

Topic: Waste Treatment Plant Communications Approach

Author: Bob Suyama, Liz Mattson, Ken Niles, Jan Catrell, Melanie Myers-Magnuson, Steve Hudson, Dirk Dunning

Originating Committee: Tank Waste

Version: 2 Revision Date: 5/31/16

Waste Treatment Plant Communications Approach

Summary

Since its beginning, the Hanford Advisory Board (HAB or Board) has closely followed and advised on most aspects of the Waste Treatment and Immobilization Plant (WTP) and its predecessors: the Hanford Waste Vitrification plant, the Hanford Grout program, the Tank Waste Remediation System rebaselining, privatization, and alternate approaches. This has included all aspects of the technical issues and alternative approaches including: supplemental waste forms, supplemental waste processing, secondary waste forms, iron phosphate glass, bulk vitrification, fluidized bed steam reforming, cast stone, grout processes of various kinds, alternate vitrification technologies and many others.

The Board has addressed many of the false starts, failed approaches, technical difficulties, issues, and concerns such as: seismic issues, safety culture, safety basis issues, the nine major technical issues with the pretreatment plant, the many technical issues with the high activity and low activity high level waste vitrification plants, and others.

Also, the Board has followed most of the tank related issues, successes, and difficulties, including retrieval technologies, tank stabilization, tank farm control, tank vapor issues, work prioritization, budgeting and others. Many of the founding members of the Hanford Advisory Board played key roles in and advised on the Hanford Future Site Uses Work Group and the Tank Waste Task Force (the immediate predecessor to the Board).

Following discussions between the Board's Tank Waste, and Public Involvement and Communications Committees and the U.S. Department of Energy (DOE) Office of River Protection (ORP), the Board was asked to prepare this white paper on communications related to the WTP. Specifically the Board provided recommendations for a communications approach regarding the High Level Waste (HLW)¹ Authorization to Proceed and the Low Activity Waste Pretreatment System (LAWPS). The review was performed at the request of the DOE WTP Assistant Manager, as described in the Hanford Advisory Board 2015 and 2016 Work Plans. Specifically, the Committees' discussions focused on two products requested by DOE:

1. A description of the Board's perception (local and regional) of the HLW Authorization to Proceed and the Direct Feed Low Activity Waste (DFLAW)² Project, and

¹ **The HLW facility's** function is to vitrify the HLW slurry from the WTP PT facility into a stable glass form for future shipment to an offsite repository. Engineering, construction, and procurement activities for the HLW facility have been limited since 2012 due to unresolved technical issues. The technical issues principally concern the pulse-jet mixer performance, erosion-corrosion validation, vessel structural integrity, high-efficiency particulate air filter adequacy, and design and operability review vulnerabilities.

² **DFLAW** is an alternative approach for immobilizing waste as soon as practicable, while simultaneously resolving the remaining technical challenges in the PT and HLW facilities. The waste bypasses the PT Facility so that waste immobilization may begin

2. A review of information about HLW and DFLAW that has been provided to the Board and to propose approaches and techniques that may be used to effectively communicate information related to these facilities with both highly technical audiences and the general public.

The results of these discussions are addressed separately in this document.

This document is not a communication plan. It is an assessment by the Board of the current status of the Board's and the public's perception of the WTP facility and a sampling of the information needed by the public to better understand DOE activities related to the WTP path forward. While there is a level of inherent uncertainty that exists in these highly complex projects, the Board hopes that this document will serve as an informational baseline document for future stakeholder outreach.

The following white paper provides suggestions for WTP Management and Communications staff as they update their comprehensive communications plan and conduct public involvement on the WTP. As noted, there is much uncertainty regarding the path forward for WTP. This uncertainty will be a challenge to convey, and the DOE Communications Plan will need to consider strategies for working through these uncertainties. Also, the strategies that DOE is currently following will likely continue to evolve as the work on the WTP progresses.

