

HANDOUT 9A - TOPOCK REMEDIATION PROJECT SCHEDULE FEBRUARY 12, 2014 CWG MEETING (REV. 21)

ID	Task Name	Duration	Forecasted Start	Forecasted Finish	Actual Start	Actual Finish	2014												2015				2016													
							Qtr 1			Qtr 2			Qtr 3			Qtr 4			Qtr 1		Qtr 2		Qtr 3		Qtr 4											
							D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
1100	Soil/Groundwater Risk Assessment Workplan (RAWP)	1859 days	Mon 10/29/07	Sun 12/7/14	Mon 10/29/07	NA	[Gantt bar from 10/29/07 to 12/7/14]																													
1101	RAWP	334 days	Mon 10/29/07	Thu 2/5/09	Mon 10/29/07	Thu 2/5/09	[Gantt bar from 10/29/07 to 2/5/09]																													
1127	RAWP Addendum II	486 days	Fri 1/25/13	Sun 12/7/14	Fri 1/25/13	NA	[Gantt bar from 1/25/13 to 12/7/14]																													
1128	PG&E submits Revised Arrowweed TM and RAWP Addendum II TM (Proposed Changes to RAWP)	1 day	Fri 1/25/13	Fri 1/25/13	Fri 1/25/13	Fri 1/25/13	[Gantt bar from 1/25/13 to 1/25/13]																													
1129	DTSC forward to CWG/TWG	2 days	Mon 1/28/13	Tue 1/29/13	Mon 1/28/13	Tue 1/29/13	[Gantt bar from 1/28/13 to 1/29/13]																													
1130	Tribal review/comment	91.38 edays	Tue 1/29/13	Tue 4/30/13	Tue 1/29/13	Tue 4/30/13	[Gantt bar from 1/29/13 to 4/30/13]																													
1131	CWG/TWG review on TMs	91.38 edays	Tue 1/29/13	Tue 4/30/13	Tue 1/29/13	Tue 4/30/13	[Gantt bar from 1/29/13 to 4/30/13]																													
1132	DTSC review/comment on the TMs	91.38 edays	Tue 1/29/13	Tue 4/30/13	Tue 1/29/13	Tue 4/30/13	[Gantt bar from 1/29/13 to 4/30/13]																													
1133	DOI review/comment on the TMs	91.38 edays	Tue 1/29/13	Tue 4/30/13	Tue 1/29/13	Tue 4/30/13	[Gantt bar from 1/29/13 to 4/30/13]																													
1134	PG&E prepares/submit Response to Comments	31 days	Wed 5/1/13	Wed 6/12/13	Wed 5/1/13	Wed 6/12/13	[Gantt bar from 5/1/13 to 6/12/13]																													
1135	DTSC sent RTCs to Tribes	1 day	Mon 6/24/13	Mon 6/24/13	Mon 6/24/13	Mon 6/24/13	[Gantt bar from 6/24/13 to 6/24/13]																													
1136	Scoping Meetings for RAWP Addendum II	3.05 mons	Tue 6/25/13	Fri 9/20/13	Tue 6/25/13	Fri 9/20/13	[Gantt bar from 6/25/13 to 9/20/13]																													
1137	Exposure assumptions for Recreational User	0 days	Fri 12/27/13	Fri 12/27/13	NA	NA	[Gantt bar from 12/27/13 to 12/27/13]																													
1138	Prepare/submit RAWP Addendum II	7.52 mons	Tue 10/1/13	Thu 5/8/14	Tue 10/1/13	NA	[Gantt bar from 10/1/13 to 5/8/14]																													
1139	Tribal review/comment	30 edays	Thu 5/8/14	Sat 6/7/14	NA	NA	[Gantt bar from 5/8/14 to 6/7/14]																													
1140	CWG/TWG review	30 edays	Thu 5/8/14	Sat 6/7/14	NA	NA	[Gantt bar from 5/8/14 to 6/7/14]																													
1141	DTSC review/comment	45 edays	Thu 5/8/14	Sun 6/22/14	NA	NA	[Gantt bar from 5/8/14 to 6/22/14]																													
1142	DOI review/comment	45 edays	Thu 5/8/14	Sun 6/22/14	NA	NA	[Gantt bar from 5/8/14 to 6/22/14]																													
1143	Prepare Response to Comments	1 mon	Mon 6/23/14	Mon 7/21/14	NA	NA	[Gantt bar from 6/23/14 to 7/21/14]																													
1144	DTSC review/comment RTCs	30 edays	Mon 7/21/14	Wed 8/20/14	NA	NA	[Gantt bar from 7/21/14 to 8/20/14]																													
1145	DOI review/comment	30 edays	Mon 7/21/14	Wed 8/20/14	NA	NA	[Gantt bar from 7/21/14 to 8/20/14]																													
