Ayvaz	Greg Rollins	Mike Van Doorn	Corey Meckler	Gene Minnick
Electrical/I&C	Health & Safety	Real Estate	CAD Standards	Permitting	Operations	Constructability
Chris Deerkop	Chad Carlson	Kari Lowe	Brendan Robless	Jill Chomycia	Erika Murphy	Andre Tolme

Built with Operators in Mind: On the WWSP facilities, including the reservoir and pump station projects, Stantec led HAZOP reviews (focused on identification and elimination of operations hazards) using the project’s P&ID drawings and then led Access, Lifting, and Maintenance (ALM) reviews using the design 3D models. ALM reviews helped to avoid or eliminate common operations and maintenance hazards.. The team identified dozens of easily implementable changes to eliminate confined spaces and installed lifting devices to reduce physical demands and safety risks.



Safety-by-Design minimizes projects risk during design and construction. The health and safety of the Cascade operations and maintenance staff as well as the construction personnel who work on the CSP are paramount as we deliver this program. The Stantec Team proposes to include “Safety-by-Design” principles into the design phase of each project. With oversight by **Chad Carlson**, our Safety Supervisor, Safety-by-Design focuses on hazard elimination and risk reduction through regimented design document reviews. Design safety reviews use a “hierarchy of controls” approach to remove hazards, assess health and safety risks, check code compliance, and check that the project can be built, operated, and maintained safely. They also look for cost-effective ways to improve safety. The best time to prepare operations and maintenance teams for success is during project delivery—not after construction is finished.

1 Tools for third-party constructability and design reviews: As part of the CSP Design and Delivery Guide, we will refine a CSP Design Review Checklist for each level of design (e.g., 30%, 60%, 90%, 100%). These checklists have already been drafted for Cascade based on best practices from other large programs (see **Table 6.3**). These Design Review Checklists take into account that each design phase has a slightly different focus and level of required detail. All design and constructability reviews result in comments captured in a single electronic file.

The Stantec Team proposes the use of Bluebeam Revu software to document and resolve each reviewer’s comment (see **Section 7, Question 6** for our software recommendations). Bluebeam review sessions are set up with the Design Engineer to use standard document markup and comment tools, so that each comment can be easily categorized and tracked. Resolution of each comment and acceptance by the reviewer are required before the next step in design.

Table 6.3. Sample 30% Design Checklist Summary

Category	Review item
Design development	<input type="checkbox"/> Initial scope and design intent defined <input type="checkbox"/> Major alternatives evaluated
Technical documentation	<input type="checkbox"/> Preliminary drawings and outline specs developed <input type="checkbox"/> Design criteria documented
Hydraulic & engineering	<input type="checkbox"/> Initial hydraulic modeling and design assumptions established
Utility & facility coordination	<input type="checkbox"/> Preliminary utility research and coordination initiated
Constructability & phasing	<input type="checkbox"/> Initial construction approach outlined <input type="checkbox"/> Major constraints identified
Permitting & real estate	<input type="checkbox"/> Preliminary permit and ROW needs identified
O&M & lifecycle planning	<input type="checkbox"/> Initial O&M concepts outlined <input type="checkbox"/> Major equipment identified

Construction management of simultaneous projects in multiple locations

Programmatic staffing approach

Early planning and ongoing updates are central to our construction management (CM) staffing strategy. The Stantec Team brings proven experience managing large-scale water infrastructure programs across multiple jurisdictions, including:

WWSP: 22 sites over 11 years, peaking at 43 CM staff

SDS: 17 sites over 7 years, peaking at 34 CM staff

Using our dynamic CM staffing tool, we map project timelines, roles, and resource needs—updating monthly as details evolve. This enables smooth onboarding, efficient transitions, and consistent CM delivery across projects.

With a deep bench of qualified staff from Stantec, Carollo, and partners, we can scale quickly through internal and external recruitment. Andre has successfully applied this approach on WWSP, including a major ramp-up in 2022–2023—an effort made possible through proactive planning and realistic resource forecasting (see **Figure 6.5**).

Program-level CM facilitates construction in multiple locations

CM for a program requires a different approach than CM for a project. Stantec’s programmatic CM approach for CSP takes advantage of program-wide coordination. This allows for continuous improvement, cost and schedule savings, and better control across multiple projects and locations.

