# Handout 12B Schedule Highlights Summary of Key Schedule Changes

Consultative Work Group Meeting December 5, 2023

### **Schedule Highlights**

Text in "red font" represents updates from last CWG (May 9, 2023)

#### **Phase 1 Groundwater Remedy Construction**

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

- Phase 1 Construction, Startup, and Initial Operation 10/2/18 to 6/24/22
  - Progress and schedule are communicated via:
    - Daily list of construction activities
    - Weekly emails of 6-week look ahead
    - Monthly progress reports
    - Quarterly progress reports (focuses on operations & maintenance)
    - CWG schedule updates
- Switch from Temporary (Portable Generators) to
   Permanent Power (Topock Compressor Station) 3/24/22
- Remedy-Produced Water Conditioning system 6/24/22

<sup>\*</sup> Excludes northern IRZ well (IRZ-1), select IRZ well screens, and northern Riverbank Well (RB-1).

#### **Phase 2A Groundwater Remedy Construction**

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

- Phase 2A Construction and Startup 3/7/22 to 7/1/24
  - Mobilization 2/14 to 3/7/22
  - Pilot Borehole/Well Installation/Well Buildout 3/8/22 to 7/1/24
    - Assumes a decision is made on locations of arsenic MWs associated with FW-2 in Q1 2024
  - Pipeline Installation 4/4/22 to 6/30/23 (Pipeline connection to FW-2 combine with Phase 2B pipelines)
  - Site Electrical/Instrumentation & Control 12/20/22 to 10/23/23
- Phase 2A Startup Combine with Phase 2B for complete remedy startup
- A pause of Phase 2A heavy construction (from June to August 2023) occurred due
  to delayed receipt of vault panel components. The vault components were
  received in August 2023, and were installed by October 2023. On August 15,
  2023, PG&E informed DTSC and DOI that PG&E intends to extend the
  construction pause as PG&E awaits further direction on the proposed Phase 2B
  design modification submitted to the agencies Dec 2022.

<sup>\*</sup> The TCS Recirculation Loop consists of injection wells in TCS, extraction wells at the Transwestern Bench, extraction wells in the East Ravine (along historic Route 66), and associated pipelines.

#### **Phase 2B Groundwater Remedy Construction**

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

- Planning/Contracting September 2024
- Site Kick-Off Meeting December 2024
- Mobilization Mid-December 2024 to mid-January 2025
- California Remedy Facilities January 2025 to November 2026
- Arizona Remedy Facilities January to June 2025
- System Integration/Functional Testing November 2026 to May 2027
- Completed Remedy Startup Forecast May 2027

<sup>\*</sup> Per 2015 BOD, the Inner Recirculation Loop consists of IRL wells in the uplands and Riverbank (RB) wells along the riverbank. RB wells (RB-2 through RB-5) were installed in Phase 2A. All IRL wells are planned for Phase 2B.

<sup>\*\*</sup> Pipeline connecting FW-2 is combined with Phase 2B pipelines.

# Proposed Phase 2B Design Modification

- PG&E submitted proposal to DTSC/DOI 12/2/22
- DTSC forward to CWG/TWG 12/22/22
- FMIT provided comments 3/7/22
- Tribal consultation Started 3/20/23, ongoing
- Quechan Indian Tribe provided concurrence with FMIT comments – 4/25/22
- DTSC provided comments 5/3/23
- Site visit May 11, 2023

On August 15, 2023, PG&E informed DTSC and DOI that PG&E intends to extend Phase 2A construction pause as PG&E awaits further direction on the proposed Phase 2B design modification.

# Five-Year Review of Groundwater Remedy

- First Five-Year Review
  - Public Notice/Factsheet May 1, 2023
  - Request for Interview May 1 to May 31, 2023
  - Interview June 1 to July 31, 2023
  - Prepare Five-Year Review Report May 1 to December 29, 2023
  - Notice of Report Availability December 29, 2023

### 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
  - Prepared responses to comments: 9/27-12/17/21
  - Sent RTC Table with responses to comments: 12/20/21
  - Held four comment resolution meetings: 2/9, 2/10, 2/17, and 2/18/22
  - Sent RTC Table with revised sections of Soil RFI/RI Report 9/30/22

