

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER  
INTERAGENCY MANAGEMENT INTEGRATION TEAM (IAMIT)  
DECISION / DETERMINATION / ACTION ASSIGNMENT  
Number: 2018-002

This form is intended to document the decisions and determinations made by the IAMIT within their authorities under the terms and conditions of the Hanford Federal Facility Agreement and Consent Order. This form is also intended to provide notification, to the affected persons, of the IAMITs decisions / determinations or actions assigned.

**SUBJECT:** (Note the change request number, disputed subject or milestone addressed)

200-BP-5 and 200-PO-1 Interim Record of Decision (IROD)

**DECISION / DETERMINATION / ACTION ITEM:** (Note the assignee and due date)

The U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), and the Washington State Department of Ecology (Ecology) herein after referred to as the Parties, have been working collaboratively to develop the attached 200-BP-5 and 200-PO-1 Interim Record of Decision (IROD) Strategy.

This IAMIT determination documents the agreement between the Parties in pursuing an IROD for the 200-BP-5 and 200-PO-1 groundwater operable units (OUs) based upon the recommended path forward in the strategy and that a final (non-interim) ROD for these 200 East Area groundwater OUs will be developed after contaminant sources are adequately characterized.

**IS THIS DECISION / DETERMINATION / ACTION ITEM**

FINAL       INTERIM (Further action to be taken)

**IAMIT MEMBER APPROVALS**

Joe R. Franco  
Joe R. Franco, DOE-RL

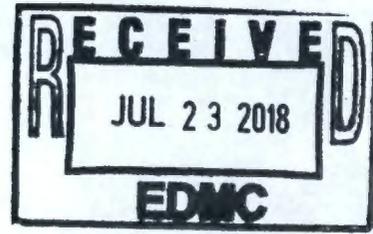
7/19/18  
Date

Dave R. Einan  
Dave R. Einan, EPA

19 Jul 18  
Date

Alex K. Smith  
Alex K. Smith, Ecology

7/19/18  
Date



## 200-BP-5 and 200-PO-1 Interim Record of Decision (IROD) Strategy

### 1. Background:

The 200-BP-5 and 200-PO-1 groundwater operable units (OUs) beneath the 200 East Area are undergoing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Investigation/Feasibility Study (RI/FS) process. For the 200-BP-5, a draft remedial investigation report has been prepared (DOE/RL-2009-127; Draft A). For 200-PO-1, a remedial investigation report has been completed (DOE/RL-2009-85), and an addendum to the report has been drafted as an update (DOE/RL-2009-85ADD1). The Department of Energy (DOE) is currently responding to regulator comments for both the 200-BP-5 RI and the 200-PO-1 RI Addendum, as part of the review and approval process. The overlying source OUs (e.g., 200-DV-1, 200-EA-1, 200-IS-1, 200-SW-2 and canyon OUs) and Waste Management Areas are in the early stages of the CERCLA RI/FS or Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Corrective Measures Study (CMS) process.

Considering that the source investigations are not complete, the Parties agree that the necessary information is not available to prepare a Feasibility Study that supports a final (non-interim) Record of Decision (ROD) for the groundwater OUs. Therefore, the Parties are pursuing an interim record of decision (IROD) for the groundwater OUs to expedite the remediation of some groundwater contaminant plumes and coordinate with actions at C Farm. The rationale for an IROD for the groundwater OUs is provided below. The Parties agree that a final (non-interim) ROD for the 200 East Area groundwater OUs will be developed after contaminant sources are adequately characterized.

