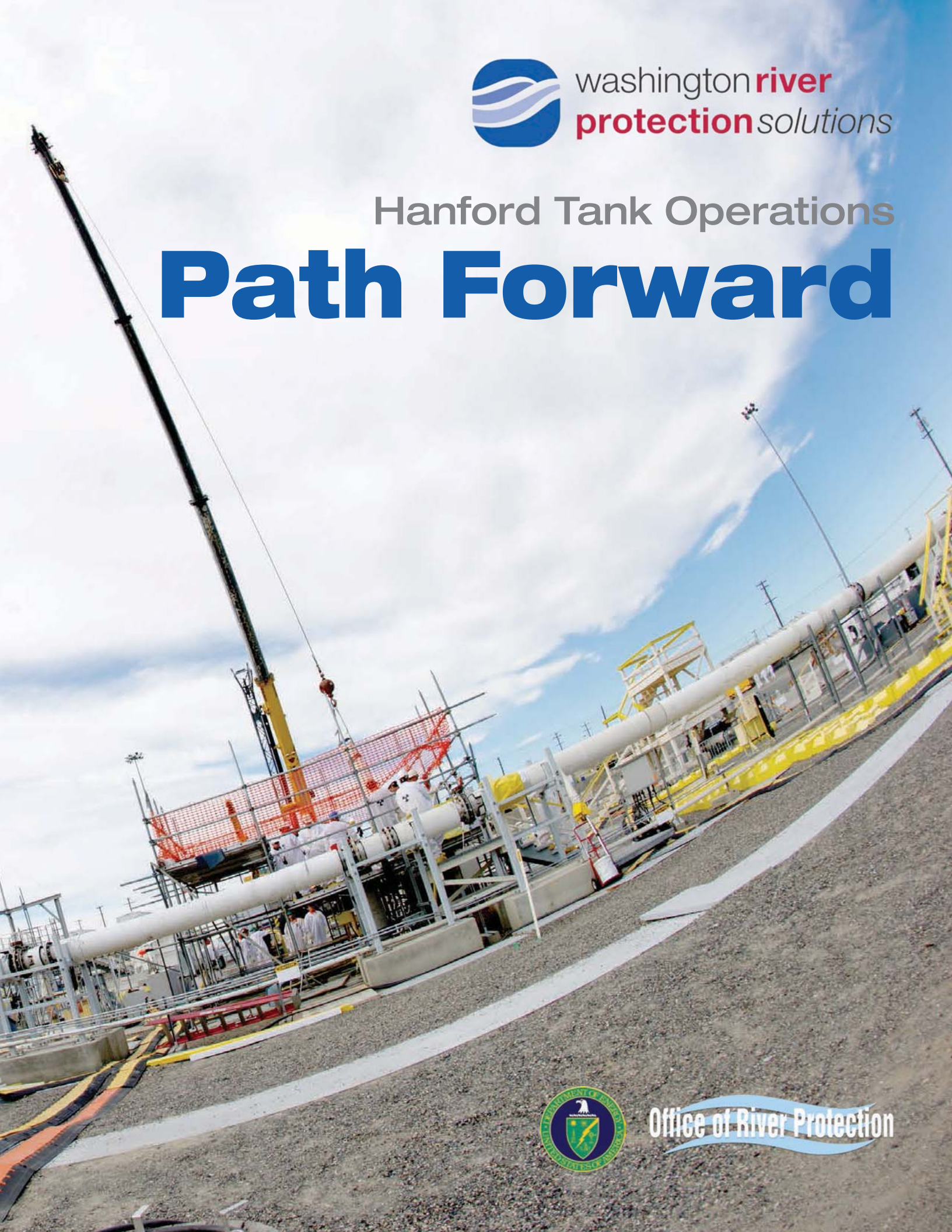




washington **river**
protection solutions

Hanford Tank Operations

Path Forward



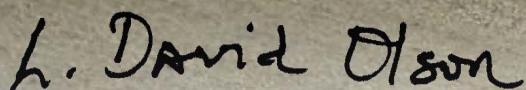
Office of River Protection

Managing Risks and Challenges

Washington River Protection Solutions (WRPS) is not just managing a project – we are managing significant risks to our workers, the public and the environment. We are managing those risks within a complex set of requirements, while upgrading an aged infrastructure, working to meet ambitious Consent-Decree milestones for single-shell tank waste retrieval and preparing to feed tank waste to the Waste Treatment Plant (WTP).

