WTD Lessons Learned Program

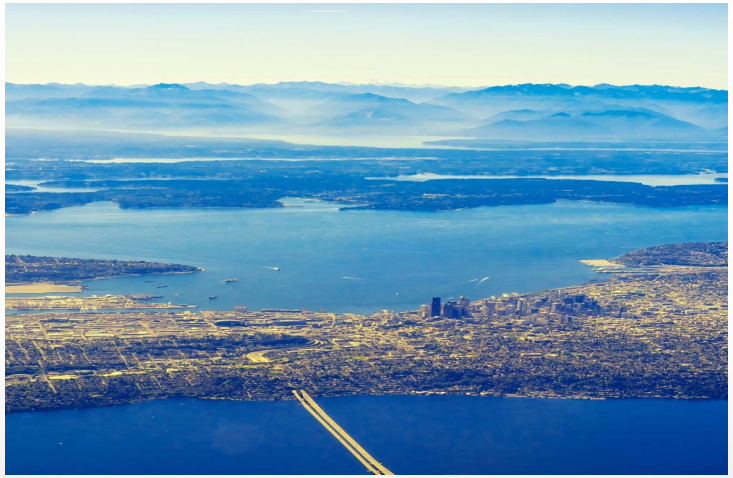
Northwest Construction Consumer Council

November 12, 2025

Amanda Kay, Program Manager
Project Planning and Development Section
Strategy, Quality and Standards Unit

King County | Wastewater Treatment

Wastewater Treatment Division (WTD) protects public health and the environment by collecting and cleaning wastewater while recovering valuable resources for a thriving Puget Sound region.



"Our regional wastewater treatment system has a big job to do. Not only does it operate around the clock to sustain a healthy environment, this vital infrastructure supports economic development that enables our region to thrive."

- **Serves** about **2 million people within a 424-square-mile** service area
- **Provides** wholesale wastewater treatment services to **18 cities, 15 local sewer utilities, and the Muckleshoot Indian Tribe in King, Snohomish, and Pierce counties**.
- **Local agencies own and operate** independent collection systems, which include pipelines and pump stations to collect and carry wastewater flows in their service area
- **Local agencies bill their customers** to recover the county charge plus the amount needed to operate and maintain their collection systems.

About WTD (2)

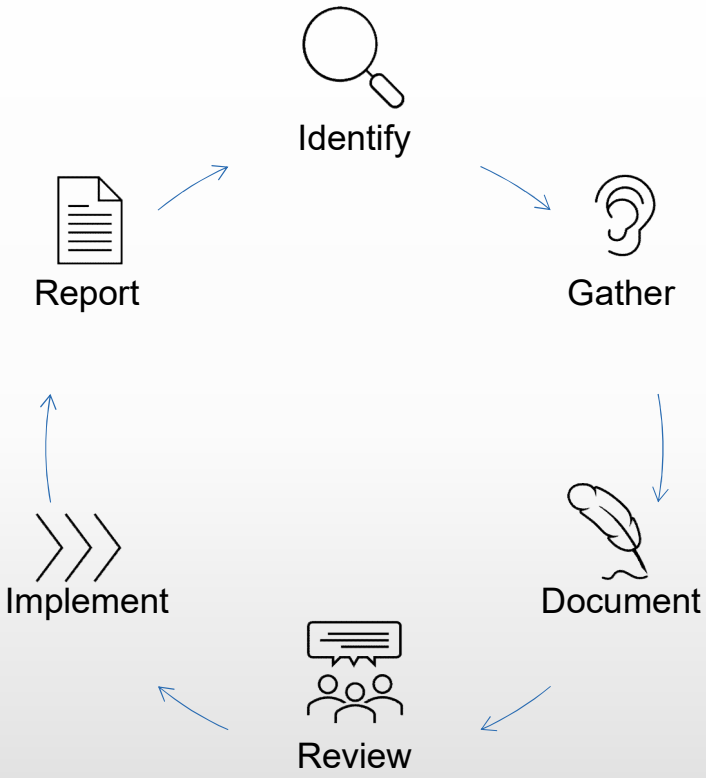
- **3** large regional wastewater treatment plants
- **2** small wastewater treatment plants
- **1** community septic system
- **5** combined sewer overflow (CSO) treatment facilities
- about **383** miles sewer lines
- **15** miles reclaimed water lines
- **26** regulator stations
- **48** pump stations
- **38** CSO outfalls