During the planning and implementation of the IROD, groundwater monitoring will continue to be conducted throughout 200-BP-5 and 200-PO-1 OUs. Existing Sampling and Analysis Plans (SAPs) for these two OUs will be updated as appropriate and will remain in effect while the IROD is being implemented. The existing SAPs are:

- DOE/RL-2014-33, Groundwater Sampling and Analysis Plan for the 200-BP-5 Groundwater Operable Unit
- DOE/RL-2003-04, Sampling and Analysis Plan for the 200-PO-1 Groundwater Operable Unit

Milestone M-015-21A has been modified per change request M-15-18-01 to an interim action with the draft FS Report and Proposed Plan (PP) due to Ecology on 3-31-19. The schedule for the preparation of the FS and PP for the Final Action will be provided in the interim Action Remedial Design and Remedial Action (RD/RA) Work Plan.

## 200-BP-5 and 200-PO-1 Interim Record of Decision (IROD) Strategy

### 2. Objectives:

Primary objective of IROD for 200-BP-5/200-PO-1:

- Capture and remove contaminants of concern (COCs) from groundwater under B Complex and C Farm and A/AX Farm plume areas sufficient to reach drinking water standards within a reasonable timeframe.
- Gather additional information from remedy performance monitoring and groundwater sampling in the areas addressed by the interim action in the 200-BP-5/200-PO-1 OU areas to support future (non-interim) decision(s) for Central Plateau groundwater OUs. While it is not part of this IROD, monitoring will continue in the rest of the OUs pursuant to existing RI/FS work plans listed above.

Secondary objective: Consider capture and removal of COCs from groundwater in the Gable Gap as an efficiency consideration during operation of the 200 West Pump and Treat (P&T) facility.

### 3. Scope:

- The IROD will address specific plume areas within the two groundwater OUs (200-BP-5 and 200-PO-1) that merit near-term action (Figure 1). The entirety of the two groundwater OUs may need additional (non-interim) remedial action(s) to address the rest of the contaminant plumes once source areas are adequately characterized.
- Uranium and Technetium-99 (Tc-99) are the interim action COCs as identified below:
  - B Complex plume area: Uranium & Tc-99
  - C Farm and A/AX Farm plume areas: Tc-99
  - Gable Gap plume area: Tc-99
- Co-contaminants (e.g., tritium, I-129, nitrate, cyanide) will be addressed by the 200 West P&T where the IROD is implemented. The co-contaminants may become COCs in a future ROD.
- Alternatives to be evaluated for the IROD are:
  - No action
  - P&T at B Complex and C Farm and A/AX Farm
  - P&T at B Complex, C Farm and A/AX Farm, and Gable Gap
  - NOTE: These alternatives allow for public involvement in a decision about when and how the Gable Gap Tc-99 is addressed, but also focuses on the identified immediate needs in the two areas (B Complex and C Farm and A/AX Farm plume areas) with contaminant plumes that are most likely to have extensive migration.
- A technology screening process will be streamlined as it is well understood that P&T is the most viable option for the implementation of the interim action alternatives being contemplated.
- The interim FS and PP would include a discussion on how this IROD strategy fits into the overall future RI/FS/PP process for 200-BP-5 and 200-PO-1 (a roadmap). The IROD

## 200-BP-5 and 200-PO-1 Interim Record of Decision (IROD) Strategy

remedial actions would be implemented, as needed to reach Remedial Action Objectives, or until it is amended or superseded by a final ROD.

