WSDOT

CONSTRUCTION PROGRAM BUSINESS PLAN
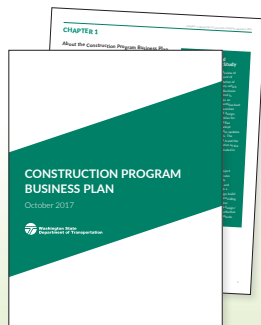
Biennial Progress Report

September 2020

Plan overview

As required by Second Engrossed Substitute Senate Bill 5997 passed in 2015, the Washington State Department of Transportation issued the Construction Program Business Plan (the Plan) in October 2017 to guide how the agency will continue to improve delivery of transportation projects in a changing construction landscape.

WSDOT convened a Stakeholder Advisory Committee in January 2017 and collaborated over six meetings to develop the Plan. The committee's charge was to define key elements of WSDOT's strong owner strategy related to recruitment, training, retention and competitive compensation; outline sustainable staffing levels and report on how WSDOT is addressing the Joint Transportation Committee's (JTC) 2016 study on the agency's implementation of design-build project delivery. Since 2017, the Stakeholder Advisory Committee has continued to meet with WSDOT staff to advise on Plan implementation.

As required by 2ESSB 5997, WSDOT will issue progress reports every two years until Sept. 30, 2030. To review the Plan, please visit: *www.wsdot.wa.gov/sites/default/files/2012/03/28/ConstructionProgram-BusinessPlan.pdf*

Planning beyond COVID-19

This progress report reflects WSDOT's work to implement the Plan goals over the past two fiscal years. We are now facing an unprecedented global pandemic and our financial outlook remains uncertain. As Washington drivers follow Governor Inslee's order to stay home and off the road during the COVID-19 pandemic, WSDOT could see a revenue shortfall exceeding one billion dollars over the next biennium. This progress report highlights some of the ways WSDOT is pivoting to maintain a strong workforce and continue to build relationships with industry partners.

Plan goals

The Stakeholder Advisory Committee proposed the following goals for WSDOT's future construction program and strategies to adopt them:

Goal 1:
Strong owner and stewardship

WSDOT continues to be a good steward of the state transportation infrastructure by strengthening the agency's role as a strong owner.

Goal 2:
Sustainable staffing levels

WSDOT will ensure the agency has the right balance of staff and consultants it needs to deliver a successful and efficient capital improvement and preservation program by addressing staffing needs in a productive, sustainable and predictable way.

Goal 3:
Project delivery

WSDOT will enact and accomplish the majority of recommendations of the Joint Transportation Committee's design-build study.

Message from Stakeholder Advisory Committee

Over the last two years, we continued our partnership with WSDOT as it implements the Construction Program Business Plan. As representatives for industry and labor groups, we believe it is in all of our interest for WSDOT to remain a strong, capable steward of the transportation system.

While this progress report represents data collected over the last two fiscal years, WSDOT is now facing a historic crisis. During this time of uncertainty, we affirm our partnership to advise WSDOT on how to navigate these trying times and deliver on the Plan goals.

The strategies we outlined to achieve our goals have helped us achieve the following successes:

- WSDOT is developing a strong and capable workforce—by investing in staff through offering technical and specialized trainings, telework resources and other low-cost initiatives like mentorship and sharing appreciation for staff.
- WSDOT is continuing to invest in training opportunities with 75 total trainings offered across all job classes, compared to 70 in the previous biennium.
- WSDOT has collaborated with private industry partners in a proactive and balanced manner to provide additional expertise and/or capacity to fulfill WSDOT's project objectives.
- Overall, WSDOT is seeing a lower rate of resignations and 76 percent of staff reported they are satisfied with their jobs, compared to 71 percent in 2018.
- During the Stay Home, Stay Healthy Order, WSDOT adapted quickly to promote teleworking and provide staff the training and resources they need to be successful. Over 93 percent of survey respondents are teleworking, and overall productivity stayed about the same, despite significant challenges.
- WSDOT is building a pipeline of 80 or more qualified licensed professional engineers by October 2020, who will be ready to move into management positions.
- When the onset of the COVID-19 pandemic forced WSDOT to shutdown active construction projects and restrict design work, WSDOT partnered with industry leaders to develop a plan to gradually, and safely, restart work. This partnership speaks to the strong relationship WSDOT and industry professionals have developed over the last several years.

As we look toward the future, we acknowledge serious challenges and opportunities ahead:

- While we don't have a clear sense of what the future holds, we know the pandemic is altering the way we do business. As WSDOT and industry grapple with a significant revenue shortfall, we will need to build upon our early successes and find innovative ways to continue to implement the Plan.
- The JTC statewide needs assessment is currently underway, and we look forward to how this effort will address many needs of the transportation system.
- WSDOT has come a long way in gaining a reputation of credibility and stability to better retain their workforce. Given the uncertainty of our current environment and potential furloughs or other impacts to workforce, preserving these gains will be a challenge. Now more than ever, WSDOT needs to focus on developing and investing in the workforce in more creative ways.
- Despite WSDOT's early success shifting to telework, the agency needs to focus on providing more equitable access to telework resources and opportunities to continue building an inclusive work environment.

We appreciate our partnership and conversations with WSDOT. We look forward to adapting our actions in early 2021 to continue delivering on the Plan goals and strategies.

Sincerely,

Van Collins   *Tyler Kimberley*   *Sarah Lorenzini*

Stakeholder Advisory Committee

Van Collins
American Council of Engineering Companies (ACEC) of Washington

Tyler Kimberley
Associated General Contractors (AGC) of Washington

Sarah Lorenzini
PROTEC17

Kevin Dayton
Assistant Secretary, Regional and Mega Programs

Progress on implementation of the Plan

The tables below show WSDOT's progress on the Plan recommendations at a glance, with additional detail for select strategies later in this report.

Goal 1: Strong owner and stewardship

Strategies	WSDOT Actions
Maintain the importance of the strong owner approach from staff, industry and the Legislature, and continue to take opportunities to communicate.	• Drafted a communication plan. • Provided ongoing high-level updates to the executive leadership team. • Developed a staffing management plan with regional administrators.
Provide a strong, capable and high-quality engineering workforce by developing and managing a workforce development plan.	• Established workforce development as one of three goals for WSDOT's strategic plan. • Maintaining a Workforce Development Toolkit. • Conducting and reporting ongoing evaluation of recruitment, training, retention and salary levels.
Maintain the trust of the taxpayers, traveling public and the Legislature by continuing to sustain partnerships with industry to plan and deliver the capital improvement and preservation program and to communicate with the Legislature and public.	• Conducted 65 meetings with construction industry stakeholders. • Worked with industry partners to create a better plan for claims notice to make the process easier to follow. • Held at least 53 meetings with ACEC.

Stakeholder Advisory Committee comments:

WSDOT's industry outreach events, partnership initiatives, internal communications and investment in workforce development have helped reinforce progress towards the strong owner and stewardship goal. We encourage WSDOT to continue implementing these strategies and maintaining our long-term vision, with an understanding that WSDOT may need to reassess or adapt some actions given the current environment.

During the COVID-19 pandemic, work environments changed significantly. As the new normal of teleworking persists and expands, we urge WSDOT to prioritize creating equitable access to telework for all staff. For example, teleworking may be especially challenging for staff who typically work outside of an office environment, or for those who have caretaking or other responsibilities at home. Additionally, as we persevere through uncertain and challenging times, engaging and clearly communicating with employees is essential and could help WSDOT retain staff during an economic downturn.

Goal 2: Sustainable staffing levels

Strategies	WSDOT Actions
Develop a staffing forecast through 2023 that avoids significant increases or reductions in staffing levels, communicate projections with staff and update every biennium.	• Update full-time equivalent (FTE) employees and expenditure actuals through June 2020. • Maintain a 10-year staffing forecast.
Provide information about what WSDOT needs to respond to a competitive job market and sustain required staffing levels for program and project delivery.	• Highlighted the importance of workforce in the January 2020 State of Transportation Address to House and Senate Transportation Committees. • Ongoing coordination between WSDOT Human Resources and the Stakeholder Advisory Committee with PROTEC17. • Sharing updates through the biennial progress report.
Identify and proactively communicate opportunities for the consultant workforce to support program delivery by offering WSDOT flexible staffing and expertise.	• Conducted industry outreach as outlined in Goal 1. • Invited industry partners to 13 joint training sessions on topics such as partnering and conflict resolution, joint asphalt pavement, civil rights and design-build.

Stakeholder Advisory Committee comments:

WSDOT has made good progress in developing projections for workforce planning and managing consultants. We recognize WSDOT will face serious challenges ahead to sustain its strong workforce as they prepare for a revenue shortfall over the next biennium. We also encourage WSDOT to consider more immediate action to prepare the workforce for changes ahead.

We encourage WSDOT to continue delivering on the agency's inclusion goal through prioritizing initiatives like outreach at diverse recruitment events; diversity, equity, an inclusion training for all staff; and promoting equitable hiring practices. We would like to see WSDOT continue investing in their workforce in creative ways, such as training and making telework accessible to all. This will ensure employees feel valued and included.

Goal 3: Project delivery

Strategies	WSDOT Actions
Prioritize and implement recommendations from the JTC Design-Build Study in coordination with industry teams and report back about outcomes.	• Implementation of JTC recommendations has progressed from 71 to 74 percent complete. Examples of these 29 recommendations include creating a database of design-build lessons learned and developing performance specifications. • The JTC recommendations have been assigned low (5), medium (4) and high (20) priority status by a joint WSDOT/AGC/ACEC team. • Completed and maintaining core elements of Design-Build Program (templates, manual, and training).

Stakeholder Advisory Committee comments:

We would like to see greater innovation in project delivery and encourage WSDOT to consider experimenting with progressive design build or other alternate delivery options in the future. Even if they are not ultimately as successful as hoped, they may yield helpful information that could improve WSDOT's processes and procedures.

As WSDOT nears completion of implementing the JTC study recommendations, we look forward to working together to adapt our strategies and actions to achieve the Plan goals.