In general, the Board believes the public's perception of the HLW Authorization to Proceed and the DFLAW Project can be summarized as follows:

- The WTP's history of delays, lack of transparency, technical difficulties, and cost overruns has **damaged** DOE's overall credibility and believability.
- The Board is **skeptical** of the HLW Authorization to Proceed. The history of technical issues with the HLW and Pretreatment facilities has in the past stopped or greatly slowed WTP progress.
- The Board's perception of the DFLAW Project is one of **hope**. The DFLAW may allow DOE to begin to vitrify some of the Tank Waste significantly earlier than the current planned operational date of the WTP.

Some potential techniques that may prove useful to effectively communicate WTP status and information are presented in summary form in the Waste Treatment Plant Communications Approach Tool and Techniques Table included at the end of the white paper. These are discussed in greater detail within the document.

This white paper is not intended to convey Board approval or disapproval of DOE's path forward for tank waste treatment. The white paper is a compilation of suggestions from a variety of Board members about WTP communications, not a list of ideas that are wholly agreed upon by all Board members. The Board hopes that this white paper will be used to strengthen Waste Treatment Plant outreach and

significantly earlier than if treatment of the waste is delayed until all technical issues are resolved and the PT and HLW facilities are completed.

public engagement efforts and encourage an ongoing relationship between ORP, the Washington Department of Ecology, the HAB, and the public.

Board Perception

1. Describe the Board's Perception of the High-Level Waste (HLW) Authorization to Proceed and Direct Feed Low Activity Waste (DFLAW) Project

Board Perception of HLW and DFLAW Projects

The WTP, now under construction, has been plagued with a history of delays, lack of transparency, design errors, and cost overruns which call into question DOE and its contractor's credibility and competence to successfully complete the project and safely immobilize Hanford's tank waste. This history has left its imprint on the Board and public, and has damaged DOE's credibility and believability.

The history of tank waste clean-up has involved a number of identified problems: leaking tanks, hazardous tank vapor releases, workplace safety issues, and work stoppages that delay progress for WTP construction. Statements by congressional and state leadership, Government Accountability Office reports and Defense Nuclear Facilities Safety Board (DNFSB) findings have been critical of the WTP technical design, safety culture, and associated hazard mitigation that, taken together, highlight the critical challenges to successful, timely and cost-effective startup of WTP operations. Finally, Washington State entered into litigation with DOE over safety and whistleblower concerns and failure to meet TPA construction milestones. This series of events, including the court ordered sanctions against information dissemination during the extended Consent Decree negotiations, have worked to lower expectations for DOE milestone completion timelines.

Although the construction of the WTP has the highest priority, the numerous construction delays due to design and technology issues have reinforced the general perception that the path forward remains flawed. The secrecy imposed on the experts charged with resolving the WTP technical issues, coupled with long periods with few progress updates during litigation has left the public with little information and no recourse. The public is eager to have conversations with officials during outreach and information sharing sessions, but low participation by DOE at many public meetings has reinforced the impression that DOE is not fully sharing information on issues surrounding the WTP. The on-going litigation between Washington State and DOE impeded open communication between the agencies and the public.

The HAB is confident that trust can be rebuilt between the public and the agencies, but this requires DOE to demonstrate a willingness to engage with the public on all of the issues and to make observable and measurable progress toward vitrification of tank waste.

The Board is aware that review and approval of presentations and information by DOE Headquarters has been routinely required before these documents could be released for public access, and that this process has restricted the timeliness and responsiveness of ORP to the Board's and the public's requests for information. The Board urges that these restrictions be lifted so that local DOE staff may engage

actively in discussions of the full scope of the vitrification process from its origins as tank waste to its final disposition in a deep geological repository.

High-Level Waste

The Board is **skeptical** of the HLW Authorization to Proceed. The general public and other impacted constituencies do not understand the HLW Authorization to Proceed process. Technical issues related to the HLW vitrification facility have on two occasions stopped or greatly slowed construction progress. DOE was previously directed by the Court to commit to a schedule for WTP construction completion. Due to a lack of WTP progress, the WTP completion schedule was once again the subject of legal action and was entangled in information restrictions imposed during the Consent Decree discussions.

Direct Feed Low-Activity Waste (DFLAW) Project

The Board finds **hope** in the DFLAW Project. Given that the State of Washington does not believe the WTP can be fully operational prior to 2034 (and DOE maintains 2039 under the best-case scenario), DFLAW provides hope that at some point in the future, DOE may begin to vitrify the low-activity component of some of Hanford's tank waste.