- Groundwater monitoring for the entirety of the two groundwater OUs would continue for groundwater contaminants of potential concern through existing RI/FS work plans and their SAPs not specifically addressed in the IROD.
- Risk assessment and Fate & Transport (F&T) evaluations in the current RI reports are sufficient to support an IROD addressing the advancing plumes. Throughout the existing RI reports, language is to be added to the text to explain this strategy and provide context for the OUs.
  - The F&T evaluations that were performed to prepare the interim draft FS (using 2013 plume configurations) are consistent with the F&T evaluations in the existing RI reports. These evaluations are sufficient and will form the basis for actions under the IROD. After the IROD is issued, most recently-available plume configurations will be used for the interim RD/RAWP to support the remedy design calculations.
  - P&T flow rates currently estimated in the interim draft FS are: 100-200 gpm at B Complex, 50-100 gpm at C Farm/A/AX Farm, 50-100 gpm at Gable Gap (the three alternative scenarios will be evaluated using the previously described 2013 model). Flow rates, pumping durations, and plume configurations will be updated in the interim RD/RAWP.
- Alternatives scope and cost estimates provided in the interim action FS (NOTE: contingent on agreement by Ecology) are sufficient for use in the interim FS. The schedule for preparation of the interim action FS is based on the assumption that no additional engineering/hydraulic analyses or cost estimates are needed. This is based on the 200-BP-5 and 200-PO-1 RI/FS Work Plans and the RI reports. Therefore, it is anticipated that the information gathered as part of the work plans will be adequate for the interim action FS.
- The interim alternatives will not require further characterization or treatability testing prior to the IROD:
  - Data needed for remedy design could be included in interim RD/RAWP, if needed. Those data needs may include additional characterization for the remedial design, geochemical evaluations, aquifer testing, and other remedial design considerations as part of the Interim Action.
- Extracted water is conveyed via the B Complex pump station to the 200 West P&T facility for treatment. The pump station may require upgrades and installation of an additional cross-site pipeline depending on the selected alternative.
- The treated groundwater will be injected near the 200 West P&T facility as is currently practiced in accordance with Applicable or Relevant and Appropriate Requirements (ARARs), and will not be returned to the 200 East Area for re-injection. However, some treated water will be needed for injection into the Gable Gap area, if it is part of a

## 200-BP-5 and 200-PO-1 Interim Record of Decision (Irod) Strategy

selected alternative, to provide effective removal of Tc-99. This will require installation of additional transfer pipeline(s).

- Because the Irod will focus on immediate needs for action in the OUs, Monitored Natural Attenuation (MNA) is not expected to be a component of the remedial alternatives that are considered. MNA may be included as part of the final ROD.
- Performance monitoring will be assessed through the interim RD/RAWP.

#### 4. Path forward for final remedial action for 200-BP-5 and 200-PO-1 OUs:

- The entirety of the two groundwater OUs will need future ROD to address the rest of the contaminant plumes. The schedule for the remaining plumes will be determined once contaminant sources are adequately characterized from source area investigations.
- Information gained from implementation of the interim action remedy will support data needs for a future (non-interim) remedial action.
- The existing RI/FS work plans and SAPs will be revised to address data gaps and data needs for the future (non-interim) groundwater decision(s).
- Source units RI/FSs and RFI/CMSs will assess potential future contaminant contribution from the vadose zone to groundwater and associated remediation needs. Source contribution to the groundwater will be addressed in a future (non-interim) 200-BP-5/200-PO-1 ROD, or other applicable decision documents.
- The future (non-interim) 200-BP-5/200-PO-1 ROD will address remaining COCs and plumes and could include alternatives such as active P&T, MNA, and institutional controls.

