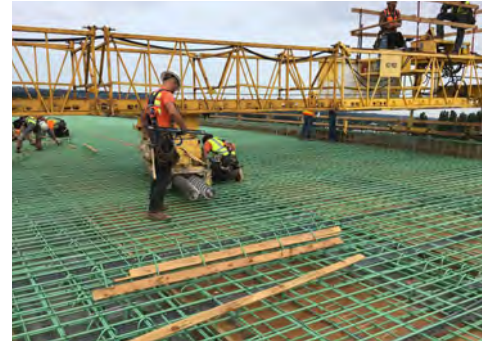


Construction Program Business Plan

BIENNIAL PROGRESS REPORT

September 2018



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 in October 2017 (2017 Plan) 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 2017 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 2016 study on the agency's implementation of design-build project delivery. In 2018, the Stakeholder Advisory Committee continued to meet with WSDOT staff to advise on 2017 Plan implementation.

This is WSDOT's first progress report for the 2017 Plan. As required by 2ESSB 5997, WSDOT will issue progress reports every two years until Sept. 30, 2030.

2017 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.

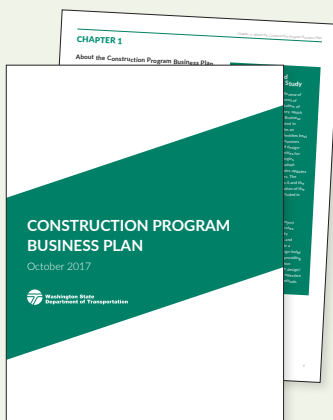
Goal 3: **Project delivery**

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

Read the 2017 Plan

In 2015, the Legislature passed 2ESSB 5997, directing the JTC to review WSDOT's implementation of design-build project delivery. The bill further directed WSDOT to develop the 2017 Plan in coordination with a Stakeholder Advisory Committee, made up of representatives from Professional & Technical Employees Local 17, American Council of Engineering Companies of Washington, Associated General Contractors of Washington, and WSDOT.

To review the 2017 Plan, please visit:
www.wsdot.wa.gov/publications/fulltext/LegReports//17-19/WSDOT_ConstructionProgramBusinessPlan.pdf



Message from the Stakeholder Advisory Committee

During 2018, we continued our ongoing 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 interests for WSDOT to remain a strong, capable steward of the transportation system. For this reason, after the publication of the 2017 Plan we reaffirmed our commitment to stay engaged and collaborate with WSDOT as members of the Stakeholder Advisory Committee.

After issuing the 2017 Plan, we are pleased to report some early successes:

- So far, WSDOT is striking a sensible balance in use of consultant expertise and WSDOT project staff. WSDOT held to its commitment of maintaining an FTE level at or below 2,200 and shifting additional project delivery to consultants, while communicating these targets with industry.
- WSDOT’s efforts to engage industry in discussions about the 2017 Plan and the agency’s strong owner role are laying the groundwork for future innovations and improvements.
- WSDOT’s engineering group participated in 23 percent more trainings in 2017 than the previous year, and WSDOT is taking new steps to measure the effectiveness of key trainings.
- WSDOT is seeing positive effects on morale and retention through innovative, low-cost initiatives like the Infant at Work program, as well as the July 2017 salary increase for some engineering job classifications.
- The resignation rate for engineering group employees with six to 10 years of service has declined by 4 percent over the past year.
- The prospect of a bonus for WSDOT staff who obtain their Professional Engineer licensure and a 5 percent salary increase for agency engineering staff based in King County will help recruit and retain talent and promote measurable technical competency.

Despite these wins, we still see some key challenges to address over the next biennium:

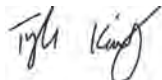
- WSDOT salaries continue to fall far below market for engineering job classes. Although we believe WSDOT is taking action to do what it can to address this gap, the largest barrier continues to be statutory, requiring Legislative action outside of WSDOT’s direct control. Furthermore, it is widely known the greater Seattle area has one of the most competitive job markets in the U.S. This, coupled with WSDOT’s below-market pay for engineers, is contributing to the Northwest Region having the highest rate of resignations among engineering staff. We believe if this trend continues, it could adversely impact WSDOT’s ability to maintain a strong owner role and deliver the construction program.
- Implementing recommendations in the JTC’s design-build study—a key expectation of the 2017 Plan—requires internal staff resources. For this reason, we encourage a continuation to invest in these staff resources.

We have benefited from engaging in these conversations with WSDOT and will continue our commitment over the next biennium.

Sincerely,



Van Collins



Tyler Kimberley



Vince Oliveri

Stakeholder Advisory Committee members:



Van Collins
American Council of Engineering Companies of Washington



Tyler Kimberley
Associated General Contractors of Washington



Vince Oliveri
Professional & Technical Employees Local 17



WSDOT lead: Kevin Dayton
Assistant Secretary, Regional and Mega Programs

Progress on implementation of the 2017 Plan

The tables below show WSDOT's progress on the 2017 Plan recommendations at a glance, with additional detail for select strategies provided later in this report.

Goal 1: Strong owner and stewardship

Strategies	WSDOT Actions
Achieve buy-in to the strong owner approach from staff, industry and the Legislature by developing and implementing a communication and outreach plan for WSDOT's executive leadership.	<ul style="list-style-type: none"> ● Drafted communication plan. ● Provided ongoing high-level updates to executive leadership team. ● Shared ongoing updates at biweekly meeting with WSDOT assistant secretaries. ● 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.	<ul style="list-style-type: none"> ● Established workforce development as one of three goals for WSDOT's strategic plan for 2017-2021. ● Issued a Workforce Development Toolkit. ● Conducting ongoing evaluation of recruitment, training, retention and salary levels.
Maintain the trust of the taxpayers, traveling public and Legislature by forming and sustaining partnerships with industry to plan and deliver the capital improvement and preservation program, and communicate with the Legislature and public.	<ul style="list-style-type: none"> ● Conducted 18 meetings with construction industry stakeholders. ● Shared email updates with Washington Asphalt Pavement Association, AGC and JTC. ● Held 23 meetings with ACEC.

Stakeholder Advisory Committee comments:

WSDOT refined its data to better track and identify trends and potential issues related to recruitment, trainings and retention. We recognize it will take time for WSDOT to recover from reductions in force that occurred between 2011 and 2013, but the improving trend in resignations among staff with six to 10 years of service is a positive signal, as well as the new tools and specialty trainings to invest in staff development. For the next biennium, we want to see WSDOT maintain its recruiting timeline and the current trends continue related to training and retention.

As a result of outreach to industry, WSDOT now has valuable information to continue to strengthen and evaluate its strong owner approach over the next biennium, which will be a key focus for the committee next year.

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. The staffing forecast will include a target range of WSDOT full-time employees and staffing levels per biennium to support the capital improvement and preservation program.	<ul style="list-style-type: none"> ● Updated actual FTEs and expenditures through 2017. ● Updated staffing forecast through 2027.
Provide information about what WSDOT needs to respond to a competitive job market and sustain required staffing levels for program and project delivery.	<ul style="list-style-type: none"> ● Briefed JTC in October 2017. ● Ongoing coordination between WSDOT Human Resources and Stakeholder Advisory Committee with PTE Local 17. ● Sharing updates through biennial progress report.
Identify and proactively communicate opportunities for the consultant workforce to support program delivery by offering WSDOT flexible staffing and expertise.	<ul style="list-style-type: none"> ● Conducted industry outreach as outlined in Goal 1. ● Invited industry partners to 21 joint training sessions on topics such as partnering and conflict resolution, joint asphalt pavement, civil rights and design-build.

Stakeholder Advisory Committee comments:

We support WSDOT's current target of 2,200 FTEs and updated workforce forecast through 2027, but we will continue to work with WSDOT to assess actual staffing levels and consultant use, and course correct as needed. We would like to see continued investment in joint trainings for WSDOT and industry to build expertise in key specialties like design-build.