WTD Capital Lessons Learned Program Objectives

Promote trust, transparency, and mutual accountability around project reviews

Incorporate lessons learned **processes** into project delivery to create a **culture of shared learning**

Ensure **staff understand** the lessons learned process and **how to apply** lessons to their work

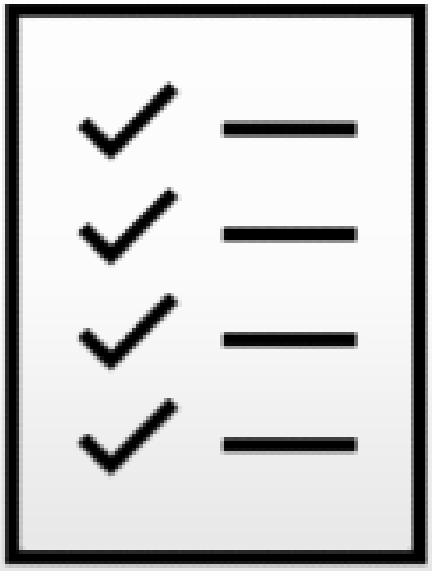


WTD's Capital Lessons Learned program is designed be integrated at **project, unit and portfolio** levels of the capital delivery process.

Lessons are identified not only at the end of a phase, project, or contract but are **ongoing throughout the life cycle**.

Lessons Learned Progress

- Developed initial program in 2019 – 2024 institutionalizing regular cadence for sharing project successes and challenges through documentation and communication across WTD
- In 2025, established baseline program effectiveness to measure future improvement success
- Incorporated staff and Subject Matter Expert feedback in program implementation planning



Identify Lessons: Actionable or Institutional Knowledge

Actionable: *These lessons **require change, follow-through and tracking** – such as an update to a programmatic process, a new procedure, or even a broader shift in how WTD operates. These are far beyond helpful suggestions—they **need to be implemented** to improve how we work.*

Impact: Points to a systemic issue rather than a one-time occurrence

Future Use: Benefits multiple future projects, not just one team

Action: Implementing this lesson will require training, communication, or rollout support