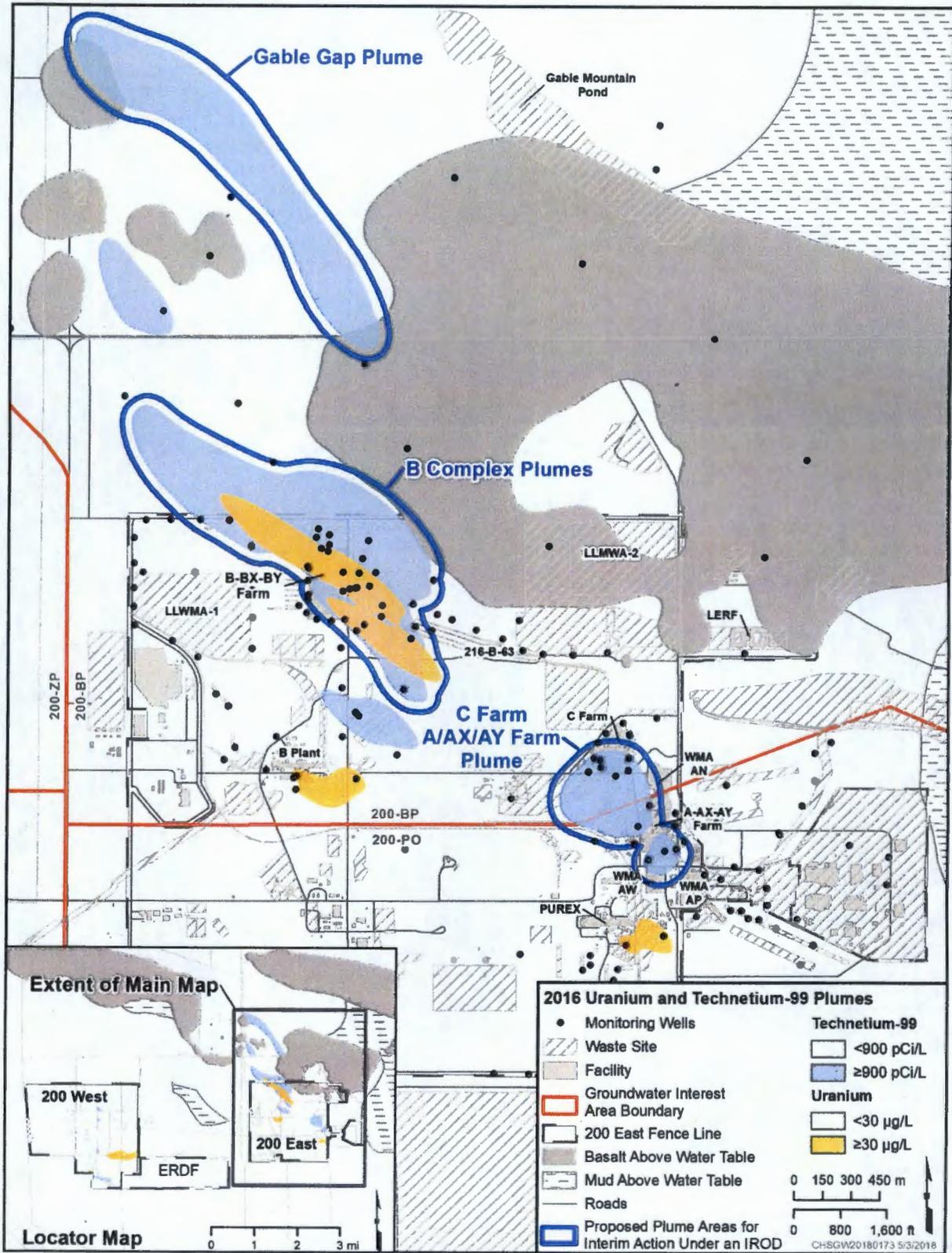
#### 5. Unresolved Issue:

Need to identify new milestones to provide for revision of existing RI/FS work plans and for an FS report and PP that address all of 200-BP-5 and 200-PO-1:

- When the RD/RAWP for the interim action ROD is developed, the regulatory agencies expect identification of a new milestone for a future (non-interim) FS/PP for the remainder of the OUs.
- The major milestone, M-015-00, "Complete the RI/FS process for all non-tank farm operable units" is due in 2026. There will likely not be sufficient source information from source OUs and tank farms for the new milestone to be within M-015-00.
  - Either M-015-00 needs to be delayed, or a new major milestone will need to be identified that completes the RI/FS process for the two groundwater OUs without delaying the rest of the source OU RI/FS completions under the M-015 major milestone.