This DFLAW approach, as proposed in the September 24, 2013 Hanford Tank Waste Retrieval, Treatment, and Disposition Framework (Framework) document is promising. This document describes a strategic framework for addressing the risks and challenges to completing the DOE mission by implementing a phased approach. The approach outlined in the document proposes to construct the necessary facilities to start the immobilization of the low activity component of the tank waste through the use of the DFLAW process. By separating and vitrifying a significant portion of the tank waste as low activity waste, DOE gains time. Once this process is fully operational, there is the potential to create some much-needed capacity in the existing double-shell tanks (DSTs). The early operation of the DFLAW would allow treatment of tank waste while work continues to resolve the technical issues impacting the construction of the PT and HLW facilities.

Information Review and Suggestions

- 2. Review information about HLW and DFLAW that has been provided to the Board and propose approaches and techniques that may be used to effectively communicate information related to these facilities with both highly technical audiences and the general public.**

Background

The September 24, 2013 Framework document describes a strategic framework for addressing the risks and challenges to completing the DOE mission by implementing a phased approach that would:

- Begin immobilization of the tank waste as soon as practicable through the DFLAW process.
- Process transuranic (TRU) tank wastes for disposal at the Waste Isolation Pilot Plant (WIPP).

- Resolve technical issues for the PT and HLW facilities, including determining how to adequately mix and sample the waste prior to processing, to enable design completion, and complete construction, startup, and operations of these facilities safely.

The complexity of both the waste itself, as well as the WTP facilities, has led to difficult and, to date, unresolved technical issues for portions of the PT facility, and to a lesser extent the HLW facility. Because the current design of WTP anticipates that all waste will be processed through the PT facility, immobilization of any waste could not occur under the current plan until the technical issues involving the PT facility are resolved.

DOE's current emphasis is to focus on the DFLAW approach and DOE does not appear to be pursuing the disposal of tank waste in a deep geological repository.

WTP Communications Approach

The Board members attempted to answer questions as to who the agencies should be communicating with, how often, and what best strategies could be used to provide information to those audiences. These discussions revolved around what this communications approach might entail. Some of the approaches suggested for the agencies to use are to:

- Clarify the intent of your communications prior to development of materials and presentations:
 - Provide information
 - Solicit input
 - Create opportunities for involvement
- Focus on the following three topics:
 - HLW Safety Design Strategy approval and implementation
 - HLW Authorization to Proceed with full Production Engineering
 - DFLAW Initiation of Pre-Conceptual Design and Engineering
- Communicate using understandable terms.
- Discuss past problems in communications about how DOE is moving forward.
- Provide information in stages.
- Invest in a DOE representative to work with tribes and the DNFSB on a regular basis.
- Review, update, and consider reusing the communications materials on tank waste and tank waste treatment developed by the Oregon Department of Ecology (ODOE) approximately 15 years ago.
- Consider using focus groups to help inform what information about the WTP is relevant to different audiences of the public and methods for communicating this information.
- Use visual flowcharts on LAW and HLW to demonstrate how these parts of the vitrification process fit into the larger WTP picture.
- Develop a template for communicating familiar information to help streamline methods for communication, including concrete examples.
- Communicate a concrete schedule and budget for completion of the WTP.
- Be transparent about the WTP timeline and technical issues, as well as providing a feedback loop for the public.

Tailor Presentations to the Audience Being Addressed

Building a WTP communications approach will be complicated due to differing levels of background information and context among the audiences of the communications approach. Building that foundation can also be easily disrupted when an event or other recent news events diverts the public's attention from the planned presentation. Some of the approaches suggested for the agencies to use include:

- Determine what information interests the public, and how the Tri-Party Agreement agencies can best develop key messages and methods for engagement.
- Communicate with the community-at-large beyond what the regulations require.
- As opportunities present themselves, the agencies should attend meetings where Hanford information is being provided and discussed.
- Tailor information for the least informed member of the public. Include effort to address leaking tank issues and safely stabilize the waste through vitrification. Include examples of vitrification at other weapons complex sites.
- Leverage community resources, like the Hanford Reach Museum, to display and provide information.
- Consider expanding the agencies use of film to communicate about Hanford. Videos and documentaries should be televised more broadly than via the web on YouTube.
- Share information with the public about and actions being taken to address the challenges with the WTP. Information sharing and dialogue is the goal, not getting the public to come to a specific conclusion.
- Use question cards to facilitate information sharing when a member of the public asks a question and the information is not available. Ensure that the question cards include fields for email, phone, and mailing address to accommodate a clear path and expectation for future communication.