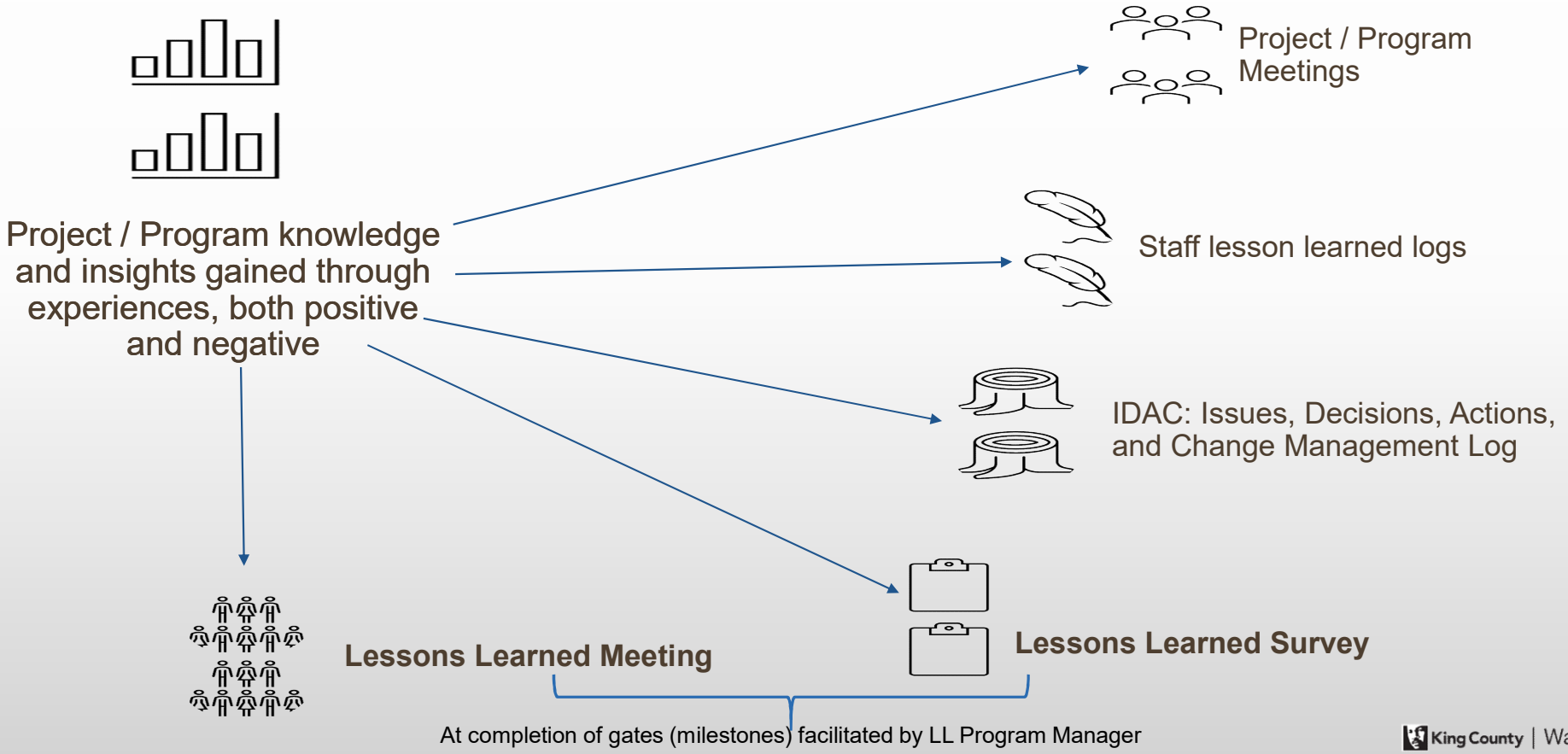
Impact: Illustrates WTD's culture, values, or ways of working rather than identify procedural gaps

