

Handout 13B
Schedule Highlights
Summary of Key Schedule Changes

Consultative Work Group Meeting
October 27, 2021

Schedule Highlights

Groundwater Remedy Construction

Phase 1: NTH IRZ* and Supporting Components, Monitoring Wells, Riverbank Wells*, Pipelines, Remedy-produced Water Conditioning Tank Farm

- Phase 1 Construction – 10/2/18 to 12/4/21**
 - Construction progress/schedule is communicated via:
 - **Daily** list of construction activities
 - **Weekly** emails of 6-week look ahead
 - **Monthly** progress reports
 - **CWG schedule updates**
- Shutdown IM3/Start-up IRZ –12/4/21**

** Does not include northern IRZ well (IRZ-1), select IRZ well screens, and northern Riverbank Well (RB-1).*

*** This forecast of 12/4/21 represents an approximate 2 months delay since last CWG (6/16/21). This delay is due to a slower-than-anticipated production rate for the site-wide electrical and controls installation, which was caused by a combination of supply issue (e.g., availability of critical parts) and availability of skilled trades (e.g., high turn-over rate of skilled labor).*

Shutdown IM3/Start-up IRZ

First Injection of Ethanol Can Occur as Early as 12/4/21

- Corresponds with the first day of IRZ start-up (Line 1771 of Handout 13A, Detailed Schedule)
- IM3 extraction wells must be shut down prior to ethanol injection
- Agencies' approval is required for IM3 shutdown
 - PG&E will send an email to inform DTSC/DOI that IM3 is ready to be shutdown – 12/2
 - Anticipate DTSC's approval for IM3 shut down – 12/3
 - Anticipate DOI's concurrence with DTSC – 12/3
- After receipt of agencies' approval, PG&E shuts down IM3 extraction wells – 12/4
- PG&E injects ethanol into ground – 12/4

Groundwater Remedy Construction

Phase 2A: TCS Recirculation Loop*, Freshwater Injection Well (FW-2) and Associated Arsenic Monitoring Wells, Pipelines (Inside/Outside of TCS)*

- Site Kick-Off Meeting – 2/14/22
- Mobilization – 2/14 to 3/7/22
- Pilot Borehole/Well Installation/Well Buildout – 3/8/22 to 2/10/23
- Pipeline Installation – 4/4 to 12/9/22
- Site Electrical/Instrumentation & Control – 12/20/22 to 3/30/23
- System Integration/Functional Testing – 1/25/23 to 4/27/23
- Phase 2A Start-Up – 4/27/2023

** Per 2015 BOD, TCS Recirculation Loop consists of 2 injection wells in TCS, 2 extraction wells on the Transwestern Bench, and 4 extraction wells in the East Ravine area. All planned wells will be installed in Phase 2A except for ER-3 and ER-4. These wells and the ER connecting pipeline are planned for Phase 2B. The pipeline connecting RB wells will be installed in Phase 2A.*

Groundwater Remedy Construction

Phase 2B: Inner Recirculation Loop* IRL Wells, Freshwater Injection Well FW-1, Upland Monitoring Wells, Pipelines (Inside/Outside TCS), AZ Facilities to Convey Water from Freshwater Supply Well (HNWR-1A) to California

- Site Kick-Off Meeting – 9/5/23
- Mobilization – 9/5 to 10/2/23
- California Remedy Facilities – 10/3/23 to 11/13/25
 - Upland Monitoring/Remediation Wells and ER-3/ER-4 – 10/3/23 to 11/12/24
 - Pipeline – 4/25/24 to 5/29/24
 - Remaining TCS Facilities and MW-20 Bench – 10/3/23 to 7/22/25
 - Site Electrical/I&C – 5/30/25 to 11/13/25
- Arizona Remedy Facilities – 10/30/23 to 7/16/24
 - HNWR-1A Buildout/Power/Site Civil/Security – 4/15/24 to 7/16/24
 - Pipeline from AZ to CA – 10/30/23 to 4/12/24

