



Technical Memorandum Task 12: Implementation Schedules

To: Carolina Hernandez, County of Los Angeles Watershed Division

*From: Melinda McCoy, CDM
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Date: August 22, 2006

1.0 Introduction

This technical memorandum (TM) provides a schedule estimate for the proposed Best Management Practices (BMP) that have been identified as “Committed” or “Piloted” options for implementation as a part of the Malibu Creek Watershed (MCW) Dry- and Wet-Weather Bacteria Total Maximum Daily Load Implementation Plan (Bacteria TMDLIP), and the North Santa Monica Bay Watersheds (NSMBW) Regional Watershed Implementation Plan (RWIP).

Following preparation of TMs defining the structural and non-structural programs to be considered for implementation, TM 10 identified a suite of BMPs proposed for committed implementation or for piloting. These BMPs are the subject of this schedule.

2.0 Schedule Basis

The approach to developing the schedule, ultimately for inclusion in the TMDLIP, considers the TMDL dates for dry-weather and wet-weather compliance and the required elements and time frames for implementing a program or project. The TMDL milestone dates, proposed work breakdown structure for each BMP type, and a proposed conceptual schedule are described below.

2.1 TMDL Milestone Dates

The TMDL document identifies a number of critical dates for TMDL compliance. The MCW TMDL became effective January 24, 2006. Milestone dates identified by the Regional Water Quality Control Board (Water Board) are based upon this effective date. Dates of interest in developing a schedule for BMP implementation are the reopener dates (dates when the Water Board reconsiders certain technical and compliance requirements) and compliance dates. These milestone dates are shown in Table 1 and described below.

Reopener dates are of interest during TMDL implementation, as these are times when the Water Board reconsiders some of the technical issues related to TMDL compliance and can change the compliance targets or dates as a result of new information. Based on this information, the Implementation Plan may need to be revisited and modified. The following two reopeners of most interest for implementation of this TMDL are as follows:

- The Santa Monica Bay Beaches Bacteria TMDLs are scheduled to be reviewed in July 2007. The review will include a possible revision to the allowable winter dry-weather and wet-weather exceedance days based on bacteria indicator densities in the wave wash, re-evaluation of the reference system for setting allowable exceedance levels; re-evaluation of the reference year; and review of the method for applying the 30-day geometric mean. Information considered in this reopener will affect the MCW TMDL reopener.
- The MCW TMDL will be considered 3 years from the effective date (January 24, 2009) to review similar issues: natural loading sources, reassessment of allowable winter dry-weather and wet-weather exceedance days, reevaluation of the reference year used to calculate exceedance days, and re-evaluation of the method for applying the 30-day geometric mean.

The TMDL also identifies dates for summer dry-weather compliance (3 years from the effective TMDL date), and winter dry- and wet-weather compliance (6 and 10 years, respectively, from the effective TMDL date). These are the time periods when water quality monitoring is expected to show compliance with the TMDL bacteria targets. The TMDL allows for the following extensions:

- An extension of the summer dry-weather compliance date, from 3 years to 6 years from the effective TMDL date. In order to be eligible for this extension, the plan must include a description of all local ordinances necessary to implement the dry-weather plan and assurances that such ordinances have been adopted before the request for an extension is granted.
- An extension of the winter wet-weather compliance from 10 years from the effective date to July 15, 2021. In order to be eligible for this extension, the plan must include a description of the integrated water resources approach to be implemented, identification of potential markets for water re-use, and estimate of the percentage of collected stormwater that can be re-used, identification of new local ordinances that will be required, a description of new infrastructure required, a list of potential adverse environmental impacts that may result from the integrated approach, and a workplan and schedule with significant milestones.

Table 1
TMDL Milestone Dates

Milestone	Date without extensions	Extended Date*
TMDL Effective Date	January 24, 2006	
Submit Water Quality Monitoring Plan	May 24, 2006	
Submit Implementation Plan	January 24, 2007	
SMBB/MCW Bacteria Reopener	July 15, 2007	
Report Quantifying Loading from Birds to Malibu Lagoon from CA Dept. of Parks and Recreation	January 24, 2008	
MCW Reopener	January 24, 2009	
Comply with Summer Dry Weather Exceedance Days	January 24, 2009	January 24, 2012
Comply with Winter Dry Weather Exceedance Days	January 24, 2012	
Comply with Wet-Weather Exceedance Days	January 24, 2016	July 15, 2021

*Extended dates apply if the integrated planning approach is approved and the dry weather extension is approved.

2.2 BMP Work Breakdown Structure

A general work breakdown structure (WBS) applicable to non-structural and structural programs has been developed based on standard project and program items. Average durations for accomplishing each WBS element have been developed. The elements and durations are similar to those used for the Santa Monica Bay Beaches Jurisdictions 1 and 4 TMDL Implementation Plan. These WBS codes and durations are used to provide estimates for each individual BMP schedule. The WBS and durations for non-structural, institutional, distributed, and regional BMPs are shown in Tables 2, 3, and 4 below.

Table 2
Work Breakdown Structure for
Non-Structural, Institutional, and Distributed Programmatic BMPs

Item	Assumed Duration*
Program development	219 Days/13 Months
Preliminary/Pilot Program	437 Days/25 Months
Startup full program	100 Days/6 Months
Program Operation	

*All days are based on a 4 day work week

Table 3
Work Breakdown Structure for
Distributed BMPs Constructed by Agencies

Item	Assumed Duration*
Planning (feasibility study, site acquisition, design, permits, environmental)	752 Days/36 Months
Construction Bid & Award	79 Days/4 Months
Construction	625 Days/29 Months**
Project Acceptance	52 Days/3 Months
Project Operation	

*All days are based on a 4 day work week

Table 4
Work Breakdown Structure for Regional BMPs

Item	Assumed Duration*
Pre-feasibility study	248 Days/15 Months
Feasibility Study	56 Days/3 Months
Project Concept	100 Days/6 Months
Construction Programming	20 Days/1 Month
Project Design	262 Days/18 Months
Construction Bid & Award	84 Days/5 Months
Construction Process	97 Days/6 Months**
Project Acceptance	51 Days/3 Months
Project Operation	

*All days are based on a 4 day work week

**Construction Phase – days are based on a 5 day work week.

2.3 Conceptual Schedule

Given the TMDL milestone dates identified above for the extended compliance time frames for dry- and wet-weather a conceptual schedule and detailed schedule for each BMP has been developed. The schedule addresses dry and wet-weather implementation schedules, the time required for implementing major project/program phases, and a phased implementation of BMPs by subwatershed priority. To acknowledge the role of dry-weather effective BMPs in providing wet-weather pollutant reductions, the dry weather schedule is referred to as the “dry- and wet-weather BMP schedule”. To the extent possible, the durations for major work phases reflect the durations identified in Section 2.2 for each WBS element, however durations are shortened for implementing structural dry-weather BMPs to meet the dry-weather compliance deadline. Implementation has been broken into four phases, with a different emphasis in each phase:

- Phase I – Planning
- Phase II – Dry and Wet-Weather BMP Implementation
- Phase III – Wet-Weather BMP Implementation
- Phase IV – Refinement and Regional BMP Implementation

A general description of the activities anticipated in each phase is described in Table 5 and the schedule is illustrated in Figure 1.