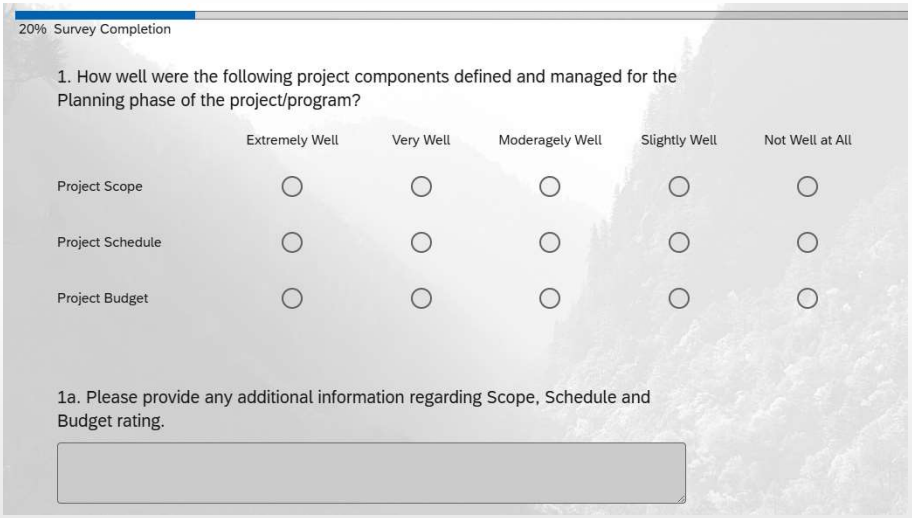
Future Use: Helps new staff avoid common pitfalls or adopt more efficient habits