# Soil RFI/RI Reporting (Volume 3) (Continued)

### Soil RFI/RI Report (Continued)

- Review and Comment
  - Tribes and Stakeholder Review: 10/3/22 1/31/23
  - Agencies Review: 10/3/22 3/28/23
  - PG&E Review Comments/Prepare Responses 3/29 6/28/23
  - Comment Resolution 7/13 8/1/23
- Submit Final Report October 2, 2023
- Agencies Review October-December 2023
- Anticipate Approval December 2023

#### **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, Agency Approval** 

#### Draft NTCRA Work Plan – 10/29/21

- BLM sends Work Plan to Tribes: 11/1 11/4
- Tribal Consultation: 11/4 12/21
- DTSC Review/Comment: 11/1 12/28
- DOI Review/Comment: 11/1 12/20

#### Response to Comments (RTC)

- PG&E compiles/prepares RTCs: 12/28/21 3/24/22
- Agencies/Tribes/Stakeholders review RTCs: 3/25 4/13/22
- Meeting to discuss RTCs/comment resolution: 4/26, 5/5/22
- FMIT review redline RTCs and provide inputs to redline RTC Table: 6/3/22
- Quechan and Cocopah Tribes concur with FMIT inputs: 6/6/22
- Chemehuevi concur with FMIT inputs: 6/7/22

#### Final NTCRA Work Plan – Approved 6/27/22

- PG&E addresses/finalizes Work Plan 4/27 to 6/17/22
- DOI reviews/approves Work Plan 6/27/22

#### **Soil Non-Time Critical Removal Action**

NTCRA Work Plan Implementation, Reporting, and Agency Acceptance

- Soil NTCRA Implementation (includes restoration of Soil Processing Yard) – July 2022 to early March 2024
- Soil NTCRA Completion Report\* 12 weeks after completion of implantation, forecast late May 2024
- DOI review/accept report Forecast late June 2024

\* The Soil NTCRA Completion Report is independent from the Soil Risk Assessment Addendum. The Risk Assessment Addendum will incorporate validated NTCRA data and will feed into the Soil Corrective Measure Study/Feasibility Study.

# Soil Risk Assessment (RA) Addendum

- A Soil Risk Assessment Addendum will be prepared after the implementation of the Soil NTCRA
  - Validated NTCRA data available for Risk Assessment: mid February 2024
  - Prepare/submit RA Addendum: mid May 2024
  - Tribes/Stakeholders review/comment: mid May June 2024
  - Agencies review/comment: mid May early July 2024
  - Review RTCs/comment resolution: July October 2024
  - Finalize/submit RA Addendum: mid October December 2024
  - Anticipate Agencies' Approval: December 2024
- Results of the approved Soil RA Addendum will be incorporated into the Soil Corrective Measure Study/ Feasibility Study

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

- Prepare/submit draft CMS/FS: March 2026
  - Tribes/Stakeholders review/comment: 60 calendar days
  - Agencies review/comment: 75 calendar days
- Prepare RTCs/Comment Resolution: May-September 2026
- Finalize/submit final CMS/FS: December 2026
- Anticipate Agencies' Approval: January 2027

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

- DTSC's Statement of Basis/Adoption of Remedy – Forecast Q2 2027
  - CEQA evaluation of the selected remedy will be conducted after Final CMS/FS