Table 5
Description of Activities Proposed for each TMDL Implementation Schedule Phase

Phase	Proposed Activities
Phase 1	<ul style="list-style-type: none"> ▪ Develop inter-agency agreements. ▪ Develop programs and begin implementation or initial pilot phases of all committed dry-weather non-structural activities ▪ Develop programs for pilot dry- and wet-weather non-structural activities ▪ Initiate planning and feasibility studies for committed and pilot dry-weather institutional & distributed BMPs ▪ Initiate planning and feasibility studies for regional pilot projects supportive of dry-weather compliance ▪ Initiate monitoring and additional studies. ▪ Consider information from SMBB/MCW Bacteria Reopener and adjust plan as needed.
Phase II	<ul style="list-style-type: none"> ▪ Continue non-structural BMP implementation and adjust based on lessons-learned ▪ Consider information from MCW Bacteria Reopener and adjust plan as needed. ▪ Implement non-structural dry- and wet-weather pilot programs ▪ Begin program development and implementation of pilot phases of wet-weather non-structural committed BMPs ▪ Begin program development for non-structural wet-weather pilot BMPs ▪ Design and construct committed and pilot dry-weather institutional and distributed BMPs ▪ Complete feasibility study and construct subregional pilot projects supportive of dry weather compliance ▪ Initiate feasibility studies for distributed and institutional BMPs supportive of wet-weather compliance ▪ Continue monitoring and additional studies
Phase III	<ul style="list-style-type: none"> ▪ Evaluate compliance efforts and results of non-structural and structural pilot studies. Refocus efforts based on pilot study results and new information; ▪ Continue to implement successful non-structural and structural pilot programs/projects ▪ Complete feasibility studies, design and construct committed and pilot wet-weather institutional & distributed BMPs ▪ Initiate feasibility studies for sub-regional pilot projects supportive of wet-weather ▪ Continue monitoring and additional studies
Phase IV	<ul style="list-style-type: none"> ▪ Refocus and prioritize efforts based on feedback from monitoring and studies, pilot programs, and ongoing BMP projects and programs ▪ Continue implementation of successful non-structural BMPs ▪ Continue and expand implementation of successful institutional and distributed BMPs ▪ Plan, design, and construct pilot wet-weather regional/sub-regional BMPs ▪ Initiate additional sub-regional BMPs using lessons learned from pilot projects

Figure 1
Conceptual TMDL Implementation Plan Schedule for Integrated Plan with Dry Weather Extension

Schedule Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
TMDL Milestones																
TMDL	24-Jan															
Submit IP		24-Jan														
Summer Dry Weather Compliance				24-Jan												
Summer Dry Weather Compliance Extension							24-Jan									
Winter Dry Weather Compliance							24-Jan									
SMBB Reopener		15-Jul														
MCW Reopener				24-Jan												
Wet-Weather Compliance											24-Jan					
Wet-Weather Compliance Ext.																15-Jul
Proposed Implementation Phases																
Phase I – Planning		Phase I														
Phase II – Dry Weather BMP Implementation				Phase II												
Phase III – Wet-Weather BMP Implementation							Phase III									
Phase IV – Refinement and Regional BMP Implementation												Phase IV				

Figure 1
Conceptual TMDL Implementation Plan Schedule for Integrated Plan with Dry Weather Extension

Schedule Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
TMDL Milestones																
TMDL	24-Jan															
Submit IP		24-Jan														
Summer Dry Weather Compliance							24-Jan									
Winter Dry Weather Compliance							24-Jan									
SMBB Reopener		15-Jul														
MCW Reopener				24-Jan												
Wet-Weather Compliance																15-Jul
Proposed Implementation Phases																
Phase I – Planning		Phase I														
Phase II – Dry Weather BMP Implementation				Phase II												
Phase III – Wet-Weather BMP Implementation							Phase III									
Phase IV – Refinement and Regional BMP Implementation													Phase IV			
BMP Implementation																
Dry & Wet Weather																
Non-structural BMP-Committed-Dry			All													
Non-structural BMP-Pilot-Dry				High	Med	Low										
Dist/Inst BMP-Committed Dry - Programmatic				High	Med	Low										
Dist/Inst BMP-Pilot Dry - Programmatic					High/Med	Low										
Dist BMP-Committed -Dry – Constructed				High/Med	Low											
Dist BMP-Pilot- Dry- Constructed					High/Med	Low										
Regional BMP-Pilot-Dry					High											

BMP Implementation Notes:

- All, High, Med, Low - indicates the approximate timing for BMP implementation by watershed priority
- Planning/Program Development/Planning/Feasibility
 - Design and construct
 - Pilot/Implement
 - Operate, Evaluate, Revise, Expand

Figure 1
Conceptual TMDL Implementation Plan Schedule for Integrated Plan with Dry Weather Extension

Schedule Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
TMDL Milestones																
TMDL	24-Jan															
Submit IP		24-Jan														
Summer Dry Weather Compliance							24-Jan									
Winter Dry Weather Compliance							24-Jan									
SMBB Reopener		15-Jul														
MCW Reopener				24-Jan												
Wet-Weather Compliance																15-Jul
Proposed Implementation Phases																
Phase I – Planning		Phase I														
Phase II – Dry Weather BMP Implementation				Phase II												
Phase III – Wet-Weather BMP Implementation							Phase III									
Phase IV – Refinement and Regional BMP Implementation												Phase IV				
BMP Implementation																
Wet-Weather																
Non-structural BMP-Committed-Wet			All													
Non-structural BMP-Pilot-Wet				High	Medium	Low										
Dist/Inst BMP-Committed Wet – Programmatic							High/Med	Low								
Dist/Inst BMP-Pilot Wet – Programmatic							High/Med	Low								
Dist BMP-Committed-Wet - Constructed							High	Medium	Low							
Dist BMP-Pilot-Wet - Constructed							High	Med	Low							
Regional BMP-Pilot-Wet												High				

BMP Implementation Notes:

- All, High, Med, Low - indicates the approximate timing for BMP implementation by watershed priority
- Planning/Program Development/Planning/Feasibility
 - Design and construct
 - Pilot/Implement
 - Operate, Evaluate, Revise, Expand

3.0 BMP Implementation Schedules

Detailed schedules for implementation of each BMP have been developed based on the conceptual schedule above. The schedules utilize Primavera Project Planner (P3) Critical Path Method (CPM). These schedules represent initial estimates of time frames for BMP implementation necessary to meet compliance deadlines. As additional information is gathered and BMPs are piloted and refined it is likely that the schedule will be also be refined. Presented as Exhibit 1 is the Overall BMP implementation schedule, Exhibit 2 presents the Dry- and Wet-Weather BMP implementation schedule.

EXHIBIT 1

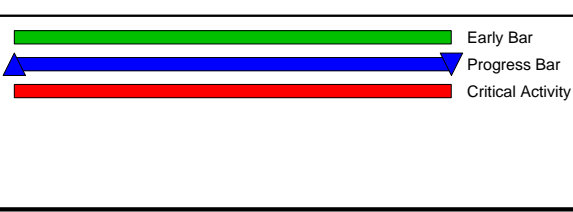
Overall BMP Implementation Schedule

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Year																			
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
TMDL Milestones																								
A1020	Submit Implementation Plan	0		24JAN07*																				
A1022	SMBB/MCW Bacteria Reopener	0		15JUL07*																				
A1024	Comply w/ Summer Dry Weather Exceedence Days	0		24JAN09*																				
A1026	MCW Reopener	0		24JAN09*																				
A1028	Comply with Winter Dry-Weather Exceedence Days	0		24JAN12*																				
A1030	Comply w/ Summer Dry Weather Exceedence Days Ext	0		24JAN12*																				
A1032	Comply with Wet Weather Exceedence Days	0		24JAN16*																				
A1034	Comply w/ Wet Weather Exceedence Days Ext	0		15JUL21*																				