The River Protection Project mission faces many challenges. The Department of Energy recently issued a strategic framework for addressing the challenges to completing the mission as soon as practicable.

To execute the projects considered under the strategic framework and to achieve excellence in our tank farms operations, we must ensure we have the right focus and implement the right plan. This document outlines the steps we need to take and the focus that is required for us to be successful in helping DOE achieve its mission. This requires a systematic approach to achieve high performance through continuous, disciplined and integrated improvement in all elements of our scope of work – governance, oversight, execution and support. We will use this guide on our journey to successfully help DOE achieve its vision and for us to be recognized as the workforce of choice for managing Hanford's toughest challenges.



L. David Olson

Dave Olson
President and Project Manager



Office of River Protection

Mission

Forty-five years of plutonium production at the Hanford Site have yielded a challenging legacy—56 million gallons of radioactive and chemical wastes stored in 177 underground tanks. The mission of the U.S. Department of Energy's (DOE) Office of River Protection (ORP) is to address the risks posed by the tank waste by retrieving the tank wastes, immobilizing the waste, closing the tank farms and ultimately decommissioning the treatment facilities. A fully integrated system of waste storage, treatment, and disposal facilities is in varying stages of design, construction, operation, or future planning. These facilities are needed to complete the DOE's mission to address this Cold War legacy and protect the Columbia River.



Tank Farms Scope

WRPS is responsible for safely managing the tank waste and preparing the systems to feed waste to the Waste Treatment Plant. The Tank Operations Contract includes the construction, operation, and maintenance activities necessary to store, retrieve, and transfer tank wastes, provide supplemental pretreatment for tank waste, and provide treatment, storage, and/or disposal of glassified waste and secondary waste streams.

Framework

DOE's strategic framework addresses the risks and challenges to completing the ORP mission as soon as practicable. The framework calls for implementing a multi-pronged, phased approach designed to begin immobilizing tank waste through a direct-feed low-activity waste (LAW) approach.

Working with our customer, we will determine and implement the most appropriate strategies to help DOE achieve its mission.

Mission Statement

WRPS is committed to the safe and efficient management, retrieval and treatment of radioactive and hazardous tank waste to protect the Columbia River

Vision

Be ready to feed waste to WTP on schedule

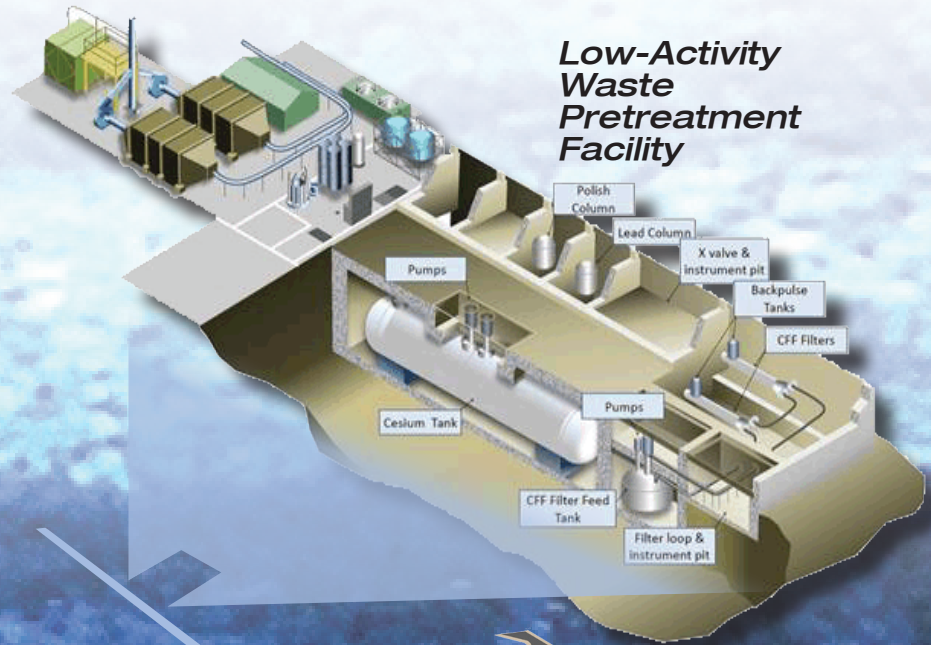
Our Plan

Achieving our mission requires us to align our organization to focus on the elements required for success. We will move from surveillance, maintenance and waste retrievals to a more rigorous operational culture that adds waste feed delivery and waste disposition. We will focus on achieving the strategic framework established by DOE. Our goal is to enable the treatment and disposition of Hanford's tank waste as soon as practicable.