- **Standardized inspection tools and training establish consistent quality:** All inspectors will use the same equipment and follow the same procedures, especially for tasks like checking steel pipe coatings and alignment. For example, for WWSP, we issued all pipeline inspectors a DeFelsko PosiTector 6000 coating thickness gauge to measure the polyurethane coating thickness on the steel pipe, including a special probe attachment for measuring the thicker mortar lining on the pipes.
- **Staff training allows seamless transitions:** Staff are trained to move easily between projects, reducing downtime and improving flexibility. Training includes project site tours where all staff can see how other projects are organized and executed.
- **Sharing design intent supports timely resolution of construction issues:** Our facilitated meetings with the design engineer and the contractor and CM staff after bid and award help all project participants understand the key design concepts. Stantec also helps CM staff understand the design intent, so they can make informed decisions in the field.



Figure 6.5. CM Staff Planning outputs used on WWSP



Northwest Pipe facility, Portland, OR.
Coated and lined steel pipe for WWSP.

- **Clear, simple drawings and fair contract terms help keep bids low:** The Stantec Team will work with Cascade to develop Division 01 specifications, contract general conditions, and technical details to remove unnecessary risks before bidding and resolves issues quickly during construction so contractors do not need to inflate bid prices for financial carrying costs. This is vital for managing overall costs as well as the costs of change during construction.
- **Encouraging competition requires a hands-on approach:** We will work with suppliers, engineers, and contractors to make appropriate adjustments to specification requirements to adjust specs, leading to more bidders and lower prices. For example, the first few pipeline projects on the WWSP only had one supplier bid the large diameter fabricated steel pipe. Stantec's Program Construction Manager, **Andre Tolme**, engaged other steel pipe manufacturers to understand why they were not bidding the work. After traveling to pipe manufacturing facilities in Texas and Oregon, Andre helped enact small changes to the specifications that enabled a second bidder on future projects. This competition on all remaining pipeline projects reduced steel pipe costs and likely led to millions of dollars in savings across all project locations in the program.
- **Weekly CM meetings help coordinate overlapping or adjacent projects:** Regular discussion allows construction managers on adjacent projects to understand how items such as traffic control, testing water and discharge, and physical occupancy of the same space could pose risks to project schedules or lead to change order requests.

additional cost on one project could be justified because it leads to potential savings on another project or other programmatic benefits.

- **Schedule:** Basic schedule management includes reviewing the contractor's baseline schedule and monthly schedule updates. High value schedule management involves analysis of production rates to help predict completion of future activities within the planned durations, analysis of float consumption to see if activities are becoming stacked on the critical path and mitigating future claims through a quick decision-making process.
- **Quality:** Reviewing and inspecting the contractor's work for compliance with the contract documents is a basic responsibility of the construction management team. A high value CM will leverage their experience in the water industry and their relationship with the design engineer to see that proper attention is paid to key elements of the work affecting function, longevity, and future operations.
- **Safety:** Most Experienced CM personnel understand how to keep themselves safe and to speak to a contractor when there is an imminently dangerous situation that threatens life safety. Even greater value is achieved when the CM Team is committed to improving overall safety culture and performance of the contractors, subcontractors, designer, and all other personnel involved on the project. For example, creating an active hazard recognition program, such as the Safelt system developed for the WWSP, is a way to achieve best value because it actively helps manage safety issues and advance the program's overall health and safety objectives.

Project-Level Core CM Approach

The construction management team focuses on four core pillars: cost, schedule, quality, and safety—each interconnected and influenced by every decision made. Our approach brings alignment through regular coordination between project CMs, Cascade's construction and engineering leads, and our Construction Support Task Lead, Andre. For each core component below, Stantec's CM approach shows the foundational elements of each task along with our proposed high value strategies for each task (Figure 6.6).

- **Cost:** Foundational cost management includes processing of contractor payment requests and tracking of the contractor's change order requests. Examples of higher value cost management include knowing when to execute change orders on a time and materials cost basis versus when to negotiate a lump sum amount and understanding when an



Figure 6.6. Stantec's Core CM Approach

SECTION 7

Question Responses

Question responses

1. Do you see a place for collaborative delivery (such as GC/CM, Design Build, etc) in the CSP? If so, what types, where would you consider it, and why or why not would you use it?

Collaborative delivery methods like GC/CM and Design-Build can play an important role in the CSP to meet Cascade's goal to tap into its new water source by 2041. These methods are especially useful for complex projects or those with tight schedules, where early contractor involvement can help reduce risks and improve outcomes. These collaborative delivery types include Design-Bid-Build (price only), Design-Bid-Build (best value), GC/GM, Design-Build (fixed price), and Progressive Design-Build (guaranteed max price).

Informed and proactive project delivery strategies

In Washington, the Stantec Team has experience working under collaborative delivery statute RCW 39.10, as both Owner's Advisor and designer. This gives us the insight to help Cascade choose the right delivery type. **Jason Garside**, our Project Delivery Strategy Lead, will work with the Task Leads in the Program Definition through Planning phases to evaluate CSP projects for delivery under these collaborative delivery types. The evaluation criteria include elements such as owner control, operations and maintenance impacts, contractor input, cost, risk allocation, schedule, and CSP's Guiding Principles (**Section 4**).