Guidance: Describes something that worked well and should be continued or replicated

Institutional Knowledge: *These lessons stem from **seasoned employee wisdom** that is invaluable to the organization. These lessons may include process hints, tips, and reminders—things that might not lead to immediate changes but are **valuable references** for anyone tackling a similar situation in the future*

Gather Information: Mixed methods to gather information creates space to hear from the team in ways that best match their style. It also creates clear process expectations, consistency in data and deeper content.





Survey Questions:

Consistent questions from project to project can give data on how Capital Delivery is functioning

"We have contracted with an independent research organization, Qualtrics to administer the survey. Completed surveys will be sent directly to Qualtrics to ensure that your responses are confidential."

Tips for Gathering Information: Quality information helps us get to the root cause of the issue.

< Say More >

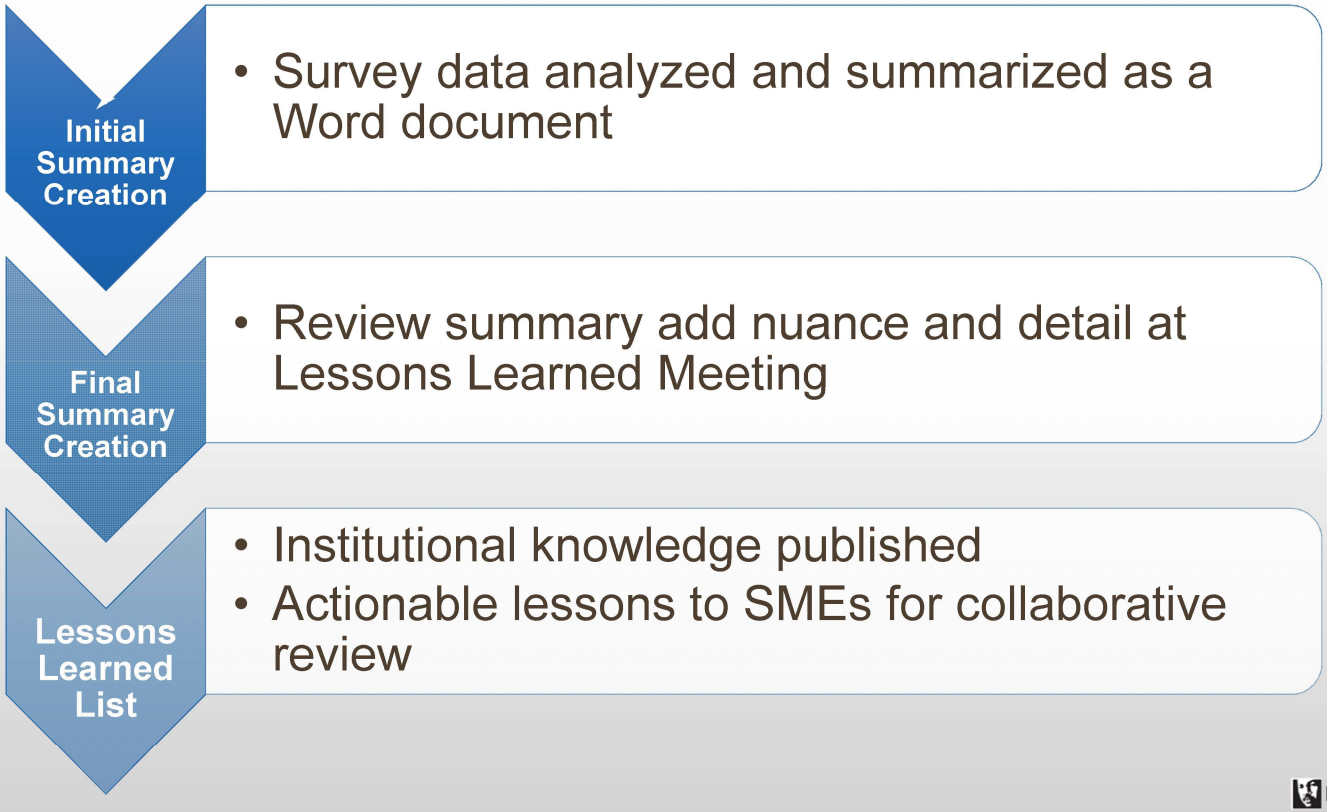
- Be specific when it comes to issues
- Use duty positions or work positions
- Facts and only the facts
- What *is* working well (the positive)
- Identify similar projects with similar outcomes