2017 PLAN STATUS UPDATE
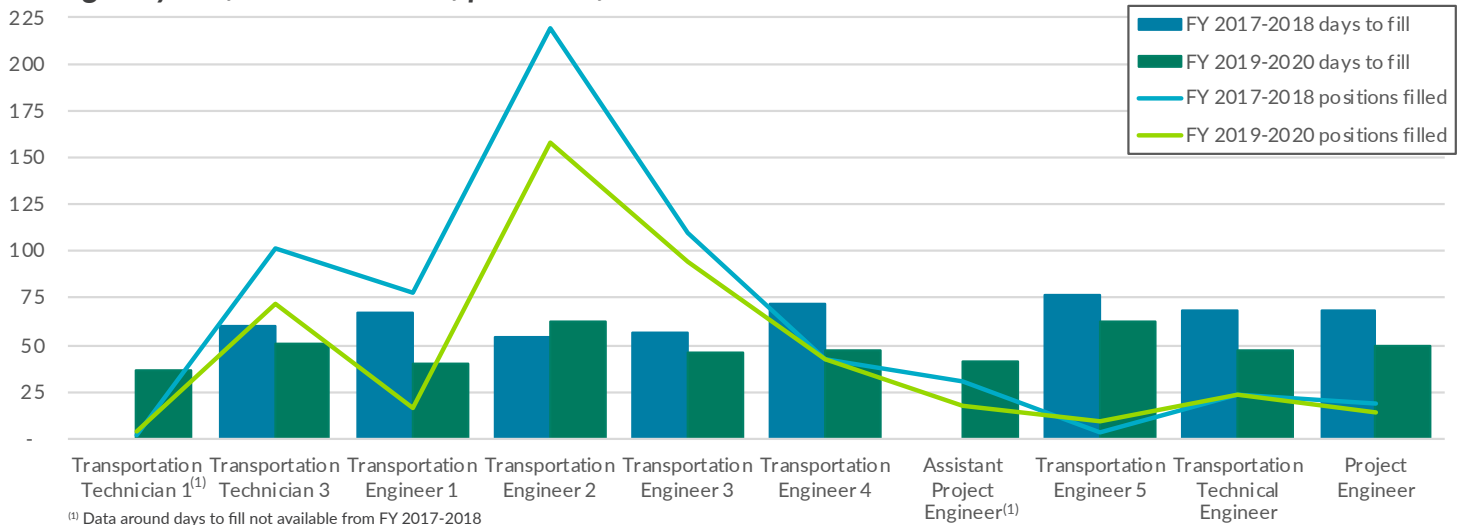
Goal 1: Strong owner and stewardship

Contractors, consultants and taxpayers expect WSDOT to provide quality staff who are capable and knowledgeable about building, preserving and operating the state's multimodal transportation system. The focus of the Plan included developing a strong owner strategy as it relates to recruitment, staff development, retention and compensation for engineering group positions. In addition, WSDOT is reinforcing its role as a strong owner by engaging and partnering with industry leaders.

How is WSDOT doing?

Recruitment

WSDOT's Office of Human Resources continues to take steps such as proactive advertising methods, military partnerships and career fair attendance to fill open positions quickly with high-performing candidates. On average, WSDOT's recruiting timeline was approximately 48 days between fiscal years 2019 and 2020, compared to 64 days in the previous biennium. WSDOT had 451 total open positions between 2019 and 2020.

Average days to fill and number of positions filled

Legend:
- FY 2017-2018 days to fill
- FY 2019-2020 days to fill
- FY 2017-2018 positions filled
- FY 2019-2020 positions filled

Categories: Transportation Technician 1[1], Transportation Technician 3, Transportation Engineer 1, Transportation Engineer 2, Transportation Engineer 3, Transportation Engineer 4, Assistant Project Engineer[1], Transportation Engineer 5, Transportation Technical Engineer, Project Engineer

[1] Data around days to fill not available from FY 2017-2018

Since 2017, WSDOT has filled more positions at a faster pace and focused on equity and compliance to improve the candidate experience. WSDOT also continued to align recruitment activities with the agency's workforce development and inclusion goals by consistently promoting a more equitable screening and selection processes. We have refined our candidate evaluation process to be more prescriptive, and recruiters are now more involved in developing interview questions as well as determining how they are scored. We attribute much of our progress to building relationships and consulting with hiring managers.

WSDOT has increased engagement and consultation in:

- Establishing application screening criteria.
- Developing job specific interview questions that are inclusive to both internal and external applicants.
- Creating objective and standardized interview assessment measures to help eliminate bias.
- Setting salaries under the Equal Pay Opportunity Act.
- Using a workforce management platform (NEOGOV) to help streamline the hiring process.

Between fiscal year 2019 and fiscal year 2020, WSDOT had a recruitment presence at 97 events. Examples of events include:
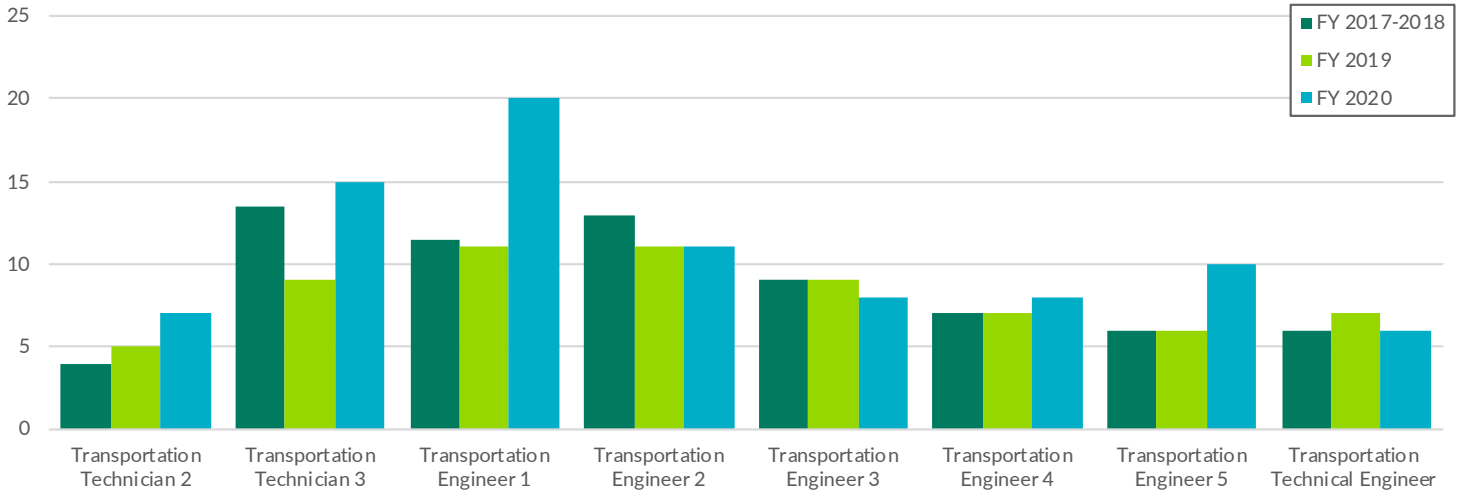
- University of Washington National Society of Black Engineers Diversity Career Fair
- Washington State University Career Expo
- Joint Base Lewis McChord Military Spouse Hiring Event
- Diversity in Construction Trade Event
- Snohomish County Regional Career Fair
- Eastern Washington and Northern Idaho Native American Career Fair
- Eliminating Racism, Empowering Women Career Fair
- Greater Seattle Veterans Job Fair
- Washington Women in Trades Career Fair
- Oregon Tech Engineering and Business Fair
- California State University Maritime Academy Career Fair
- Arizona State University School of Sustainable Engineering and the Built Environment Civil and Environmental Career Fair

Training and staff development

WSDOT continues to prioritize training. Data show consistent training across all staff levels, with an emphasis on trainings for entry-level positions.

In addition to mandatory trainings, WSDOT also continues to prioritize offering technical and specialized trainings to support staff development. During the COVID-19 pandemic, WSDOT created an online Safety Learning path that features global safety principles, ergonomics, personal protective equipment, respiratory protection and more.

Average number of training classes by position

During the COVID-19 Stay Home, Stay Healthy Order, WSDOT adapted to continue developing a competent, engaged and productive workforce. WSDOT compiled a suite of online resources to give employees access to learning opportunities and tools to work productively while teleworking. The **Workforce Development Toolkit (***www.wsdot.wa.gov/ employment/workforce-development/talent-development. htm#covid-19***)** offers resources to strengthen skills. Our goal is to equip staff with new knowledge and skills to apply when they are able to return to the office or worksite.

Training experts across the agency collaborated to offer five training pathways:

- Professional development.

- Workplace safety.

- Discipline focused technical training: community engagement, construction, development, emergency management, environmental services, GIS, maintenance, records and information management, traffic operations, transportation equipment fund and Washington State Ferries.

- Telework resources and wellbeing.

- Workplace culture and diversity, equity and inclusion.

We introduced specific trainings to respond to the pandemic and teleworking environment including Microsoft Teams, managing mobile work for supervisors, Federal Emergency Management Agency, COVID-19 and ergonomics.

One method WSDOT used to identify the initial effectiveness of this new resource was to measure the number of employees

Resources to work productively during the COVID-19 pandemic

WSDOT Workforce Development has online resources available to ensure our workforce has access to learning opportunities, and tools to work productively during this unprecedented time of teleworking during COVID-19.

At left is information on how to access learning remotely (via personal and work devices), tips on teleworking, and ways to stay resilient. We will continue to expand the list, so be sure to check out the website frequently!

and type of content they were accessing. Following the Stay Home, Stay Healthy Order, enrollments in online training courses increased significantly. For example, enrollments in American Association of State Highway and Transportation Officials (AASHTO) Transportation Curriculum Coordination Council (TC3) courses increased by over 1,500 percent from March to April 2020. WSDOT will continue to analyze quantitative and qualitative approaches to evaluate training effectiveness.

WSDOT's workforce is comprised of many diverse disciplines creating a broad range of training needs. Historically, the agency has offered training courses across many divisions and disciplines in multiple formats, including classroom, lab, eLearning, workshops and just-in-time learning opportunities.

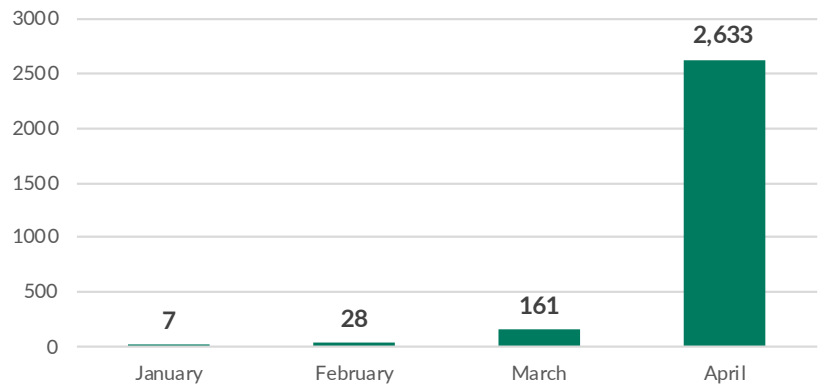### 2020 AASHTO Transportation Curriculum Coordination Council (TC3) online course enrollments

To create a robust learning environment WSDOT has focused on providing the right training to a specific audience at the correct time and in the best format. WSDOT established a technical training community of practice, which includes training staff in information technology, human resources and other teams. This group will continue to work with agency leadership to address barriers and propose training solutions.
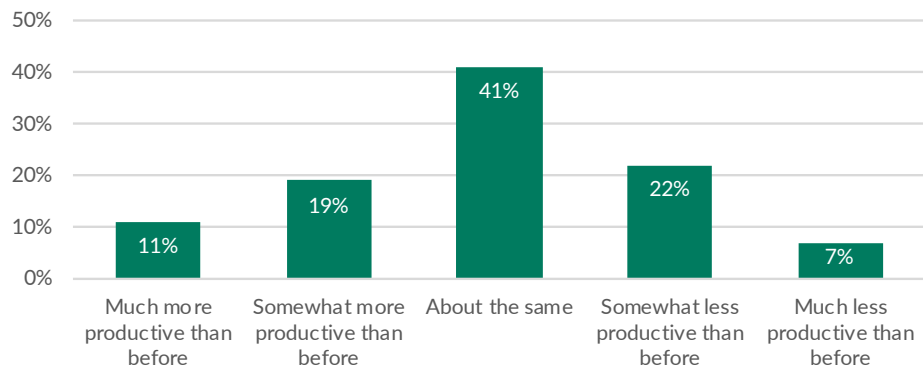
Employee engagement

During the COVID-19 pandemic, WSDOT has focused on employee engagement to help staff shift to teleworking. The telework resource hub on WSDOT's workforce development website highlights trainings, professional development opportunities, workforce safety and other resources. WSDOT has rapidly adopted new technology and policies to promote a culture that allows people to successfully work remotely.