Stantec recommends selecting a preliminary delivery method for each project in the Baseline Plan and validating those selections during conceptual design and before starting procurement of a design consultant or project delivery team. This approach improves the initial Baseline's accuracy, establishes a clear decision milestone, and enables decision-making when more project-specific details are known. Though the traditional Design-Bid-Build delivery method may suit many CSP projects, methods like GC/CM or design-build can provide robust schedule benefits by allowing early work packages and/or eliminating a procurement step. After finalizing the delivery strategy for each project, we work with **Ellen Peterman**, Procurement Manager, and Cascade's procurement team to develop procurement documents.

Design-bid-build (DBB)

With the traditional DBB method of delivery, separate procurements are required designers and general contractors..

For pipeline projects, where a general contractor would self-perform most of the work and schedule risk can be managed by well-defined constraints in the project specifications, a traditional DBB approach is likely to rank the highest. Based on the current understanding of the program components, using a GC/CM delivery method for pipeline projects may increase initial construction cost without providing equivalent cost relief by reduction of other risks, unless there are technical, schedule, or ROW challenges that a GC/CM delivery approach may offset.

General contractor/construction management (GC/CM)

For facilities projects such as pump stations or the booster chlorination facility, where a large percentage of the work would be performed by subcontractors or specialized expertise of general contractors is desired, a GC/CM method can provide risk and schedule benefits without necessarily increasing the cost of the work. This would need to be evaluated for the storage, pump station, and booster chlorination facilities, once those project scopes are defined. GC/CM could offer real value by improving coordination and managing risks earlier in the process.

Design-build and progressive design-build (PDB)

For storage tanks, where the industry in Washington state has consolidated around a handful of specialty tank contractors and a single pre-stressed wire wrapping contractor, design-build or PDB may lead to lower costs and a faster schedule however, depending on geologic constraints DBB may be preferred if more design control is required. For example, on the WWSP (see our success story below), we used collaborative delivery to bring in contractor expertise early, which helped avoid delays and improve constructability. When collaborative delivery appears to provide a benefit on a specific project, our experienced team will guide the project successfully through the Capital Projects Advisory Review Board (CPARB) approval process. The team has multiple staff (including Jason, **Andre Tolme** and **Scott Gibson**) who can address the Board's twin aims of appropriate benefits and team expertise.

Contractor pre-qualification

Another important delivery strategy tool that could be implemented on the CSP is contractor pre-qualification. Given the importance of schedule and quality on the CSP, an unqualified bidder, while lowest on initial cost, may cause significant disruption and resultant costs from quality issues, poor delivery, or claims litigation. Narrowing the pool of bidders to only those contractors with sufficient expertise, while still allowing robust competition, can mitigate those risks.

WWSP uses strategic mix of delivery methods across 22 construction procurements

14

Design-Bid-Build
(low price only) projects

4

Design-Bid-Build
(best value price + proposal) projects

4

CM/GC
projects

Success story

The WWSP's Reservoir and Scholls Area Pipeline Project began as two construction packages, one a reservoir construction project and the other a section of water transmission line construction. Based on the schedule risks and complexities of having two adjacent projects connect in multiple points of time and geography, **the program combined the projects into a single \$140M CM/GC construction project.** These benefits were further multiplied when the program elected to use the CM/GC contractor to pre-purchase steel pipe and other materials in 2021, during a period of high instability in the global supply chain. The material pre-purchase, made during the design phase, allowed the construction schedule to hold.



2. Cascade indicated in the RFQ a preference for local staff, particularly at the leadership level. Please describe how your mixed team of local and non-local staff will work together to deliver the program and meet Cascade’s desire of local and in-person meetings.

From kickoff to connection

During the first months of CSP Start-up having key task leads on site full time creates immediate value. This early presence allows the Stantec Team to build strong relationships with client staff, stakeholders, and local agencies, laying the foundation for trust and collaboration. Through in-person meetings and co-working, the team can quickly establish project governance, define workflows, and set up effective communication protocols. This hands-on approach also enables the team to lead early workshops on critical topics like risk management, delivery methods, and permitting strategies. Additionally, route tours and onboarding sessions help orient the broader team and align everyone around shared goals from the start.