> Say Less <

- Conclusory or legal language; “negligence” or “breach of contract”
- Making It Personal; “systems not individual people”
- Opinions
- Vague or General Statements; “this isn’t working”
- Absolutes or Extreme Language; “always, everyone, etc”

“Quantity gives us coverage; quality gives us clarity”

Document: Documenting successes and challenges of a project needs a consistent structure to center facts, understand the data, ensure clarity of information, and makes it easy to enter information into the Lessons Learned List.



Lessons Learned Summary: The summarized results of the survey and lessons learned session. Recommended actions for improvement are assigned to the responsible Units on the lessons learned SharePoint repository to follow up on, implement the process change, and close out the lessons learned action.

Project Information

- Scope
- Purpose
- Gate
- Program

Dates

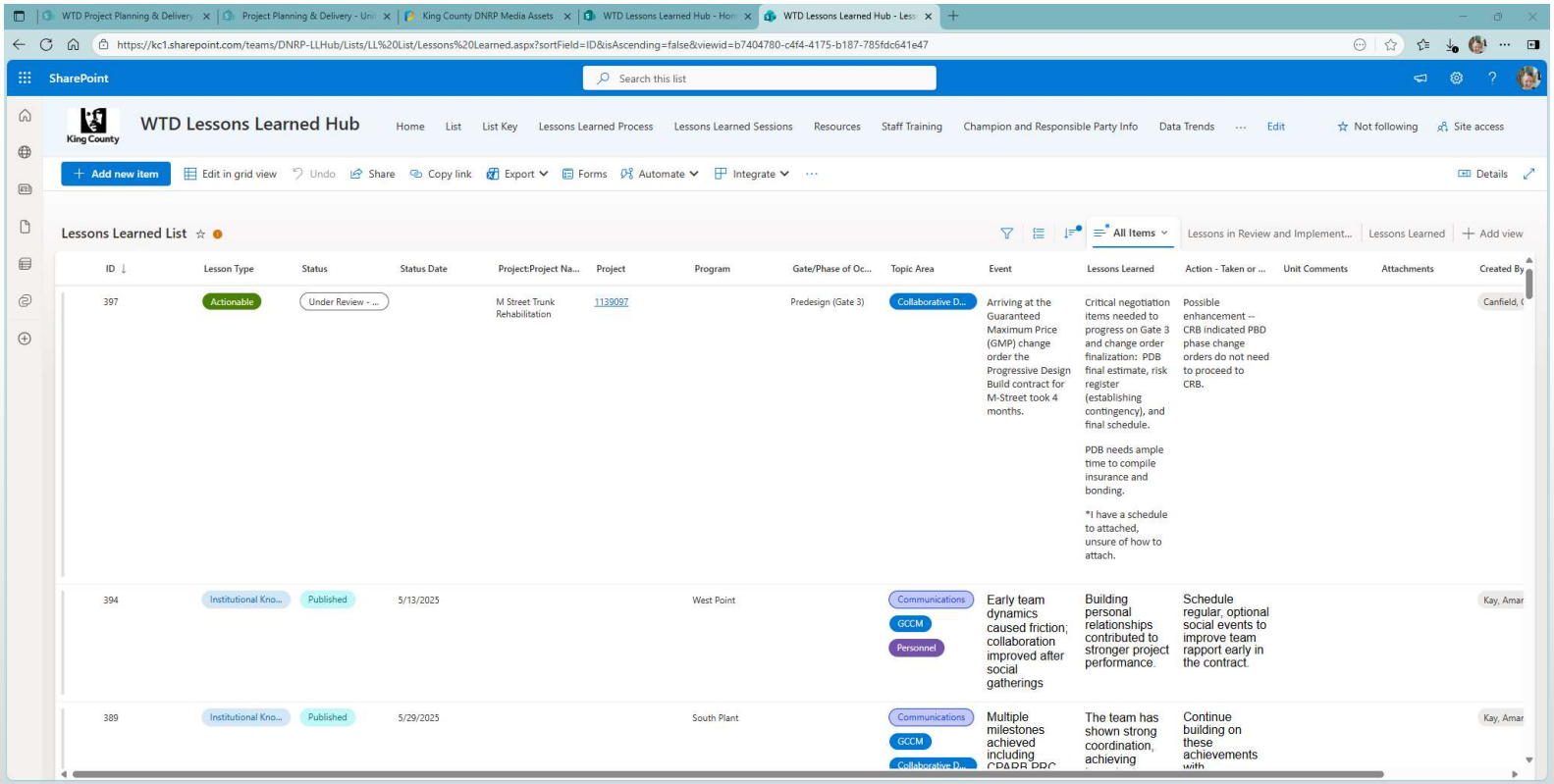
- Survey Close Date:
- Date of Session

Key Takeaways

Category

- Event: Observed situation or condition
- Lesson: The information gathered during the event. Includes the successes and challenges of the experiences as well as wisdom gained.
- Action Taken or to be Taken: What did we do? What should we consider doing?
- Lesson Type: Institutional Knowledge or Actionable
- Topic Area(s):

The Lessons Learned List: centralized SharePoint-based repository of documented lessons categorized by topic, program, lesson type, and responsible party. Used to track lessons, share knowledge, and support continuous improvement.



Collaborative Review: Lessons are quality checked with Unit Lessons Learned Leads (subject matter experts) to ensure each lesson is accurately categorized, assigned to the correct Unit for action if applicable, and topics are relevant. The lesson is then routed to the designated responsible Units for action planning and implementation.