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 on outcomes.	<ul style="list-style-type: none"> ● Implementation of JTC recommendations is 39 percent complete. Examples of these 29 recommendations include creating a database of design-build lessons learned and developing performance specifications. ● New WSDOT Design-Build Manual is 70 percent complete, with expected completion by December 2018.

Stakeholder Advisory Committee comments:

WSDOT is on target for fulfilling key JTC design-build study recommendations as long as current staffing levels are maintained. Next biennium, we want to learn more about efficiencies and improvements as a result of these recommendations and identify any new priorities, challenges and areas of opportunity.

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 2017 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 conducting outreach and strengthening partnerships with industry.

How is WSDOT doing?

Recruitment

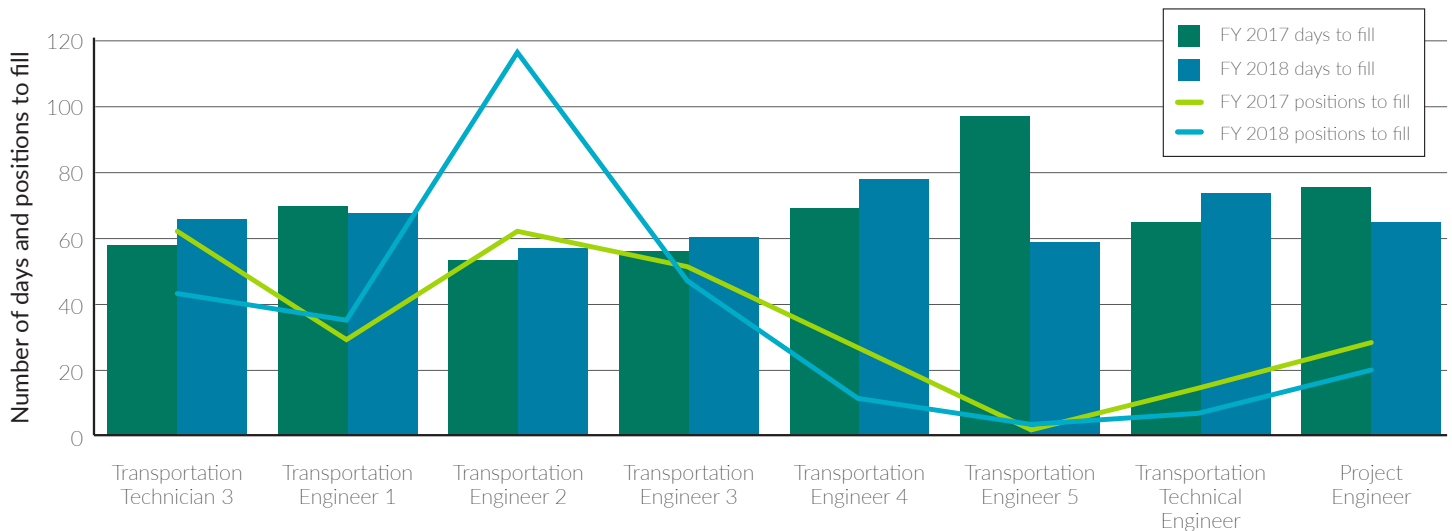
WSDOT’s Office of Human Resources continues to take steps such as proactive advertising methods, military partnerships and career fair attendance to fill open positions quickly with high-performing candidates. On average, WSDOT’s recruiting timeline was approximately 64 days in both fiscal year 2017 and fiscal year 2018. The number of open positions increased from 261 (FY¹ 2017) to 275 (FY 2018).

WSDOT expects to continue to maintain approximately a two-month time period to fill positions moving forward; however, the ability to recruit effectively in the competitive job market in WSDOT’s Northwest Region is a particular concern. To address this need, WSDOT is recruiting nationally in states like California and Texas. Each WSDOT region also identified target colleges for 2018 recruitment visits. WSDOT is continuing to advance its goal of inclusion, including conducting trainings to improve interview panelists’ skills in selecting candidates consistent with agency values, mission and goals.

Examples of events with a WSDOT recruitment presence include:

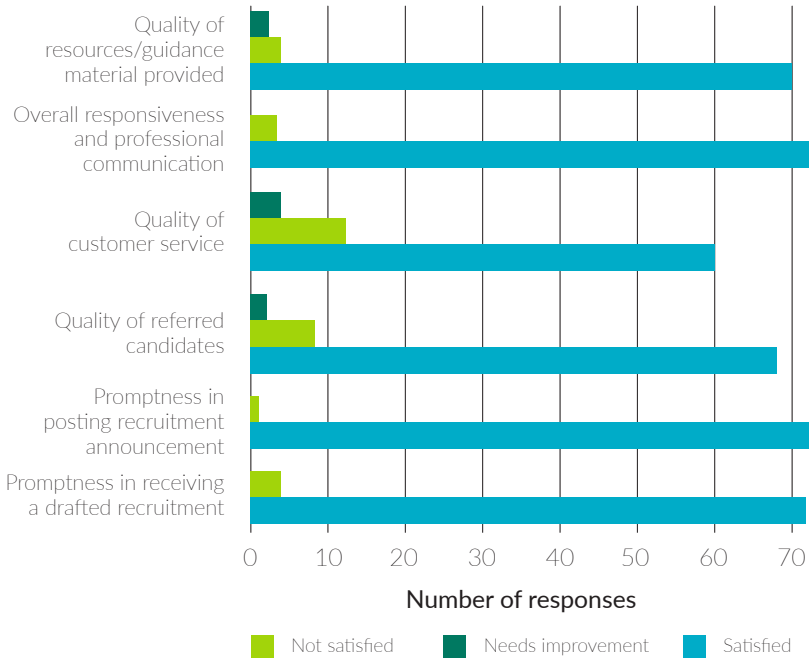
- University of Washington College of Civil & Environmental Engineering Career Fair
- Texas Tech University Engineering Job Fair
- Diversity Day Career Fair
- Society of Women Engineers Career Fair
- 18th Annual Diversity Employment Day Career Fair in Portland, Ore.
- Joint Base Lewis-McChord Spouse Hiring Event

Average days to fill and number of positions filled for FY 2017 and FY 2018



¹FY refers to WSDOT’s fiscal year, beginning on July 1 and ending on June 30.

Feedback on recruitment process from hiring managers



As recommended in the 2017 Plan, WSDOT conducted a survey of hiring managers in 2018 and has received 76 responses to date. Feedback on the recruitment process has been positive, as shown in the chart at left.

WSDOT also implemented the following policies effective July 1, 2017, to enhance recruitment and retention:

- Created Foster Parent Shared Leave Pool.
- Created Veterans In-State Service Shared Leave Pool.
- Changed vacation policy to make accrued time immediately available.
- Increased vacation accrual rates from 96 hours to 112 hours in the first year of employment.
- Increased maximum vacation accrual rate to from 176 to 200 hours per year for employees with 25 years of service or more.

Training and staff development

As the agency continues its journey toward establishing a culturing of learning, it is developing a Leadership Program. WSDOT created a structure for leadership development for staff by defining leadership skillsets and growth, then mapping a path with roles and learning outcomes from a first-level supervisor to the director level. The next step is to develop core training courses and region-specific training for each level. The first track launched to the agency in August 2018.

In addition to mandatory trainings, WSDOT also continues to prioritize offering technical and specialized trainings to support staff development, including those related to new business needs, such as design-build and Practical Solutions. These trainings are highlighted in relation to Goal 2. WSDOT Human Resources reported that attendance at trainings increased by approximately 23 percent overall from FY 2017 to FY 2018.

Average number of training classes² by position for FY 2017 and FY 2018



² Training classes refer to class completion. All classes are included in the total, whether it is a 30-minute online course or a half-day training.