After this initial phase, we shift to a hybrid work model that balances in-person collaboration with remote flexibility. Maintaining an ongoing guaranteed on-site presence a minimum of two days per week for all key roles maintains momentum. Team members attend key in-person meetings, such as design reviews and construction coordination sessions, to stay closely connected to evolving needs. Regular field walks and check-ins with construction and inspection teams help identify issues early and keep work aligned. This consistent weekly visibility also reinforces relationships with Cascade leadership and community stakeholders. With strong relationships and systems already in place, hybrid work supports focused progress, quick decision-making, and cost-effective delivery—all while maintaining the high level of engagement established during co-location.

The power of here, there, and everywhere

We recognize the importance of in-person collaboration and local knowledge on a project with the potential to define the careers of those lucky enough to be a part of it. We have built a team of Pacific Northwest-based individuals to support you, including many based in the Bellevue metro region. To complement this local presence, we are bringing in specialized expertise from across our national team, the majority in the nearby Portland metropolitan area. Cascade benefits from this integrated approach in both local responsiveness and national expertise. Our team is committed to being present, engaged, and aligned with Cascade’s expectations throughout the life of the program. Here’s how we’ll accomplish this commitment.



As Director of the Portland Water Bureau post-pandemic, I led a 650-person utility that embraced a flexible, role-based hybrid model. Essential field staff—maintenance crews, inspectors, lab technicians, fish biologists—remained fully on-site to deliver uninterrupted service. Managers, engineers, and I worked in a hybrid rhythm, typically three days in the office to foster collaboration. Meanwhile, roles like accounting and customer service transitioned to fully remote, maintaining productivity and service quality. This approach respected the nature of each role, supported staff well-being, and kept our mission on track.”

**—Gabe Solmer
Project Manager**

Maintain day-to-day visibility: To stay connected, we've established Mondays and Tuesdays as in-person days for the whole team. We'll hold a weekly in-person kickoff meeting every Monday to energize the team, align priorities, and plan the week ahead. Tuesdays will allow us to get out into the field, viewing the landscape together and later in the schedule observing construction progress.

Respond quickly to on-site issues: When urgent issues arise, our Team has program staff based locally who are empowered to make timely decisions. **Erika Murphy**, currently finishing up work on WWSP, will be relocating to the Bellevue area for CSP. We're lucky to have her keen eye and unflappable demeanor as the Operations Support Lead. She'll also support Gabe as boots on the ground throughout the entire program.

Build strong relationships: Our full team will spend extended time on-site during mobilization, attend key meetings in person, and maintain regular communication with Cascade, contractors, and stakeholders. This approach builds strong relationships from the start and throughout the project.

Coordinate distributed teams: Managing a geographically dispersed team requires clear communication and coordination. We use collaborative tools and structured routines to reduce delays and support informed decision-making across all locations.

Understand local context: We recognize the importance of local knowledge. The Stantec team includes firms and individuals who have decades of experience with Cascade, Member Agencies, and the Bellevue metro area. We'll draw on their extensive knowledge to bring relevant insights and context to the project.



Tech that keeps the team in sync

Strong relationships and local insight are essential to Cascade's success. That's why we've designed a delivery model that combines in-person engagement with robust digital collaboration tools to stay closely connected. Our team will leverage the technology below to maintain daily alignment, responsiveness, and visibility.

Platforms that allow everyone to stay connected through easy to attend meetings (Microsoft Teams, Zoom), quick informal messaging (Slack, Teams Chat) helps keep conversations flowing, and virtual whiteboards (Miro, MURAL) support real-time brainstorming and planning—no matter where team members are located.

To keep everyone working from the same set of documents, with clear version control and easy access, we rely on centralized document and workflow systems (SharePoint, OneDrive). Task tracking platforms (Asana, Smartsheet) help manage milestones and responsibilities, while digital review tools (Bluebeam Revu) make it easy to collaborate on designs and drawings from anywhere.

For construction and field coordination, we use digital platforms (Procore/ e-Builder/ Autodesk Construction Cloud) to manage submittals, RFIs, and daily reports, as well as tools that allow for remote site monitoring (DroneDeploy/OpenSpace). This helps the team stay informed about field progress and conditions without needing to be on-site every day. Mapping and permitting tools (ArcGIS Online) also support coordination with right-of-way and regulatory agencies.

3. What do you see as the 2-3 biggest challenges to completing the CSP on budget and schedule? How will you mitigate these challenges?

1 Challenge 1: Addressing and managing external/third-party requirements, constraints, and expectations

Many of the most significant risks to CSP’s budget and schedule stem from factors outside Cascade’s direct control—permits, property and ROW acquisition, utility coordination, intergovernmental approvals, and stakeholder input. These risks are in the hands of external parties that operate on their own timelines, with their own priorities and constraints. External and third-party challenges can lead to cost escalation from land acquisition and rerouting, schedule delays due to permitting and access issues, extraordinary fees and concessions, and delayed construction starts with potential for rework if requirements shift during delivery.