 DOI's Record of Decision – Forecast Q3 2027

### **Summary of Schedule Changes**

#### Handout 12B

#### Summary of Key Schedule Changes since August 15, 2007 (Rev. 53)

#### Yellow highlights are changes since May 9, 2023 CWG

Activities	Forecast Schedule Deviation	Key Reasons		
Groundwater Remedy Construction				
Phase 2A Construction and Startup (Lines 1807-1820)	FF for completion of construction  • 4/27/2023 (Rev. 48, 49, 50)  • 5/30/2023 (Rev. 51)  • 4/24/2024 (Rev. 52)  • 7/1/2024 (Rev. 53)	<ul> <li>Time extension reflects adjustments made from remedy construction sequencing and implementation details.</li> <li>Rev 52 schedule included a pause of Phase 2A heavy construction due to delayed receipt of vault panel components. The vault components were received in August 2023, and were installed by October 2023. On August 15, 2023, PG&amp;E informed DTSC and DOI that PG&amp;E intends to extend the construction pause as PG&amp;E awaits further direction on the proposed Phase 2B design modification submitted to the agencies Dec 2022.</li> <li>Rev 53 schedule includes an assumption that a decision on the locations of Arsenic monitoring wells associated with FW-2 occurs in Q1 2024 and monitoring well installation in Q2 2024.</li> </ul>		
Phase 2B Construction and Startup (Lines 1821-1845)	FF for completion of construction  ■ 5/1/2026 (Rev. 52)  ■ 5/1/2027 (Rev. 53)	• Rev 53 schedule reflects an assumption that Phase 2B planning/contraction starts in September 2024.		
Soil RCRA Facility (CMS/FS)	Investigation/Remedial Invest	igation (RFI/RI) and Corrective Measure Study/Feasibility Study		
RFI/RI Vol. 3 Reporting (Revised report, RTCs, Final, Approvals) (Lines 1030-1052)	<ul> <li>FF 7/8/2014 (Rev. 15)</li> <li>FF 10/1/2014 (Rev. 16)</li> <li>FF 8/18/2015 (Rev. 17)</li> <li>FF 12/29/2015 (Rev. 18)</li> <li>FF 7/26/2016 (Rev. 20)</li> <li>FF 10/25/2016 (Rev. 22)</li> <li>FF 10/24/2016 (Rev. 23)</li> <li>FF 2/7/2017 (Rev. 24)</li> <li>FF 2/22/2017 (Rev. 25)</li> <li>FF 6/27/2017 (Rev. 26)</li> <li>FF 7/25/2017 (Rev. 27)</li> <li>FF 2/16/2017 (Rev. 28 and 29)</li> <li>FF 11/15/2017 (Rev. 30)</li> </ul>	<ul> <li>Adjusted schedule to reflect current anticipated approval dateand scope of the Final Soil RFI/RI Work Plan.</li> <li>Cascading changes from Soil Work Plan approval and Soil EIR.</li> <li>Cascading changes from Soil Work Plan approval andimplementation.</li> <li>Cascading changes from Soil Work Plan implementation/DataGaps Analysis.</li> <li>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 DTSCto Tribes, titled Response to Comments Process - PG&amp;E Topock Compressor Station, Needles, California</li> <li>Cascading changes from Work Plan Implementation/Data GapsEvaluation.</li> <li>Schedule reflects implementation of Soil RFI-RI-RA RTCprotocol.</li> <li>Cascading changes from Soil Risk Assessment.</li> <li>Extension of schedule to reflect the additional time needed to incorporate results from the Soil Risk Assessment after agencies'approval. Additional time was also</li> </ul>		