To determine the effectiveness of trainings in response to the 2017 Plan, WSDOT launched an evaluation of its training programs. WSDOT offers two leadership training courses integral to the agency’s leadership development program through the Department of Enterprise Services, intended for entry-level and mid-level managers. WSDOT launched a pre- and post-training assessment for its two courses, called Leading Others and Leading Teams, to evaluate a learner’s growth in certain learning objective categories. Approximately 300 employees attended the trainings.

Survey data for the Leading Others training shows the training is effective, and learners feel the training is beneficial, with growth indicated for each survey question. Training topics covered include role as a leader, self awareness, giving and receiving feedback, building trust, communication, coaching and resolving performance issues.

The evaluation of Leading Teams shows the course is beneficial. Training topics covered include emotional intelligence, stages of team development, creating psychological safety, unconscious bias, mindfulness, effective delegation, and managing stress, time and energy.

The table at right shows a sampling of pre- and post-training survey data for Leading Teams. Training participants responded to questions asking them to rate the degree to which they agree or disagree with statements in four key categories. Examples of statements include:

- I can define and articulate my core values.
- I analyze methods to effectively address conflict.
- I align my team around our common purpose and how it relates to the larger vision.

As the agency develops an internal leadership development program, self-reflection and survey questions are being incorporated into each training track to assess learner growth and content effectiveness.

Employee engagement

Human Resources staff created engagement plans for each region to promote career opportunities within WSDOT and to engage, develop and sustain the employment of entry-level staff.

Activities have included:

- Hosting tours.
- Guest speakers and panels.
- Career advancement seminars.
- Job shadows.
- Mentorship program.
- Social events.



Evaluation results for Leading Teams training

Learning objective categories	Reported growth in satisfaction post-training
Emotional Intelligence and Self-Regulation	20.31%
Creating an Environment for the Team	23.04%
Managing Stress, Time, and Energy	30.88%
Driving Results	21.56%

Infant at Work program

As part of an effort to create a modern and flexible work environment and to help with recruiting and retaining employees, WSDOT created the Infant at Work program. This program allows eligible employees who are new mothers, fathers or legal guardians of an infant ages six weeks to six months (or until mobile) to bring their infant to work. WSDOT implemented a pilot on March 1, 2017, and the full program on March 1, 2018.

WSDOT surveyed 18 participant workgroups about the program and received 94 responses. Key findings include:

- 96 percent would recommend the program.
- 66 percent would more likely recommend WSDOT as a place to work.
- Overall satisfaction of program is rated a 4.24 out of 5 (5 being “very satisfied”).
- 4 percent report being “dissatisfied” or “very dissatisfied” with IAW program.
- Effects on productivity are reported at 3.65 out of 5 (with 1 being “extremely negative impact” and 5 being “most positive impact”).
- Supervisors and above rate influence on employee morale at 4.2 out of 5 (5 being “most positive impact”).

Retention

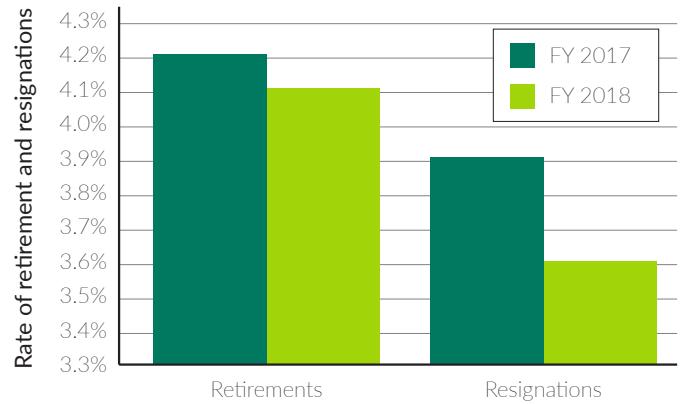
Overall, WSDOT is seeing a lower rate of resignations compared to the data presented in the 2017 Plan. In response to the 2017 Plan recommendations, WSDOT piloted an exit interview in January 2018 to better understand reasons for resignations, with an online survey tool separate from the optional exit interview offered by Washington state Human Resources. However, the response rate has been low and the results have not been meaningful.

71% of WSDOT employees are, in general, satisfied with their jobs.

63% of WSDOT employees would recommend the agency as a great place to work.

Data source: 2017 Washington State Employee Engagement Survey

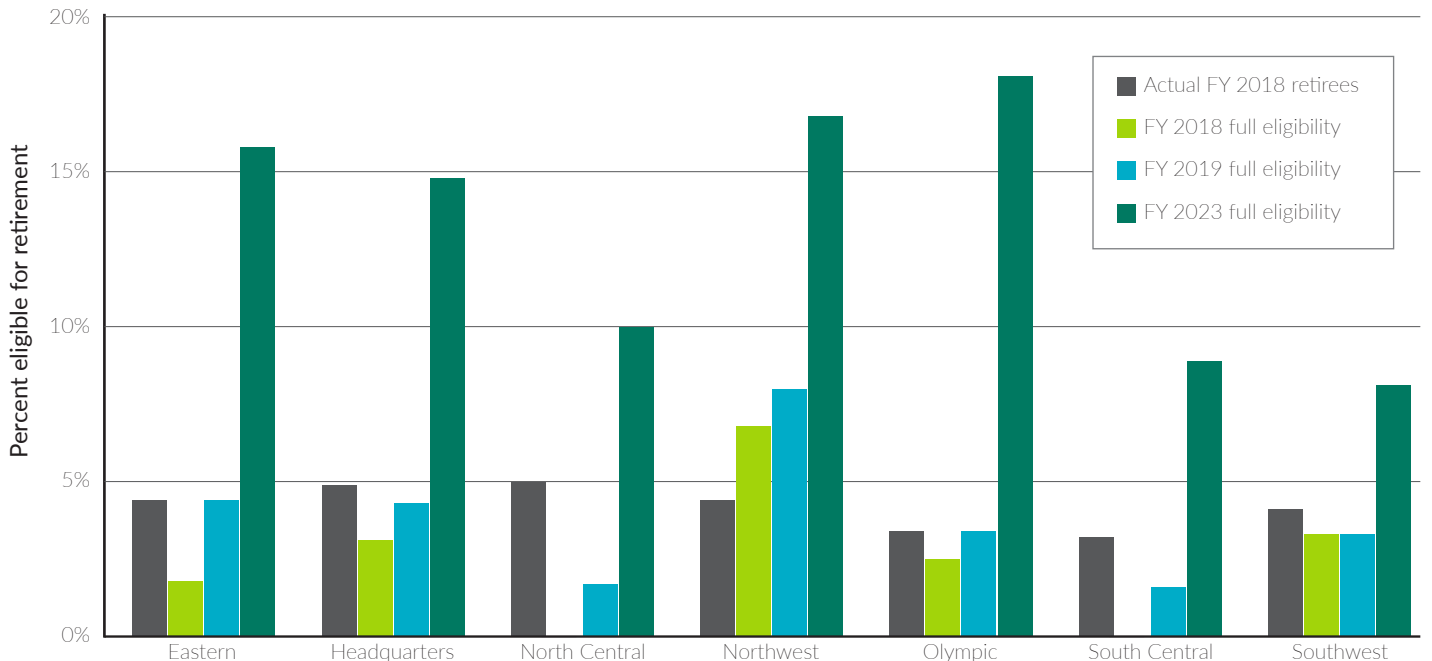
Rate of retirement and resignations for Transportation Engineers, Transportation Technicians and Transportation Technical Engineers



Between fiscal years 2017 and 2018, WSDOT has seen a minor decrease in the rates of retirements and resignations among the key engineering group positions as shown in the graph above.