Proposed Implementation Plan																							
A1080	Phase 1 Implementation - Planning	419	01JAN07*	31DEC08																			
A1090	Phase 2 Implementation - Dry Weather BMP Focus	625	01JAN09	29DEC11																			
A1095	Phase 3 Implementation - Wet Weather BMP Focus	1,044	02JAN12	29DEC16																			
A1097	Phase 4 Implementation - Refinement and Regional	948	02JAN17	15JUL21																			

Best Management Practices (BMP)																							
Nonstructural BMPs																							
Dry & Wet Weather																							
<i>Partnerships with HOAs to Increase Water Conserv</i>																							
Pilot																							
A1117	Program Development	210	01JAN08*	31DEC08																			
A1118	Preliminary Startup	417	01JAN09	30DEC10																			
A1119	Startup Full Program	100	03JAN11	23JUN11																			
A1120	Program Operations	2,100	27JUN11	15JUL21																			
<i>Offer Water Conservation in Programs at School</i>																							
Pilot																							
B1120	Program Development	210	01JAN08*	31DEC08																			
B1124	Preliminary Startup	417	01JAN09	30DEC10																			
B1125	Startup Full Program	100	03JAN11	23JUN11																			
B1126	Program Operations	2,100	27JUN11	15JUL21																			
<i>Outreach Fact Sheets -Point-of-Sale Distribution</i>																							
Committed																							
C1100	Program Development	209	01JAN07*	31DEC07																			
C1105	Preliminary Startup	419	01JAN08	31DEC09																			
C1110	Startup Full Program	100	04JAN10	24JUN10																			
C1115	Program Operations	2,308	28JUN10	15JUL21																			
Pilot																							
C1120	Program Development - Medium & Low	209	01JAN09*	31DEC09																			
C1124	Preliminary Startup- Medium & Low	416	04JAN10	29DEC11																			
C1125	Startup Full Program - Medium & Low	100	02JAN12	21JUN12																			
C1126	Program Operations - Medium & Low	1,892	25JUN12	15JUL21																			

Start Date	24JAN06	Early Bar
Finish Date	15JUL21	Progress Bar
Data Date	24JAN06	Critical Activity
Run Date	21AUG06 16:32	



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**TMDL Schedule For Integrated Plan
With Dry Weather Extension**

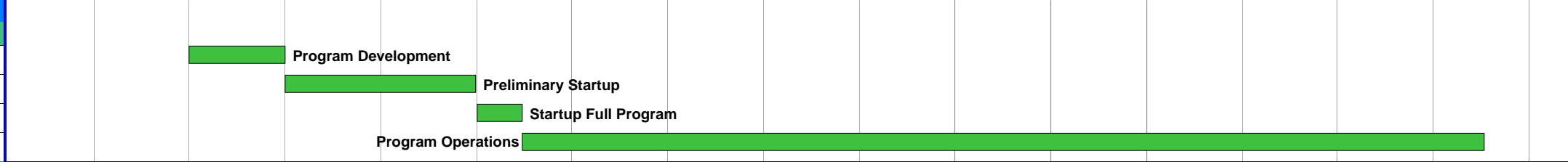
Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
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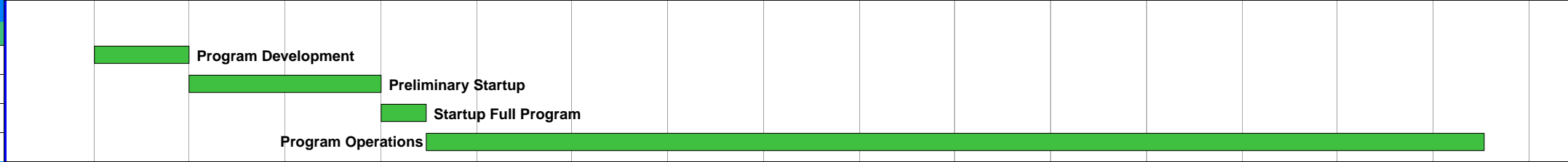
Work w/ LVMWD/ WBMWD/WWD 29 Support Water Audit

Pilot				
A1302	Program Development	210	01JAN08*	31DEC08
A1303	Preliminary Startup	417	01JAN09	30DEC10
A1304	Startup Full Program	100	03JAN11	23JUN11
A1305	Program Operations	2,100	27JUN11	15JUL21



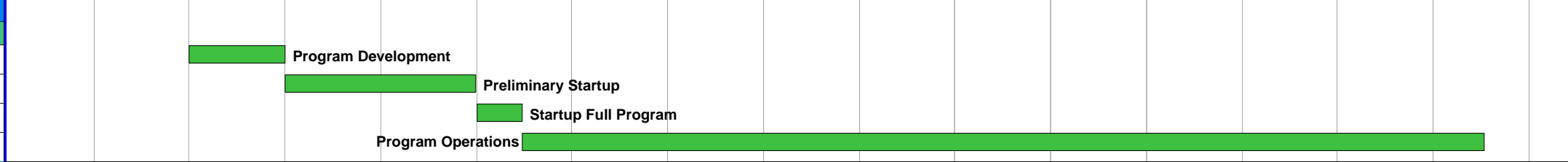
Horse Stables and Animal Facility Outreach

Committed				
A2105	Program Development	210	01JAN07*	01JAN08
A2110	Preliminary Startup	417	02JAN08	30DEC09
A2115	Startup Full Program	100	31DEC09	23JUN10
A2116	Program Operations	2,309	24JUN10	15JUL21



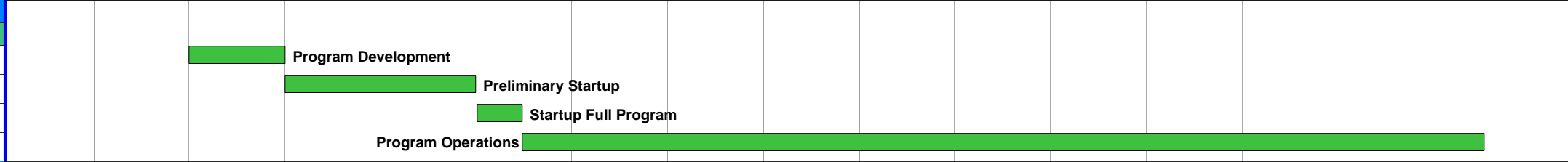
Develop an Inventory of Areas w/ Confined Animal

Pilot				
A2046	Program Development	210	01JAN08*	31DEC08
A2047	Preliminary Startup	417	01JAN09	30DEC10
A2048	Startup Full Program	100	03JAN11	23JUN11
A2049	Program Operations	2,100	27JUN11	15JUL21



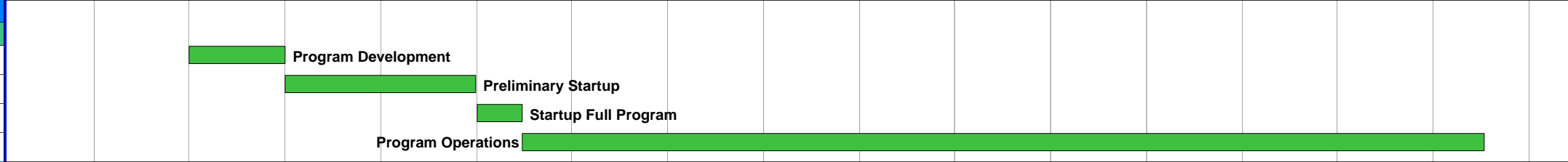
Recreational Vehicle Disposal Site Outreach Prog