** Per 2015 BOD, the Inner Recirculation Loop consists of 4 IRL wells in the uplands and 5 RB wells along the riverbank. All IRL wells will be installed in Phase 2B. Four Riverbank Wells (RB-2, 3, 4, 5) were installed in Phase 1, with full buildout of RB-5 planned in Phase 2A and of RB-2, 3, and 4 planned in Phase 2B.*

Groundwater Remedy Construction

Phase 2B: Inner Recirculation Loop* IRL Wells, Freshwater Injection Well FW-1, Upland Monitoring Wells, Pipelines (Inside/Outside TCS), AZ Facilities to Convey Water from Freshwater Supply Well (HNWR-1A) to California

- System Integration/Functional Testing – 8/14/25 to 1/29/26
- Phase 2B Start-Up – 1/29/2026

** Per 2015 BOD, Inner Recirculation Loop consists of 4 IRL wells in the uplands and 5 RB wells along the riverbank. All IRL wells will be installed in Phase 2B. Four Riverbank Wells (RB-2, 3, 4, 5) were installed in Phase 1, with full buildout of RB-5 planned in Phase 2A and of RB-2, 3, and 4 planned in Phase 2B.*

Soil RFI/RI Reporting (Volume 3)

- Soil RFI/RI Report
 - Draft Report – submitted 12/9/19
 - Review and Comment
 - Tribes and Stakeholder Review: 12/10/19 – 3/20/20
 - Agencies Review: 12/10/19 – 4/3/20
 - Response to Comments/Comment Resolution
 - Sent RTC Table: 10/30/20
 - Sent meeting agenda: 12/8/20
 - Comment resolution meeting held on 12/9 and 12/10/20

Soil RFI/RI Reporting (Volume 3)

(Continued)

- **Soil RFI/RI Report (Continued)**
 - Revised Report – submitted 5/31/2021
 - Review and Comment
 - Tribes and Stakeholder Review: 6/1 – 8/31/21
 - Agencies Review: 6/1 – 9/24/21
 - PG&E reviewed comments/determined that a meeting is not needed to clarify comments from Tribes
 - Response to Comments/Comment Resolution
 - Compiled comments into RTC Table: 10/22/21
 - Prepare responses to comments: 9/27-12/17/21
 - Send RTC Table with responses to comments: 12/20/21
 - Send meeting agenda: Target 1/10/22
 - Hold comment resolution meeting: Target 1/24/22

Soil RFI/RI Reporting (Volume 3)

(Continued)

- Soil RFI/RI Report (Continued)
 - Final Report – Forecast 2/7/22
 - Agencies Review/Approve – Forecast 3/8/22

Soil Risk Assessment (RA) Addendum

- A Soil Risk Assessment Addendum will be prepared after the implementation of the Soil NTCRA
 - Prepare/submit RA Addendum: 11/10/22
 - Tribes/Stakeholders review/comment: 11/10-12/13
 - Agencies review/comment: 11/10-12/26
 - Compile/prepare RTCs: 12/26/22-3/9/23
 - Review RTCs/comment resolution: 3/10-4/6/23
 - Finalize/submit RA Addendum: 4/6-5/4/23
 - Anticipate Agencies' Approval: 5/11/23
- Results of the approved Soil RA Addendum will be incorporated into the NTCRA Completion Report
- Conclusions from the NTCRA Completion Report will be incorporated into the Draft Soil CMS/FS

Soil Corrective Measure Study/Feasibility Study (CMS/FS)

- Draft CMS/FS – Forecast November 2023
- Response to Comments – Forecast Q1 2024 to Q2 2024
- Final CMS/FS and Agencies Approval – Forecast Q4 2024

Soil Remedy Decision (Statement of Basis/Record of Decision)

- DTSC's Statement of Basis/Adoption of Remedy – Forecast Q1 2025
 - CEQA evaluation of the selected remedy will be conducted after Final CMS/FS
- DOI's Record of Decision – Forecast Q3 2025