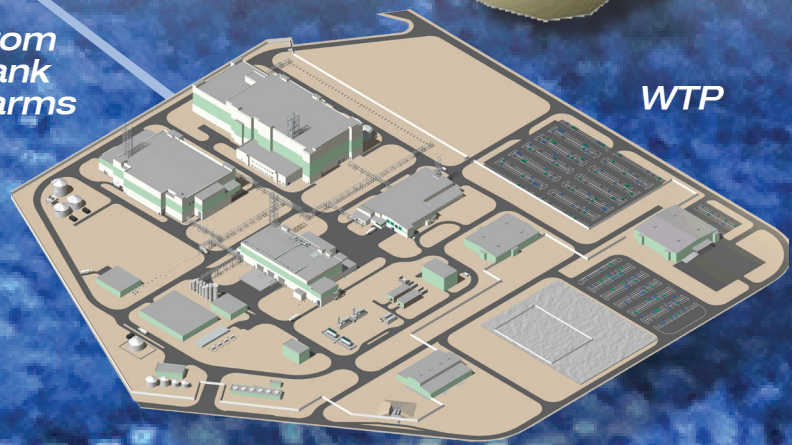
Integrating with the WTP

Low activity waste (LAW) makes up 90 percent of the total volume of waste to be treated. Therefore LAW has a significant influence on the total duration of the mission. With the LAW Vitrification Facility scheduled to be completed before the other WTP facilities, there is an opportunity to begin treating this waste before completion of the WTP by pursuing direct-feed LAW vitrification. This approach provides significant operational and environmental benefits by reducing the commissioning and startup risk of the balance of the WTP facilities and by treating the most mobile tank waste at the earliest practicable time. To enable this, WRPS must improve tank farms infrastructure and design and build a Low-Activity Waste Pretreatment Facility to remove solids and cesium from the waste. Also, to enable the treatment of some of the high-level waste sludge, a tank waste characterization and staging capability may be needed. This capability may need to include a preconditioning function for some of the sludge.



from tank farms

WTP



Priorities

Complete waste retrieval from C Farm tanks

Completing the retrieval of the 16 single-shell tanks in C Farm is a major regulatory and mission milestone. Completing C Farm retrievals requires simultaneous retrievals from multiple tanks and the deployment of new waste retrieval tools, such as the MARS arm and the Fold Track device.



Maximize usable storage space in double-shell tanks

Single-shell tank retrievals and other operational initiatives require creating additional storage space in the double-shell tanks. This requires numerous evaporator campaigns to remove water from the double-shell tanks to increase their storage capacity. Our goal is to create 3 million gallons of addition double-shell tank storage space by the end of fiscal year 2016.



Improve tank farm infrastructure

Investing in improving the tank farms infrastructure is essential for continued safe operations. Over the past decade, upgrades to the tank farms infrastructure have been deferred due to mission-planning assumptions and delays in the completion of the Waste Treatment Plant. With technical issues further delaying WTP operations, we must review and prioritize tank-farm infrastructure investments and modernize facilities to improve our operations. Modernized, reliable infrastructure is key to the predictable and safe management of tank waste. The goal is to establish an infrastructure management program in fiscal year 2014 and to have plans for key facilities in place by the end of fiscal year 2015. Infrastructure upgrades and improvements will continue through 2018.



Priorities

Commence next single-shell tank retrievals

With the completion of waste retrieval in C Farm, WRPS will turn its attention to the next single-shell tank farms to be retrieved -- A and AX. Our goal is to start the next waste retrieval project during fiscal year 2014 and complete waste retrieval of the next nine single-shell tanks in 2022.

Work is under way to improve our planning and work processes to achieve greater efficiency so that we can carry out these retrievals more efficiently.



Integrate Tank Farms with the Waste Treatment Plant

WRPS is committed to supporting the upcoming operation of the Waste Treatment Plant, including DOE's framework for addressing the risks and challenges of treating Hanford's tank waste. Work is under way in support of technical issues resolution, integrating systems to prepare for startup, and the proposed direct-feed of low-activity tank waste to the WTP.



Safe, Predictable, and Reliable Execution

WRPS will execute its operations with certainty. This requires operational excellence which embodies a clear understanding and management of risks associated with the aging tank farms infrastructure. This means we must avoid surprises and effectively apply the right resources at the right times to the right tasks. It also means we must ensure we have the right response capabilities in place so that we have the flexibility to respond quickly and effectively to new issues.