To better understand the effects and identify opportunities to improve teleworking, WSDOT conducted an agency-wide survey in April 2020. WSDOT found that while 84 percent of respondents never or rarely worked remotely prior to the pandemic, 93 percent of respondents currently telework, and 71 percent of respondents were satisfied with their overall telework experience. Overall productivity has remained about the same or better.

During the past week, how productive have you been while working?

WSDOT is working to remove technology barriers to productivity. Following the pandemic, we can address many of the other barriers people by allowing staff to balance teleworking with working onsite.

WSDOT piloted a new platform, My Gratitude, for employees to say thank you and express appreciation toward their peers. WSDOT captured 335 recognition moments during the initial pilot period and extended the program to continue evaluating employee engagement and satisfaction efforts.

Feedback from user survey was overwhelmingly positive:

"It is wonderful to receive a thank you for doing one's job."

"I was surprised how good I felt after sending the thank you notes."

"Great way to lift others up."

"It's one more tool to express our appreciation to others."

Mentorship programs

WSDOT continues to see value in developing and investing in the workforce through mentorship programs within various areas of the organization. Due to interest from staff and the successes in the Northwest, Southwest and Olympic regions, WSDOT is launching a mentorship program in the Headquarters Development Division. WSDOT is using data, successes and lessons learned to create these additional mentorship programs.

Olympic region mentorship program kick-off session

Retention

Overall, WSDOT is seeing a lower rate of resignations compared to the data presented in the 2018 progress report. Additionally the percentage for employees who are generally satisfied with their jobs increased from 71 to 76 percent, and 70 percent (compared to 63 percent in the previous biennium) of employees would recommend the agency as a great place to work.
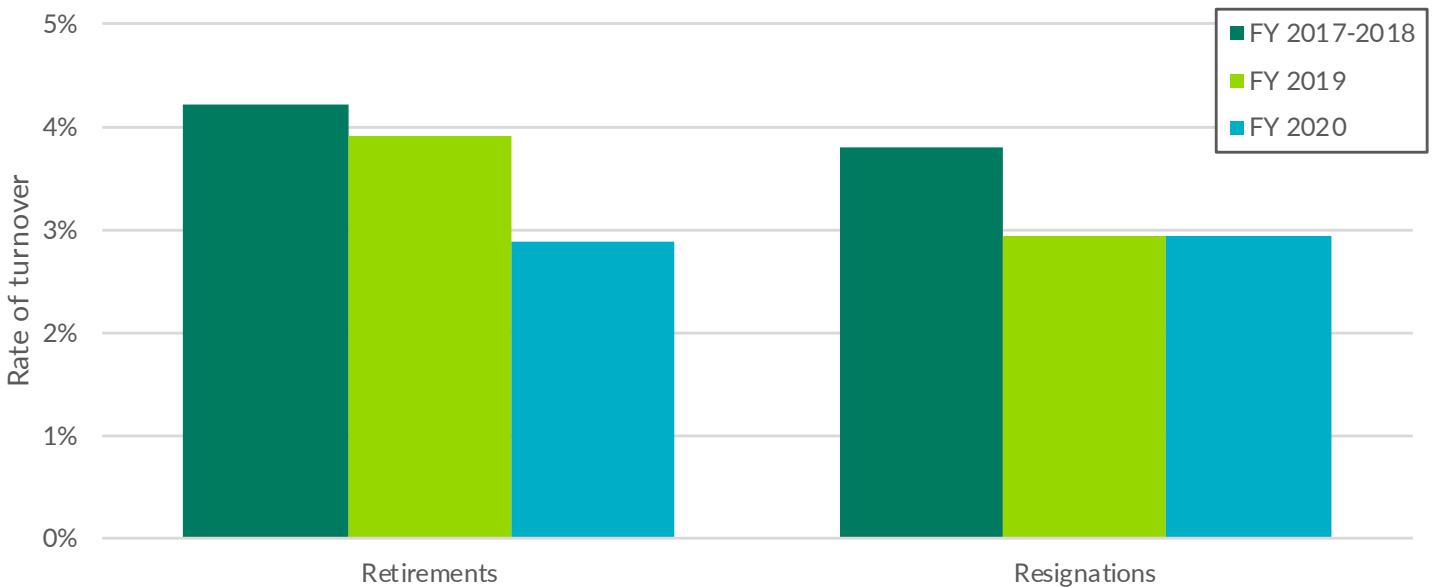
76%
of WSDOT employees are, in general, satisfied with their jobs.

70%
of WSDOT employees would recommend the agency as a great place to work.

Data source: 2019 Washington State Employee Engagement Survey
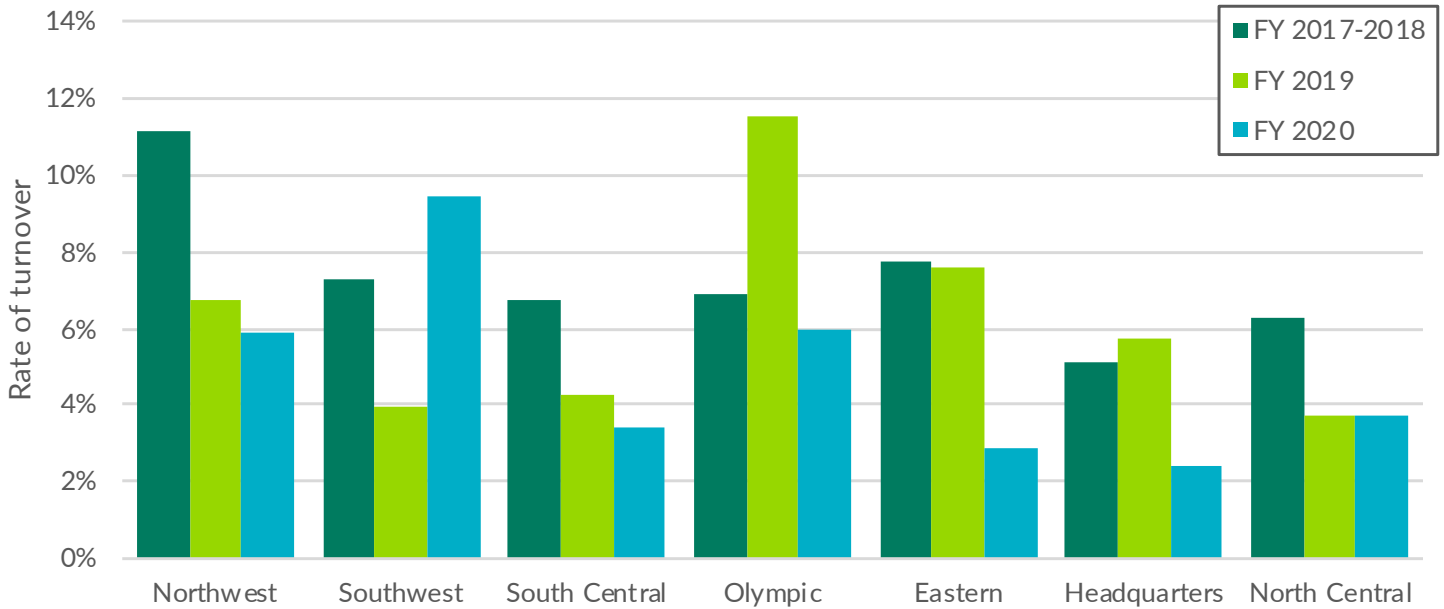
Between fiscal years 2019 and 2020, WSDOT has seen a lower rate of retirements and resignations compared to the previous biennium, where WSDOT saw an average retirement rate of 4.2 percent and an average resignation rate of 3.8 percent.

Rate of retirement and resignations for Transportation Engineers, Transportation Technicians and Transportation Technical Engineers
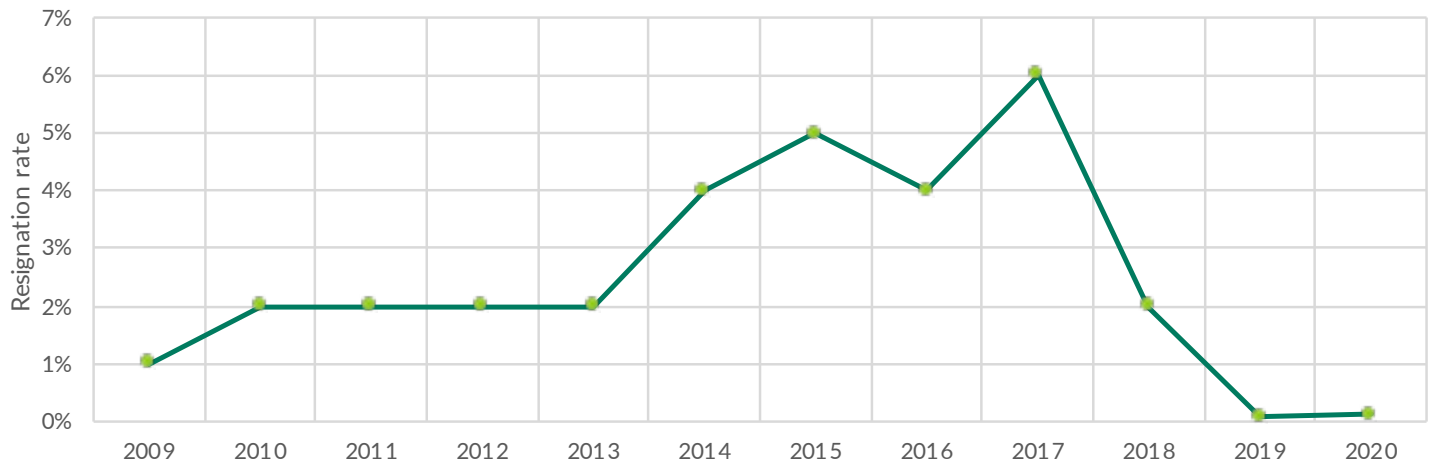

Over the past two fiscal years, the overall resignations and retirements for Transportation Engineers, Transportation Technicians and Transportation Technical Engineers have decreased. The chart below includes the combined resignations and retirements by region.