Pilot				
A2062	Program Development	210	01JAN08*	31DEC08
A2063	Preliminary Startup	417	01JAN09	30DEC10
A2064	Startup Full Program	100	03JAN11	23JUN11
A2065	Program Operations	2,100	27JUN11	15JUL21



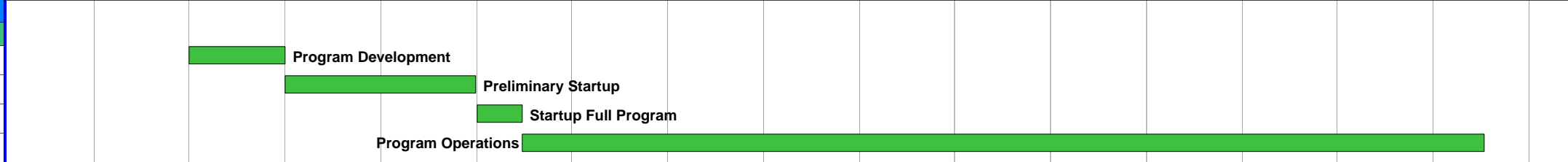
Coord w/ Watershed Identify Method for Visitors

Pilot				
A2072	Program Development	210	01JAN08*	31DEC08
A2073	Preliminary Startup	417	01JAN09	30DEC10
A2074	Startup Full Program	100	03JAN11	23JUN11
A2075	Program Operations	2,100	27JUN11	15JUL21



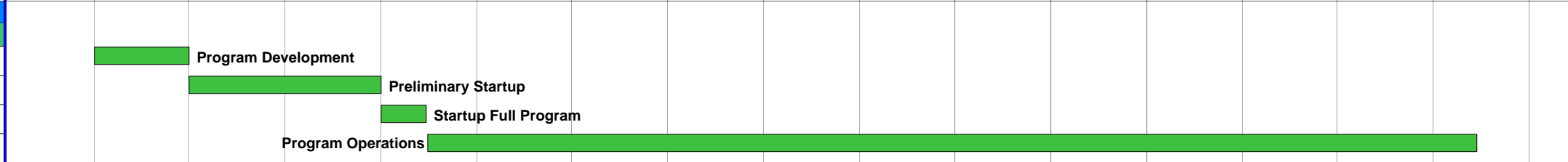
Outreach at Trailheads Regarding Waste Disposal

Pilot				
C1230	Program Development	210	01JAN08*	31DEC08
C1233	Preliminary Startup	417	01JAN09	30DEC10
C1234	Startup Full Program	100	03JAN11	23JUN11
C1235	Program Operations	2,100	27JUN11	15JUL21



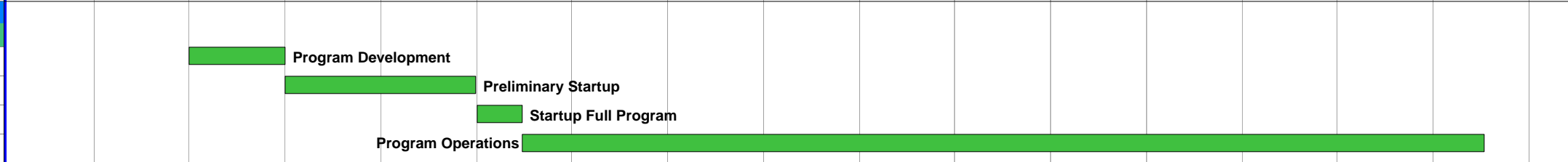
Coord Mtgs Btw Agencies and Enviro Organizations

Committed				
C1305	Program Development	209	01JAN07*	31DEC07
C1310	Preliminary Startup	419	01JAN08	31DEC09
C1315	Startup Full Program	100	04JAN10	24JUN10
C1325	Program Operations	2,290	28JUN10	15JUN21

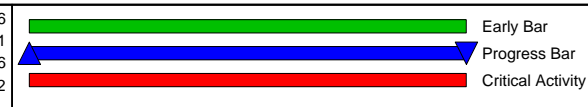


Develop Target Outreach for Busines w/ Pollutant

Pilot				
A2082	Program Development	210	01JAN08*	31DEC08
A2083	Preliminary Startup	417	01JAN09	30DEC10
A2084	Startup Full Program	100	03JAN11	23JUN11
A2085	Program Operations	2,100	27JUN11	15JUL21



Start Date	24JAN06
Finish Date	15JUL21
Data Date	24JAN06
Run Date	21AUG06 16:32



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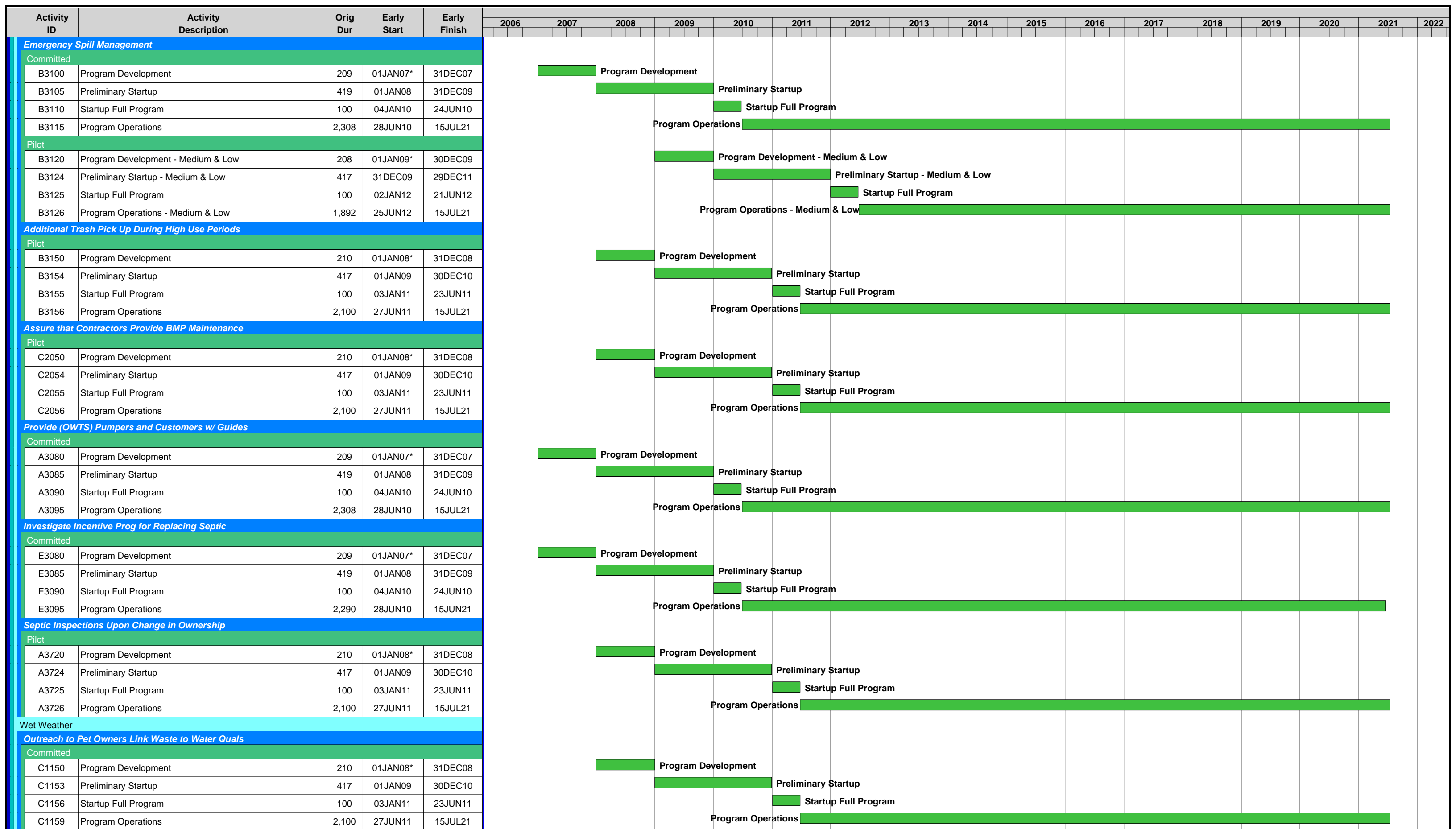
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**TMDL Schedule For Integrated Plan
With Dry Weather Extension**