1146	CWG/TWG review/comment	15 edays	Mon 7/21/14	Tue 8/5/14	NA	NA	[Gantt bar from 7/21/14 to 8/5/14]																													
1147	Tribal review/comment	15 edays	Mon 7/21/14	Tue 8/5/14	NA	NA	[Gantt bar from 7/21/14 to 8/5/14]																													
1148	Meeting to discuss response to comments (approx. 2 wks after review by CWG/TWG/Tribes/ Agencies)	0 days	Mon 8/4/14	Mon 8/4/14	NA	NA	[Gantt bar from 8/4/14 to 8/4/14]																													
1149	Submit Final RAWP Addendum II	2.7 mons	Thu 8/21/14	Fri 11/7/14	NA	NA	[Gantt bar from 8/21/14 to 11/7/14]																													
1150	DTSC review/approve	30 edays	Fri 11/7/14	Sun 12/7/14	NA	NA	[Gantt bar from 11/7/14 to 12/7/14]																													
1151	DOI review/approve	30 edays	Fri 11/7/14	Sun 12/7/14	NA	NA	[Gantt bar from 11/7/14 to 12/7/14]																													
1152	Groundwater Evaluation	330 days	Wed 9/10/08	Tue 12/15/09	Wed 9/10/08	Tue 12/15/09	[Gantt bar from 9/10/08 to 12/15/09]																													
1169	Soil Evaluation	210 days	Wed 7/27/16	Tue 5/16/17	NA	NA	[Gantt bar from 7/27/16 to 5/16/17]																													
1185	CMS/FS Report	2517 days	Mon 8/18/08	Wed 4/4/18	Mon 8/18/08	NA	[Gantt bar from 8/18/08 to 4/4/18]																													
1263	STATEMENT OF BASIS	2265.6 days	Mon 1/4/10	Tue 9/4/18	Mon 1/4/10	NA	[Gantt bar from 1/4/10 to 9/4/18]																													
1278	RECORD OF DECISION	2366 days	Fri 12/18/09	Mon 1/7/19	Fri 12/18/09	NA	[Gantt bar from 12/18/09 to 1/7/19]																													
1301	Section 106 Programmatic Agreement (PA)	1623 days	Fri 10/10/08	Wed 12/24/14	Fri 10/10/08	NA	[Gantt bar from 10/10/08 to 12/24/14]																													
1334	EIR DOCUMENTATION	3417 days	Thu 9/1/05	Sun 9/16/18	Thu 9/1/05	NA	[Gantt bar from 9/1/05 to 9/16/18]																													
1420	DESIGN, PERMITTING, AND CONSTRUCTION OF GROUNDWATER REMEDY	1932 days	Mon 1/31/11	Mon 6/25/18	Mon 1/31/11	NA	[Gantt bar from 1/31/11 to 6/25/18]																													
1421	Corrective Measure Implementation/Remedial Design (CMI/RD) Workplan	199 days	Mon 1/31/11	Thu 11/3/11	Mon 1/31/11	NA	[Gantt bar from 1/31/11 to 11/3/11]																													
1435	Remedial Design (Preliminary, Intermediate, and Pre-Final/Final)	858 days	Tue 9/20/11	Wed 12/31/14	Tue 9/20/11	NA	[Gantt bar from 9/20/11 to 12/31/14]																													
1436	Preliminary Design	174 days	Tue 9/20/11	Thu 5/17/12	Tue 9/20/11	Thu 5/17/12	[Gantt bar from 9/20/11 to 5/17/12]																													
1448	Intermediate Design	481 days	Fri 5/18/12	Fri 3/21/14	Fri 5/18/12	NA	[Gantt bar from 5/18/12 to 3/21/14]																													
1449	Prepare/submit Intermediate Design Package	11 mons	Fri 5/18/12	Fri 4/5/13	Fri 5/18/12	Fri 4/5/13	[Gantt bar from 5/18/12 to 4/5/13]																													
1450	DTSC forward to CWG/TWG	1 day	Mon 4/8/13	Mon 4/8/13	Mon 4/8/13	Mon 4/8/13	[Gantt bar from 4/8/13 to 4/8/13]																													
1451	CWG/TWG review/comment on Intermediate Design Package	122.38 edays	Mon 4/8/13	Thu 8/8/13	Mon 4/8/13	Thu 8/8/13	[Gantt bar from 4/8/13 to 8/8/13]																													
1452	Tribes Consultation	105.38 edays	Thu 4/25/13	Thu 8/8/13	Thu 4/25/13	Thu 8/8/13	[Gantt bar from 4/25/13 to 8/8/13]																													
1453	BLM process after close of comment period	8.38 edays	Thu 8/8/13	Fri 8/16/13	Thu 8/8/13	Fri 8/16/13	[Gantt bar from 8/8/13 to 8/16/13]																													