Effective Communication with a General Audience

Effective communication with a general audience requires establishing common background information and inviting dialogue about the path forward and asking for feedback and questions. Too often DOE overlooks both the general kinds of questions people want answered and the kinds of answers they are being provided with via social media. Some of the approaches discussed include:

- Agencies should solicit information about what the audience is interested in and be prepared to discuss that subject in non-technical, jargon and acronym free language prior to a scheduled meeting
- Agencies should give special attention to establishing what is different in the current environment that will negate the previous pattern, given the history of delays, technical showstoppers, and cost overruns.

Effective Communication with a Technical Audience

Effective communication with a technical audience needs to engage out-of-the-box thinking and invite participation in puzzling through the challenges inherent in solving the technical challenges at the HLW and PT facilities. The backgrounds and levels of technical knowledge of the audience can vary greatly depending on the topic to be addressed.

The presenter should identify the nature and background of the subject being addressed before launching into the topic proper. This tends to produce a more disciplined discussion and a more engaged audience

Effective Communications with Office of River Protection Workers

One audience that deserves special attention is the tank farm workers, the WTP workers, and other WTP complex employees who need to understand how their work fits into the bigger picture. Some of the approaches discussed include:

- Communicate how each Hanford employee's work fits into the bigger picture of tank waste treatment and disposal and overall and near-term goals and activities.
- An informed workforce can be a very effective vehicle for communicating with friends, neighbors, and the public in general.

High-Level Waste

The HLW facility function is to vitrify the HLW slurry from the WTP Pretreatment Facility into a stable glass form. This vitrified glass will be stored in sealed containers for future shipment to an offsite repository.

Engineering, construction, and procurement activities for the HLW facility have been limited since 2012 due to unresolved technical issues. These technical issues concern the pulse-jet mixer performance, erosion-corrosion validation, vessel structural integrity, high-efficiency particulate air filter adequacy, and design and operability review vulnerabilities.

The HLW was authorized to begin production engineering in 2014. Currently process improvements, technical and design issue resolution, and nuclear safety basis alignment are being implemented.

Due to this significant delay in facility construction, Bechtel National is in the process of revising the WTP project baseline. The WTP completion schedule is the subject of legal action and is being subjected to information restrictions imposed during the current Consent Decree discussions. Some of the ideas noted during these discussions were:

- Focus on how to communicate about HLW and the HLW facility, and the best ways to communicate that the facility is back in full construction after the resolution of technical issues.
- The approach should also address how to tell the story of how HLW connects to WTP, and how the whole system works together.
- Discuss the current status of and concerns regarding the need for an offsite repository for long-term storage.

Direct Feed Low Activity Waste Project

In order to begin the process of vitrifying waste as soon as practicable and at the same time creating much needed waste tank capacity, the DFLAW project was created.

DOE should communicate why it is important to use Direct Feed LAW, where the resulting glass will be disposed, and why it will be better solution in the interim and the long term. The information should be outlined in a fact sheet the public can take away with them, like the Vit-101 and PT fact sheets.

One System

The One System concept could be useful as a communication tool. The One System approach should educate the public about efforts to integrate and address all of the various aspects required to support facility operation, such as: permits, procedures, operations, supporting facility modifications, etc.

Expand the use of public open houses to present a wide spectrum of information at different levels using visuals, stations, and subject matter experts.

Tank Waste Origins and History

No discussion of any of the WTP facilities would be complete without discussing the waste in the tanks and the urgent need to get it into a safe, stable form for final disposition.

All presenters should be prepared and have backup materials to at least address these topics at a summary level should questions arise during their discussions. This material should be pre-approved and consistent with the information available online at a level that the general public could easily access and understand.