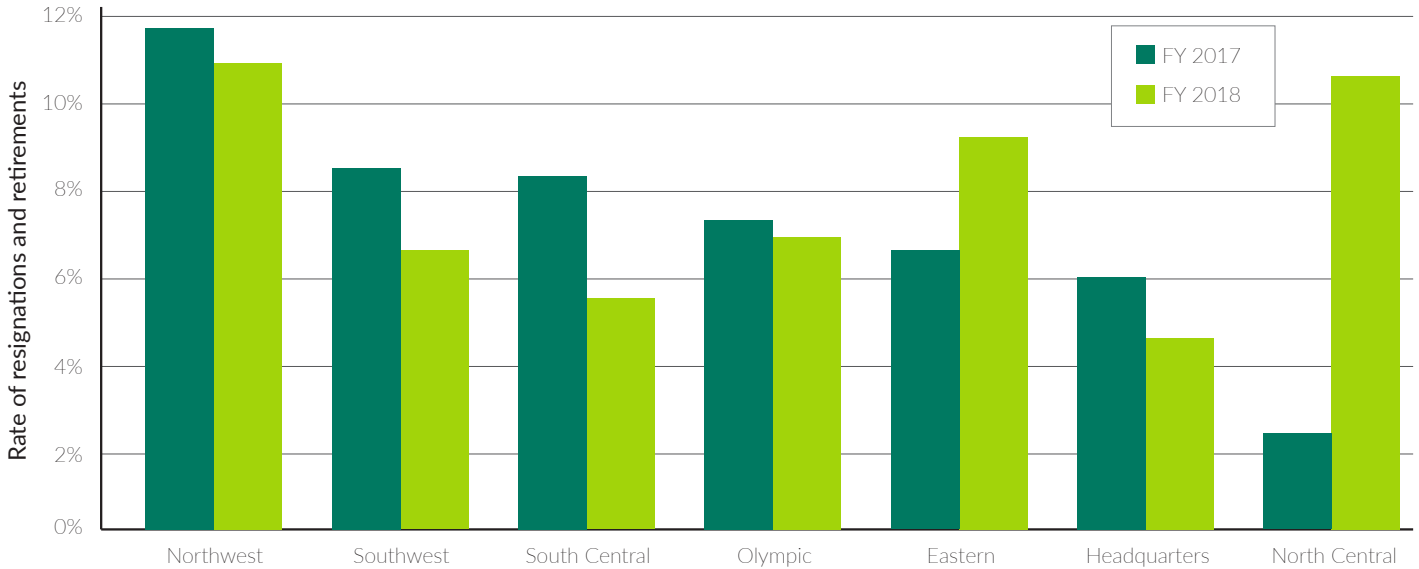
WSDOT’s Office of Human Resources expects that 20 percent of agency staff (1,282 employees) will be eligible to retire with full benefits by 2022 and 42 percent (2,770 employees) will be eligible to retire with reduced or full benefits by 2022. For the engineering group, WSDOT expects that, on average, approximately 13 percent of engineering staff will be eligible for full retirement by 2023, with the highest percentage of eligible staff (18 percent) in the Olympic region. The chart below highlights the percentage of engineering staff by region who are currently retiring or will be eligible in the future for full retirement based on age, years of service and retirement plan criteria. The 2017 Plan included eligible employees with reduced benefits, but the current data only shows eligibility with full benefits because it provides a better estimate of likely retirements.

Percent of engineering staff by region eligible to retire with full benefits by year



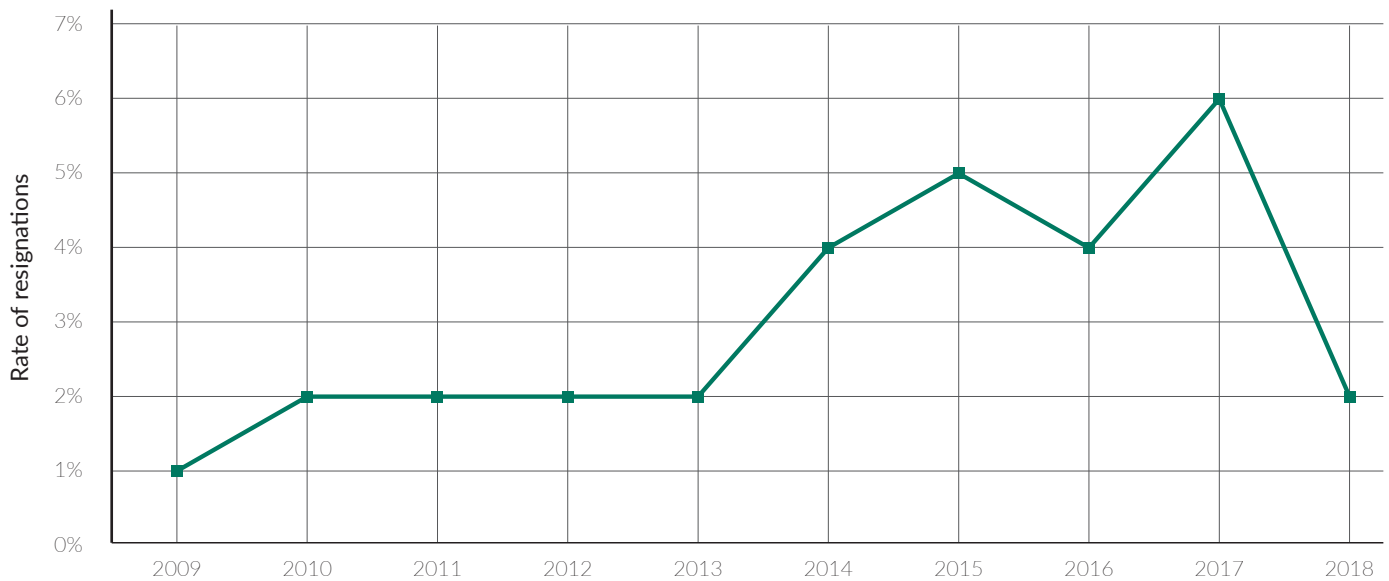
Over the past two fiscal years, the Northwest and Eastern regions have experienced the highest rate of resignations among engineering staff, which in Northwest may be because of the competitive local job market. The chart below identifies resignations by region.

Resignations and retirements for Transportation Engineers, Transportation Technicians and Transportation Technical Engineers by region for FY 2017 and FY 2018



WSDOT also focuses on the rate of resignation among employees with six to 10 years of service. In the engineering group, employees are considered to be experienced and well-trained at six to 10 years of service and are positioned to advance into management positions. From 2006 to 2013, there was a historical average resignation rate of about 2 percent, but this figure jumped to 5 percent in 2015 and over 6 percent in 2017. In FY 2018, the rate has declined to be within the historical average.

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



Current staffing pipeline for licensed engineers

The 2017 Plan identified the challenge that fewer engineers have the licensing required to fill staffing gaps when upper-level engineers retire. WSDOT is continuing to track the pipeline for engineering positions as detailed in the figure below comparing the number of positions by level for fiscal years 2017 and 2018. The numbers represent a snapshot in time and only include staff who are hired to fill permanent positions.

