

# Method of Delivery Review

*Creating a sustainable engineering and technical workforce at WSDOT for the 21<sup>st</sup> century*

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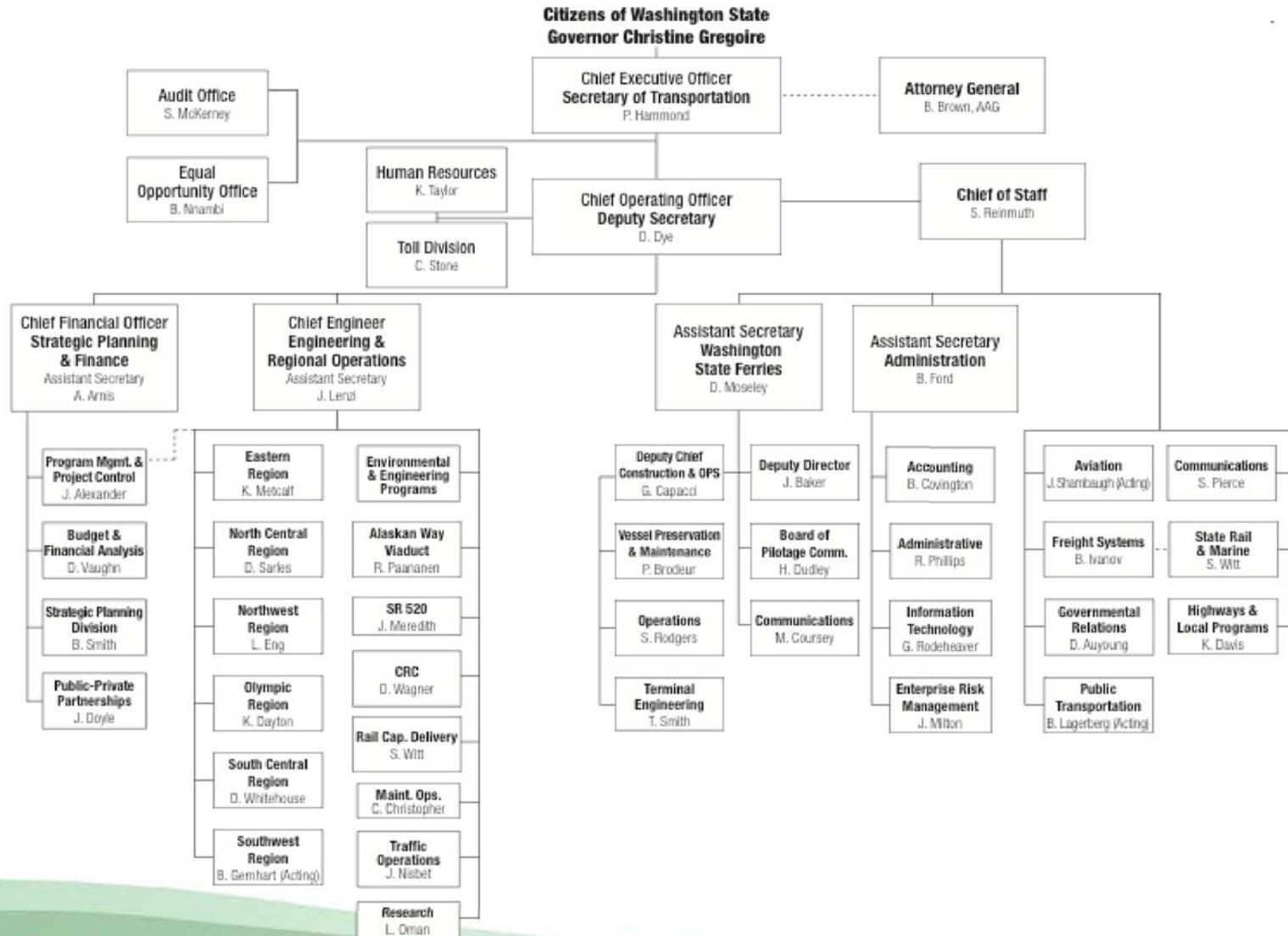
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**February 15, 2011**

# Overview

- Where we've been
  - How we deliver engineering and technical services
  - Workforce sizing
  - Consultant utilization
  - Innovation and efficiency efforts
- Where we are
  - Engineering and technical staffing levels
  - Reducing WSDOT's workforce
- Where we're heading
  - Lessons learned and current challenges
  - Different business model for the future
- What we will always be
  - Strong stewards for protecting state owned assets and expenditures
  - Responsible for transportation operations and investments