Resignations and retirements for Transportation Engineers, Transportation Technicians and Transportation Technical Engineers by region

WSDOT continues to focus on the rate of resignation among employees with six to 10 years of service. In the engineering group, employees are considered experienced and well-trained at six to 10 years of service and are positioned to advance into management positions. The engineering group resignation rates within the first six to 10 years of service—which have fallen from a historic high of six percent in fiscal year 2017 to an average of 0.1 percent between fiscal years 2019 and 2020—are encouraging. WSDOT attributes the drop in resignation, in part, to the strategic plan and cultural initiatives.

Resignation rate for engineering group employees with six to 10 years of service by fiscal year

Current engineering and technician staffing levels

The Plan included the chart below to show career progression opportunities at WSDOT and highlight the challenge that fewer engineers have the licensing required to fill staffing gaps when upper-level engineers retire. WSDOT is continuing to track the engineering pipeline as shown in the graphic below comparing the number of positions by level for fiscal years 2019 and 2020. This represents a snapshot in time and only includes staff hired to fill permanent positions.
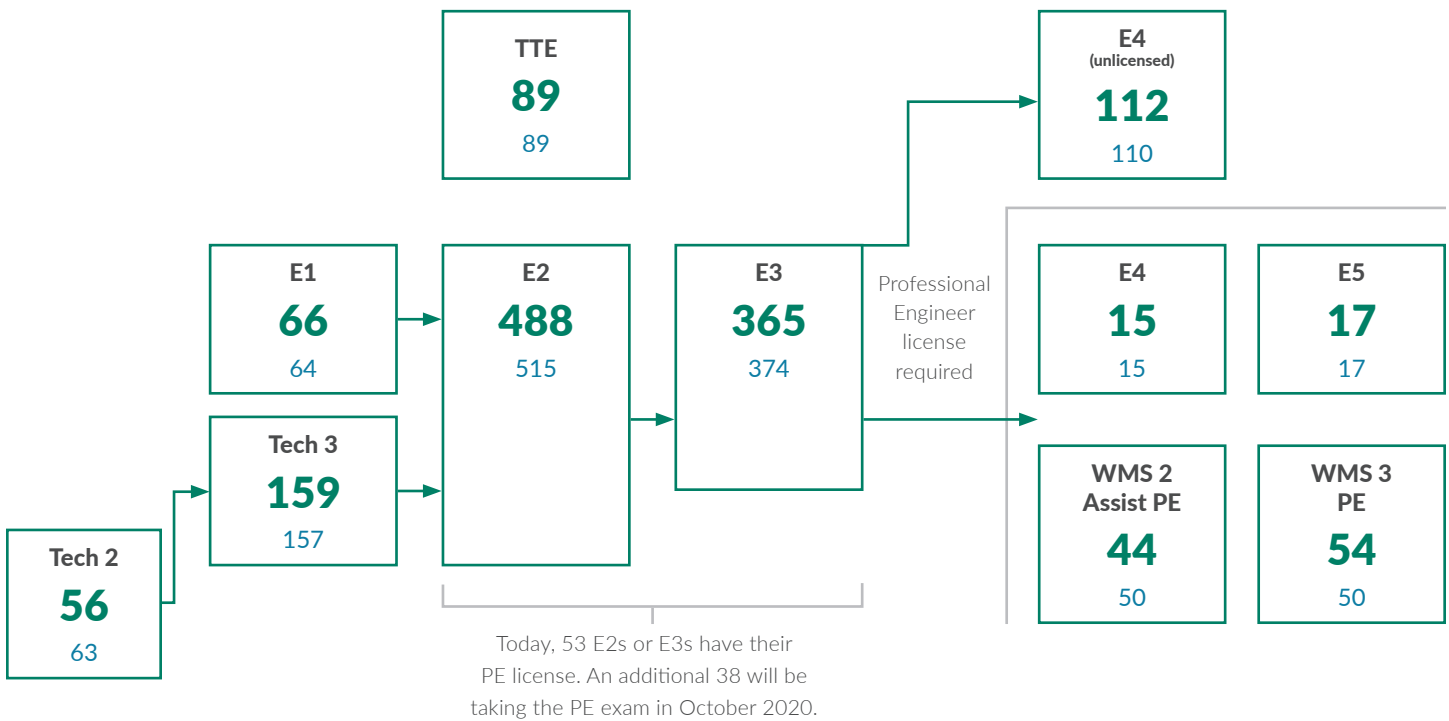
The diagram highlights the engineering segment of the workforce, which include the following positions:

- Transportation Technicians (Tech 2 - Tech 3)
- Transportation Engineers (E1 - E5)
- Transportation Technical Engineer (TTE)
- Washington Management Service (WMS) 2/Assistant Project Engineer
- WMS 3/Project Engineer (PE)

WSDOT technician and engineer series

(Snapshot as of August 2020)

Approximate number of permanent staff: ■ 2020   ■ 2019

		TTE 89 / 89		**E4 (unlicensed)** 112 / 110	

| **E1** 66 / 64 | **E2** 488 / 515 | **E3** 365 / 374 | Professional Engineer license required | **E4** 15 / 15 | **E5** 17 / 17 |

| **Tech 3** 159 / 157 | | | | **WMS 2 Assist PE** 44 / 50 | **WMS 3 PE** 54 / 50 |

| **Tech 2** 56 / 63 | | | | | |

Today, 53 E2s or E3s have their PE license. An additional 38 will be taking the PE exam in October 2020.

The Plan identified that the lack of licensed professional engineers available to move up into management positions has been an ongoing challenge for WSDOT. At that time, only about 30 E2s and E3s had their Professional Engineering (PE) license and were ready to advance to management positions. To address this issue, WSDOT and PROTEC17 worked together to negotiate a one-time $5,000 bonus for E2s and E3s who obtain their PE license starting in July 2019. Eligible staff must work for WSDOT for two years after receiving the bonus or they must reimburse WSDOT.

WSDOT has experienced success with this program to date. In October 2019, 16 individuals passed the PE exam and received the bonus, bringing the total number of licensed E2 and E3s to 53. WSDOT cancelled the April 2020 PE exam due to COVID-19, but an additional 38 engineers are planning to take the October 2020 PE exam. Depending on the success rate, WSDOT expects 80 or more PE-licensed E2s and E3s after the October 2020 exam.

Competitive compensation

According to the 2020 Washington State Employee Compensation Survey of 53 in-state employers, WSDOT continues to offer below-market rates for engineering job classes but is trending in the right direction.

Job series	Percent behind market 2016	Percent behind market 2018	Percent behind market 2020
Transportation Technical Engineer	38.5	44.8	18.1
Transportation Engineer 1	38.5	44.7	18.1
Transportation Technician 1	29.6	24.5	14.8
Transportation Planning Technician 1	26.3	18.5	15.7

Industry outreach

From July 2018 to July 2020, WSDOT conducted the following outreach to share information about the strong owner strategy among industry stakeholders:

- 65 meetings with Washington Asphalt Paving Association (WAPA) and AGC, including check-ins with executive leadership, annual meetings, WAPA/WSDOT Work Zone Safety Committee meetings, and AGC/WSDOT Roadway, Structures, and Administration subcommittees.

- At least 53 meetings with ACEC, including an annual meeting, meetings with the Executive Liaison Committee, and Business Administration, Project Delivery, Structures and Geotechnical, and Design-Build Subcommittees.

WSDOT's outreach to AGC, WAPA, and the Washington Aggregates & Concrete Association (WACA) has resulted in the following key outcomes:

- Increased density requirements for pavements and adjusted the associated bonus and penalty pay factors.

- Continued focus on increasing use of recycled concrete on WSDOT projects.

- Implemented electronic standard specifications.

- Piloted electronic signature project for construction documentation.

- Conducted joint constructability reviews for contracts with significant structural work.

- Accelerated design-build procurement for smaller design-build projects.

- Hosted ongoing joint design-build training.

- Continued strong emphasis on joint partnering efforts.

- Worked to streamline contract insurance and deductibles.

- Began piloting an automated construction project.

- Progressed electronic ticket taking.

Partnership during the COVID-19 pandemic

In spring 2020, the global COVID-19 pandemic forced WSDOT to shut down all active construction projects. The agency also restricted design-related activities to teleworking. Our industry partners, including WAPA, WACA, AGC and ACEC collaborated with WSDOT to navigate this unprecedented crisis. We worked together to develop a plan—with the safety of our workforce at the forefront—to gradually restart construction and design-related field work by early July. This partnership speaks to the strong relationship WSDOT and industry partners have developed over the last several years.

Additionally, ACEC outreach resulted in the following outcomes:

- Developed online project look-ahead tool to help consultant industry plan for upcoming WSDOT work.

- Collaborated with ACEC-WA to transition WSDOT from an on-call to prequalification-based contracting system. This will enhance opportunities for firms and helps meet WSDOT's equity and inclusion goals.

- Reviewed and updated deliverables expectations matrix to better align with practical design and project delivery practices.

- Developed a new process and policy for conceptual design approval to facilitate design-build project delivery.

- Streamlined policy and guidance for project delivery method selection.

- Updated pre-procurement language in design-build manual and templates to align with practical design principles and reduce risk.