To ensure we provide waste feed to the WTP on time, we are striving for excellence in our project delivery and operational activities. To achieve excellence, we will have the right people, the right structure, and the right processes all focused on delivering the right plan. We will have the right metrics to ensure we can effectively measure our progress and make corrections along the way.

Right Culture

Culture is critical to business success. Our culture is represented by our behaviors -- how we collectively and individually participate within the company. Employees within companies that have strong, effective cultures have a clear view of the company's plans and objectives and reflect the company's core values. These employees understand the importance of their role in contributing to the organization's success.

The importance of culture

Watershed events have historically influenced the safety culture in nuclear and high-hazard organizations in the U.S. and abroad. A theme common in these events is that, over time, problems crept in, often related to or as a direct result of the organization's culture. Had these trends been recognized, challenged, and resolved, the events could have been prevented or their severity lessened. The series of decisions and actions that resulted in these events can usually be traced to the shared assumptions, values, and beliefs of the organization -- the organization's culture. Learning from these events is key to the overall success of nuclear organizations.

At WRPS, we challenge ourselves to be our best and to identify and correct gaps in our performance. It's part of our nuclear safety culture and it is fundamental to a healthy safety conscious work environment.



Right People

As our mission evolves, so do our project and operational requirements. We periodically reevaluate how we can best meet our mission requirements. That means making sure we have our staff focused on the right activities at the right times.

The overall mission spans decades. We will select and retain the next generation of nuclear professionals and develop them to the high standards required for the mission. Staff development, succession planning, managing the transfer of knowledge and maintaining the core competencies are key requirements to complete the mission.

Right Processes

We match the right processes to mission requirements. To deliver the right performance for the mission and meet business goals and objectives, we continually reevaluate our processes and metrics to ensure they are properly focused. This helps us ensure we improve performance, remove barriers and boost productivity.



Measurement is the first step that leads to control and eventually to improvement.

You get what you measure. Measure the right things and you get the right behaviors.

Right Picture

Our daily results and behaviors form a picture – this picture is how our customer and stakeholders see us. The picture is a reflection of who we are, our values, and priorities. To ensure our customer and stakeholders see us as the can-do workforce for this mission, we will reinforce the values, behaviors and results of a learning organization striving for excellence.

Our Core Values

- **Safe** – Actively care for each other’s safety. Never fail to act on a situation that we believe may be unsafe.
- **Predictive** – Avoid surprises, get in front of issues and risks, display behaviors and actions that meet the expectations of our stakeholders and our customer.
- **Transparent** – Work with integrity to promote understanding and clarity.
- **Reliable** – Consistent quality and performance. We are trusted. We do what we say, when we say we will do it. We go the extra mile to deliver our promises.
- **Innovative** – Find ways to improve through new ideas and better solutions.