# WSDOT is a Matrix Organization



# Delivering Engineering and Technical Services

Engineering and technical workforce split between centralized functions and decentralized functions:

- Centralized functions are those typically done in a headquarters office
  - Nature of work - policy, protocol, strategic initiatives, budget development, program oversight, performance measurement and reporting
  - Economies of scale - repetitive or specialized work, materials lab, some design and environmental work
- Decentralized functions are those typically done in a region or field office
  - Design work
  - Construction contract administration, oversight, inspection, quality assurance
  - Operations
  - Project delivery
  - Local and geographic knowledge and expertise

# Considerations That Drive Workforce Sizing

## Program Considerations

- Highway construction program size
- On-going stability (reliability) of program
- Project scopes, schedules and budgets (location)
- Workforce availability, expertise and location
- Selected project delivery method

# Considerations That Drive Workforce Sizing

## Legal considerations

- Collective bargaining laws
  - *State employees have rights to historical/traditional bargaining unit work*
- Union Agreements
- Budget limitations
  - Budget provisos

# Historical Consultant Utilization

- WSDOT historically self-performs majority of engineering work
  - Split of design work - 75% in house, 25% consultant
  - Split of construction management and inspection – 99% in house, 1% consultant
- Factors affecting use of consultants
  - Business Philosophy
    - Historically, state workforce self-performs work and consultants are used to address “peak workloads” or needs for specialty expertise
  - State workforce knowledge, skills, ability and availability
  - Consultant expertise and availability
  - Scope, schedule and budget for projects
  - Collective bargaining laws
    - *State employees have rights to historical/traditional bargaining unit work*

# New Funding Created a Need For New Approaches

- Program size and schedules exceeded capacity of state to self-perform all work
- WSDOT focused on “strong owner” role
- Design split of 46% in house, 54% consultant (PE expenditures)
  - Varied by location and project
  - Puget Sound mega-projects typically much higher consultant use

# Innovations Implemented

- Workforce balancing - Internal workforce sharing statewide across regional and functional boundaries
- Responsiveness - General engineering consultants (GEC)
- More alternative contracting - Design-build, A (cost) + B (time) bidding, fixed priced, variable scope contracts
- Risk identification and management - Cost risk analysis and CEVP
- Environmental Permit Streamlining - Multi-agency permitting process
- Greater focus on performance contracting - Contract incentives and damages
- More job bundling - Combining of multiple projects into one contract to lower public impacts or costs and gain administrative efficiencies

# Current Efficiency Efforts

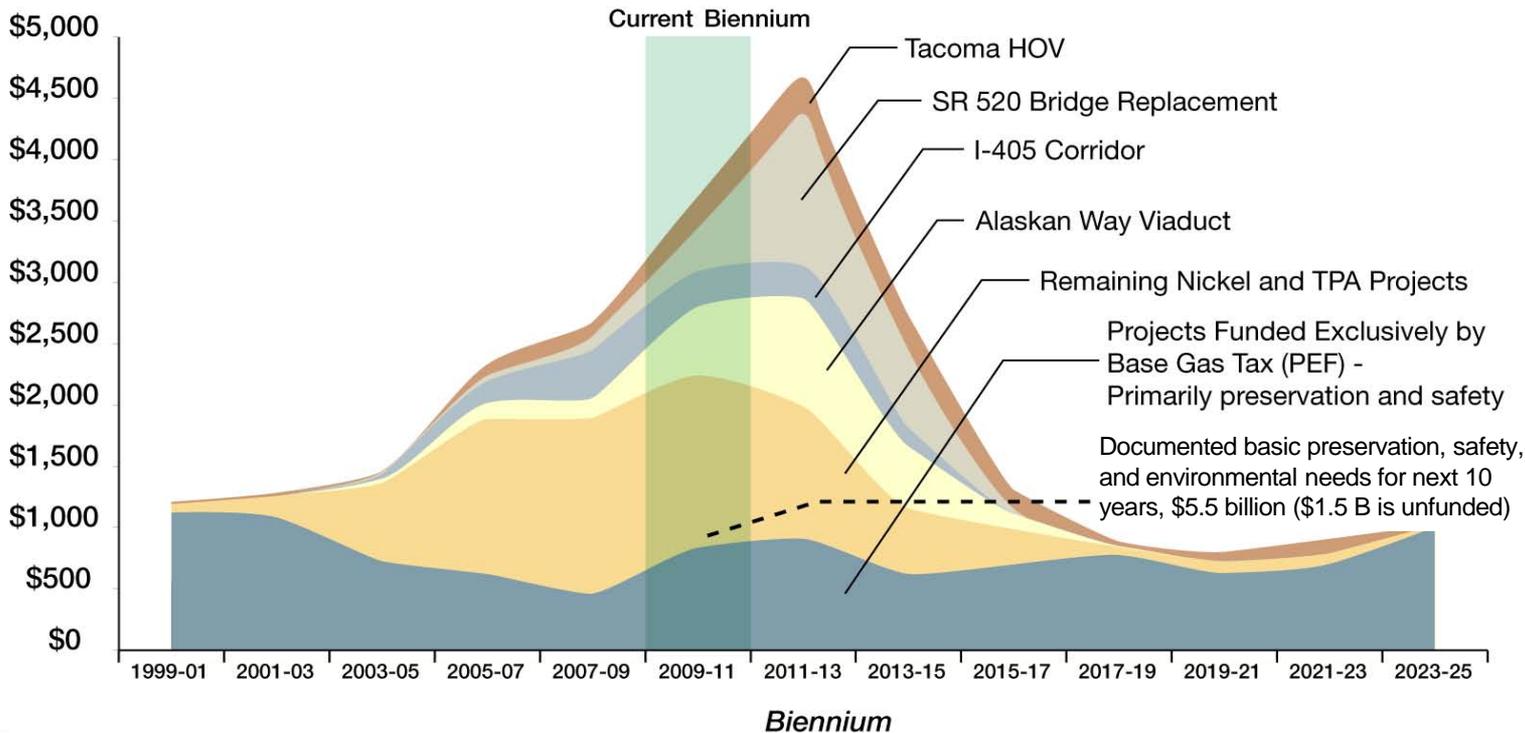
- Strategic planning and initiatives
  - Low-cost solutions
  - Technology solutions
  - Process improvements
- Overhead reductions
  - Reducing \$65 million in 09-11 and 11-13 in administrative and overhead costs throughout agency
- On-going programs
  - Value engineering
  - Cost reduction inventive proposals (CRIP)
  - Construction contract partnering
  - Materials and methods research and development