Soil Non-Time Critical Removal Action

Engineering Evaluation/Cost Analysis (EE/CA), Action Memorandum

- Draft Soil Engineering Evaluation/Cost Analysis - 5/29/20
 - Stakeholders/Public Review: 6/3 – 8/5/20
 - Tribal Consultation: 6/3 – 2/12/21
- DOI sent responses to comments – 4/23/21
- DOI considers comments and makes final decision
 - Final EE/CA & Responsiveness Summary – 10/12/21
 - Approval of Action Memorandum – 10/12/21

Soil Non-Time Critical Removal Action

NTCRA Work Plan Preparation

- **Draft NTCRA Work Plan – Target 10/29/21**
 - BLM sends Work Plan to Tribes: 11/1 - 11/4
 - Tribal Consultation: 11/4 - 12/6
 - DTSC and Stakeholders Review/Comment: 11/1 - 12/1
 - DOI Review/Comment: 11/1 – 12/1
- **Response to Comments (RTC)**
 - PG&E compiles/prepares RTCs: 12/6/21 - 1/18/22
 - Agencies/Tribes/Stakeholders review RTCs: 1/19 – 1/25/22
 - Meeting to discuss RTCs/comment resolution: 1/27/22
- **Final NTCRA Work Plan**
 - PG&E addresses/finalizes Work Plan – 1/28 to 2/25/22
 - DOI reviews/approves Work Plan – 1/28 to 3/4/22

Soil Non-Time Critical Removal Action

NTCRA Work Plan Implementation, Reporting, and Agency Acceptance

- Work Plan Implementation – 3/7 to 8/29/22
- Removal Action Completion Report (incorporate results from the Soil Risk Assessment Addendum) – 5/19/2023
- DOI review/accept report – 6/19/2023

Summary of Schedule Changes

Handout 13B

Summary of Key Schedule Changes since August 15, 2007 (Rev. 48)

Yellow highlights are changes since June 16, 2021 CWG

Activities	Forecast Schedule Deviation	Key Reasons
Groundwater		
Phase 1 Construction (Lines 1755-1773)	FF for completion of construction <ul style="list-style-type: none"> • 6/18/2014 (Rev. 11) • 6/26/2014 (Rev. 12) • 8/18/2014 (Rev. 13) • 9/29/2014 (Rev. 14) • 2/26/2015 (Rev. 15) • 9/17/2015 (Rev. 16) • 12/4/2015 (Rev. 17) • 9/16/2016 (Rev. 18) • 10/17/2016 (Rev. 19) • 11/8/2016 (Rev. 20) • 1/10/2017 (Rev. 21) • 4/5/2017 (Rev. 22) • 4/13/2017 (Rev. 23) • 6/25/2018 (Rev. 24) • 7/30/2018 (Rev. 25) • 10/15/2018 (Rev. 26) • 12/18/2019 (Rev. 27) • 1/29/2020 (Rev. 28) • 1/28/2019 (Rev. 29 and 30) • 3/7/2019 (Rev. 31) • 5/20/2019 (Rev. 32/ 33) • 6/27/2019 (Rev. 34) • 9/6/2019 (Rev. 35) • 10/25/2019 (Rev. 36) • 10/2/2020 (Rev. 37) • 9/15/2020 (Rev. 38, 39, & 40) • 6/28/2021 (Rev. 41, 42, 43, 44, 45) • 9/27/2021 (Rev. 46, 47) • 12/4/21 - 1/18/22 (Rev. 48) 	<ul style="list-style-type: none"> • Cascading extension of schedule from Preliminary (30%) Design. • Cascading extension of schedule from Intermediate (60%) Design Addendum. • Added high level details on construction activities at 60% design stage. • Cascading changes from Intermediate (60%) Design and 60% Design Addendum. • Cascading changes from the Freshwater Source Evaluation and Comment Resolution schedule. • Cascading changes from Pre-Final (90%) Design. • Updated the construction schedule per the September 8, 2014 Pre-Final (90%) Design Submittal. • Cascading changes from certification of Final SEIR and Agencies' approval of Final Design and C/RAWP. • Implementation of phased construction approach. • Extension of Phase 1 construction schedule reflects temporary shutdown of project in Jan 2019 due to PG&E Chapter 11 bankruptcy filing, approved work variance requests, and current implementation challenges. • Extension of Phase 2 construction schedule reflects the cascading effects of Phase 1 and an extended period for initial operation of the NTH IRZ from 12 to 24 months to get data from a full IRZ operation cycle (6 months on, 18 months off). • Time extension reflects a delay in the switch gear delivery schedule, which is critical to provide power to the startup of the NTH IRZ. • Time extension reflected the slower-than-anticipated production rate for site wide electrical and I&C installation. Delays are due to availability of critical components and shortages of skilled labor.

