

Building a Risk Program

at  **WSDOT**

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Overview

- Why start a risk program
- WSDOT history
- What tools are needed
- Threats of a risk program
- Opportunities of a risk program
- Continuing efforts and helpful hints...

The problem...

- Inaccurate cost estimating has dogged transportation projects for years
- Schedule delays impacted the public unnecessarily
- WSDOT, had a pivotal moment with one project in particular...

Cost Estimate for WSDOT SR 167 Project

- 1990 - Scoping Phase**
\$ 150 million
- 1993 - Draft Tier 1 EIS**
\$ 133 million
- 1999 - MIS Study/FEIS**
\$ 212 million
- 2000 - Preliminary Design**
\$ 972 million
- 2005 – Preliminary Design**
\$2.3 billion



Why did this estimate go wrong?

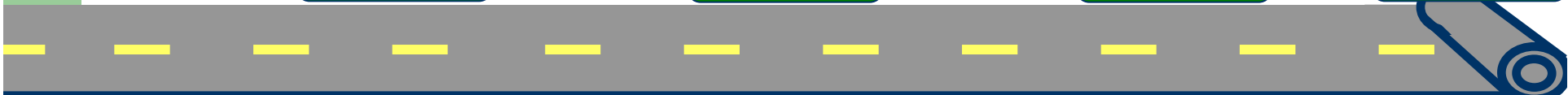
Prior to 1995	1995 – 2000	2000-2005	2005-present
<p>Project Management was more incidental than intentional.</p>	<p>Project Delivery Systems Training Provided (CH2MHill)</p> <p>WSDOT Master Deliverables List, MDL is Developed</p>	<p>WSDOT develops “Managing Project Delivery”, MPD and training</p>	<p>Cost Estimating becomes more prominent in project management, including development of manual and newer tools.</p>
		<p>Project Management Online Guide (PMOG) is developed</p>	<p>Expanding use of Risk Assessment and Risk Management.</p>
<p>Project Engineers managed their offices.</p>	<p>Project Management begins to become deliberate and intentional, not incidental.</p>	<p>WSDOT develops the Cost Estimate Validation Process, CEVP (2002).</p> <p>JLARC review (2005).</p>	<p>WSDOT develops Project Management Reporting Systems (PMRS) now being implemented.</p>
		<p>WSDOT Executive order mandating project management</p>	<p>WSDOT and SPMG Develop and deliver Project Management Academy</p>
<p>Project management type activities were performed when deemed necessary.</p>	<p>Principles of TQM were examined.</p>	<p>WSDOT begins combining VE Studies with risk assessment workshops.</p>	<p>Executive order mandating project management is updated</p>

1995

2000

2005

Ahead



Project Risk Management...

- Risk management integrates naturally into the project management process
- WSDOT benefitted from having an established project management process and training as it entered more aggressively into project risk management