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	





Start Date	24JAN06		Early Bar
Finish Date	15JUL21		Progress Bar
Data Date	24JAN06		Progress Bar
Run Date	21AUG06 16:32		Critical Activity

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**TMDL Schedule For Integrated Plan
With Dry Weather Extension**

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Year																	
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Place Pet Waste Bag Dispensers at Trailheads																						
Pilot																						
C1212	Program Development	208	05JAN09*	31DEC09	Program Development																	
C1213	Preliminary Startup	417	04JAN10	02JAN12	Preliminary Startup																	
C1214	Startup Full Program	100	03JAN12	25JUN12	Startup Full Program																	
C1215	Program Operations	1,891	26JUN12	15JUL21	Program Operations																	
Post Signs at City/County Trailheads 4 Clean-up																						
Pilot																						
C1220	Program Development	208	05JAN09*	31DEC09	Program Development																	
C1223	Preliminary Startup	417	04JAN10	02JAN12	Preliminary Startup																	
C1224	Startup Full Program	100	03JAN12	25JUN12	Startup Full Program																	
C1225	Program Operations	1,891	26JUN12	15JUL21	Program Operations																	
Trash Hauler Outreach																						
Pilot																						
C1340	Program Development	208	01JAN09*	30DEC09	Program Development																	
C1341	Preliminary Startup	417	31DEC09	29DEC11	Preliminary Startup																	
C1342	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																	
C1343	Program Operations	1,892	25JUN12	15JUL21	Program Operations																	
Expand Media Partnership with Caltrans																						
Pilot																						
C1351	Program Development	208	01JAN09*	30DEC09	Program Development																	
C1352	Preliminary Startup	417	31DEC09	29DEC11	Preliminary Startup																	
C1353	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																	
C1354	Program Operations	1,892	25JUN12	15JUL21	Program Operations																	
Develop Min Req's & Program to Enforce Sweeping																						
Pilot																						
C1355	Program Development	208	01JAN09*	30DEC09	Program Development																	
C1359	Preliminary Startup	417	31DEC09	29DEC11	Preliminary Startup																	
C1360	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																	
C1361	Program Operations	1,892	25JUN12	15JUL21	Program Operations																	
Modify Inspection Staff Training to Include BMPs																						
Pilot																						
C1365	Program Development	208	01JAN09*	30DEC09	Program Development																	
C1369	Preliminary Startup	417	31DEC09	29DEC11	Preliminary Startup																	
C1370	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																	
C1371	Program Operations	1,892	25JUN12	15JUL21	Program Operations																	
Increase Emphasis on BMPS that Reduce Pollutants																						
Committed																						
C1400	Program Development	210	01JAN08*	31DEC08	Program Development																	
C1405	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																	
C1410	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																	
C1415	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	
Pilot																						
C1420	Program Development - Medium & Low	208	04JAN10*	30DEC10	Program Development - Medium & Low																	
C1424	Preliminary Startup - Medium & Low	417	03JAN11	31DEC12	Preliminary Startup - Medium & Low																	
C1425	Startup Full Program	100	01JAN13	24JUN13	Startup Full Program																	
C1426	Program Operations - Medium & Low	1,683	25JUN13	15JUL21	Program Operations - Medium & Low																	

Start Date	24JAN06		Early Bar
Finish Date	15JUL21		Progress Bar
Data Date	24JAN06		Critical Activity
Run Date	21AUG06 16:32		

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TMDL Schedule For Integrated Plan
With Dry Weather Extension

Sheet 4 of 8

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Year																
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Incorporate TMDL Requirements into CEQA Process																					
Pilot																					
C1500	Program Development	209	01JAN09*	31DEC09	Program Development																
C1504	Preliminary Startup	416	04JAN10	29DEC11	Preliminary Startup																
C1505	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																
C1506	Program Operations	1,892	25JUN12	15JUL21	Program Operations																
Increase Inspections of Post-Development BMPs																					
Pilot																					
C1520	Program Development	209	01JAN09*	31DEC09	Program Development																
C1524	Preliminary Startup	416	04JAN10	29DEC11	Preliminary Startup																
C1525	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																
C1526	Program Operations	1,892	25JUN12	15JUL21	Program Operations																
Enhance Education Projects Outside SUSMP/SQUMP																					
Pilot																					
C1530	Program Development	209	01JAN09*	31DEC09	Program Development																
C1534	Preliminary Startup	416	04JAN10	29DEC11	Preliminary Startup																
C1535	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																
C1536	Program Operations	1,892	25JUN12	15JUL21	Program Operations																
Develop Vegetative Filter BMP																					
Pilot																					
C1540	Program Development	209	01JAN09*	31DEC09	Program Development																
C1544	Preliminary Startup	416	04JAN10	29DEC11	Preliminary Startup																
C1545	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																
C1546	Program Operations	1,892	25JUN12	15JUL21	Program Operations																
Complete BMP TechManual & H2O Quality Impairment																					
Pilot																					
C1550	Program Development	209	01JAN09*	31DEC09	Program Development																
C1554	Preliminary Startup	416	04JAN10	29DEC11	Preliminary Startup																
C1555	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																
C1556	Program Operations	1,892	25JUN12	15JUL21	Program Operations																
Establish Cleaning Cycles for Drainage Facilitie																					
Pilot																					
B3160	Program Development	209	01JAN09*	31DEC09	Program Development																
B3164	Preliminary Startup	416	04JAN10	29DEC11	Preliminary Startup																
B3165	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																
B3166	Program Operations	1,892	25JUN12	15JUL21	Program Operations																
Institutional																					
Dry & Wet Weather																					
Development Standards																					
Committed																					
A3760	Program Development	210	01JAN08*	31DEC08	Program Development																
A3765	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																
A3770	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																
A3775	Program Operations	2,100	27JUN11	15JUL21	Program Operations																
Pilot																					
A3780	Program Development	209	01JAN09*	31DEC09	Program Development																
A3785	Pilot	416	04JAN10	29DEC11	Pilot																
A3786	Program Operations	1,992	02JAN12	15JUL21	Program Operations																

Start Date	24JAN06		Early Bar
Finish Date	15JUL21		Progress Bar
Data Date	24JAN06		Critical Activity
Run Date	21AUG06 16:32		