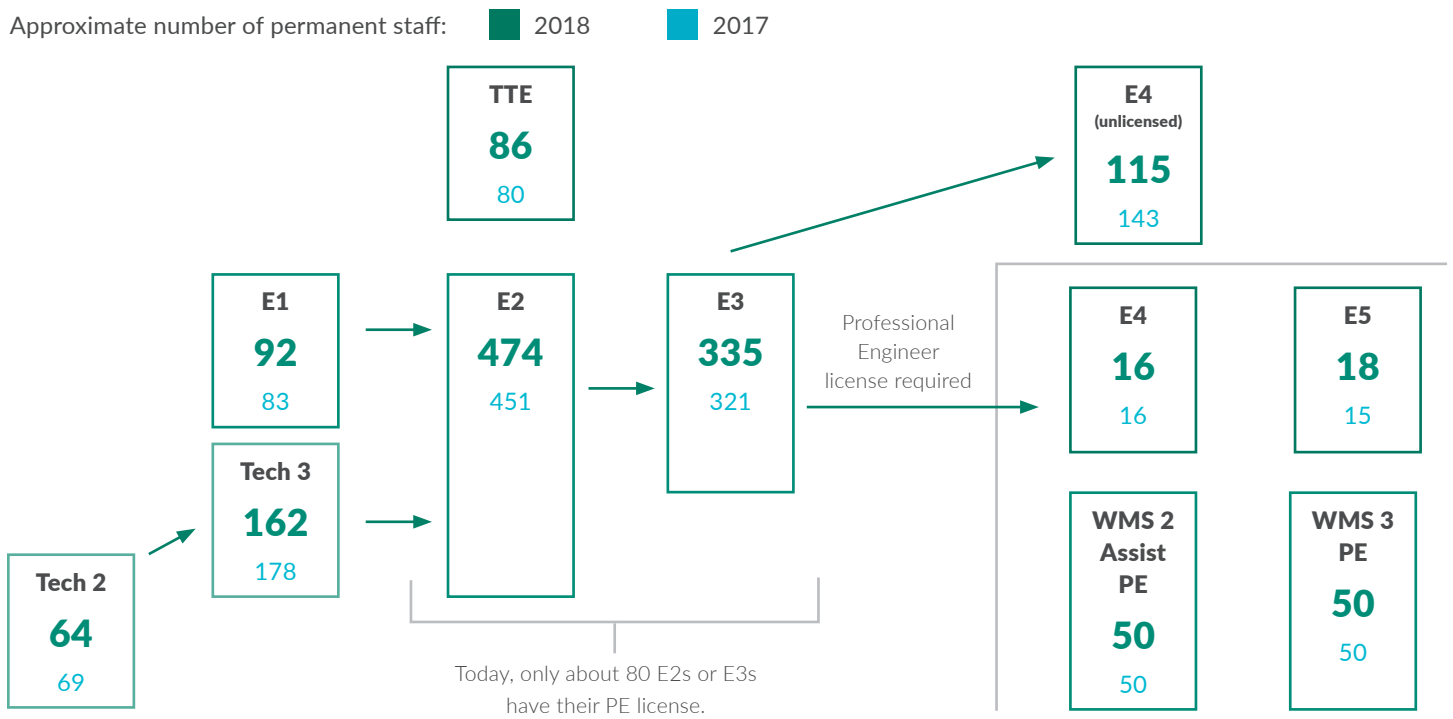
The diagram highlights the engineering segment of the workforce, which includes the following positions:

- Transportation Technicians (2-3)
- Transportation Engineers (E 1-5)
- Transportation Technical Engineer (TTE)
- Washington Management Service (WMS) 2/ Assistant Project Engineer
- WMS 3/Project Engineer

Note:
E4: There were about the same number of positions, but several were vacant. Some may be filled in the future, some are in the process of being reclassified, and others may be eliminated.

WSDOT technician and engineer series

(Snapshot as of August 2018)



Competitive compensation

WSDOT attributes the reduced rate of retirements and resignations in part to the 7.5 percent salary increase for specific WSDOT positions in the engineering and technical workforce, which took effect July 1, 2017. Human Resources staff report that the increase may have prompted some employees to delay retirement and has helped with retention.

However, according to Washington State Human Resources' 2018 salary survey among 43 employers, WSDOT continues to offer below-market rates for several engineering job classes and is among the lowest for public employers in the state, as shown in the table on the right.

Job series	Percent behind market 2016	Percent behind market 2018
Transportation Technical Engineer	38.5	44.8
Transportation Engineer 1	38.5 ³	44.7
Transportation Technician 1	29.6	24.5
Transportation Planning Technician 1	26.3	18.5

³ Additionally, despite the 7.5 percent increase provided to the Transportation Engineering series in 2017, those classifications fell further behind the salary market (by over 6 percent) as noted in the continued and growing wage gap between the 2016 and 2018 salary survey.

As identified in the 2017 Plan, the lack of licensed professional engineers available to move up into management positions has been an ongoing challenge for WSDOT. In order to address this issue, WSDOT and PTE Local 17 worked together to negotiate a one-time \$5,000 bonus for Transportation Engineer 2s or 3s who obtain their Professional Engineering license starting in July 2019. An individual must work for WSDOT for two years after obtaining the bonus or will be required to reimburse WSDOT. As this outcome was part of a larger collective bargaining agreement between PTE Local 17 and WSDOT, the agreement will still need to be ratified by PTE Local 17 members and also accepted by the Legislature during the 2019 Legislative session.

As part of the same collective bargaining process, all employees with official duty stations in King County are slated to receive a 5 percent salary increase in July 2019, in addition to cost-of-living increases slated to apply to all employees statewide. Although this 5 percent salary increase is not specific to just WSDOT engineers and technicians, it begins to address a component of the overall compensation gap that exists across numerous engineering and technician classifications.

Industry outreach

From July 2017 to July 2018, WSDOT conducted the following outreach to share information about the strong owner strategy among industry stakeholders:

- 18 meetings with organizations including WAPA, Apprenticeship Utilization Advisory Committee, AGC and JTC.
- 23 meetings with ACEC dealing with geometric and structural standards and procedures as well as administrative procedures.
- Regular meetings between WSDOT executives and the ACEC leadership team to help provide direction to the WSDOT/ACEC workgroups, share perspectives on challenges related to delivering the Highway Construction Plan, and discuss WSDOT FTE and consultant utilization and upcoming projects.
- Three email updates to WAPA, AGC and JTC.

In lieu of the survey recommended in the 2017 Plan to gain feedback from industry, Stakeholder Advisory Committee members and WSDOT decided to gather qualitative input through discussions at regularly scheduled WAPA and AGC forums in both western and eastern Washington and by involving contractors at the statewide PE meeting. To date, WSDOT has received the following feedback from AGC, WAPA and ACEC members:

- The “strong owner” goal resonates.
- Stakeholders feel included and involved.
- WSDOT listens and make changes.
- WSDOT’s emphasis on partnering is productive.
- WSDOT should continue with regular forums (e.g., AGC, WAPA, annual statewide PE meeting).
- WSDOT should maintain key personnel.
- Providing flexibility as an owner is good.

Members also provided specific feedback in relation to design-build:

- Request to simplify design-build procurements for smaller projects.
- Challenges with the consultant workforce.
- Desire to loosen up requirements to allow new firms into the mix.
- Interest in what the industry can help support.

Additionally, the outreach with ACEC has resulted in the following outcomes:

- Rescinding the temporary restriction on direct labor rate adjustments.
- Working closely with new and smaller firms on the Safe Harbor Indirect Cost Rate.
- Addressing Disadvantaged Business Enterprise and Minority, Small, Veteran and Women’s Business Enterprise goals through the Disparity Study, new goals and a policy update.
- Allowing digital signatures for contracting.
- Modifying WSDOT’s on-call contracting to the new prequalification contracting model.
- Incorporating geotechnical consultants into the structural committee.
- Reviewing various technical updates to the Bridge Design Manual and WSDOT design-build contracts.
- Extensive conversations on the new and evolving WSDOT Basis of Design approach.