The following is a list of information that should be available online and/or as pre-approved presentations for use by the general public. This material should be available at a level that the general public can easily access and understand. Individuals who are requested to make presentations should be able to access this library to quickly obtain consistent and reliable background information.

- General History of the Hanford Site
 - Tank storage history
 - Origins of the waste in the tanks
 - Tank age and condition of the tanks
 - Single Shell Tank integrity
 - DST integrity
 - Tank capacity needed to be able to safely store waste
 - Leaking tanks and the threat to the environment
 - Tank retrieval (leaking and non-leaking) progress and plans
- History and Scope of the WTP
 - WTP facilities
 - Map of WTP site with WTP facilities shown
 - Brief description of function of each facility

- Current construction photos and status
- WTP technical issues
- HLW Authorization to Proceed
- Proposal for fixing problems
- Timeline
- Budget
- Systemic changes that ensure this project will work
- DFLAW
 - Proposal
 - Timeline
 - Budget
 - Systemic changes that ensure this project will work
- Final Waste Disposition
 - Deep geological repository
 - Interim storage
- Timeline and Budget
 - Design and construction
 - Technical issues and resolution
 - Remaining open issues
- Safety Culture, Safety Conscious Work Environment, and Safety Foundation
 - Tank vapor issues and history
 - Reporting of concerns

WASTE TREATMENT PLANT COMMUNICATIONS APPROACH TOOLS AND TECHNIQUES

Audience	Knowledge Level	Suggested Topics	Form of Delivery	Suggested Follow Up	Next Steps	Intent of Communications
General public	Diverse	<ul style="list-style-type: none"> • River Protection Project Overview • Tank Farm 101 • WTP 101 • Reasons behind schedule slippages, technical problems, and budget increase • Public and Tribal risks with changes to the path for WTP facilities construction (e.g. how does this affect my job, my health? What are the benefits to my life, the environment?) 	<ul style="list-style-type: none"> • Displays • Video • Kiosk • Speakers • Outreach to media/journalists • Social media • Public meetings • Panel discussion • Radio interviews • Input session 	<ul style="list-style-type: none"> • Questionnaire • Information to request a speaker with the types of presentations available • Unanswered question follow-up cards • Input cards with information about who will receive the input • Dialogue 	<ul style="list-style-type: none"> • Follow up with requests • Speaking engagements • Continued dialogue • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement
Employees	Diverse Many highly knowledgeable	<ul style="list-style-type: none"> • Safety • How their jobs fit into the big picture of River Protection Project • Safety Culture 	<ul style="list-style-type: none"> • Face-to-face meetings (small and large) • One-on-one • Focused groups 	<ul style="list-style-type: none"> • Question and Answer • Suggestion forms • Dialogue 	<ul style="list-style-type: none"> • Follow up with key individuals • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement

Audience	Knowledge Level	Suggested Topics	Form of Delivery	Suggested Follow Up	Next Steps	Intent of Communications
Former Hanford Site Workers	Highly Knowledgeable	<ul style="list-style-type: none"> • Site Progress and changes since they left the site 	<ul style="list-style-type: none"> • Email • Web • Paper mailings 			<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement
Oregon Hanford Cleanup Board	Medium to High	<ul style="list-style-type: none"> • Current status on events pertaining to HLW and DFLAW/LAWPS 	<ul style="list-style-type: none"> • In-person briefings • Articles for distribution 	<ul style="list-style-type: none"> • Question and answers • Dialogue 	<ul style="list-style-type: none"> • Continuous updates as new information becomes available • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement
Interest Groups represented by HAB Members	Diverse	<ul style="list-style-type: none"> • Focus on what has changed that indicates that the path forward is not going to repeat the mistakes of the past. • Bigger picture discussion about treatment of tank waste start to finish and the timeline and cost of current proposals. 	<ul style="list-style-type: none"> • Articles in newsletters, websites • In person discussions or briefings • Panel discussions 	<ul style="list-style-type: none"> • Questions and answers • Where to find additional information 	<ul style="list-style-type: none"> • Solicit ongoing input about materials for publication – what is clear, what is unclear, what is missing. • Continued dialogue with HAB representative • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement