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LACDPW

TMDL Schedule For Integrated Plan
With Dry Weather Extension

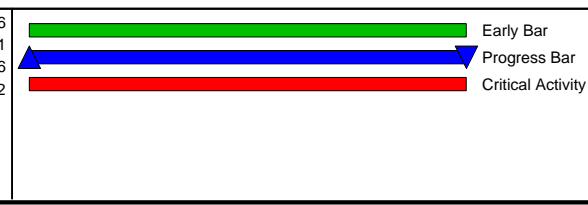
Sheet 5 of 8

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Year																		
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Voluntary Horse Farm Retrofit Program																							
Committed																							
A4000	Program Development	210	01JAN08*	31DEC08																			
A4005	Preliminary Startup	417	01JAN09	30DEC10																			
A4010	Startup Full Program	100	03JAN11	23JUN11																			
A4015	Program Operations	2,100	27JUN11	15JUL21																			
Pilot																							
A4020	Program Development	209	01JAN09*	31DEC09																			
A4025	Pilot	416	04JAN10	29DEC11																			
A4026	Program Operations	1,992	02JAN12	15JUL21																			
Wet Weather																							
Voluntary Downspout Redirect Program																							
Committed																							
D1100	Program Development	208	03JAN11*	29DEC11																			
D1105	Preliminary Startup	418	02JAN12	31DEC13																			
D1110	Startup Full Program	100	01JAN14	24JUN14																			
D1115	Program Operations	1,474	25JUN14	15JUL21																			
Pilot																							
D1120	Program Development	209	02JAN12*	31DEC12																			
D1125	Pilot	418	01JAN13	31DEC14																			
D1126	Program Operations	1,365	01JAN15	15JUL21																			
Stream Buffers																							
Committed																							
D1130	Program Development	208	03JAN11*	29DEC11																			
D1135	Preliminary Startup	418	02JAN12	31DEC13																			
D1140	Startup Full Program	100	01JAN14	24JUN14																			
D1145	Program Operations	1,474	25JUN14	15JUL21																			
Pilot																							
D1150	Program Development	209	02JAN12*	31DEC12																			
D1155	Pilot	418	01JAN13	31DEC14																			
D1156	Program Operations	1,365	01JAN15	15JUL21																			
Distributed																							
Dry & Wet Weather																							
Vegetated Treatment Systems - Construction																							
Committed																							
B3600	Planning	350	01JAN07*	02SEP08																			
B3605	Construction Bid/Award	69	03SEP08	31DEC08																			
B3610	Construction	625	01JAN09	17SEP10																			
B3615	Project Acceptance	52	20SEP10	16DEC10																			
B3617	Program Operations	2,208	20DEC10	15JUL21																			
Vegetated Treatment Systems - Program																							
Committed																							
P3600	Program Development	210	01JAN08*	31DEC08																			
P3605	Preliminary Startup	417	01JAN09	30DEC10																			
P3610	Startup Full Program	100	31DEC10	09APR11																			
P3615	Program Operations	2,144	11APR11	15JUL21																			
Local Infiltration Systems - Construction																							
Pilot																							
T3600	Planning	549	01JAN07*	17AUG09																			

Start Date 24JAN06
 Finish Date 15JUL21
 Data Date 24JAN06
 Run Date 21AUG06 16:32

Early Bar
 Progress Bar
 Critical Activity

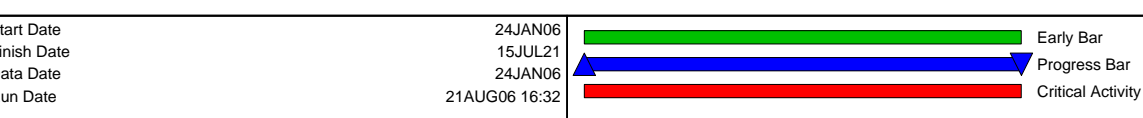
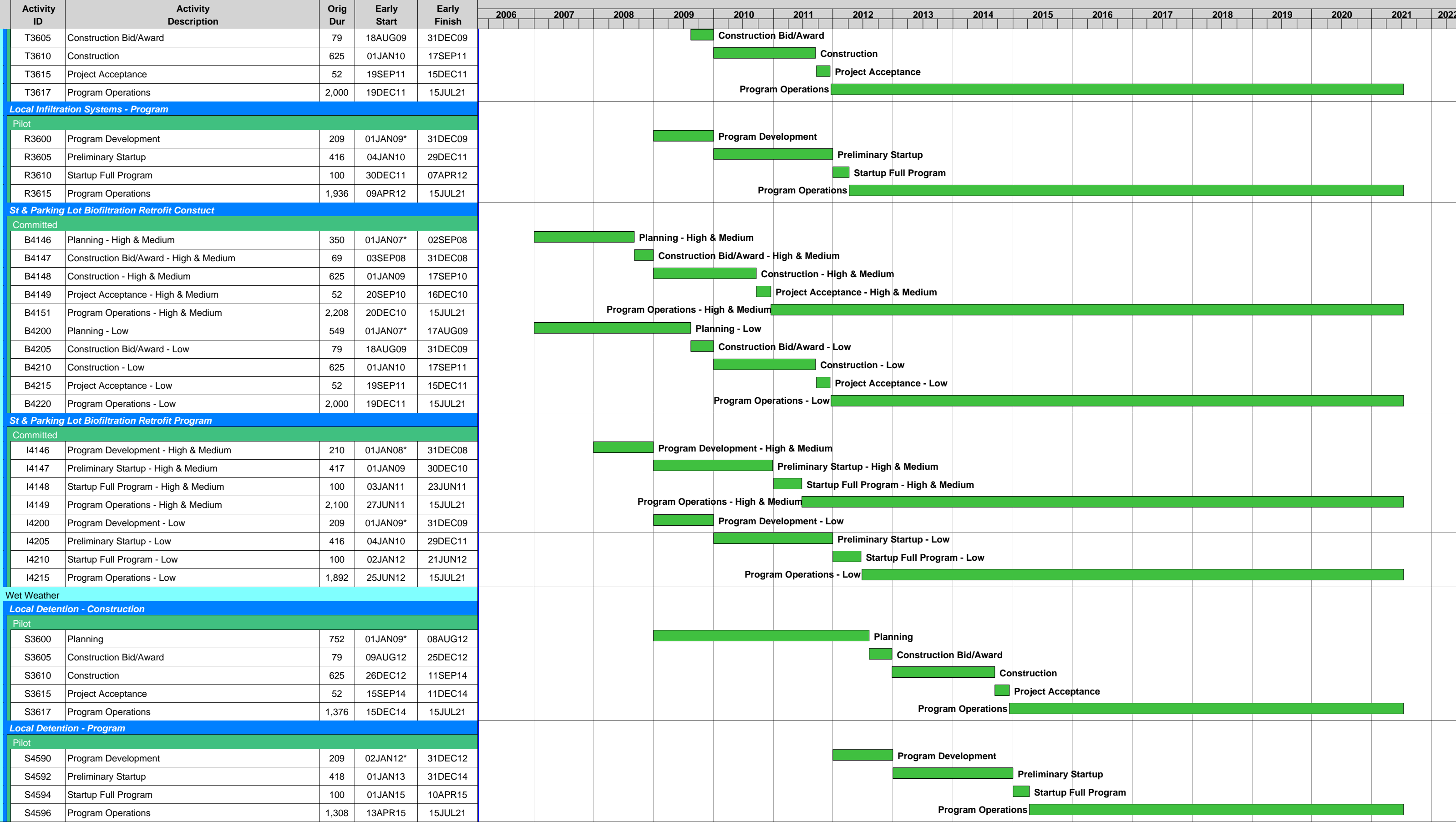