Goal 2: Sustainable staffing levels

In the 2017 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 2017 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, PTE Local 17 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 2017 Plan to align with the anticipated spending outlined in WSDOT's 2018 Improvement and Preservation 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 and FTEs



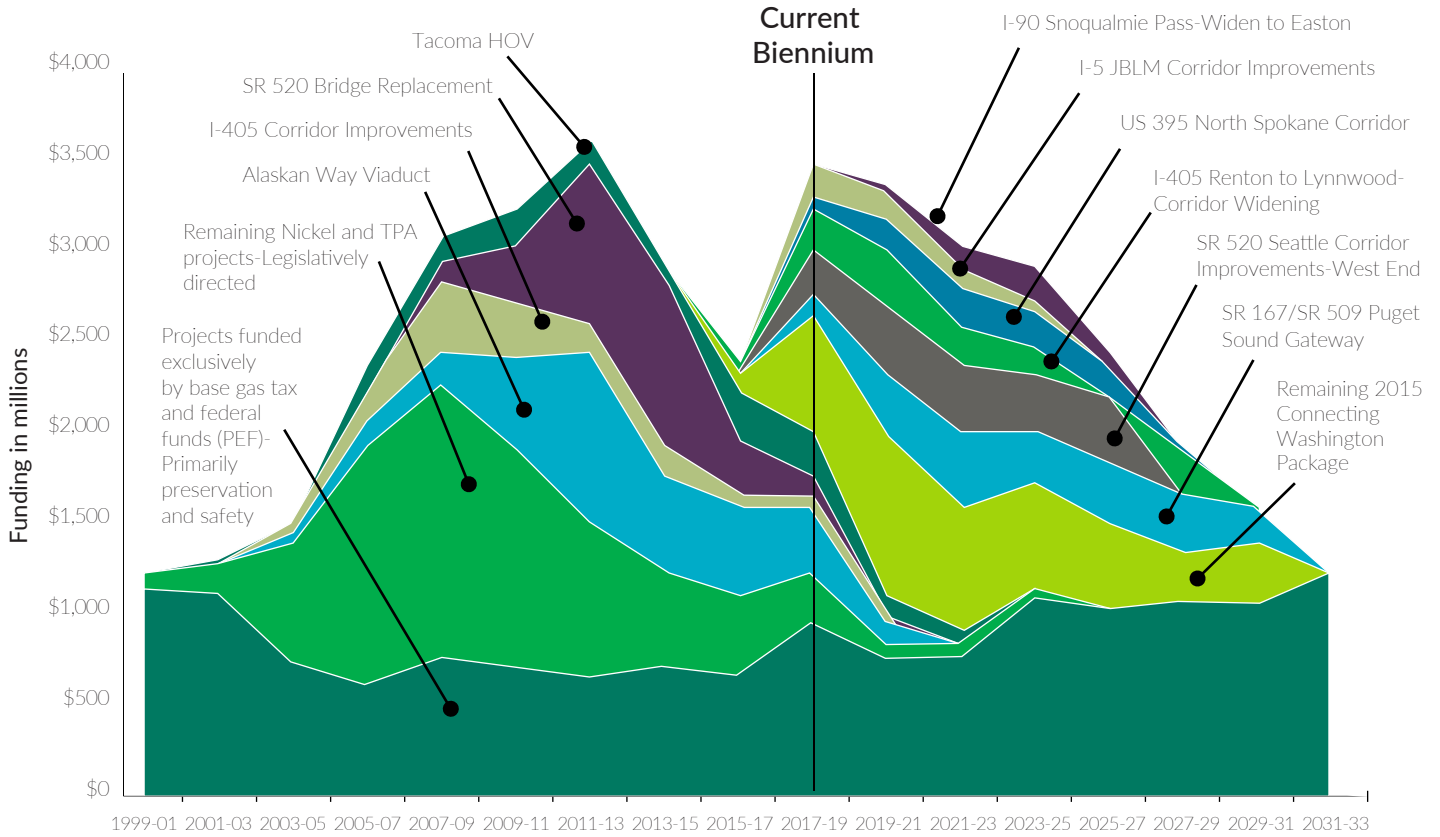
⁴ 2017-19 values represent current biennium to date actual and remaining expenditures.

⁵ 2017-19 values represent current biennium to date average monthly FTE expenditures.

WSDOT Highway Construction Program with revenue packages (2018 Legislative final budget)

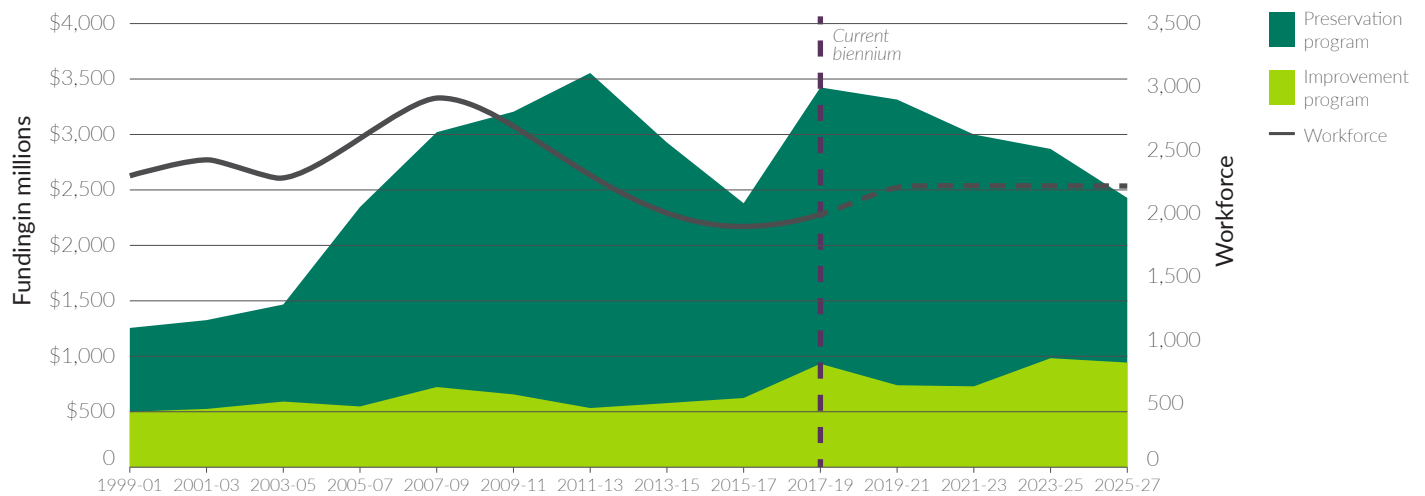
WSDOT's future workforce projections assume the following increase in the number of projects from Connecting Washington investments:

- Design-build projects: \$7.5 billion (60-100 projects).
- Design-bid-build projects: \$2.5 billion (300 projects).



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

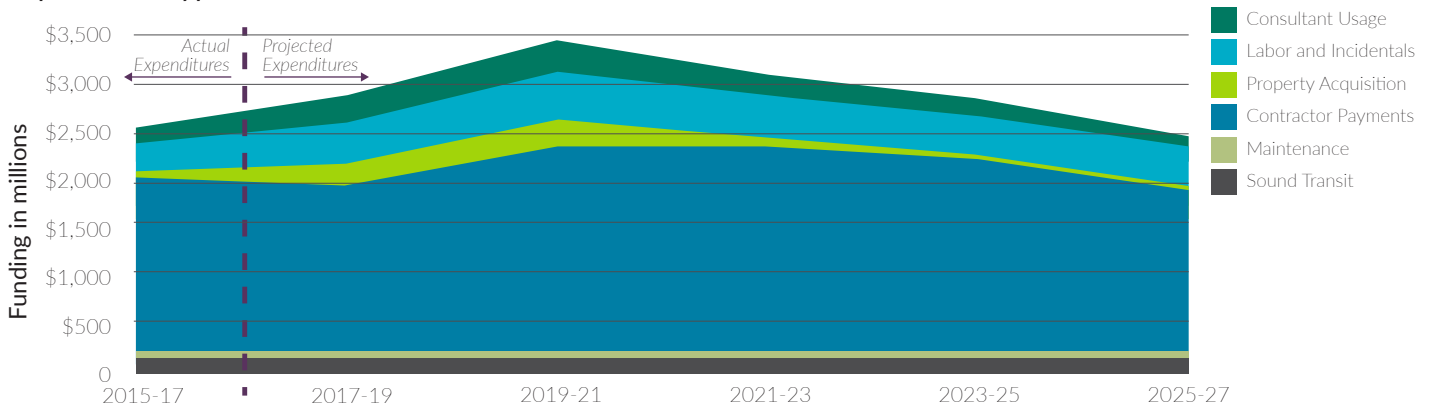
Historic and future program expenditures and FTEs