# WSDOT Highway Construction Program

All funds from the 2003 and 2005 gas tax increases are committed.

2011 Governor-proposed budget request - program total with select mega-projects highlighted

Dollars in Millions



74% of highway program dollars are contracted to the private sector.

\$6 B of the \$15.5 B in Nickel and TPA will be delivered through our design-build program.

54% of the design effort for Nickel and TPA was delivered by consultants.

Source: WSDOT Capital Program Development and Management Office

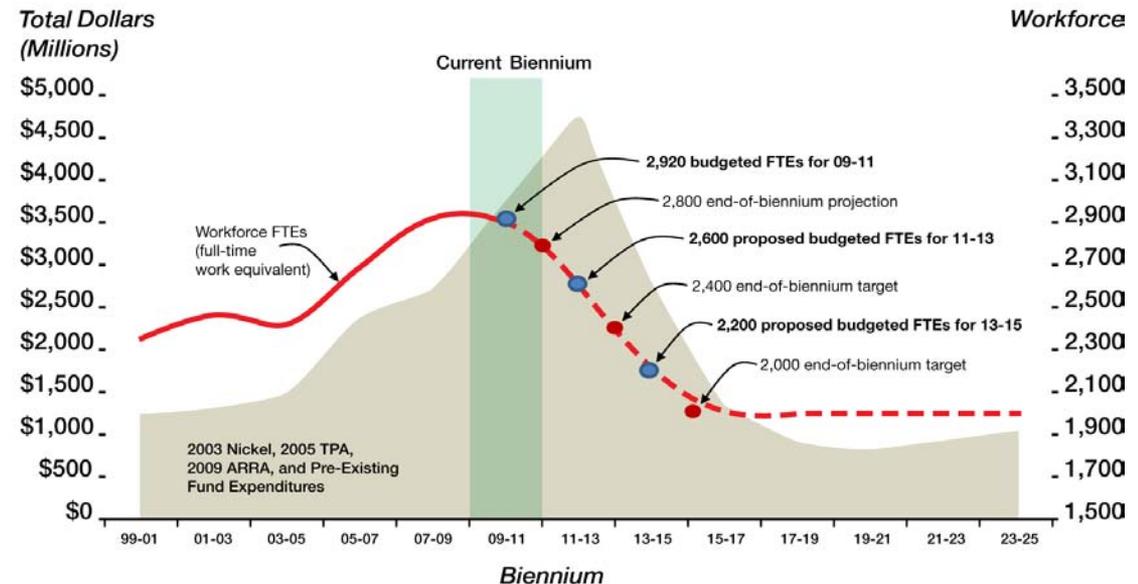
# Engineering and Technical Staffing Levels