- Reviewed several technical areas including future seismic design, allowing alternative materials for fish passage structures, and using low and non-corrosive steels in bridges.
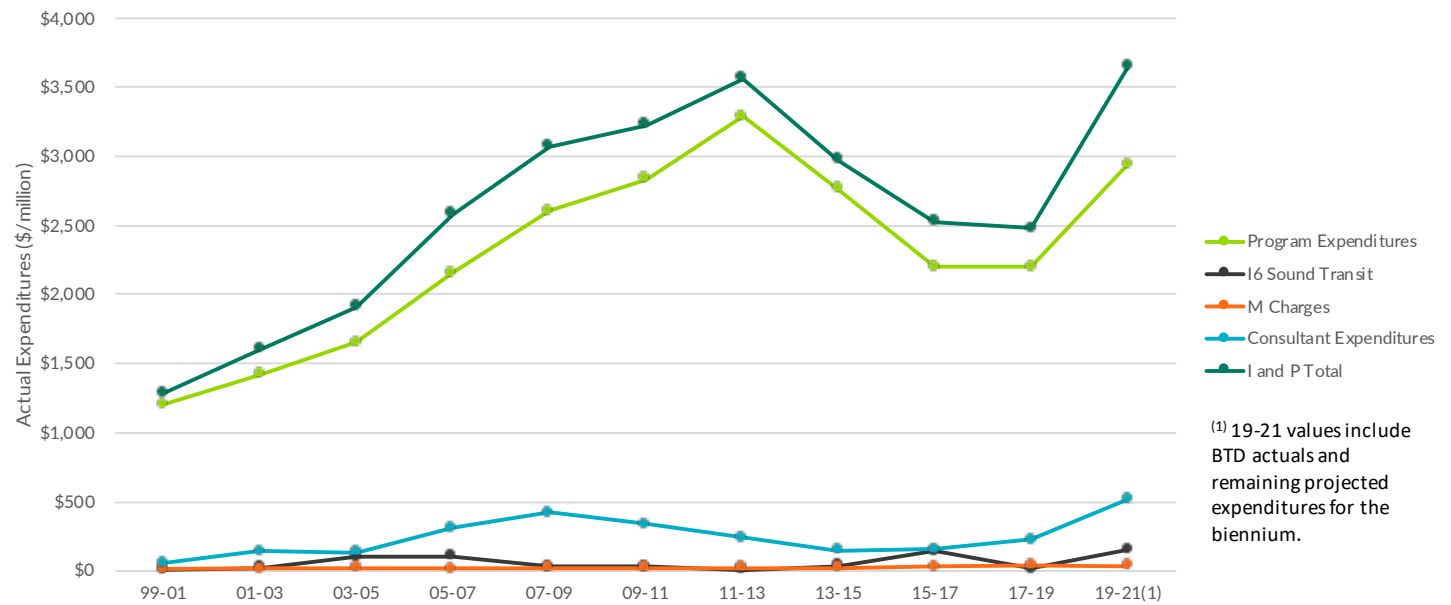
Goal 2: Sustainable staffing levels

In the Plan, WSDOT identified a Workforce Projection Model to aid with future planning because the Connecting Washington transportation package assumes a shift to additional delivery by consultants. As stated in the Plan, WSDOT staff and industry need reliable projections for agency staffing levels and contracted work. WSDOT is also offering trainings to build both WSDOT staff and contractor expertise, and communicating workforce projections with the Legislature, PROTEC17 and industry.
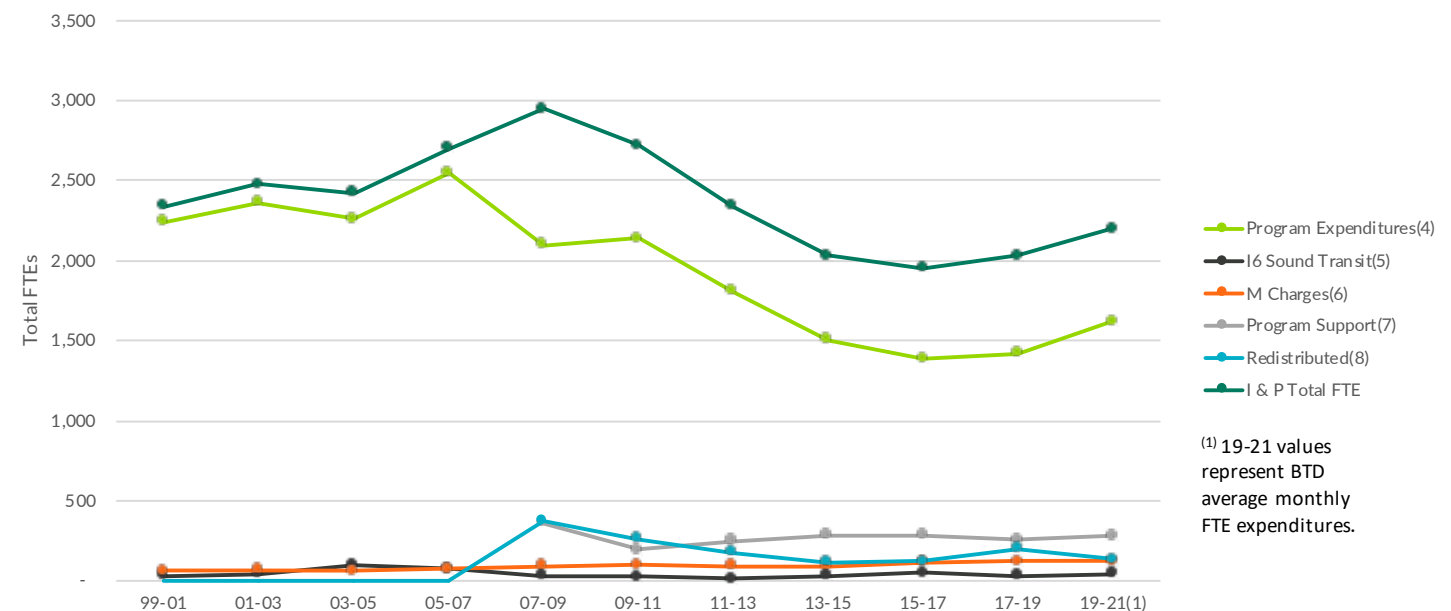
How is WSDOT doing?

WSDOT staff have updated historical FTEs and expenditures to show actual levels through the current biennium. WSDOT also updated the workforce projection as shown in the Plan to align with the anticipated spending outlined in WSDOT's Legislative-approved budget. As outlined in Goal 1, WSDOT is sharing these projections through industry outreach and has offered opportunities for industry to participate in specialty trainings such as design-build.
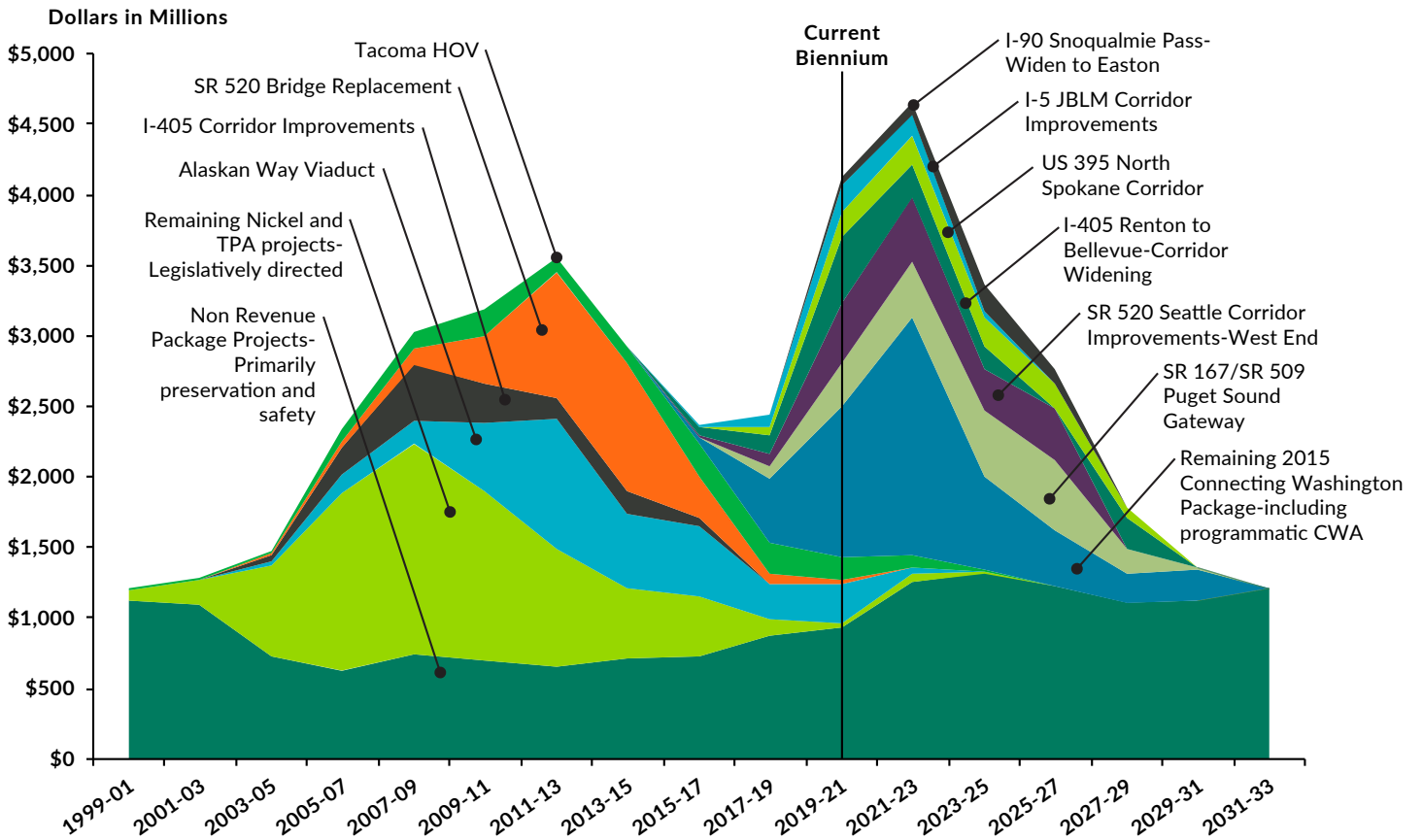
Historic expenditures