<p>NTH IRZ Start-up/Initial Operation (Line 1771)</p>	<p>FF for completion of startup</p> <ul style="list-style-type: none"> • 12/14/2015 (Rev. 14) • 5/13/2016 (Rev. 15) • 12/2/2016 (Rev. 16) • 2/20/2017 (Rev. 17) • 11/23/2017 (Rev. 18) • 1/2/2018 (Rev. 19) • 1/24/2018 (Rev. 20) • 3/28/2018 (Rev. 21) • 6/21/2018 (Rev. 22) • 6/29/2018 (Rev. 23) • 9/10/2019 (Rev. 24) • 10/15/2019 (Rev. 25) • 12/31/2019 (Rev. 26) • 3/4/2021 (Rev. 27) • 4/15/2021 (Rev. 28) • 1/28/2020 (Rev. 29 and 30) • 3/6/2020 (Rev. 31) • 5/19/2020 (Rev. 32/33) • 6/26/2020 (Rev. 34) • 9/7/2020 (Rev. 35) • 10/26/2020 (Rev. 36) • 9/20/2020 (Rev. 37) • 9/16/2020 (Rev. 38, 39, & 40) • 6/30/2023 (Rev. 41, 42, 43, 44, 45) • 9/26/2023 (Rev. 46, 47) • 12/4/21-1/18/22 (Rev. 48) 	<ul style="list-style-type: none"> • Cascading extension of schedule from the above items. • Cascading changes from Intermediate (60%) Design and 60% Design Addendum. • Cascading changes from the Freshwater Source Evaluation schedule. • Cascading changes from Pre-Final (90%) Design. • Cascading changes from Construction line items. • Cascading changes from approval of Final Design and C/RAWP. • Implementation of phased construction approach. • Extension of the completion of NTH IRZ start-up/initial operation reflects changes in a) Phase 1 construction (see above) and b) duration of initial operation from 12 to 24 months to get data from a full IRZ operation cycle (6 months on, 18 months off). • Cascading schedule impact from the delay of switch gear delivery (see above). • Eliminated the 2-year initial operation (then start Phase 2 construction) as shown in previous schedules. Reason is to move up Phase 2 construction.
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Soil