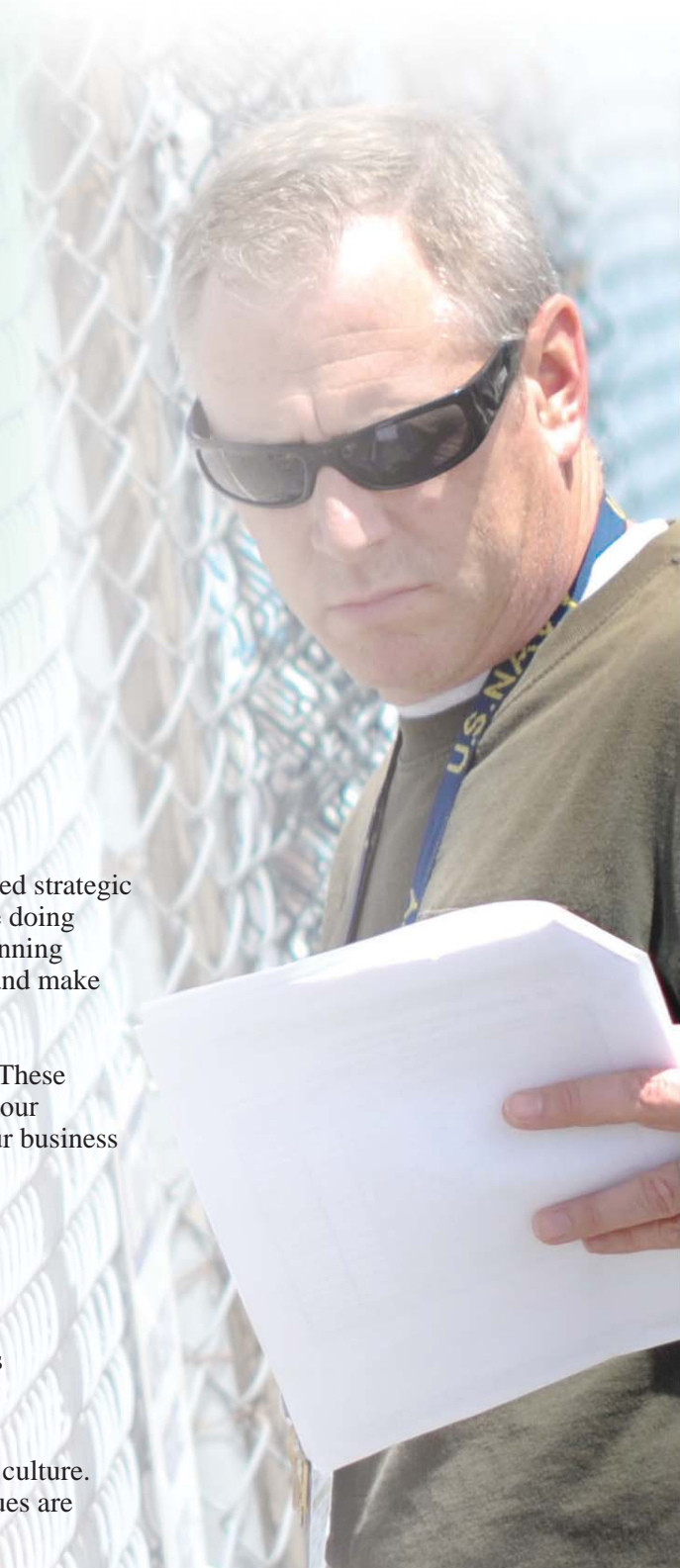
Right Plan

Improved operational planning, risk-management processes and integrated strategic planning are essential to help guide us on our mission – to ensure we are doing the right things at the right times with the right resources. Improved planning and analysis will help us, and help our customer, set the right priorities and make effective decisions.

To help guide our planning, we will focus on our business imperatives. These define what we need to do to meet the expectations of our customer and our stakeholders. All business and operational decisions will be based on our business imperatives:

- Achieve excellence in tank farm operations and project delivery
- Ensure alignment with our customer and stakeholders
- Integrate business, strategic and operational planning
- Position our organization to be ready to support WTP operations
- Remain responsive and efficient in all that we do

Our behaviors are a direct outcome of our values and our organizational culture. To achieve excellence, we reinforce and promote our values. Those values are reflected in our continually improving performance.



Right Message

It is difficult, if not impossible, to succeed if our key stakeholders are not aligned with us. We will communicate with our stakeholders, actively seeking their input and encouraging them to champion what we are collectively trying to accomplish.



Customer Alignment

We must be aligned with our customer to work effectively towards common goals. Through proper alignment, we will facilitate more effective communications and decision making. This will be achieved through teaming sessions and alignment or partnering.

Achieving alignment with our customer will help at both the strategic and tactical levels to help avoid surprises. It will foster a better understanding of the issues so that we can ensure effective decision making and prioritization. Alignment and effective partnering also promotes trust.



Our Stakeholders

- *Employees*
- *DOE-ORP*
- *DOE-EM*
- *Congress*
- *State of Washington*
- *Regulators*
- *Local governments*
- *Local community leaders*
- *Tribal nations*
- *Hanford Advisory Board*
- *DNFSB*
- *Our parent companies and affiliates*



Continuous Improvement

Excellence is a never-ending journey. Integrated continuous improvement is the force which energizes our systematic approach to excellence. This improves business performance and fosters a healthy safety culture, where the prevention, detection and correction of trends and problems and performance improvement are shared underlying values that are embraced and rewarded. Striving for continuous improvement helps us sustain excellence and meet our stakeholders' expectations.

Continuous improvement in processes, human behaviors, and capabilities is necessary to ensure the future health of WRPS. Our continuous improvement process will touch all areas of the company to drive efficiency and improvements, which will reduce Hanford risks.

WRPS is positioned to bring improved efficiency and effectiveness to the tank-waste mission, based on our parent company experience across the DOE complex. WRPS will continue to provide the best value to the government in the areas of nuclear safety, ES&H, QA, operations, project controls, engineering and technology development and deployment. This will be achieved through collaboration, shared processes and practices, complex-wide lessons learned and pooled knowledge for issue resolution.



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