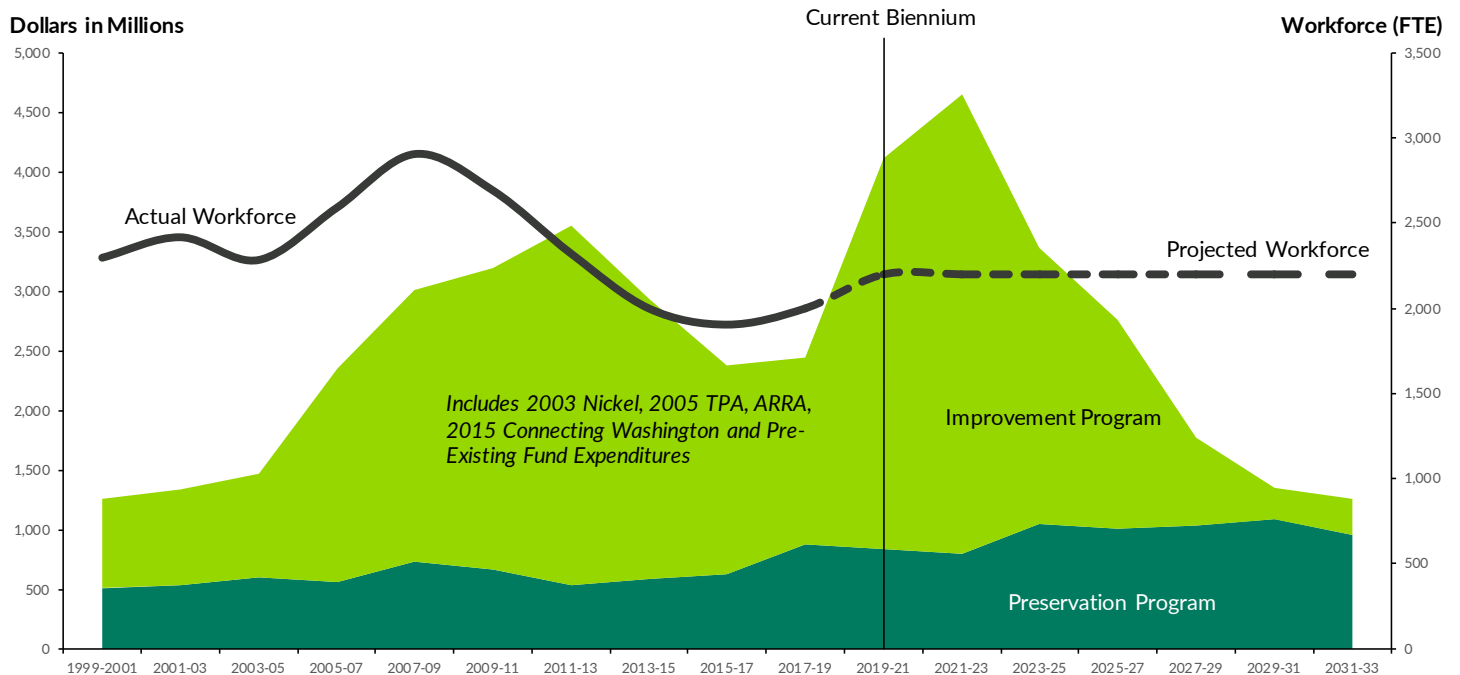(1) 19-21 values include BTD actuals and remaining projected expenditures for the biennium.

Historic FTEs

(1) 19-21 values represent BTD average monthly FTE expenditures.

WSDOT Highway Construction Program with revenue packages (2020 Legislative final budget)
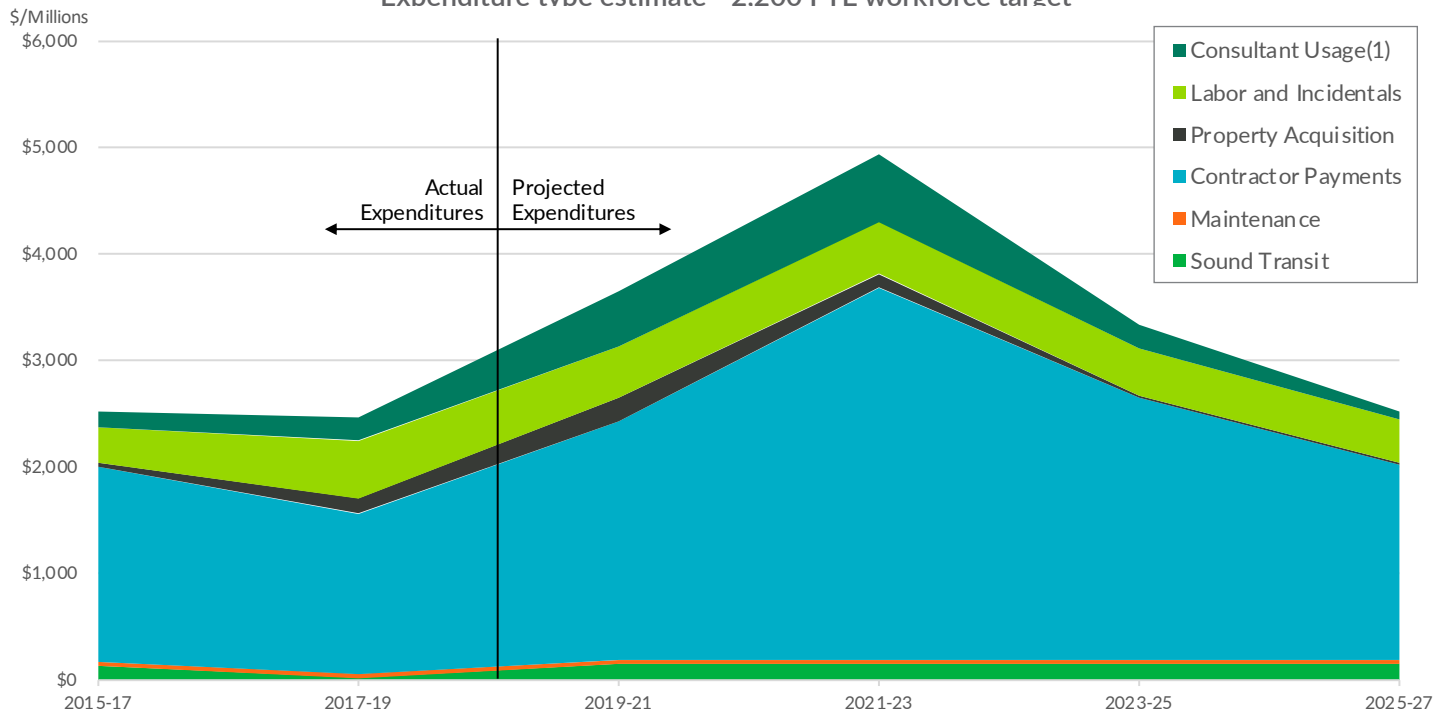
Dollars in Millions

The graph below indicates how total WSDOT FTEs align with historic and future program expenditures.

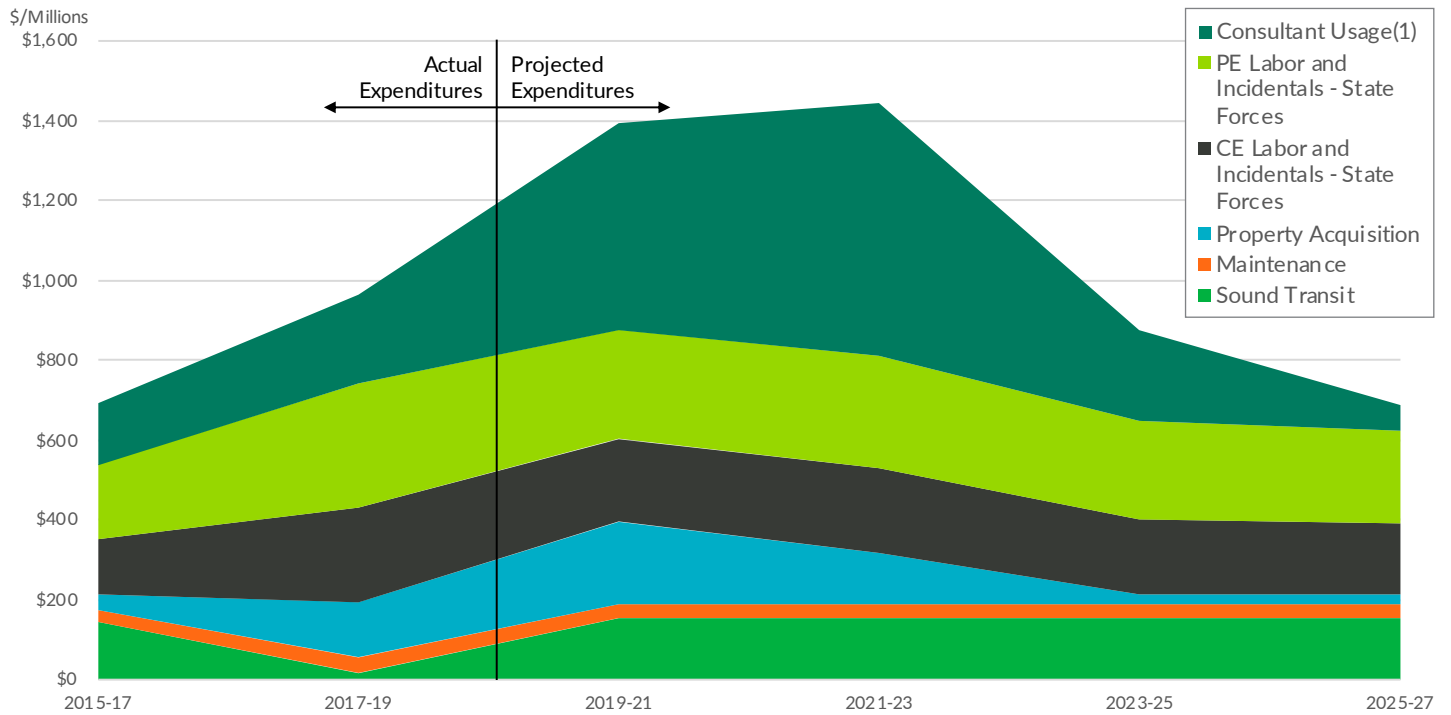## Historic and future program expenditures and FTEs

FTE workforce targets

Expenditure type estimate - 2,200 FTE workforce target

$/Millions

¹ Consultant usage does not include consultant support on design-build projects.

Expenditure type estimate - 2,200 FTE workforce target

$/Millions
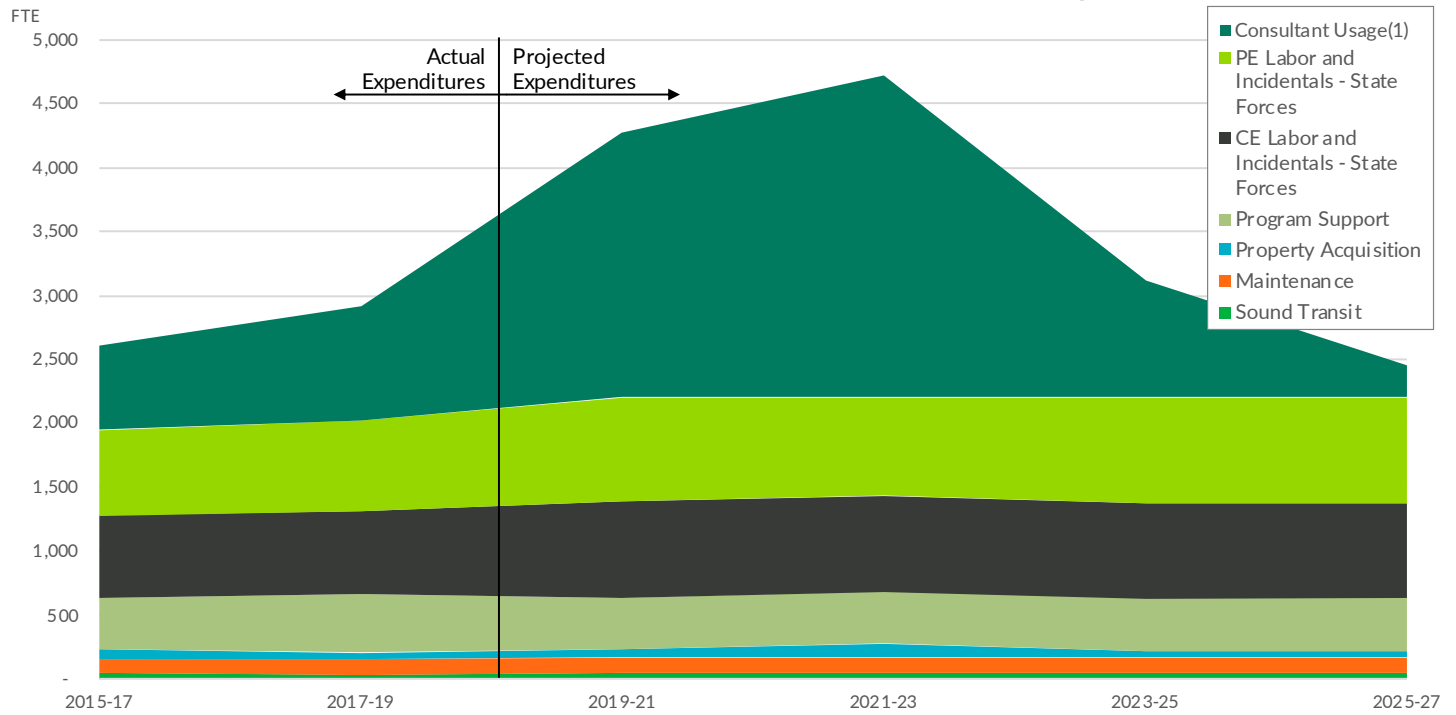

¹ Consultant usage does not include consultant support on design-build projects.

