

Oranges? Dog food? Spill response?



-A target on the water for more realistic spill response training-
The PWS Surrogates Workgroup Process & Results

Basic Concepts / Terminology

- **Use of Simulants/Surrogates**
 - Serve as a “target” and training aid for responders
 - Add realism to exercises/drills
 - Equipment testing and R&D
 - Other uses like current/drift studies, verifying sensitive area protection strategies, etc.
- **Surrogates are particle based.**
Examples; wood chips, rubber ducks, peat moss, rice hulls, hula-hoops
- **Simulants are liquid based.**
Examples; fish oil, vegetable oil, non-crude oils.
No documented examples were identified in USA

More Basic Concepts...

- **Test tank versus real life**
 - **Physical space won't allow for vessels, boom, etc**
 - **Can't duplicate complex systems with currents, tidal movements, etc**
- **Potential concerns with simulants**
 - **An introduced substance**
 - **Operational hurdles; How to broadcast? Costs? Need to recover?**
 - **Public perception?**
 - **Behavior of given substance**
- **Ultimate goal is to enhance training (or current studies, etc) but *minimize environmental trade-offs* compared to real oil**



Why is PWSRCAC interested in Surrogates?

PWSRCAC's Surrogate Project History

- *2008 Science Applications International Corporation (SAIC) paper*
 - Cataloged potential surrogate options.
 - Brief discussion of regulations that apply to surrogate use.
 - Problem is not what to use, but permission to use
- *2013 Surrogates Workshop in Seattle*
 - Group saw benefit in simulant/surrogate use
 - Understood potential environmental trade-offs existed
 - Could not identify a permitting pathway
 - Surrogate use was occurring already
 - Felt there needed to be policy guidance at Federal level

PWSRCAC's Surrogate Project history

- ***BSEE continuation of 2013 efforts (approx. late 2013 to 2015)***
 - Clarify regulatory context for permitting
 - Develop a test permit
 - Develop surrogate release decision making guide
 - Present to National Response Team's Science & Technology Committee
- **Outcomes of BSEE workgroup**
 - Surrogates vs Simulant terminology get defined
 - Developed decision making tool / exercise template
 - Work surrogates locally

PWS Surrogates Workgroup 2016

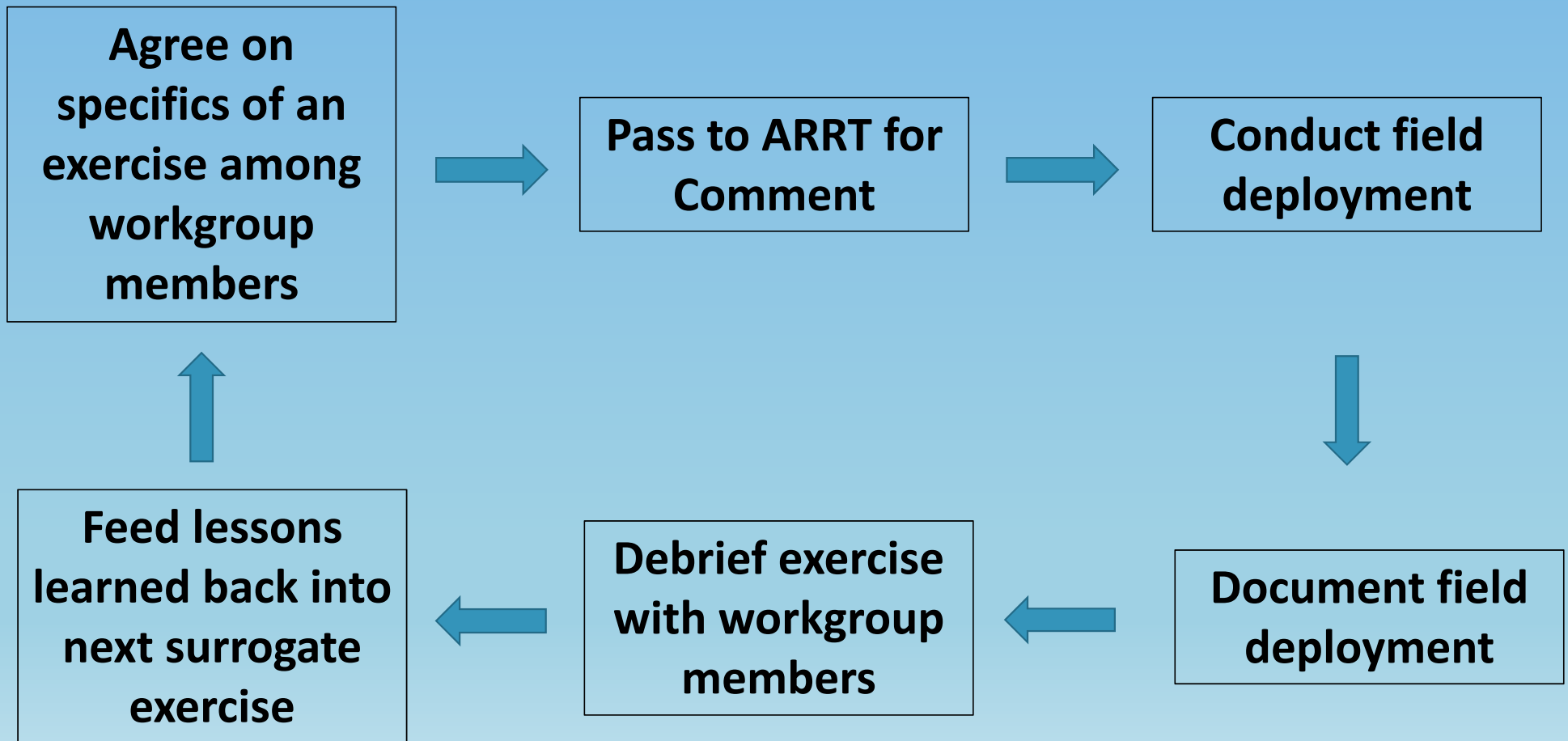
- Overall Goals....
 - Identify appropriate surrogates for PWS waters
 - Identify usage parameters
 - Seek approval for a deployment involving surrogates
 - Conduct field trial with surrogate(s)
 - Document this process and any hurdles if goals are *not* met