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	<ul> <li>FF 10/29/2018 (Rev. 32 and 33)</li> <li>FF 12/17/2018 (Rev. 34)</li> <li>FF 2/7/2019 (Rev. 35 and 36)</li> <li>FF 9/24/2019 (Rev. 37 and 38)</li> <li>FF 2/7/2020 (Rev. 39 and 40)</li> <li>FF 6/9/2020 (Rev. 41)</li> <li>FF 9/7/2020 (Rev. 42, 43)</li> <li>FF 11/3/2021 (Rev. 44, 45)</li> <li>FF 3/8/2022 (Rev. 46, 47)</li> <li>FF 5/6/2022 (Rev. 48)</li> <li>FF 10/31/2022 (Rev. 50)</li> <li>FF 5/26/2023 (Rev. 51)</li> <li>FF 10/13/2023 (Rev. 52)</li> <li>FF 12/28/23 (Rev. 53)</li> </ul>	<ul> <li>added to allow Tribes, stakeholders, and agencies more time to review the report over end of year holidays.</li> <li>Extension of schedule to reflect a revision of the Soil RFI/RIVol. 3 report and additional review as well as RTC of the revised report.</li> <li>Extension of schedule reflects the actual timing of comment resolution as well as the time needed to revise the Soil RFI/R Ireport based on actual comment resolution.</li> <li>Extension of schedule reflects an extended review/comment period for the RTC and revised sections of the report and finalize the Soil RFI/RI report.</li> <li>Time extension reflects additional time needed to revise the RFI/RI Volume 3 report.</li> <li>Time extension reflects an additional one month requested by stakeholders to review and provide comments, and the anticipated duration to prepare responses to comments and resolve responses.</li> <li>Time extension reflects additional time for agencies' review and approval of the final Vol 3 report.</li> </ul>
Soil Risk Assessment Addendum (Report Preparation, Review/ comment, RTCs, Final, Approval) (Lines 1002-1016)	<ul> <li>FF 5/11/2023</li> <li>FF 6/13/2023 (Rev. 49)</li> <li>FF 9/4/2023 (Rev. 50)</li> <li>FF 1/15/2024 (Rev. 51)</li> <li>FF 9/25/2024 (Rev. 52)</li> <li>FF 12/26/2024 (Rev. 53)</li> </ul>	Cascading change from Soil NTCRA implementation due, primarily, to a significant larger volume of contaminated soil needing to be removed than anticipated in the NTCRA work plan.
Soil Corrective Measure Study/Feasibility Study (Draft CMS/FS, RTC, Final CMS/FS, Agencies Approval) (Lines 1400-1421)	<ul> <li>FF 11/24/2022 (Rev. 44, 45)</li> <li>FF 5/12/2023 (Rev. 46, 47)</li> <li>FF 10/4/2024 (Rev. 48)</li> <li>FF 10/30/2024 (Rev. 49)</li> <li>FF 12/27/2024 (Rev. 50)</li> <li>FF 6/20/2025 (Rev. 51)</li> <li>FF 10/19/2026 (Rev. 52)</li> <li>FF 1/19/2027 (Rev. 53)</li> </ul>	<ul> <li>Cascading changes from Soil RFI/RI report.</li> <li>Schedule reflects the incorporation of conclusions from the Soil Risk Assessment Addendum and the NTCRA Completion Report into the Draft CMS/FS.</li> <li>Cascading change from Soil NTCRA implementation.</li> </ul>
DTSC CEQA Evaluation (placeholder only) (Line 1422)	To be determined after CMS/FS is complete.	
Statement of Basis including Public Reviewto Remedy Adoption (Lines 1431-1437)	<ul> <li>FF 6/28/2023 (Rev. 44, 45)</li> <li>FF 10/31/2023 (Rev. 46, 47)</li> <li>FF 3/25/2025 (Rev. 48)</li> <li>FF 4/22/2025 (Rev. 49)</li> <li>FF 6/17/2025 (Rev. 50)</li> <li>FF 12/9/2025 (Rev. 51)</li> </ul>	Cascading changes from Soil RFI/RI and CMS/FS reports.

	• FF 4/7/2027 (Rev. 52)			
	• FF 7/8/2027 (Rev. 53)			
Proposed Plan/Record of Decision (Lines 1450-1459)	• FF 9/21/2023 (Rev. 44, 45)	Cascading changes from Soil RFI/RI and CMS/FS reports.		
	• FF 3/8/2024 (Rev. 46, 47)			
	• FF 8/1/2025 (Rev. 48)			
	• FF 8/27/2025 (Rev. 49)			
	• FF 10/24/2025 (Rev. 50)			
	• FF 4/17/2026 (Rev. 51)			
	• FF 8/18/2027 (Rev. 52)			
	• FF 11/17/2027 (Rev. 53)			
Soil Non-Time Critical Removal Action (NTCRA)				
Soil Non-Time Critical	• FF 6/19/2023 (Rev. 48)	Schedule was updated to reflect extended duration for the RTC		
Removal Action	• FF 7/13/2023 (Rev. 49)	process associated with the NTCRA Work Plan.		
(NTCRA Work Plan through Acceptance of Completion Report) (Lines 1053-1087)	• FF 10/20/2023 (Rev. 50)	• Rev 52 schedule reflects the additional time needed to a) step outside of the Target		
	• FF 3/1/2024 (Rev. 51)	Action Areas (TAAs) due to the presence of discolored materials and/or		
	• FF 10/7/2024 (Rev. 52)	concentrations higher than the Remedial Action Goals (RAGs) and b) manage site		
	• FF 6/24/2024 (Rev. 53)	conditions post August 2022 storm events.		
		• Rev 53 schedule reflects the decoupling of the Soil NTCRA completion report and		
		the Soil RA Addendum. The Soil RA Addendum will incorporate validated		
		NTCRA data and will feed into the Soil Corrective Measure Study/Feasibility		
		Study.		