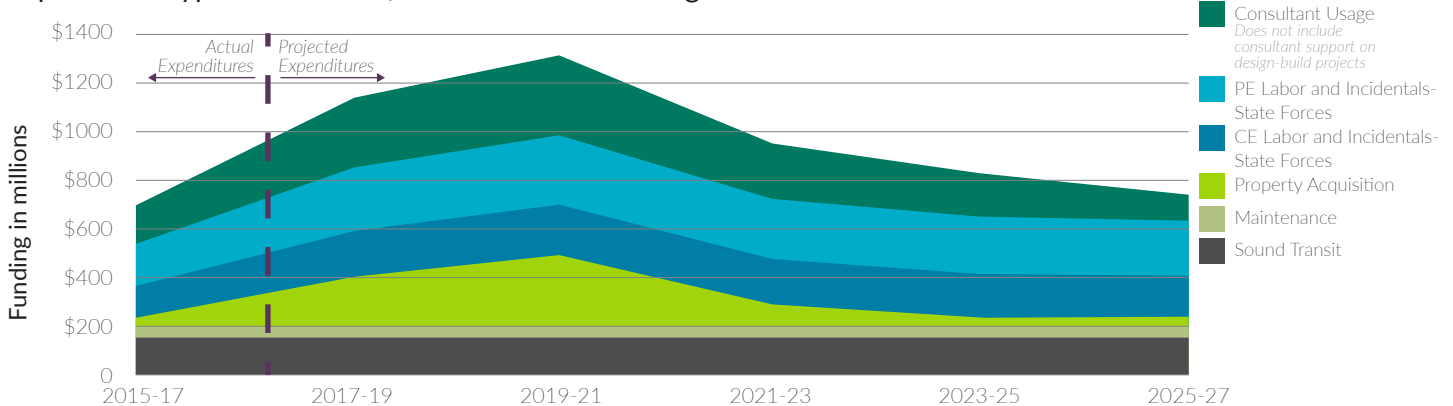
FTE workforce targets

These graphs show estimated consultant usage and WSDOT labor through the 2025-2027 biennium. WSDOT labor expenditures are separated by the preliminary engineering (PE) and construction (CE) phases.

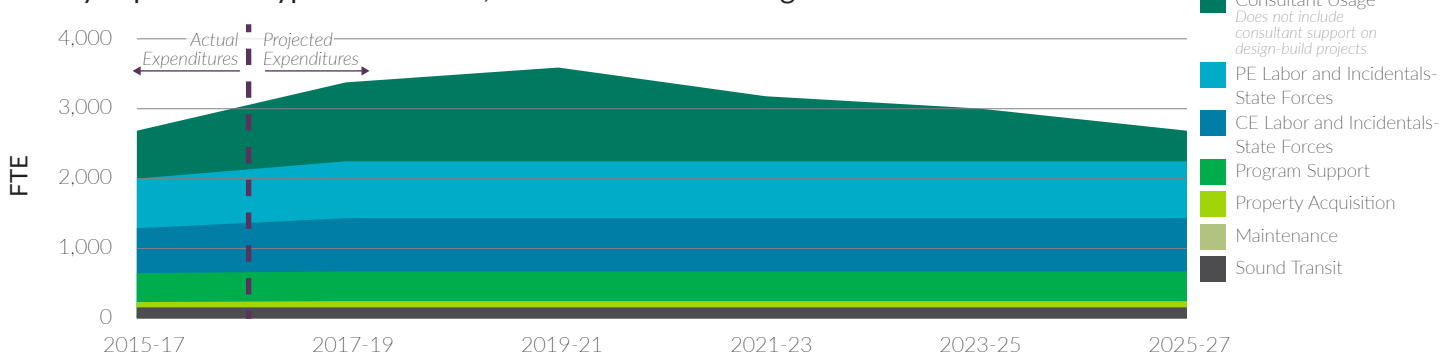
Expenditure type estimate



Expenditure type estimate - 2,200 FTE workforce target



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



Trainings

From March 2017 to July 2018, WSDOT offered the following trainings in partnership with industry:

- 15 Partnering and Conflict Resolution trainings with 412 attendees from AGC and Local Programs.
- Three annual Joint Asphalt Pavement trainings.
- Two WSDOT Civil Rights Program trainings.
- Design-build training with 500 attendees from WSDOT, contractors, local agencies and other departments of transportation.

Goal 3: Project delivery

WSDOT is embracing design-build in project delivery to maximize efficiencies in cost and schedule as our state invests billions of dollars into critical transportation improvements over the next 16 years. The JTC's design-build study issued in December 2016 outlined 29 recommendations for WSDOT.

How is WSDOT doing?

For 2018, WSDOT outlined the following focus areas for design-build:

- Continued refinement of template documents.
- Continued refinement of Design-Build Manual.
- Revision of Quality Management Plan template.
- Development of additional training modules.
- Improvements to design-build procurement process for small design-build projects and fish barriers.
- Continued development of a lessons-learned database.
- Continued development of a methodology to evaluate design-build performance.



As of August 2018, WSDOT has implemented 39 percent of the JTC's recommendations. Progress toward the core elements of the design-build program increased to 89 percent. Additionally, WSDOT is developing a Design-Build Manual to establish and document its design-build policy and processes. The manual is about 70 percent complete, with draft versions of eight of nine chapters published in April 2018 and expected completion by December 2018. Please see Appendix A for a detailed progress report and Appendix B for the implementation schedule.



I-405/SR 167 Interchange Direct Connector design-build project under construction in summer 2018

Next steps

WSDOT will reconvene the Stakeholder Advisory Committee to identify how they will guide the progress of the Construction Program Business Plan leading up to the next biennial report to the Legislature. The committee will meet quarterly and weigh in on whether to update or add any new recommendations.

Throughout the next two years, WSDOT task leads will move forward with implementing the identified strategies and tracking their objectives.

WSDOT will provide the second biennial progress report to the Legislature on Sept. 30, 2020.

For more information contact:

Kevin J. Dayton, WSDOT Assistant Secretary, Regional and Mega Programs

DaytonK@wsdot.wa.gov

(360) 705-7032

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APPENDIX A

JTC DESIGN-BUILD STUDY PROGRESS REPORT

Table 11.2: Recommendations and Implementation Considerations – Progress Update

	Recommendation	Implementation				Benefits ⁽³⁾	
		Timing	Cost ⁽¹⁾		Difficulty		Status (% Complete)
(1) DB Program Development & Management	A. Develop and/or update WSDOT’s standard DB procurement and contract forms	1-6 months	<\$100k	O	Low	100 (on-going)	2 3 ←
	B. Finalize and issue updated DB manual	6-18 months	\$100 - \$500k	O	Moderate	70	2 ←
	C. Develop and implement an internal and external rollout strategy for programmatic documents	6-18 months	<\$100k	O	Low	100 (on-going)	2 3
	D. Maintain and update the contract document templates and DB Manual as additional recommended policies or procurement strategies are adopted	> 18 months	<\$100k	R	Low	25	2 3 ←
	E. Establish and maintain a database of DB lessons-learned	1-6 months	<\$100k	R	Moderate	10	1 2 3 ←
(2) Staffing and Training	A. Increase DB Headquarters staff	1-6 months	\$100 - \$500k	O	Moderate	100	1 2
	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	50	3 4 5 6 ←
	C. Designate technical experts within DOT to support DB teams	6-18 months	<\$100k	O	Low	50	1 2
	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	20	3 4
	E. Optimize use of consultants	> 18 months	---	-- ²	Low	25	2 4

(1) Not all costs require a new appropriation or new funding. One-time \$ = O, Recurring \$ = R. WSDOT will need to determine which of these recommendations require additional funding, and which they can accomplish within their existing budgets.