PWS Surrogates Workgroup Process

- **Participants; Alyeska/SERVS, AK Chadux, ADEC, Cook Inlet RCAC, NOAA, Oil Spill Recovery Institute, USCG Marine Safety Unit Valdez, Dept. of Interior US F&W service, EPA, PWS Shipper representative w/ Polar Tankers, Nuka Research and Planning.**
- **Consensus Items**
 - **Agreement that surrogates could enhance exercises & training**
 - **Interest in attempting to conduct a field deployment**
- **Could not identify a permitting pathway for surrogate use**
 - **State pathway to conduct a deliberate spill of oil**
 - **Permit related to logging operations and woodchips**
 - **Work via APDES permit via ADEC division of Water Quality?**

PWS Surrogates Workgroup Process



BSEE's Simulant/Surrogate Decision Tool

- **Establish the need for surrogate use**
 - **Research & design?**
 - **Training or exercises?**
 - **Spill fate and behavior?**
- **Select Materials to use**
 - **Need to be suitable to task at hand**
 - **Practical considerations of surrogates and goals**
- **Develop usage plan (Use BSEE developed template)**
- **Seek permission for usage**

PWS Surrogate Exercise Proposal Specifics

- Materials
 - up to 4, 2.2 cubic foot bales of peat moss
 - one 40 gallon bag of “Pedigree” dog food
 - up to 20 gallons of locally sourced wood chips
- Location
 - Passage Canal Vicinity, just outside of Whittier
- Date
 - September 21, 2016 with 3 dates for back-ups
- Game Plan
 - AK Chadux working equipment, will attempt to recover materials, etc.

ARRT feedback...

- Materials
 - up to 4, 2.2 cubic foot bales of peat moss
 - ~~one 40 gallon bag of "Pedigree" dog food~~
 - up to 20 gallons of locally sourced wood chips
- Feedback generally positive and seemed to have green light



Pedigree (left)
-vs.-
lams (right)
@ hour 24 of soak



Our green light turns yellow and then red...

- The planned deployment was ultimately cancelled
 - Contracting catch -22
 - Responder immunity concerns
 - PWSRCAC does not have pollution insurance
 - Tough to get this insurance for this event
 - Had significant paper trail, but no permit per se
- Very tough last minute decision
- Workgroup made progress on surrogate topic



The current status...



The current status...

- Still much interest in making this happen
- Finalized paper has gone back out to the Workgroup
- Specific hurdles need attention. From the ARRT? ADEC? EPA? _____?
 - Do we approach this from a policy or exercise perspective?
 - Paper permit and official sign-off?
 - Responder Immunity is a concern.
 - Greater agency roles may be required?
- PWSRCAC funding likely available if we can resurrect deployment.

Questions or comments?

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