Share action plans to implement lessons at staff meetings or team huddles

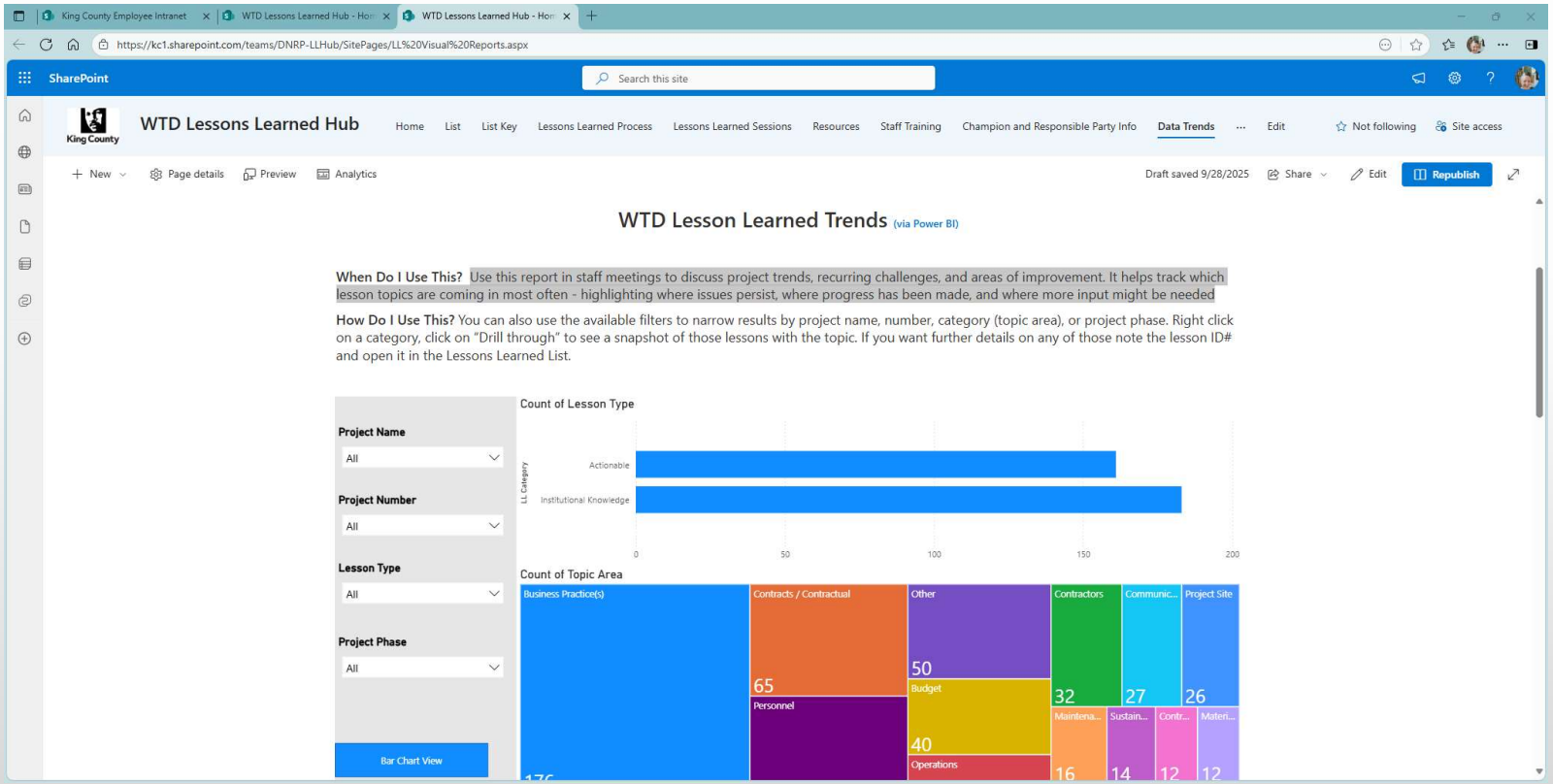
Discover and Discuss applicable lessons at project and phase initiation

Update processes, develop additional tools, allocate resources, or collaborate with other units.