FTE by expenditure type estimate -2,200 FTE workforce target

FTE

Actual Expenditures | Projected Expenditures

Legend:
- Consultant Usage(1)
- PE Labor and Incidentals - State Forces
- CE Labor and Incidentals - State Forces
- Program Support
- Property Acquisition
- Maintenance
- Sound Transit

[1] Consultant usage does not include consultant support on design-build projects.

Trainings

From August 2018 to June 2020, WSDOT offered trainings in partnership with industry, including:

- Five Partnering and Conflict Resolution trainings with 614 attendees from AGC and Local Programs

- Six Annual Joint Asphalt Pavement trainings

- Federal Highway Administration (FHWA) Partnering Peer Exchange

- FHWA Design-Build Peer Exchange

2019 WSDOT and FHWA Peer Exchange

Goal 3: Project delivery

WSDOT is embracing alternative delivery methods, including design-build, to maximize efficiencies in cost and schedule as our state invests billions of dollars into critical transportation improvements. Currently, WSDOT is delivering one progressive design-build project, 17 design-build projects, one General Contractor/Construction Manager project and 130 design-bid build projects. The JTC Design-Build Study, issued in December 2016, outlined 29 recommendations for WSDOT.

How is WSDOT doing?

For 2020, WSDOT outlined the following focus areas for design-build:

- Design-Build Contractor Performance Report
- Design-build training
- Insurance requirements
- Templates for fish passage projects
- Continue developing Design-Build Manual
- Template updates
- Progressive Design-Build
- Digital signatures

As of July 2020, WSDOT has implemented 74 percent of the JTC recommendations. Examples of these 29 recommendations include creating a database of design-build lessons learned and developing performance specifications. WSDOT completed and is maintaining core elements of the design-build program, including templates, the manual and training. As WSDOT nears completion on implementing the JTC recommendations, we will continue to evaluate innovative construction delivery methods to achieve the Plan goals.

Photo of 520 floating bridge, Feb 2017

Next steps

WSDOT will continue meeting with the Stakeholder Advisory Committee to identify how they will guide WSDOT in updating the Construction Program Business Plan leading up to the next biennial report to the Legislature. The committee will meet quarterly and advise WSDOT on new actions to respond to the evolving COVID-19 pandemic and revenue downturn.

WSDOT will provide the next biennial progress report to the Legislature on September 30, 2022.

For more information contact

Kevin J. Dayton

WSDOT Assistant Secretary Region and Mega Programs

DaytonK@wsdot.wa.gov

(360) 705-7032

Appendices

JTC Design-Build Study Progress Report

JTC Recommendations Priority Table

Table 11.2 Recommendations and Implementation Considerations

JTC Design-Build Study Implementation Plan

JTC Recommendations - WSDOT Priority Rating

Recommendation / notes	JTC report reference	Priority Low	Priority Med	Priority High	WSDOT/AGC/ACEC focus area 2019	WSDOT/AGC/ACEC focus area 2020
Program development / management						
1A Develop and/or update WSDOT's standard DB procurement and contract forms	Chapter 3, Section 3.4, Item No. 1			X	✓	✓
1B Finalize and issue updated DB manual	Chapter 3, Section 3.4, Item No. 2			X	✓	✓
1C Develop and implement an internal and external rollout strategy for programmatic documents	Chapter 3, Section 3.4, Item No. 3			X		
1D Maintain and update the contract document templates and DB Manual as additional recommended policies or procurement policies or procurement strategies are adopted	Chapter 3, Section 3.4, Item No. 4			X	✓	✓
1E Establish and maintain a database of DB lessons-learned	Chapter 3, Section 3.4, Item No. 5		X		✓	✓
Staffing and training						
2A Increase DB Headquarters staff	Chapter 4, Section 4.4, Item No. 1			X		
2B Develop and implement a formal DB training and mentoring program to increase DB skills and expertise across the Regions	Chapter 4, Section 4.4, Item No. 2			X	✓	✓
2C Designate technical experts within DOT to support DB teams	Chapter 4, Section 4.4, Item No. 3			X		
2D Offer DB credentials and experience (rotation) and a more competitive compensation structure as part of career development/retention plan	Chapter 4, Section 4.4, Item No. 4		X			
2E Optimize use of consultants	Chapter 4, Section 4.4, Item No. 5		X			
Project development						
3A Develop guidance to address Practical Design reviews for DB projects (including how process ties to preliminary engineering and procurement)	Chapter 5, Section 5.4, Item No. 1			X		
3B Consider market conditions and availability of DOT resources when determining the scope and size of contract packages	Chapter 5, Section 5.4, Item No. 2	X				
3C Develop and implement performance specifications	Chapter 5, Section 5.4, Item No. 3	X				
3D Perform appropriate levels of front-end investigation	Chapter 5, Section 5.4, Item No. 4		X			
Delivery method selection						
4A Experiment with alternative DB delivery and procurement methods (e.g., bundling, low bid, single step)	Chapter 6, Section 6.4, Item No. 1			X	✓	✓
4B Refine PDMSG and manual as appropriate based on systematic comparisons of the results of using various project delivery strategies (e.g., DB, design-bid-build, and GC/CM).	Chapter 6, Section 6.4, Item No. 2	X				
Procurement						
5A Streamline procurement process for small DB projects (e.g., expand shortlist, pass/fail qualifications criteria, or use an accelerated process)	Chapter 7, Section 7.4, Item No. 1			X	✓	✓
5B Refine evaluation criteria to: Assign greater weight to qualifications and technical evaluation criteria . . . Address the prior working relationship of the DB team	Chapter 7, Section 7.4, Item No. 2			X		
5C Optimize the efficiency of the ATC process and one-on-one meetings	Chapter 7, Section 7.4, Item No. 3			X		
5D Establish and maintain a database of ATCs, ...	Chapter 7, Section 7.4, Item No. 4			X	✓	✓
5E Ensure the objectivity of the proposal evaluation process	Chapter 7, Section 7.4, Item No. 5			X		
Budgeting / cost estimating						
6A Work with legislative staff to more effectively appropriate funds for DB projects	Chapter 8, Section 8.4, Item No. 1			X		
6B Examine if Engineer Estimates are resulting in an over-allocation of funds and refine estimating process as necessary	Chapter 8, Section 8.4, Item No. 2	X				
Risk						
7A Develop guidance, for inclusion in the DB Manual, regarding how to use the risk analysis results to assist with: . . . project development . . . procurement . . . contractual risk allocation.	Chapter 9, Section 9.4, Item No. 1			X		
7B During the execution phase of a DB project, conduct periodic risk review meetings and regularly update the project risk register	Chapter 9, Section 9.4, Item No. 2	X				
Project execution						
8A Dedicate staff as necessary to the full project-lifecycle (design and construction phases)	Chapter 10, Section 10.4, Item No. 1			X		
8B Dedicate experienced staff with delegated authority to the design oversight function	Chapter 10, Section 10.4, Item No. 2			X		
8C Conduct project-specific workshops for larger or complex DB projects	Chapter 10, Section 10.4, Item No. 3			X		
8D Optimize quality management for smaller projects.	Chapter 10, Section 10.4, Item No. 4			X	✓	
TOTALS		5	4	20		

Other items not identified in JTC Report (but necessary to deliver the DB program)		Low	Med	High	2019	2020
Design builder performance form and manual	N/A			X	✓	✓
Insurance requirements	N/A		X		✓	✓
Inspector certification requirements	N/A		X		✓	C
Guidance for fish passage projects using DB delivery	N/A			X	✓	✓
Quality management plan outline update	N/A		X		C	
OCOI manual update	N/A			X	✓	C
Design-build record retention schedule	N/A			X	C	
Design-build record management/storage	N/A			X	C	
Project support during procurement	N/A			X		
FHWA Design-Build Peer Exchange (WSDOT hosted)	N/A			X	C	
TOTALS			3	7		

☐ New Item

C = Complete

Table 11.2: Recommendations and Implementation Considerations – Progress Update

Recommendation	Implementation				Outcome
	Timing	**Cost**		**Difficulty**	**Status** (% Complete)	

(1) DB Program Development & Management

Recommendation	Timing	Cost		Difficulty	Status (% Complete)	Outcome
A. Develop and/or update WSDOT's standard DB procurement and contract forms	1-6 months	<$100k	O	Low	100 (on-going)	❷ ←
B. Finalize and issue updated DB manual	6-18 months	$100 - $500k	O	Moderate	100 (on-going)	❷ ←
C. Develop and implement an internal and external rollout strategy for programmatic documents	6-18 months	<$100k	O	Low	100 (on-going)	❷
D. Maintain and update the contract document templates and DB Manual as additional recommended policies or procurement policies or procurement strategies are adopted	> 18 months	<$100k	R	Low	100 (on-going)	❷ ←
E. Establish and maintain a database of DB lessons-learned	1-6 months	<$100k	R	Moderate	40 (on-going)	❸ ←

(2) Staffing and Training

Recommendation	Timing	Cost		Difficulty	Status (% Complete)	Outcome
A. Increase DB Headquarters staff	1-6 months	$100 - $500k	O	Moderate	100	❶
B. Develop and implement a formal DB training and mentoring program to increase DB skills and expertise across the Regions	> 18 months	$100 - $500k	R	High	100 (on-going)	❷ ←
C. Designate technical experts within DOT to support DB teams	6-18 months	<$100k	O	Low	✶100✶ (on-going)	❸
D. Offer DB credentials and experience (rotation) and a more competitive compensation structure as part of career development/retention plan	> 18 months	> $500k	R	High	70 (on-going)	❸ ❻
E. Optimize use of consultants	> 18 months	---	--	Low	100 (on-going)	❷ ❻