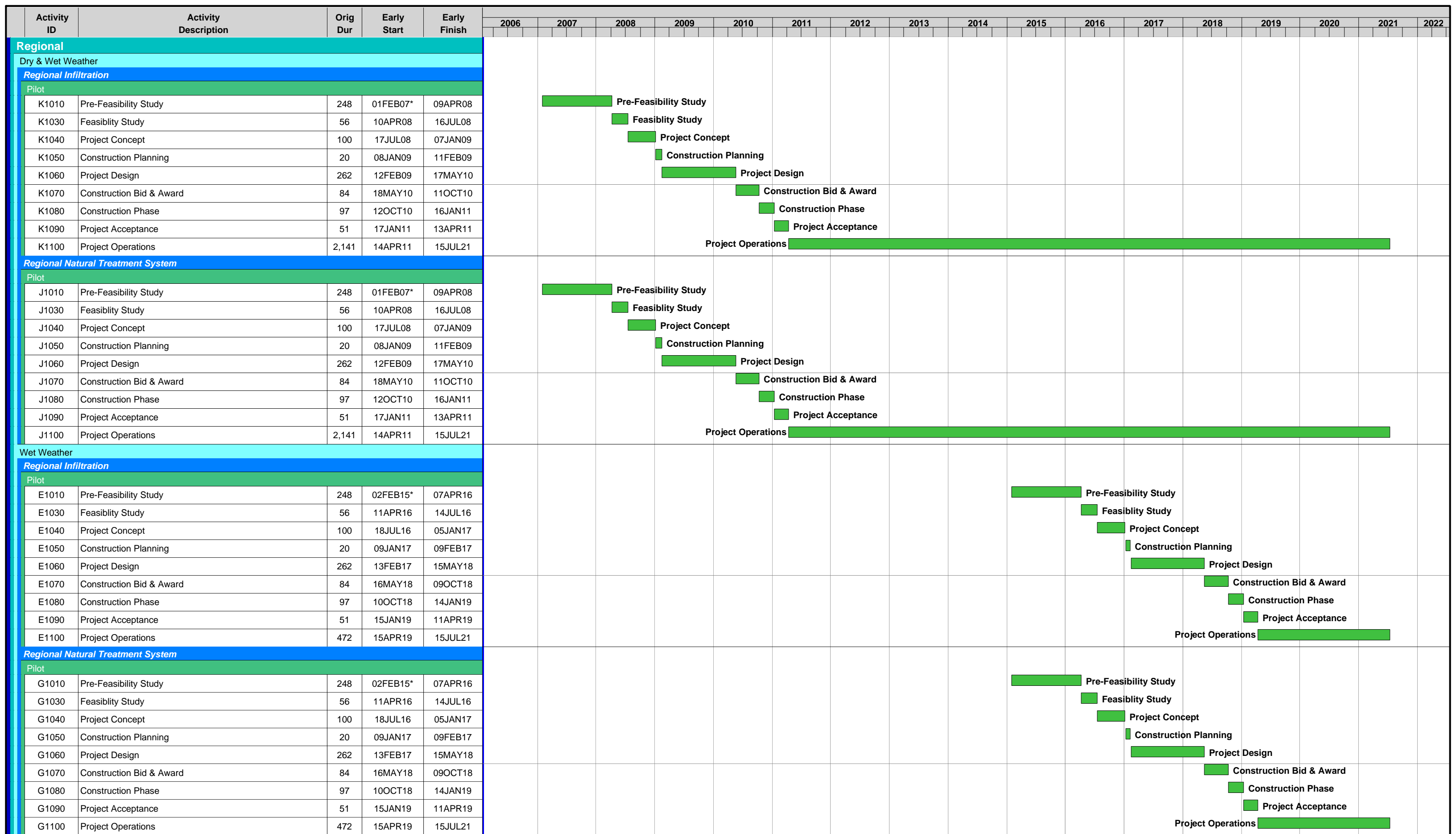
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LACDPW
 TMDL Schedule For Integrated Plan
 With Dry Weather Extension

Sheet 6 of 8

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	







Start Date	24JAN06	[Green Bar]	Early Bar
Finish Date	15JUL21	[Green Bar]	Progress Bar
Data Date	24JAN06	[Blue Bar]	Critical Activity
Run Date	21AUG06 16:36	[Red Bar]	

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TMDL Schedule For Integrated Plan
With Dry Weather Extension

Sheet 8 of 8

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	

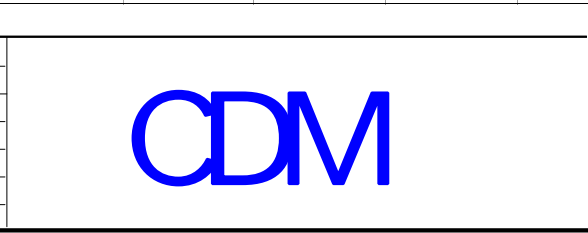


EXHIBIT 2

Dry- and Wet-Weather BMP Implementation Schedule

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022

Best Management Practices (BMP)

Nonstructural BMPs

Dry & Wet Weather

Partnerships with HOAs to Increase Water Conserv

Pilot

A1117	Program Development	210	01JAN08*	31DEC08
A1118	Preliminary Startup	417	01JAN09	30DEC10
A1119	Startup Full Program	100	03JAN11	23JUN11
A1120	Program Operations	2,100	27JUN11	15JUL21

Offer Water Conservation in Programs at School

Pilot

B1120	Program Development	210	01JAN08*	31DEC08
B1124	Preliminary Startup	417	01JAN09	30DEC10
B1125	Startup Full Program	100	03JAN11	23JUN11
B1126	Program Operations	2,100	27JUN11	15JUL21

Outreach Fact Sheets -Point-of-Sale Distribution

Committed

C1100	Program Development	209	01JAN07*	31DEC07
C1105	Preliminary Startup	419	01JAN08	31DEC09
C1110	Startup Full Program	100	04JAN10	24JUN10
C1115	Program Operations	2,308	28JUN10	15JUL21

Pilot

C1120	Program Development - Medium & Low	209	01JAN09*	31DEC09
C1124	Preliminary Startup- Medium & Low	416	04JAN10	29DEC11
C1125	Startup Full Program - Medium & Low	100	02JAN12	21JUN12
C1126	Program Operations - Medium & Low	1,892	25JUN12	15JUL21

Work w/ LVMWD/ WBMWD/WWD 29 Support Water Audit

Pilot

A1302	Program Development	210	01JAN08*	31DEC08
A1303	Preliminary Startup	417	01JAN09	30DEC10
A1304	Startup Full Program	100	03JAN11	23JUN11
A1305	Program Operations	2,100	27JUN11	15JUL21

Horse Stables and Animal Facility Outreach

Committed

A2105	Program Development	210	01JAN07*	01JAN08
A2110	Preliminary Startup	417	02JAN08	30DEC09
A2115	Startup Full Program	100	31DEC09	23JUN10
A2116	Program Operations	2,309	24JUN10	15JUL21