(2) No cost policy change and/or cost savings

(3) See key of benefits below.

← 2018 Focus Areas

Benefits

- | | | |
|--|--|--|
| 1 Reduce errors and conflicts | 5 Accelerate project delivery | 9 Increase competition |
| 2 Improve DB program consistency | 6 Save project cost | 10 Improved budgeting |
| 3 Improve efficiency of DB execution | 7 Reduce change orders/cost growth | 11 Improve quality/evaluation of proposals |
| 4 Increase and retain staff competency | 8 Enhance opportunities for innovation | 12 Improve communication & collaboration |

Table 11.2: Recommendations and Implementation Considerations – Progress Update

	Recommendation	Implementation				Benefits ⁽²⁾	
		Timing	Cost ⁽¹⁾	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	6
	B. Consider market conditions and availability of DOT resources when determining the scope and size of contract packages	> 18 months	<\$100k	R	Low	20	7 9
	C. Develop and implement performance specifications	6-18 months	\$100 - \$500k	O	Moderate	10	6 8
	D. Perform appropriate levels of front-end investigation	1-6 months	\$100 - \$500k	R	Low	50	6 7
(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	40	3 5 ←
	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	40	3

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(2) See key of benefits below.

← 2018 Focus Areas

Benefits

- | | | |
|--|--|--|
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Table 11.2: Recommendations and Implementation Considerations – Progress Update

	Recommendation	Implementation				Benefits ⁽³⁾
		Timing	Cost ⁽¹⁾		Difficulty	
(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	10 ← ③ ⑥ ⑨
	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 team	> 18 months	<\$100k	O	Low	30 ⑦ ⑪ ⑫
	C. Optimize the efficiency of the ATC process and one-on-one meetings	6-18 months	---	-- ²	Low	50 ③
	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 into current design standards	> 18 months	<\$100k	R	Moderate	20 ② ③
	E. Ensure the objectivity of the proposal evaluation process	6-18 months	---	-- ²	Low	40 ⑪
(6) Budgeting & Cost Estimating	A. Work with legislative staff to more effectively appropriate funds for DB projects	1-6 months	<\$100k	O	Moderate	25 ⑩
	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 ⑩

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← 2018 Focus Areas

Benefits

- | | | |
|--|--|---|
| ① Reduce errors and conflicts | ⑤ Accelerate project delivery | ⑨ Increase competition |
| ② Improve DB program consistency | ⑥ Save project cost | ⑩ Improved budgeting |
| ③ Improve efficiency of DB execution | ⑦ Reduce change orders/cost growth | ⑪ Improve quality/evaluation of proposals |
| ④ Increase and retain staff competency | ⑧ Enhance opportunities for innovation | ⑫ Improve communication & collaboration |

Table 11.2: Recommendations and Implementation Considerations – Progress Update

	Recommendation	Implementation				Benefits ⁽²⁾	
		Timing	Cost ⁽¹⁾	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: <ul style="list-style-type: none"> – Project development (i.e., level of design development and front-end investigation) – Procurement (evaluation criteria) – Contractual risk allocation 	6-18 months	<\$100k	O	Moderate	40	7
	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	12
(8) Project Execution	A. Dedicate staff as necessary to the full project-lifecycle (design and construction phases)	1-6 months	<\$100k	O	Moderate	40	3 4 12
	B. Dedicate experienced staff with delegated authority to the design oversight function	6-18 months	\$100 - \$500k	O	Moderate	30	2 3 4
	C. Conduct project-specific workshops for larger or complex DB projects	6-18 months	<\$100k	R	Moderate	10	2 3 4
	D. Optimize quality management for smaller projects	6-18 months	<\$100k	O	Low	10	3 6 ←

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(2) See key of benefits below.

← 2018 Focus Areas

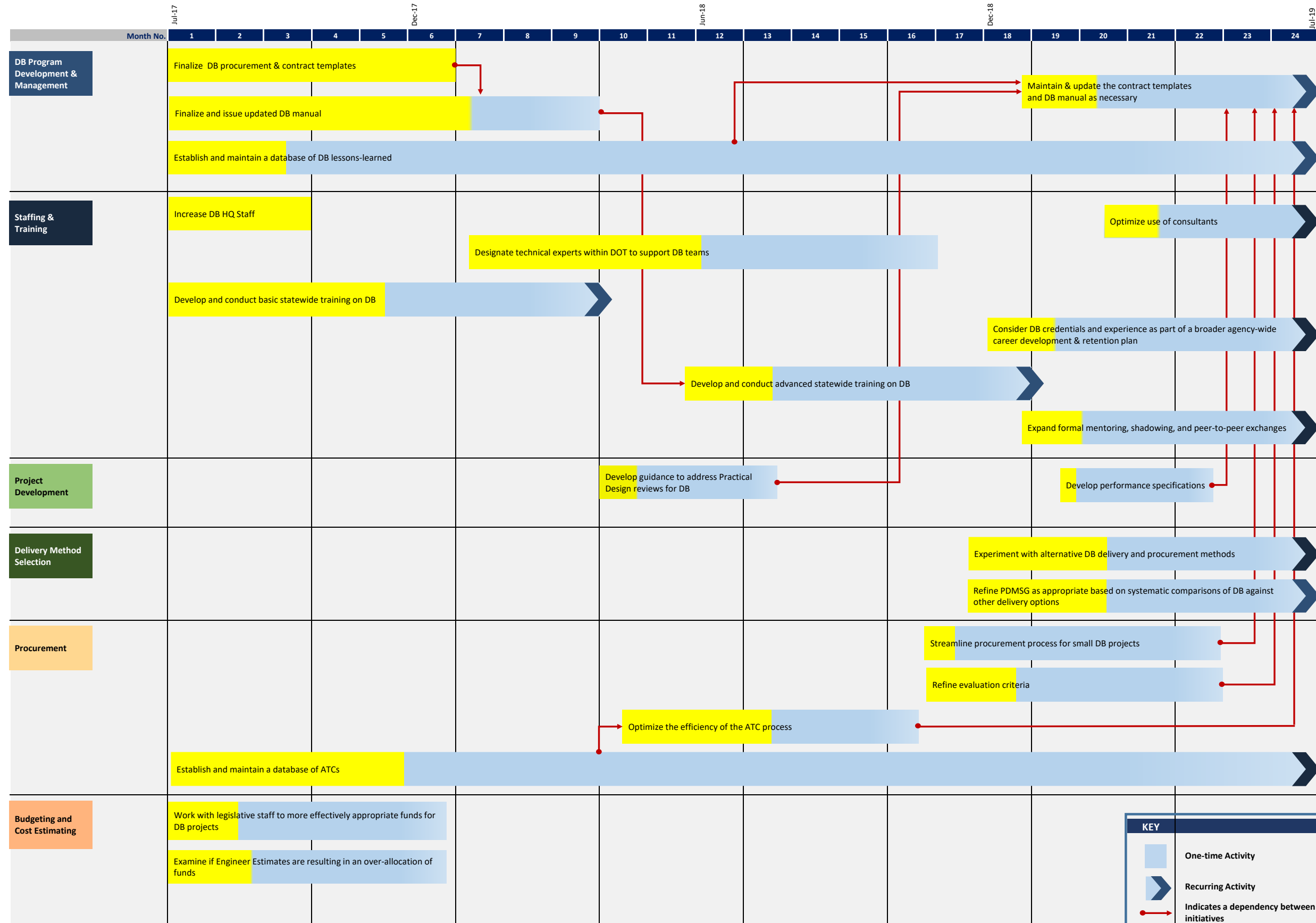
Benefits

- | | | |
|--|--|--|
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APPENDIX B

JTC DESIGN-BUILD STUDY IMPLEMENTATION PLAN

Implementation Timeline Progress Update



KEY	
	One-time Activity
➤	Recurring Activity
	Indicates a dependency between initiatives

Figure 11.1: Implementation Timeline