Mitigation strategies: Our team will apply a proactive five-step strategy for managing third-party requirements and expectations. External dependencies are not just tracked—they’re actively managed to avoid surprises, reduce delays, and protect the program’s critical path and budget.



Figure 7.1. External parties approach

2 Challenge 2: Sustaining internal support and funding

Strong internal support is critical to enabling consistent, timely decisions and adequate funding across the life of the program. As a multi-agency initiative, CSP’s success depends on the continued political commitment and financial backing of Cascade and its Member Agencies. This includes not only securing adequate and sustainable funding streams but also maintaining alignment among diverse stakeholders with varying priorities and risk tolerances. Trust and transparency will be essential to foster cooperation among Member Agencies, the Cascade Board, and the CSP. Without clear and scale-commensurate delegation of decision-making authority to Cascade and the CSP team,—there is a risk of delayed action, cost growth, and inefficiency. Timely decision-making will also require a willingness to confront difficult trade-offs and make informed choices, even when options may be politically or operationally challenging.

Mitigation strategies: Our approach emphasizes proactive engagement, transparency, and structured governance. We will establish a robust intergovernmental engagement framework to engage early and provide ongoing coordination with Member Agencies and the Cascade Board. This includes regular briefings, collaborative workshops, and decision-preparation materials that are clear, data-driven, and tailored to each agency’s interests and concerns. We will implement a “no surprises” communication model—to keep all parties well-informed ahead of making key decisions. Our PgMP outlines a tiered decision-making structure that clarifies roles and responsibilities, enabling timely and accountable actions. Additionally, our risk management strategy includes early identification of funding or alignment risks, with escalation protocols and contingency planning to maintain momentum. By fostering trust, enabling informed decisions, and aligning expectations through structured processes, we will help Cascade and its Member Agencies maintain the internal cohesion and financial commitment necessary to deliver CSP successfully.

3 Challenge 3: Technical challenges

As noted in **Section 6, Planning for major infrastructure projects**, we have visited and evaluated the potential alignments and locations for future CSP improvements. In addition to typical challenges encountered in large conveyance projects, we have identified CSP-specific technical challenges that we will need to mitigate to avoid schedule delays and budget impacts.

Hydraulic integration and Member Agency connections

Integrating the new CSP transmission system with Tacoma’s supply and the distribution systems of Cascade’s Member Agencies presents will be complex due to unique pressure zones, flow requirements, and operational constraints. The alignment will span significant elevation changes and long distances, increasing the risk of surge events and pressure imbalances. There is a risk of mismatched infrastructure, surge-related failures, or costly redesigns—any of which could significantly impact both budget and schedule.

Mitigation strategies: We will model and design the CSP transmission system based on the boundary conditions of each member community and the need to balance water conveyance across the system under varying demand and operational scenarios. Early hydraulic and surge modeling will inform infrastructure sizing, pressure zone management, and surge protection strategies—particularly in areas with long pipeline runs or steep gradients. Early coordination with Tacoma Water and Member Agencies will inform the flow delivery strategies and align them with operational expectations and infrastructure capabilities. Intertie requirements will be confirmed through early workshops, and standard design templates will be developed to streamline implementation while allowing for site-specific flexibility. These efforts will be integrated into early work packages to reduce downstream design risk and avoid costly rework or delays.

ROW acquisition and routing constraints

Limited ROW, steep terrain, river crossings, and dense urban development throughout the corridor between Tacoma and Cascade’s Member Agencies present significant routing challenges. Potential alignment paths must navigate constrained areas such as the Kent Valley, steep slopes near Cougar Mountain, and dense utility corridors along SR-167 and I-405. In addition, the route may require crossings of major watercourses like the Green and Cedar Rivers, and coordination with multiple jurisdictions—each with its own permitting processes and ROW policies.

Mitigation strategies: We’ll engage early with local jurisdictions, utilities, and agencies such as WSDOT and BPA to identify conflicts and streamline access. GIS-based constraint mapping will help evaluate alignment options and reduce rerouting risks. Understanding Cascade’s eminent domain policy early will help set expectations for acquisition timelines. We’ll also prioritize acquiring high-risk parcels—such as those near major arterials or in environmentally sensitive areas—early in the schedule to avoid delays and cost increases.

Construction phasing and urban disruption

Construction in active corridors—such as downtown Kent, Renton, and Bellevue—could disrupt traffic, utilities, and community access. The route may intersect high-traffic roadways, dense commercial zones, and utility-rich corridors, increasing the likelihood of conflicts and stakeholder concerns. These disruptions could lead to increased costs from night work, detours, and community-informed adjustments, as well as delays from utility relocations or public opposition.