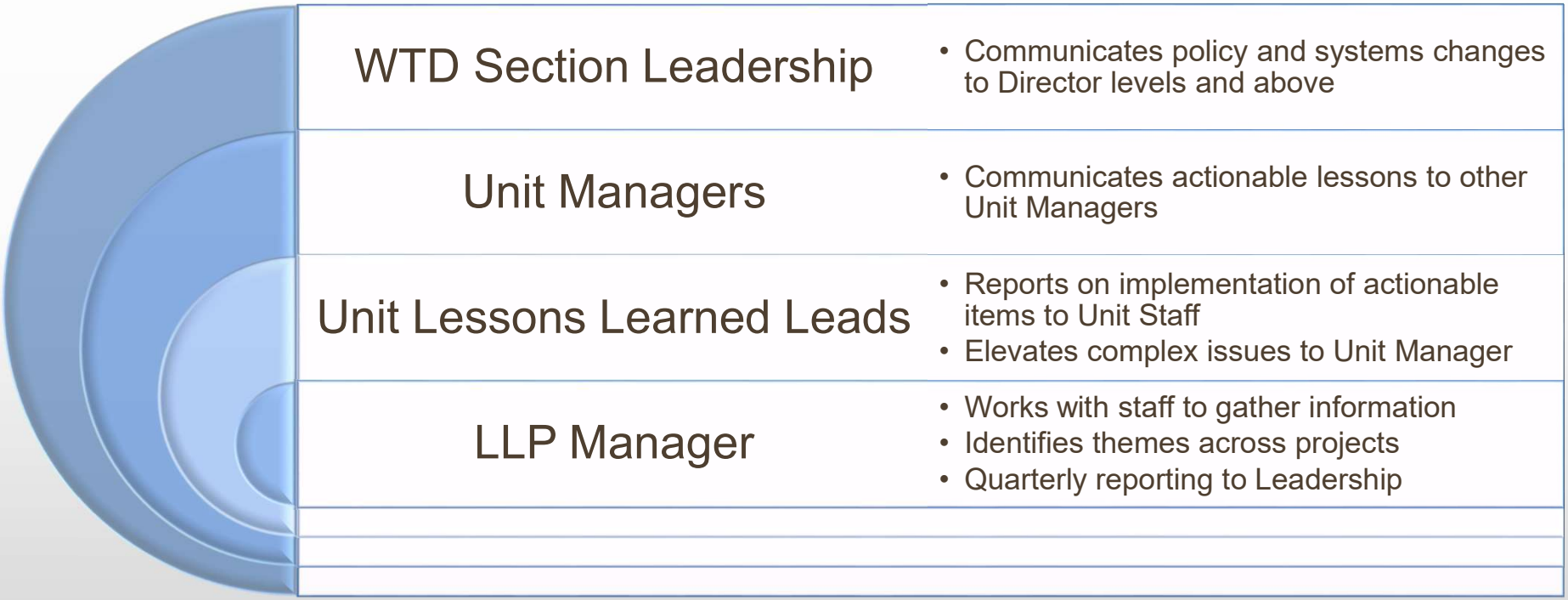
Implement:

Implementation of actionable lessons moves information into action. Units develop actionable roadmaps with tangible goals that can help align with other Units, create tools and meet objectives

Data: Power BI generates reports that can be used in staff meetings to discuss project trends, recurring challenges, and areas of improvement. It helps track which lesson topics are coming in most often - highlighting where issues persist, where progress has been made, and where more input might be needed



Report: To ensure open lines of communication and ensure mutual accountability, regular reporting on what lessons were gathered, implementation actions taken, and methods to inform staff is crucial to close the loop we have created with the Lessons Learned process



Key Learnings on a Centralized Program and List

What's Going Well

- Reviewing successes/failures at closeout prevents repeat mistakes
- Documentation of construction and technical challenges is valued
- Data analysis reveals recurring themes and improvement opportunities
- Structured documentation and cross-team sharing support continuous improvement and proactive problem prevention
- Consolidated lesson database is accessible for planning
- Dedicated Program Manager to facilitate sessions

What's Next

- Ensure staff understand how to use the Lessons Learned List effectively
- SharePoint user interface for better search features
- Ensuring lesson quality with clear and specific descriptions of the event, lesson or action
- Build criteria for prioritizing the lessons
- Develop system for successful implementation of actionable lessons
- Close the feedback loop with staff on actions taken

Key Take Aways

- Lessons are identified not only at the end of a phase, project, or contract but are **ongoing throughout the life cycle**
- **Incorporate staff** and Subject Matter Expert feedback **in program implementation planning**
- **Mixed methods** to gather information **creates space** to hear from the team in ways that best match their style
- **Quality** information helps us **get to the root cause** of the issue
- **Relationship building** is key to **promoting trust, transparency, and mutual accountability** around project reviews

Thank you!

Amanda Kay
Lessons Learned Program Manager
amkay@kingcounty.gov

Question & Answer