<p>RFI/RI Vol. 3 Reporting (Revised report, RTCs, Final, Approvals) (Lines 1029-1043)</p>	<ul style="list-style-type: none"> • FF 7/8/2014 (Rev. 15) • FF 10/1/2014 (Rev. 16) • FF 8/18/2015 (Rev. 17) • FF 12/29/2015 (Rev. 18) • FF 7/26/2016 (Rev.20) • FF 10/25/2016 (Rev. 22) • FF 10/24/2016 (Rev. 23) • FF 2/7/2017 (Rev. 24) • FF 2/22/2017 (Rev. 25) • FF 6/27/2017 (Rev. 26) • FF 7/25/2017 (Rev. 27) • FF 2/16/2017 (Rev. 28 and 29) • FF 11/15/2017 (Rev. 30) • FF 10/29/2018 (Rev. 32 and 33) • FF 12/17/2018 (Rev. 34) • FF 2/7/2019 (Rev. 35 and 36) • FF 9/24/2019 (Rev. 37 and 38) • FF 2/7/2020 (Rev. 39 and 40) • FF 6/9/2020 (Rev. 41) • FF 9/7/2020 (Rev. 42, 43) • FF 11/3/2021 (Rev. 44, 45) • FF 3/8/2022 (Rev. 46, 47) • FF 5/6/22 (Rev. 48) 	<ul style="list-style-type: none"> • Adjusted schedule to reflect current anticipated approval date and scope of the Final Soil RFI/RI Work Plan. • Cascading changes from Soil Work Plan approval and Soil EIR. • Cascading changes from Soil Work Plan approval and implementation. • Cascading changes from Soil Work Plan implementation/Data Gaps Analysis. • Adjusted schedule to incorporate results from the soil risk assessment into the RFI/RI Vol. 3 Report, and to reflect a RTC process in accordance with the October 29, 2012 letter from DTSC to Tribes, titled Response to Comments Process - PG&E Topock Compressor Station, Needles, California • Cascading changes from Work Plan Implementation/Data Gaps Evaluation. • Schedule reflects implementation of Soil RFI-RI-RA RTC protocol. • Cascading changes from Soil Risk Assessment. • Extension of schedule to reflect the additional time needed to incorporate results from the Soil Risk Assessment after agencies' approval. Additional time was also added to allow Tribes, stakeholders, and agencies more time to review the report over end of year holidays. • Extension of schedule to reflect a revision of the Soil RFI/RI Vol. 3 report and additional review as well as RTC of the revised report. • Extension of schedule reflects the actual timing of comment resolution as well as the time needed to revise the Soil RFI/RI report based on actual comment resolution. • Extension of schedule reflects an extended review/comment period.
<p>Soil Risk Assessment Addendum (Preparation, Review/ comment, RTCs, Final, Approval) (Lines 1002-1015)</p>	<ul style="list-style-type: none"> • FF 5/11/2023 	<ul style="list-style-type: none"> • Based on completion of Soil NTCRA implementation on 8/29/22 (Line 1067).

<p>Soil Corrective Measure Study/Feasibility Study (Draft CMS/FS, RTC, Final CMS/FS, Agencies Approval) (Lines 1383-1403)</p>	<ul style="list-style-type: none"> • FF 11/24/2022 (Rev. 44, 45) • FF 5/12/2023 (Rev. 46, 47) • FF 10/4/2024 (Rev. 48) 	<ul style="list-style-type: none"> • Cascading changes from Soil RFI/RI report. • Schedule reflects the incorporation of conclusions from the Soil Risk Assessment Addendum and the NTCRA Completion Report into the Draft CMS/FS.
<p>DTSC CEQA Evaluation (placeholder only) (Line 1404)</p>	<ul style="list-style-type: none"> • To be determined after CMS/FS is complete. 	
<p>Statement of Basis including Public Review to Remedy Adoption (Lines 1413-1419)</p>	<ul style="list-style-type: none"> • FF 6/28/2023 (Rev. 44, 45) • FF 10/31/2023 (Rev. 46, 47) • FF 3/25/25 (Rev. 48) 	<ul style="list-style-type: none"> • Cascading changes from Soil RFI/RI and CMS/FS reports.
<p>Proposed Plan/Record of Decision (Lines 1432-1441)</p>	<ul style="list-style-type: none"> • FF 9/21/2023 (Rev. 44, 45) • FF 3/8/2024 (Rev. 46, 47) • FF 8/1/2025 (Rev. 48) 	<ul style="list-style-type: none"> • Cascading changes from Soil RFI/RI and CMS/FS reports.
<p>Soil Non-Time Critical Removal Action (through Action Memorandum) (Lines 1045-1054)</p>	<ul style="list-style-type: none"> • FF 2/1/2021 (Rev. 44, 45) • FF 4/13/2021 (Rev. 46, 47) • AF 10/12/2021 (Rev. 48) 	<ul style="list-style-type: none"> • Schedule was updated to reflect the duration of Tribal Consultation on the draft EE/CA and the duration for the Approval Memorandum.
<p>Soil Non-Time Critical Removal Action (NTCRA Work Plan through Acceptance of Completion Report) (Lines 1055-1069)</p>	<ul style="list-style-type: none"> • FF 6/19/2023 (Rev. 48) 	