- No new revenue future
- Overall program size and composition drives need for smaller workforce
  - Phase of work
  - Amount of work
- Managing transition is challenging
  - Deliver the program
  - Future uncertain

## 2011 Agency budget request (November update) – Highway Construction Program

### Program Expenditures and Workforce Projection

*Includes the improvement and preservation programs with two exceptions: Excludes expenditures for the Tacoma Narrows Bridge and expenditures in the improvement program reimbursed by Sound Transit.*

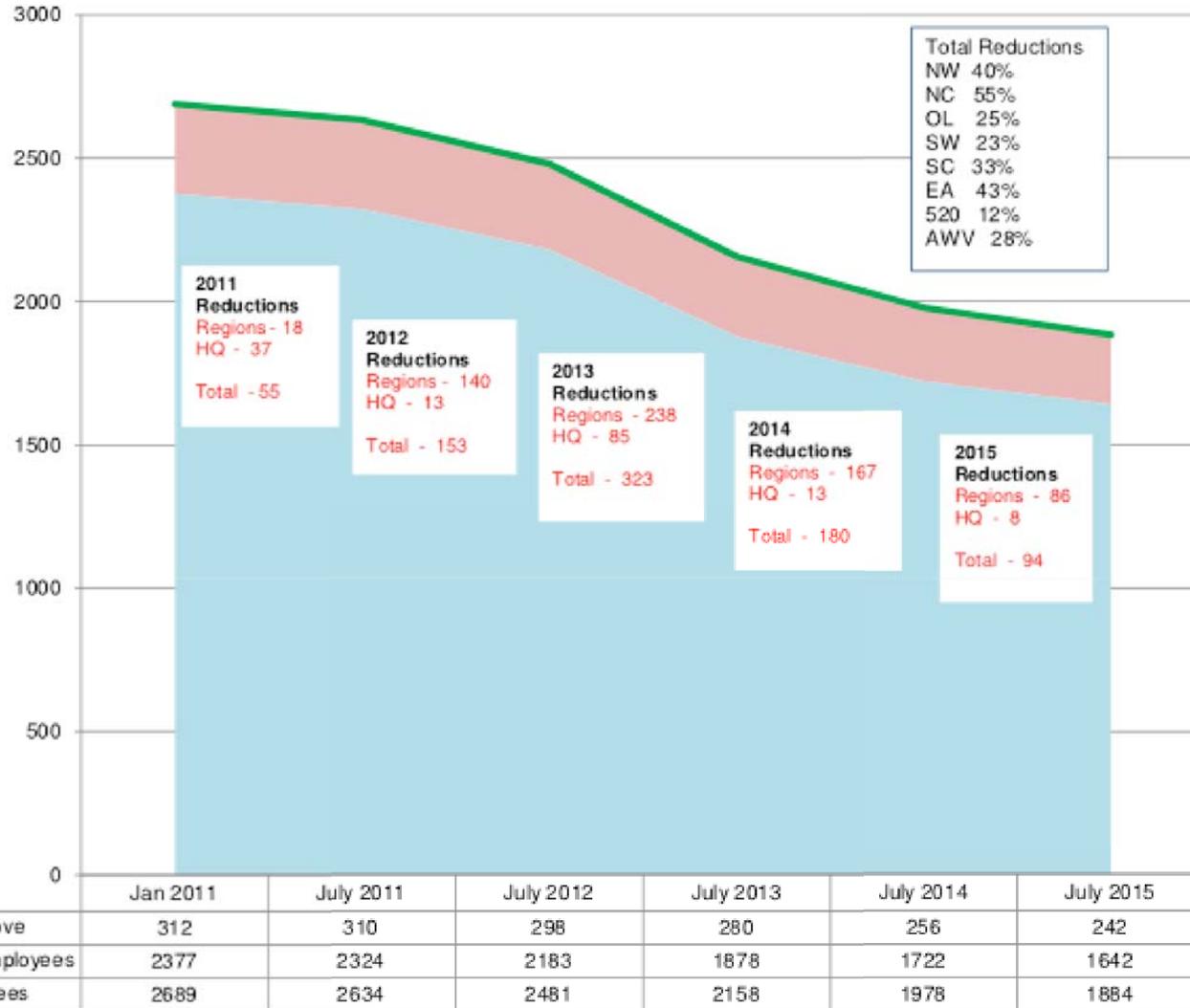


# Reducing WSDOT's Workforce

## Employees at all levels of organization will be affected

- Basic approach:
  - About 200 employees per year on average, each year for four years
  - Program reductions and changes drive who, where and when
  - Predictable layoff cycle - annually
  - Seniority driven
  - At-risk letters for fall 2011 reduction
    - Some RIF's have already occurred, others are scheduled
- RIF avoidance tools
  - “Normal” attrition
  - Voluntary Separation Program incentives
  - Employee resource center