Mitigation strategies: To reduce disruption in these areas, we’ll conduct early constructability reviews and coordinate with utilities to resolve conflicts before design is finalized. A phased delivery plan with logical work packages will support efficient sequencing and minimize overlapping impacts. Targeted outreach will keep communities informed and engaged, especially in sensitive areas. Where merited, we’ll use trenchless methods and schedule work during off-peak hours to limit traffic and access impacts. These strategies will be tailored to each corridor’s unique conditions and stakeholder needs.

4. What sources of funding are typical for this type of program and what is your familiarity with obtaining funding?

Funding an infrastructure initiative like the CSP is a complex and multifaceted challenge. With hundreds of funding programs, federal and state administration changes, and dynamic program needs, successful positioning for funding can be all-consuming. The Stantec team has the knowledge and experience to support Cascade in a focused and strategic manner through all aspects of the funding lifecycle - from crafting an actionable funding roadmap during CSP Start-up, to complying with funding requirements during construction. For funding partners, we understand how to incorporate technical, economic, and financial analyses to compellingly demonstrate program benefits and align with funders constraints and needs.

To support this scale of infrastructure, the CSP funding strategy will be designed to be both robust and flexible, leveraging a mix of internal reserves, state and federal financing tools, bonds, and strategic partnerships to complement Cascade's Water Supply Development Fund (WSDF), delivering long-term financial sustainability while enabling timely capital deployment. Some potential sources of funding include:

- **Water Infrastructure Finance and Innovation Act (WIFIA):** Offers long-term, low-cost financing for large-scale water projects. CSP's regional impact and environmental benefits make it a strong candidate
- **State Revolving Funds (SRFs):** Washington's Drinking Water State Revolving Fund (DWSRF) can provide financing for early-stage planning, environmental permitting, and project construction.
- **Revenue bonds:** An option for long-term, tax-exempt financing for income-producing projects. Frequently issued to supplement public loan and grant programs.

We have a proven track record securing WIFIA, SRFs, and many other funding sources. As a part of the integrated program management team, our funding and financial experts including **Amy Broughton**, Grant Funding Lead, recognize that securing funding is a critical component of executing projects that advance the quality of life in communities. We also understand that funding is intrinsically tied to program delivery, cost allocation methodologies, governance, and long-term financial planning. When it comes to funding transformational infrastructure programs, our team brings unparalleled expertise.

**For 30+ years,
Stantec has partnered
with our clients to
successfully apply for and
secure over \$8 billion grants
and loans across more than
100 funding programs.**

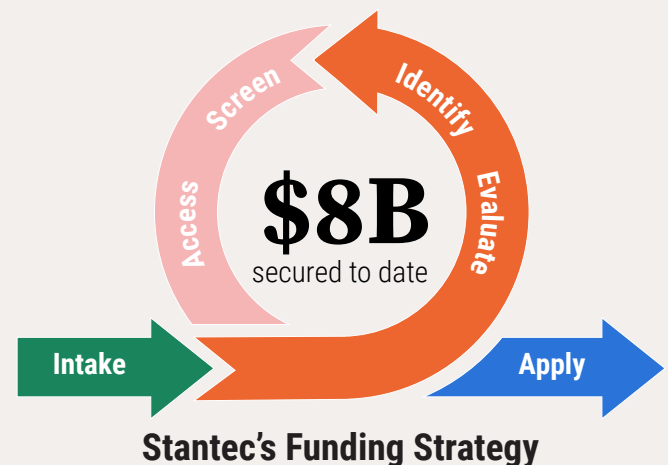


Figure 7.2. Illustrates our iterative funding process and loans and grants secured 2014-2024

Specific examples of Stantec's success in securing WIFIA financing:



Safe clean water and water utility enterprise CIP strategy implementation

Santa Clara Valley Water District | *San Jose, California*

Since 2018, the Stantec funding team has been providing funding services in support of Valley Water's priority capital projects. Stantec helped Valley Water execute master credit agreements for over \$3 billion in WIFIA credit assistance for multiple capital programs. In addition, Stantec assisted them with their successful \$500 million California Proposition 1 Water Storage Investment Program (WSIP) grant application and is currently supporting negotiations with the US Army Corps of Engineers Corps Water Infrastructure Financing Program (CWIFP) for over \$650 million in loans for the Valley Water Dam Safety Program. Stantec is also assisting Valley Water with federal funding compliance, including analyses on the impacts of Build America Buy America domestic preference requirements.