1454	DTSC review/comment on Intermediate Design Package	137.38 edays	Mon 4/8/13	Fri 8/23/13	Mon 4/8/13	Fri 8/23/13	[Gantt bar from 4/8/13 to 8/23/13]																													

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Milestone		Inactive Summary		Manual Summary			

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Color Coding:
 PG&E Federal Agencies CWG/TWG Public
 DTSC Tribes/SHPO Other CA Agencies AZ Agencies

Major Assumptions
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							Qtr 1				Qtr 2				Qtr 3				Qtr 4				Qtr 1				Qtr 2				Qtr 3				Qtr 4				Qtr 1				Qtr 2				Qtr 3				Qtr 4			
							D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
1455	DOI review/comment on Intermediate Design Package	130.38 edays	Mon 4/8/13	Fri 8/16/13	Mon 4/8/13	Fri 8/16/13																																																
1456	Response to Comments (RTCs)/Comments Resolution	144 days	Tue 9/3/13	Fri 3/21/14	Tue 9/3/13	NA																																																
1457	Agencies, PG&E, Tribes, and Stakeholders met to resolve comments (monthly meetings, various adhoc mtgs)	78 days	Tue 9/3/13	Thu 12/19/13	Tue 9/3/13	Thu 12/19/13																																																
1458	Comments Clarification Meeting with Agencies	0 days	Tue 9/3/13	Tue 9/3/13	Tue 9/3/13	Tue 9/3/13																																																
1459	Comments Clarification Meeting with Tribes	0 days	Thu 9/5/13	Thu 9/5/13	Thu 9/5/13	Thu 9/5/13																																																
1460	Comment Resolution Meeting #1 - September 12 RCRA/CERCLA	0 days	Thu 9/12/13	Thu 9/12/13	Thu 9/12/13	Thu 9/12/13																																																
1461	Comment Resolution Meeting #2 - September TWG	2 days	Tue 9/17/13	Wed 9/18/13	Tue 9/17/13	Wed 9/18/13																																																
1462	Comment Resolution Meeting #3 - October 9 RCRA/CERCLA	0 days	Wed 10/9/13	Wed 10/9/13	Wed 10/9/13	Wed 10/9/13																																																
1463	Comment Resolution Meeting #4 - October TWG	2 days	Wed 10/16/13	Thu 10/17/13	Wed 10/16/13	Thu 10/17/13																																																
1464	Comment Resolution Meeting #5 - November 5 Web Conference	1 day	Tue 11/5/13	Tue 11/5/13	Tue 11/5/13	Tue 11/5/13																																																
1465	Comment Resolution Meeting #6 - November 13 RCRA/CERCLA	1 day	Wed 11/13/13	Wed 11/13/13	Wed 11/13/13	Wed 11/13/13																																																
1466	Comment Resolution Meeting #7 - November TWG	2 days	Tue 11/19/13	Wed 11/20/13	Tue 11/19/13	Wed 11/20/13																																																
1467	Comment Resolution Meeting #8 - December 11 RCRA/CERCLA	1 day	Wed 12/11/13	Wed 12/11/13	Wed 12/11/13	Wed 12/11/13																																																
1468	Comment Resolution Meeting #9 - December Web Conference	1 day	Thu 12/12/13	Thu 12/12/13	Thu 12/12/13	Thu 12/12/13																																																
1469	Comment Resolution Meeting #10 - December TWG	2 days	Tue 12/17/13	Wed 12/18/13	Tue 12/17/13	Wed 12/18/13																																																
1470	Comment Resolution Meeting #11 - December Call (PG&E/Agencies)	1 day	Thu 12/19/13	Thu 12/19/13	Thu 12/19/13	Thu 12/19/13																																																
1471	PG&E submits complete RTCs Table	1.6 wks	Fri 12/20/13	Tue 12/31/13	Fri 12/20/13	Tue 12/31/13																																																