# Engineering and Technical Staffing Reductions



# What We Have Learned

- Workforce management during large program increases/decreases are challenging and disruptive. In hindsight:
  - Very successful delivery of large capital program (Nickel and TPA)
  - Workforce was grown to “appropriate level” based on key assumptions
    - Many of our assumptions were correct
    - Even so, difficult to plan 10 year workforce with so many variables
      - Attrition rates/retirements did not occur given the economy
      - Prop 1 failed (Puget Sound Regional Transportation District)
  - Level of current staffing not sustainable over time (even with new revenue)

# Our Challenge

- What changes to our business model and authorizing environment are necessary to make the transition to a “core workforce?”
- WSDOT should transform to reduce the need to significantly expand and contract as program levels ebb and flow over time.
- Secretary Hammond requested agency team to conduct a comprehensive review of our current business practices related to engineering and technical services

*Key goal:*

***Building on our recent experiences and lessons learned, develop and implement a different business model and staff at the “core workforce” level for WSDOT engineering and technical support staff.***

# Method of Delivery Review

- Team formed
- Meeting regularly
- Updated business model (work process) guiding questions
  - Can some work be eliminated? What work?
  - Can some work be shifted to others? What work can be consolidated?
  - If work is shifted is risk shifted as well? How do we best assign risk?
  - Is some work better completed in a centralized, regionalized, or decentralized manner?

# Assumptions

- Our business and delivery model will be different
- WSDOT engineering and technical services core workforce is sized at a level supported by long-term preservation and safety program levels
- Cap of 2000 FTE's by end of 2015 for programs: Improvement (I) and Preservation (P); reduction of approximately 800 FTE's based on current law budget
- Impacts to multiple budget programs
- More work will be done by the private sector
- Planning for three potential future scenarios:
  1. New revenue
  2. No new revenue – current law
  3. Less revenue
- WSDOT maintains all federal certifications and retains eligibility for receipt of federal funds

# Desired Future

- WSDOT delivers high quality projects on time and on budget.
- WSDOT fosters a work environment that encourages open communication and promotes positive employee morale.
- WSDOT managers strategically maintain the right balance between contracted work and self performed work in order to keep a nimble, flexible, and right-sized workforce while always maintaining a “strong owner” role to protect the public’s assets and past, current, and future investments.
- WSDOT is a leader in the design and construction of transportation projects.
- WSDOT employees have a career path that provides a variety of opportunities – WSDOT is an employer of choice.
- WSDOT employees have the education, experience and training necessary to perform work or effectively administer others contracted to perform work.

# Desired Future, *continued*

- WSDOT managers strategically maintain the engineering and technical workforce at sustainable levels and avoid costly and disruptive staffing level fluctuations.
- WSDOT managers and employees value the engineering and technical services provided by the private sector and are committed to building and maintaining strong partnerships to effectively deliver transportation projects.
- WSDOT processes and procedures are quick and responsive to rapidly changing construction program levels. WSDOT's overhead is the minimum necessary to ensure appropriate compliance with federal, state and local regulations.
- WSDOT processes and procedures support appropriate risk-taking and facilitate timely and creative problem identification and resolution.

# Developing a Different Method of Delivery

## Structure

- WSDOT's basic matrix structure (HQ and regions) is beneficial
  - OneDot alignment
- Need to retain region structure
  - Provides the necessary local access to and administration of WSDOT activities across all lines of business and should be maintained regardless of engineering staff level changes
  - Promotes strong owner
  - Supports preservation, maintenance, and operations focus

# Developing a Different Method of Delivery

*continued*

## Staffing and resources

- Target overall engineering levels at or near projected 10 year sustainable levels (approximately 2000 FTE's) even if new revenue is provided, +/- 10%
- Consolidate support services for efficiencies
- Centralize needed specialized expertise
- Establish more flexible engineering and technical staff positions that shift from “doing” to “overseeing” work during times of larger programs.

# Developing a Different Method of Delivery

## Consultant use and contracting

- Expand use of alternative contracting methods during times of larger programs
  - Up to 75% in preliminary engineering
  - Expand consultant utilization into construction management
- Continue to work closely with industry to identify innovative contracting approaches
  - Design Build on smaller projects
  - Expanded emphasis for performance specifications and expectations
- Shift quality control and assurance to contractors or third party; implement robust quality verification program

# Developing a Different Method of Delivery

*continued*

## Next steps

- Process
  - In progress