\$3B

WIFA credit assistance

\$500M

Prop 1 WSIP grant

Willamette Water Supply Program

Tualatin Valley Water District, City of Hillsboro, City of Beaverton | *Beaverton, OR*

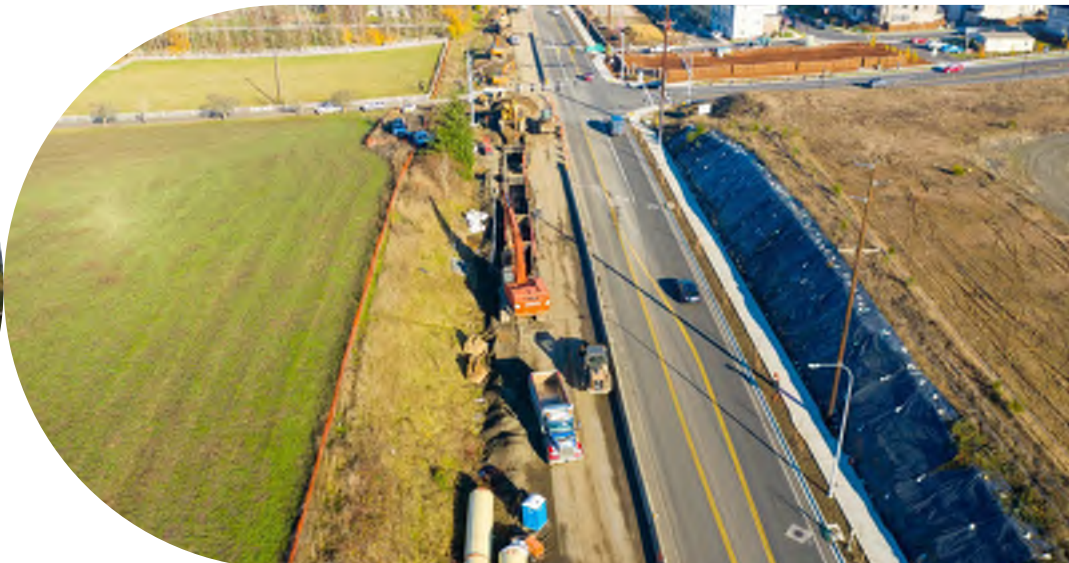
Stantec supported Hillsboro and TVWD in obtaining a combined \$640 million in WIFIA loans for the \$1.6 billion Willamette Water Supply System, saving an estimated \$383 million in financing costs. We developed a compelling LOI and application, assisted with due diligence and loan closing, and created a WIFIA Compliance Plan. Our team continues to support ongoing compliance and additional grant applications, including FEMA Hazard Mitigation funding.

\$640M

WIFIA loan secured

\$383M

estimated total savings



5. What aspects of the program do you believe should be retained by the Owner vs outsourced to a consultant?

The CSP is a large, complex program that will significantly expand Cascade’s asset base and operational complexity.

For a program of this scale, the question of which responsibilities should remain with the Owner versus those that should be delivered by the program consultant must begin with a clear understanding of Cascade’s near-term capabilities and long-term organizational goals. Our team will collaborate closely with Cascade during program start-up to determine the appropriate level of Owner involvement across all delivery functions, document them in a RACI Matrix, and operationalize them throughout the PgMP. Drawing from over 40 years of program management experience, the successful delivery of more than 100 major capital programs, and global best practices, we identified key considerations for allocating program responsibilities between the Owner and program consultant and then applied those considerations to major program aspects. **Figure 7.3.** summarizes this process and would serve as a starting point for a collaborative parsing of responsibilities during program mobilization.

Global best practices for owner-retained leadership

Our approach aligns with global best practices, including the UK’s Project 13 framework, which emphasizes the importance of a “Capable Owner” for successful infrastructure delivery. Project 13 has demonstrated that when owners retain strategic leadership roles, they are better positioned to drive value and resilience across the program lifecycle. At the same time, integrating delivery partners into a collaborative enterprise structure fosters innovation, accelerates delivery, and reduces risk. By applying these principles to CSP, Cascade can maintain control of its vision while leveraging the full capabilities of its program team.

Figure 7.3. Suggested allocation of Owner retained and program consultant roles

Allocation Considerations

- 1 Does the role involve making financial or legal decisions that require independence or fiduciary responsibility?
- 2 Is this task related to managing funding, budgets, or financial reporting?
- 3 Does this responsibility involve maintaining relationships with Member Agencies, regulators, or other jurisdictions?
- 4 Will this role serve as the public face of the program in community engagements?
- 5 Does this decision impact how the system will be operated or maintained in the long term?

- 1 Does the task benefit from applying industry best practices or specialized methodologies?
- 2 Does the task require technical expertise or services not currently available in-house?
- 3 Is this a short- or medium-term need that doesn’t require permanent staffing?
- 4 Is this a role that the consultant can temporarily fill until the owner builds internal capacity?