1472	Agencies, Tribes, and Stakeholders review RTCs	5.8 wks	Thu 1/2/14	Tue 2/11/14	Thu 1/2/14	Tue 2/11/14																																																
1473	Meeting to resolve remaining design-critical RTCs - Jan TWG	1 day	Thu 1/23/14	Thu 1/23/14	Thu 1/23/14	Thu 1/23/14																																																
1474	Meeting to resolve remaining design-critical RTCs - Feb TWG	1 day	Tue 2/11/14	Tue 2/11/14	Tue 2/11/14	Tue 2/11/14																																																
1475	DTSC/DOI direct PG&E on 90% design path forward	1 day	Fri 3/14/14	Fri 3/14/14	NA	NA																																																
1476	PG&E submits Final RTCs Table	1 wk	Mon 3/17/14	Fri 3/21/14	NA	NA																																																
1477	Implementation Plan for Evaluation of Alternative Freshwater Sources	369 days	Fri 11/16/12	Wed 4/16/14	Fri 11/16/12	NA																																																
1478	Prepare/submit Fresh Water Implementation Plan	1 day	Tue 11/20/12	Tue 11/20/12	Tue 11/20/12	Tue 11/20/12																																																
1479	DTSC forward to CWG/TWG	0 days	Wed 11/21/12	Wed 11/21/12	Wed 11/21/12	Wed 11/21/12																																																
1480	CWG/TWG review/comment on the Implementation Plan	19 days	Wed 11/21/12	Mon 12/17/12	Wed 11/21/12	Mon 12/17/12																																																
1481	Tribal Consultation	49.38 edays	Wed 11/21/12	Wed 1/9/13	Wed 11/21/12	Wed 1/9/13																																																
1482	DTSC review/comment on the Implementation Plan	23 days	Wed 11/21/12	Fri 12/21/12	Wed 11/21/12	Fri 12/21/12																																																
1483	DOI review/comment on the Implementation Plan	36 days	Wed 11/21/12	Wed 1/9/13	Wed 11/21/12	Wed 1/9/13																																																
1484	Response to Comments (RTCs)/Comment Resolution	174 days	Thu 1/3/13	Wed 9/4/13	Thu 1/3/13	Wed 9/4/13																																																
1505	State CEQA Evaluation	209 days	Fri 11/16/12	Wed 9/4/13	Fri 11/16/12	Wed 9/4/13																																																
1506	DTSC review/approve Final Implementation Plan	17 days	Mon 8/12/13	Wed 9/4/13	Mon 8/12/13	Wed 9/4/13																																																
1507	DOI review/approve Final Implementation Plan	17 days	Mon 8/12/13	Wed 9/4/13	Mon 8/12/13	Wed 9/4/13																																																
1508	Implementation of Fresh Water Implementation Plan	117 days	Thu 9/5/13	Fri 2/14/14	Thu 9/5/13	NA																																																
1509	Data Call #1 - Discuss Exploratory Data	0 days	Mon 11/4/13	Mon 11/4/13	Mon 11/4/13	Mon 11/4/13																																																
1510	Data Call #2 - Discuss Data Summary/Path Forward	0 days	Wed 1/29/14	Wed 1/29/14	Wed 1/29/14	Wed 1/29/14																																																
1511	Data Call #3 - Discuss Data Summary/Path Forward	0 days	Fri 2/28/14	Fri 2/28/14	NA	NA																																																
1512	Prepare Tech Memo to summarize FWIP results	30 edays	Mon 3/3/14	Wed 4/2/14	NA	NA																																																
1513	DTSC provides direction to PG&E on freshwater source	2 wks	Thu 4/3/14	Wed 4/16/14	NA	NA																																																
1514	DOI provides direction to PG&E on freshwater source	2 wks	Thu 4/3/14	Wed 4/16/14	NA	NA																																																
1515	Pre-Final/Final Design (include plan for decommissioning, removal, and restoration of IM3 facility)	208 days	Mon 3/17/14	Wed 12/31/14	NA	NA																																																