Risk Management within Project Management

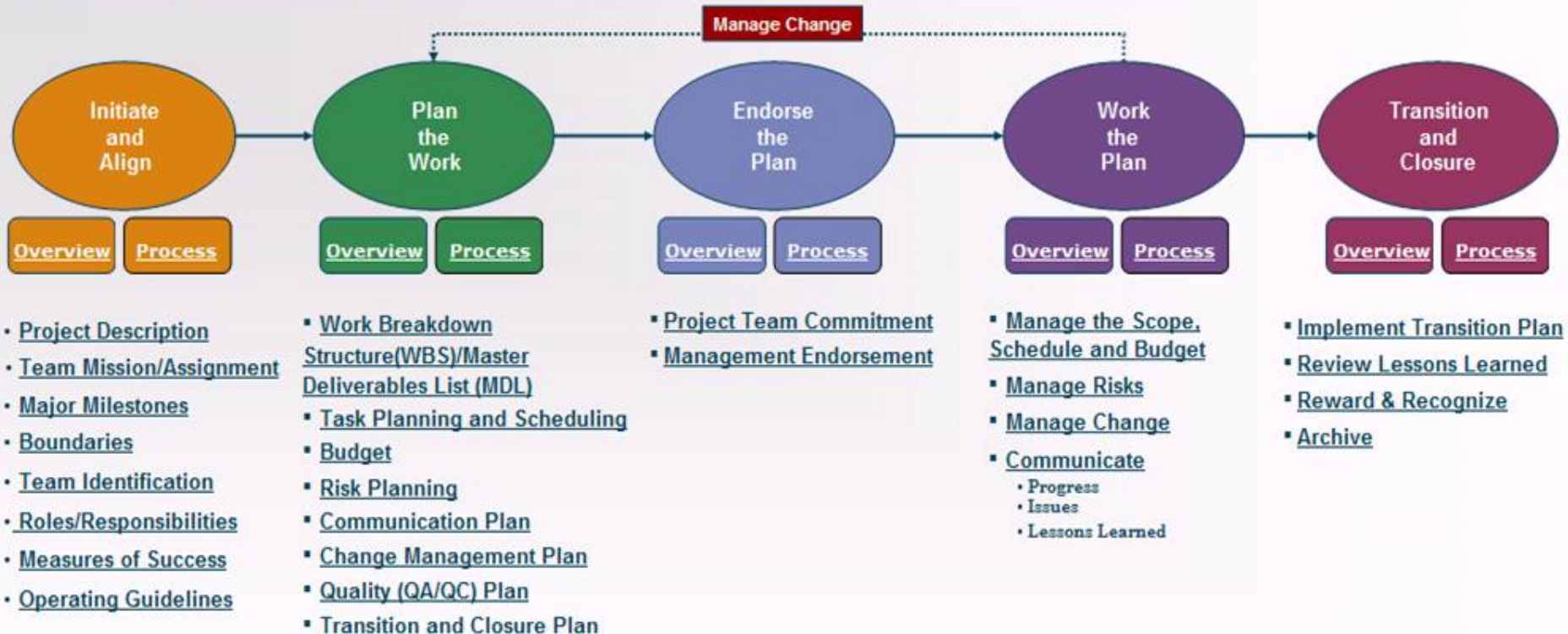
- Project risk management offers:
 - Expanded project insight
 - Actionable information
 - Fewer surprises
 - Recognition of risk and uncertainty
- The public asks how much will this project cost? Do they believe our estimates?

Project Management On-Line Guide

Project Management Online Guide

Pre-Construction

[Construction](#)



Tools Needed

- Executive management support
- Effective estimating and scheduling programs
 - Estimating manual to ensure consistency and completeness of estimates
 - Scheduling software that creates realistic schedule
- Simple and understandable modeling tools
 - Self-modeling spreadsheet allows project managers to use it themselves which builds confidence
- Scalability of tools for pessimistic managers
- Outputs that help the project manager deliver his/her project
 - One pagers

What we learned...

- Have strong support from the top, and enthusiastic participation from all levels
- Have an established project management process
- We must continue to pay attention to the fundamentals (documented, well organized and developed base cost estimates)
- Use experts in the field of risk elicitation and assessment
- Adjust the process to meet the needs of project managers delivering the projects

Top Ten reasons why to implement a Risk Program

- Proactive approach versus reactive mgmt
- Documented Risks and Impacts
- Ability to report the costs in ranges
- Increase in public and legislative confidence
- Educating the public about the challenges that could be encountered with project delivery
- More aggressive and effective risk management
- Cost and schedule savings
- Better understanding of the Project
- Validates cost estimate
- Validates project schedule

Continuing efforts and helpful hints...

- Make “mastering the fundamentals” a priority
- Training, providing and pursuing
- Share what we learn with others – and learn from them
- We continue to seek opportunities for user-friendly ways to integrate project risk management for our project offices
- Emphasize the benefits – many are qualitative and do not lend themselves to quantitative measures

Contact and references

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Questions