Audience	Knowledge Level	Suggested Topics	Form of Delivery	Suggested Follow Up	Next Steps	Intent of Communications
Hanford Advisory Board	Diverse Some very technically oriented Many with long-term Site history and experience	<ul style="list-style-type: none"> • Continued updates at committee and Board levels • One-on-one meetings (like breakfast meetings) between AM/Deputy AM and Issue Managers • Evening outreach sessions on topics of interest – shared effort between HAB and RPP 	<ul style="list-style-type: none"> • Briefings • Displays at HAB meetings • Videos • One-on-ones • Evening educational sessions • Sounding Boards 	<ul style="list-style-type: none"> • Questionnaire • Offer speakers • Provide and post additional information 	<ul style="list-style-type: none"> • Debrief with HAB and committee members on what worked and didn't, how to make improvements. • Solicit ongoing input about materials for publication – what is clear, what is unclear, what is missing. • Speaker bureau • Articles sent to HAB members • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input and advice • Create opportunities for involvement
Colleges/ Universities	Low	<ul style="list-style-type: none"> • Build that foundation of information about Hanford generally • Tank Farms • WTP – general • HLW/PT Technical Issues • DFLAW/LAWPS • One System approach 	<ul style="list-style-type: none"> • Identify a college/university and three to five people responsible • In person meetings • Visit classrooms • Continued dialogue for four years or more 	<ul style="list-style-type: none"> • Dialogue • Questionnaires to gain information and input that can be provided to ORP • Potential summer Internships 	<ul style="list-style-type: none"> • Work with professors • Build relationships • Progress briefings • To develop either future employees or better understanding with youth about Hanford cleanup and what it will take 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement

Audience	Knowledge Level	Suggested Topics	Form of Delivery	Suggested Follow Up	Next Steps	Intent of Communications
					<ul style="list-style-type: none"> • Use input to influence the path forward 	
Interest Groups represented by HAB Members	Diverse	<ul style="list-style-type: none"> • Focus on what has changed that indicates that the path forward is not going to repeat the mistakes of the past • Bigger picture discussion about treatment of tank waste start to finish and the timeline and cost of current proposals 	<ul style="list-style-type: none"> • Articles in newsletters, websites • In person discussions or briefings • Panel discussions 	<ul style="list-style-type: none"> • Questions and answers • Where to find additional information 	<ul style="list-style-type: none"> • Solicit ongoing input about materials for publication – what is clear, what is unclear, what is missing • Continued dialogue with HAB representative • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement
Technical Organizations / Societies	High	<ul style="list-style-type: none"> • Very specific and focused discussions 	<ul style="list-style-type: none"> • Briefings • Focus groups on specific topics for feedback 	<ul style="list-style-type: none"> • Follow up with the group on how their input affected a decision 	<ul style="list-style-type: none"> • Continuous dialogue • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement
Congressional Staff	Mixed	<ul style="list-style-type: none"> • Bigger picture tank waste treatment • Budget • Timeline • Technical issue resolution • Safety Culture 	<ul style="list-style-type: none"> • Briefings 	<ul style="list-style-type: none"> • Email • Phone calls 	<ul style="list-style-type: none"> • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input

Audience	Knowledge Level	Suggested Topics	Form of Delivery	Suggested Follow Up	Next Steps	Intent of Communications
High School Students	Low	<ul style="list-style-type: none"> • Build that foundation of information about Hanford generally • Tank Farms • WTP – general • HLW/PT Technical Issues • DFLAW/LAWPS • One System approach 	<ul style="list-style-type: none"> • Identify a high-school and three to five interested teachers • In person meetings • Visit classrooms • Continued dialogue for four years or more 	<ul style="list-style-type: none"> • Dialogue • Questionnaires to gain information and input that can be provided to ORP • Potential summer Internships 	<ul style="list-style-type: none"> • Work with teachers • Build relationships • Progress briefings • To develop either future employees or better understanding with youth about Hanford cleanup and what it will take • Use input to influence the path forward 	<ul style="list-style-type: none"> • Provide information • Solicit input • Create opportunities for involvement