1516	Prepare/submit Pre-Final Design Package (date will be revisited after direction on 90%)	5 mons	Mon 3/17/14	Fri 8/8/14	NA	NA																																																
1517	DTSC forward to CWG/TWG	3 days	Mon 8/11/14	Wed 8/13/14	NA	NA																																																
1518	CWG/TWG review/comment on Final Design Package	60 edays	Thu 8/14/14	Mon 10/13/14	NA	NA																																																

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							D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
1562	Construction Activities	625 days	Fri 2/13/15	Thu 7/6/17	NA	NA																														
1563	Field Preparation (including new well survey)	100 days	Fri 2/13/15	Thu 7/2/15	NA	NA																														
1564	Well Installation/Development/Testing	398 days	Fri 5/29/15	Tue 12/6/16	NA	NA																														
1565	Pilot Boring Data Collection	140 days	Fri 5/29/15	Thu 12/10/15	NA	NA																														
1566	Refine Well Design and Installation Program	30 days	Fri 12/11/15	Thu 1/21/16	NA	NA																														
1567	Remediation Wells Installation/Development/Testing	228 days	Fri 1/22/16	Tue 12/6/16	NA	NA																														
1568	Monitoring Wells Installation/Development	94 days	Wed 4/6/16	Mon 8/15/16	NA	NA																														
1569	Install New Pipeline	403 days	Fri 5/22/15	Tue 12/6/16	NA	NA																														
1570	Carbon Amendment/Supporting Facilities	314 days	Fri 5/22/15	Wed 8/3/16	NA	NA																														
1571	Commissioning/Shakedown	398 days	Fri 7/3/15	Tue 1/10/17	NA	NA																														
1572	Reporting	594 days	Mon 3/30/15	Thu 7/6/17	NA	NA																														
1573	Prepare/submit monthly construction progress reports	24 mons	Mon 3/30/15	Thu 3/2/17	NA	NA																														
1574	Prepare/submit Construction Completion Report	60 days	Fri 3/3/17	Thu 5/25/17	NA	NA																														
1575	DOI review and approval of Construction Completion Report	30 days	Fri 5/26/17	Thu 7/6/17	NA	NA																														
1576	DTSC review and approval of Construction Completion Report	30 days	Fri 5/26/17	Thu 7/6/17	NA	NA																														
1577	Startup (the sequence/duration shown below is preliminary and will be adjusted as the design progresses; a detailed construction/remedial action implementation schedule will be included in the Construction/Remedial Action Work Plan)	379 days	Wed 1/11/17	Mon 6/25/18	NA	NA																														
1578	Shutdown IM extraction/treatment/injection	1 day	Wed 1/11/17	Wed 1/11/17	NA	NA																														
1579	Inject carbon/build NTH IRZ (6-12mons)	12 mons	Thu 1/12/17	Fri 12/29/17	NA	NA																														
1580	Inject freshwater(3-6mons)	6 mons	Fri 7/7/17	Fri 12/29/17	NA	NA																														
1581	Activate Inner recirculation loop (3-6mons)	6 mons	Wed 10/4/17	Wed 3/28/18	NA	NA																														
1582	Activate TCS recirculation loop (3-6mons)	6 mons	Wed 10/4/17	Wed 3/28/18	NA	NA																														
1583	Prepare/submit quarterly progress reports	15 mons	Tue 4/11/17	Mon 6/25/18	NA	NA																														
1584	Startup complete/start full remedy operations	0 days	Wed 3/28/18	Wed 3/28/18	NA	NA																														

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