Outcome

❶ Completed

❷ Completed, continuing effort req'd

❸ Not completed, continued effort req'd

❹ Completed, implementation pending

❺ Initial work completed, implementation delayed

❻ Legislative action required

← 2020 WSDOT/AGC/ACEC focus areas

✶ Changed value

Table 11.2: Recommendations and Implementation Considerations – Progress Update

Recommendation	Implementation					Outcome
	Timing	**Cost**		**Difficulty**	**Status** (% Complete)	
(3) Project Development — A. Develop guidance to address Practical Design reviews for DB projects (including how process ties to preliminary engineering and procurement)	6-18 months	<$100k	O	Moderate	**50** (on-going)	❸
B. Consider market conditions and availability of DOT resources when determining the scope and size of contract packages	> 18 months	<$100k	R	Low	**20** (on-going)	❸
C. Develop and implement performance specifications	6-18 months	$100 - $500k	O	Moderate	**10** (on-going)	❸
D. Perform appropriate levels of front-end investigation	1-6 months	$100 - $500k	R	Low	**100** (on-going)	❷
(4) Delivery Method Selection — A. Experiment with alternative DB delivery and procurement methods (e.g., bundling, low bid, single step)	> 18 months	$100 - $500k	O	Moderate	✡ **50** (on-going)	❸ ❻ ⬅
B. Refine PDMSG and manual as appropriate based on systematic comparisons of the results of using various project delivery strategies (e.g., DB, design-bid-build, and GC/CM)	> 18 months	$100 - $500k	O	High	**100** (on-going)	❷

Outcome

❶ Completed

❷ Completed, continuing effort req'd

❸ Not completed, continued effort req'd

❹ Completed, implementation pending

❺ Initial work completed, implementation delayed

❻ Legislative action required

⬅ 2020 WSDOT/AGC/ACEC focus areas

✡ Changed value

Table 11.2: Recommendations and Implementation Considerations – Progress Update

Recommendation	Implementation				Outcome
	Timing	**Cost**	**Difficulty**	**Status** **(% Complete)**	
(5) Procurement — A. Streamline procurement process for small DB projects (e.g., expand shortlist, pass/fail qualifications criteria, or use an accelerated process)	> 18 months	<$100k	O	Moderate-High	✡ **50** **(on-going)**	❸ ←
B. Refine evaluation criteria to: – Assign greater weight to qualifications and technical evaluation criteria when seeking innovation – Address the prior working relationship of the DB	> 18 months	<$100k	O	Low	**100** **(on-going)**	❷
C. Optimize the efficiency of the ATC process and one-on-one meetings	6-18 months	---	--	Low	**70** **(on-going)**	❸
D. Establish and maintain a database of ATCs, and use the data to: – Establish preapproved elements to expedite the ATC process – Identify opportunities to introduce more flexibility	> 18 months	<$100k	R	Moderate	**20** **(on-going)**	❸ ←
E. Ensure the objectivity of the proposal evaluation process	6-18 months	---	--	Low	**100** **(on-going)**	❸
(6) Budgeting & Cost Estimating — A. Work with legislative staff to more effectively appropriate funds for DB projects	1-6 months	<$100k	O	Moderate	**100** **(on-going)**	❺ ❻
B. Examine if Engineer Estimates are resulting in an over-allocation of funds and refine estimating process as necessary	1-6 months	<$100k	O	Moderate	**30** **(on-going)**	❸

Outcome

❶ Completed
❷ Completed, continuing effort req'd
❸ Not completed, continued effort req'd
❹ Completed, implementation pending

❺ Initial work completed, implementation delayed
❻ Legislative action required

← 2020 WSDOT/AGC/ACEC focus areas

✡ Changed value

Table 11.2: Recommendations and Implementation Considerations – Progress Update

Recommendation	Implementation				Outcome
	Timing	Cost	Difficulty	Status (% Complete)	
(7) Risk					
A. Develop guidance, for inclusion in the DB Manual, regarding how to use the risk analysis results to assist with: − Project development (i.e., level of design development and front-end investigation) − Procurement (evaluation criteria) − Contractual risk allocation	6-18 months	<$100k	O	Moderate	**100 (on-going)**	❷
B. During the execution phase of a DB project, conduct periodic risk review meetings and regularly update the project risk register	6-18 months	<$100k	R	Low	**25 (on-going)**	❸
(8) Project Execution					
A. Dedicate staff as necessary to the full project-lifecycle (design and construction phases)	1-6 months	<$100k	O	Moderate	**100 (on-going)**	❷
B. Dedicate experienced staff with delegated authority to the design oversight function	6-18 months	$100 - $500k	O	Moderate	**100 (on-going)**	❷
C. Conduct project-specific workshops for larger or complex DB projects	6-18 months	<$100k	R	Moderate	**100 (on-going)**	❷
D. Optimize quality management for smaller projects	6-18 months	<$100k	O	Low	✡ **20 (on-going)**	❸

Outcome

❶ Completed

❷ Completed, continuing effort req'd

❸ Not completed, continued effort req'd

❹ Completed, implementation pending

❺ Initial work completed, implementation delayed

❻ Legislative action required

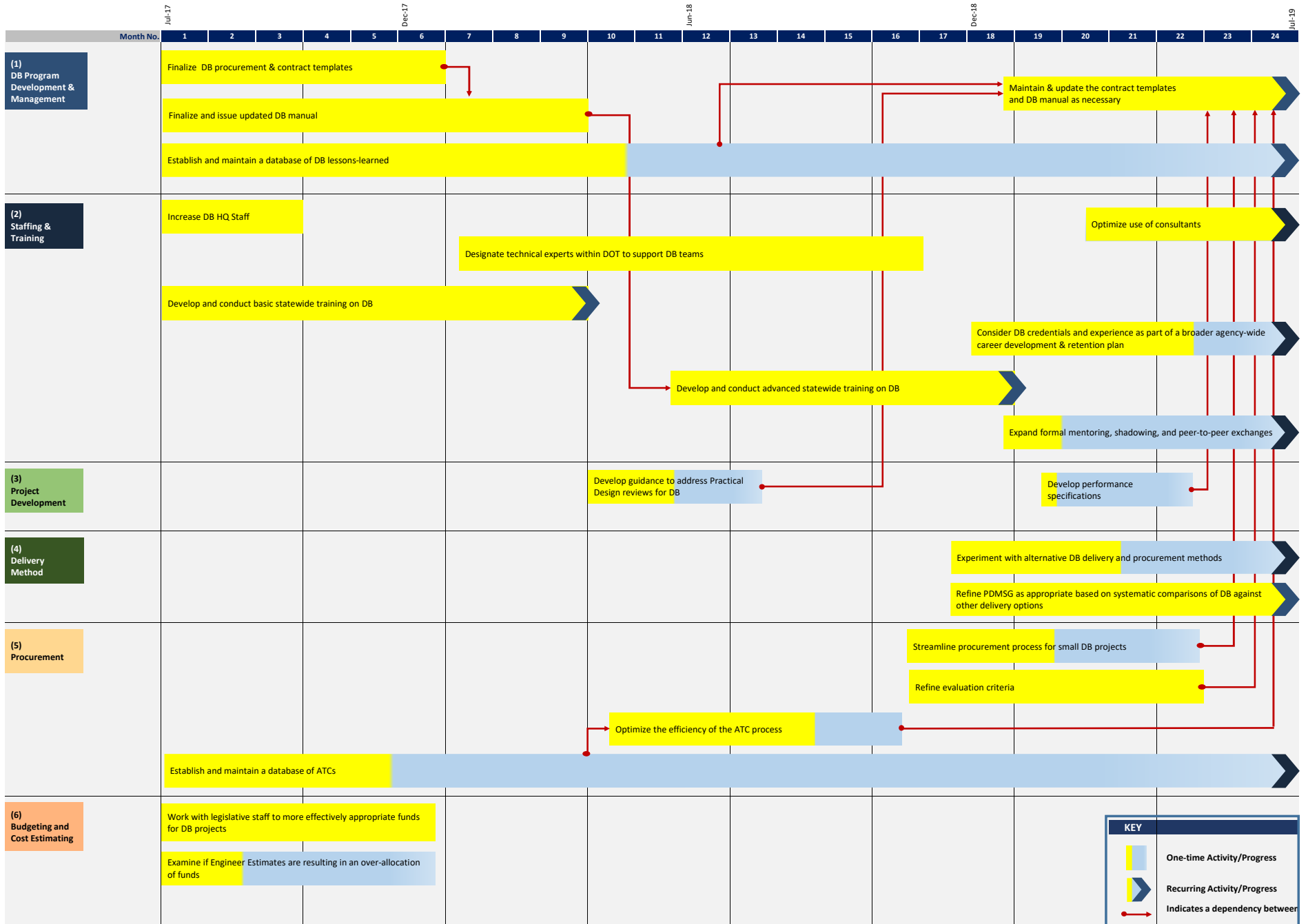← 2020 WSDOT/AGC/ACEC focus areas

✡ Changed value

Implementation Timeline
Progress Update

Month No.	Jul-17					Dec-17						Jun-18							Dec-18					Jul-19
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

(1) DB Program Development & Management
- Finalize DB procurement & contract templates
- Finalize and issue updated DB manual
- Establish and maintain a database of DB lessons-learned
- Maintain & update the contract templates and DB manual as necessary

(2) Staffing & Training
- Increase DB HQ Staff
- Optimize use of consultants
- Designate technical experts within DOT to support DB teams
- Develop and conduct basic statewide training on DB
- Consider DB credentials and experience as part of a broader agency-wide career development & retention plan
- Develop and conduct advanced statewide training on DB
- Expand formal mentoring, shadowing, and peer-to-peer exchanges

(3) Project Development
- Develop guidance to address Practical Design reviews for DB
- Develop performance specifications

(4) Delivery Method
- Experiment with alternative DB delivery and procurement methods
- Refine PDMSG as appropriate based on systematic comparisons of DB against other delivery options

(5) Procurement
- Streamline procurement process for small DB projects
- Refine evaluation criteria
- Optimize the efficiency of the ATC process
- Establish and maintain a database of ATCs

(6) Budgeting and Cost Estimating
- Work with legislative staff to more effectively appropriate funds for DB projects
- Examine if Engineer Estimates are resulting in an over-allocation of funds

KEY
- One-time Activity/Progress
- Recurring Activity/Progress
- Indicates a dependency between

Figure 11.1: Implementation Timeline

Recommendation Areas (7) and (8) are considered included in (1) - (6)