Owner

- Mission, mandate, and policy establishment
- Leadership of key program functions
- Legal services
- Strategic/tactical decision making/formal approvals
- Permit acceptance
- Real estate transaction acceptance
- Deliverable approval/acceptance
- Member Agency/elected liaison
- Intergovernmental affairs leadership
- Stakeholder spokesperson functions
- Grants/loans/bond acceptance/issuance
- Procurement processing/award
- Infrastructure final acceptance
- Operational requirements, design/construction participation
- Asset operation/maintenance

Program Consultant

- Program governance support (e.g., risk, issues, change)
- Decision support/recommendations
- Technical/design support services
- Processes/tools deployment/maintenance
- Procurement and contracts development and administration
- Design management and design review
- Permit planning, acquisition, and compliance management
- Real estate planning/acquisition
- Stakeholder engagement and outreach
- Funding acquisition assistance
- Controls/performance reporting
- Construction management
- Asset handover/integration coordination
- Operational planning and readiness

Selected Program Aspects

6. What software is needed to successfully manage this program?

To effectively oversee and deliver CSP, Cascade will require software in two primary areas: 1) project management/oversight and 2) technical delivery. When selecting software and technology it is important to consider your unique needs, organizational goals, and desired collaboration/compatibility with Member Agency software. It's all about the right technology for the job.

In **Table 7.1** below, we have highlighted software types that will be needed to successfully deliver the CSP, including example platforms, why the software is needed, and the benefit it provides. **Melissa McDaniel**, our PMIS Selection & Implementation lead, with support from **Eric Battle**, will work with Cascade, its Member Agencies, and CSP leadership to develop the preferred software as part of start-up. We will collaborate with you to confirm software needs for the CSP, assess what software will best meet your needs, and recommend software applications that will provide the most benefit to the CSP.

Table 7.1. Software Type and Need

Software Type and Need	Software Example
Lifecycle/Governance to guide projects through delivery steps. ✔ Benefit: Provides project consistency and adherence to governance processes.	Project Delivery System
Program Management Information System (PMIS) for data integration and workflow process implementation across the entire program/project lifecycle. ✔ Benefit: One source of truth and visibility into project status.	eBuilder
Cost Management to track and manage accurate cost data. ✔ Benefit: Ability to provide insights into cashflow (how much money will be needed when).	PMIS/P6
Schedule Management to track and manage accurate schedule data. ✔ Benefit: Ability forecast schedule, including critical path.	P6
Document Management providing a centralized repository of program documents. ✔ Benefit: Enables consistent document storage.	SharePoint/PMIS
Collaboration Portal that provides the ability to collaborate with teams across different organizations. ✔ Benefit: Better collaboration, resulting in streamlined delivery and consistency across the team.	SharePoint
Reporting for both internal and external stakeholder communication. ✔ Benefit: Transparency and accountability.	PowerBI
Risk Management with contingencies. ✔ Benefit: Proactive risk management, mitigation, and cost/schedule risk analysis.	Acumen
Building Information Modeling (BIM) to create digital representation of buildings/ infrastructure. ✔ Benefit: Enables better collaboration and information management throughout the project lifecycle.	Autodesk Construction Cloud (ACC)
Geographic Information System (GIS) to capture, store, manage, analyze, and visualize geographic data. ✔ Benefit: Create maps, perform spatial analysis, and make data-driven decisions.	ArcGIS
Computer-Aided Design (CAD) to create and manipulate designs. ✔ Benefit: Increased productivity, improved accuracy, minimized errors, better design visualization, and enhanced collaboration. Enables viewing of .dwg files.	Civil 3D/AutoCAD Revit
Design Review for marking up and collaborating on project documents real-time. ✔ Benefit: Streamlined workflows and improved communication between teams. AutoDesk Design Review enables review of design files, including .dwg files, without editing capabilities.	Bluebeam/AutoDesk Design Review
System for monitoring, controlling, and optimizing the distribution system. ✔ Benefit: Real-time data, remote control capabilities, and automation to optimize and provide safe, efficient, and compliant operations.	Supervisory Control and Data Acquisition (SCADA)
Asset and Maintenance Management for tracking, managing, and optimizing asset operation. ✔ Benefit: Asset lifecycle management, helping manage infrastructure from design and construction through operations and maintenance.	CityWorks

Note: Depending on Cascade's organizational goals, certain software below can be procured and leveraged by consultants.

SECTION 8

References

References

THERE ARE NO CHANGES FROM OUR SOQ

SECTION 9

Resumes

Resumes

THERE ARE NO CHANGES FROM OUR SOQ



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