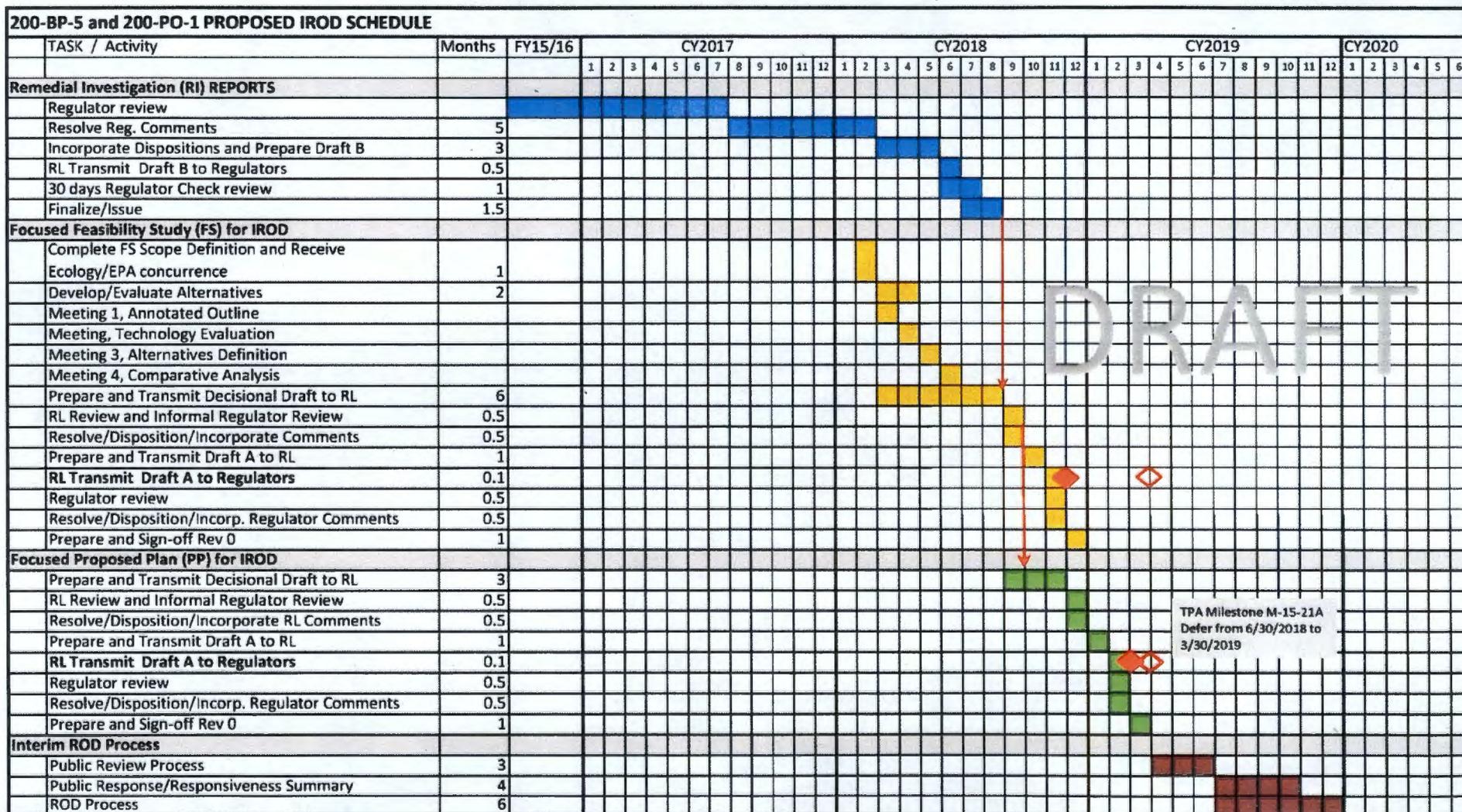
200-BP-5 and 200-PO-1 Interim Record of Decision (IROD) Strategy

Figure 1. Proposed Groundwater Plume Areas to be Addressed by 200-BP-5/200-PO-1 IROD



## 200-BP-5 and 200-PO-1 Interim Record of Decision (IROD) Strategy

**Figure 2. 200-BP-5 and 200-PO-1 Proposed IROD Schedule**



DRAFT

TPA Milestone M-15-21A  
Defer from 6/30/2018 to  
3/30/2019