Develop an Inventory of Areas w/ Confined Animal

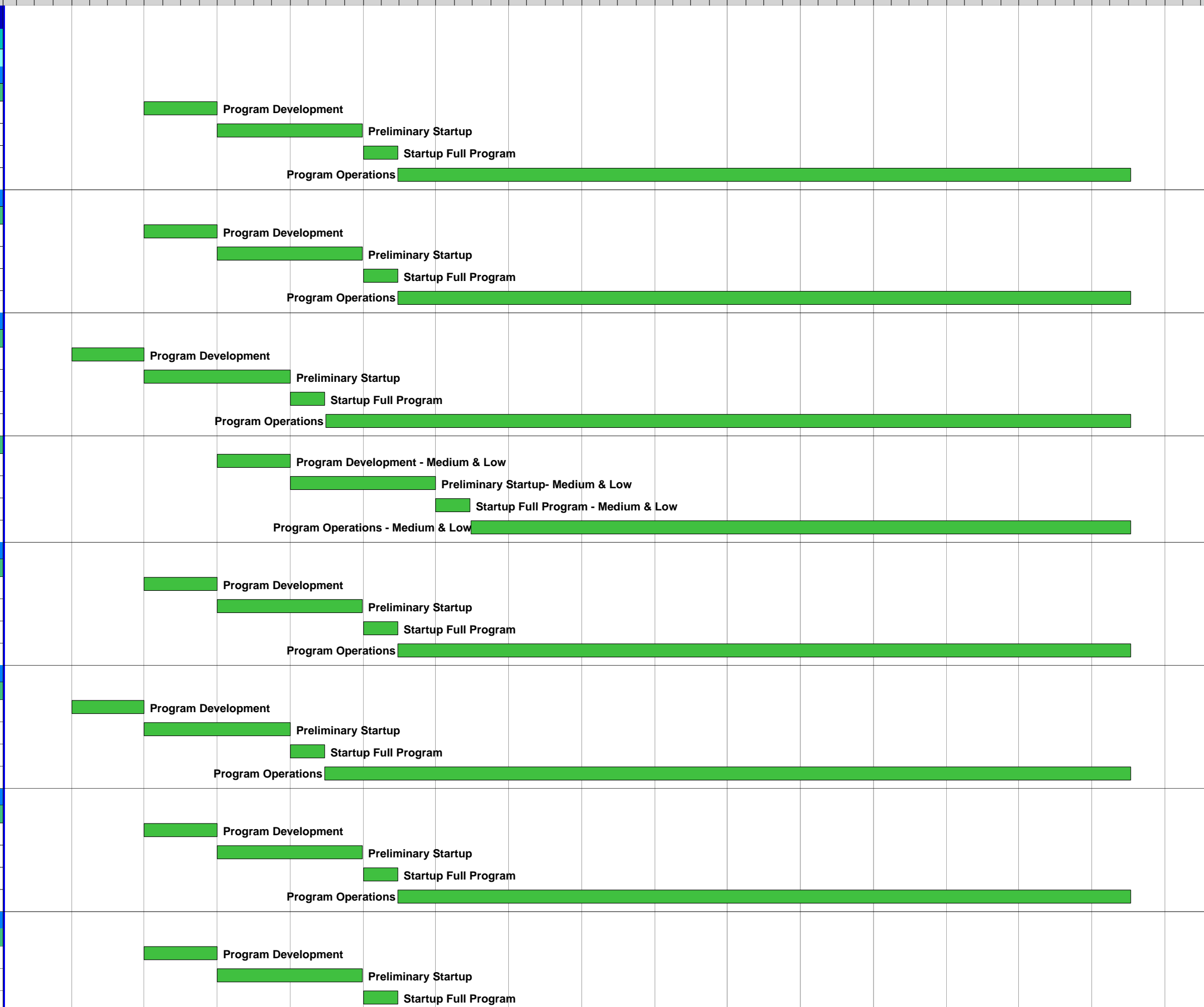
Pilot

A2046	Program Development	210	01JAN08*	31DEC08
A2047	Preliminary Startup	417	01JAN09	30DEC10
A2048	Startup Full Program	100	03JAN11	23JUN11
A2049	Program Operations	2,100	27JUN11	15JUL21

Recreational Vehicle Disposal Site Outreach Prog

Pilot

A2062	Program Development	210	01JAN08*	31DEC08
A2063	Preliminary Startup	417	01JAN09	30DEC10
A2064	Startup Full Program	100	03JAN11	23JUN11



Start Date	24JAN06
Finish Date	15JUL21
Data Date	24JAN06
Run Date	21AUG06 16:41



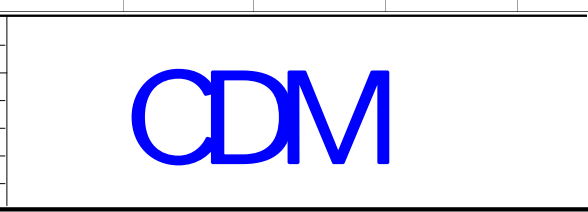
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Sheet 1 of 5

TMDL Schedule For Integrated Plan With Dry Weather Extension

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Year																	
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
A2065	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	
Coord w/ Watershed Identify Method for Visitors																						
Pilot																						
A2072	Program Development	210	01JAN08*	31DEC08	Program Development																	
A2073	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																	
A2074	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																	
A2075	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	
Outreach at Trailheads Regarding Waste Disposal																						
Pilot																						
C1230	Program Development	210	01JAN08*	31DEC08	Program Development																	
C1233	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																	
C1234	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																	
C1235	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	
Coord Mtgs Btw Agencies and Enviro Organizations																						
Committed																						
C1305	Program Development	209	01JAN07*	31DEC07	Program Development																	
C1310	Preliminary Startup	419	01JAN08	31DEC09	Preliminary Startup																	
C1315	Startup Full Program	100	04JAN10	24JUN10	Startup Full Program																	
C1325	Program Operations	2,290	28JUN10	15JUN21	Program Operations																	
Develop Target Outreach for Busines w/ Pollutant																						
Pilot																						
A2082	Program Development	210	01JAN08*	31DEC08	Program Development																	
A2083	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																	
A2084	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																	
A2085	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	
Emergency Spill Management																						
Committed																						
B3100	Program Development	209	01JAN07*	31DEC07	Program Development																	
B3105	Preliminary Startup	419	01JAN08	31DEC09	Preliminary Startup																	
B3110	Startup Full Program	100	04JAN10	24JUN10	Startup Full Program																	
B3115	Program Operations	2,308	28JUN10	15JUL21	Program Operations																	
Pilot																						
B3120	Program Development - Medium & Low	208	01JAN09*	30DEC09	Program Development - Medium & Low																	
B3124	Preliminary Startup - Medium & Low	417	31DEC09	29DEC11	Preliminary Startup - Medium & Low																	
B3125	Startup Full Program	100	02JAN12	21JUN12	Startup Full Program																	
B3126	Program Operations - Medium & Low	1,892	25JUN12	15JUL21	Program Operations - Medium & Low																	
Additional Trash Pick Up During High Use Periods																						
Pilot																						
B3150	Program Development	210	01JAN08*	31DEC08	Program Development																	
B3154	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																	
B3155	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																	
B3156	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	
Assure that Contractors Provide BMP Maintenance																						
Pilot																						
C2050	Program Development	210	01JAN08*	31DEC08	Program Development																	
C2054	Preliminary Startup	417	01JAN09	30DEC10	Preliminary Startup																	
C2055	Startup Full Program	100	03JAN11	23JUN11	Startup Full Program																	
C2056	Program Operations	2,100	27JUN11	15JUL21	Program Operations																	

Start Date	24JAN06		Early Bar
Finish Date	15JUL21		Progress Bar
Data Date	24JAN06		Progress Bar
Run Date	21AUG06 16:42		Critical Activity

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TMDL Schedule For Integrated Plan
With Dry Weather Extension

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Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	

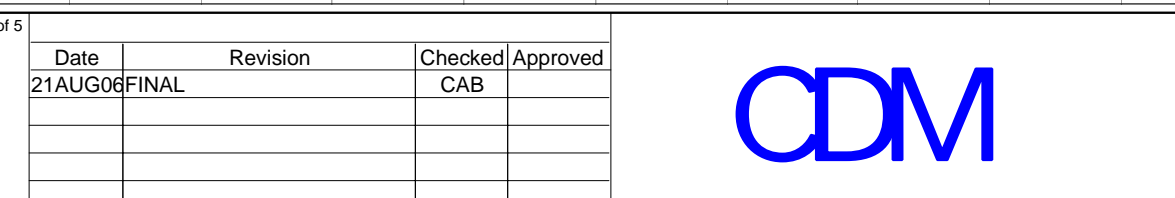


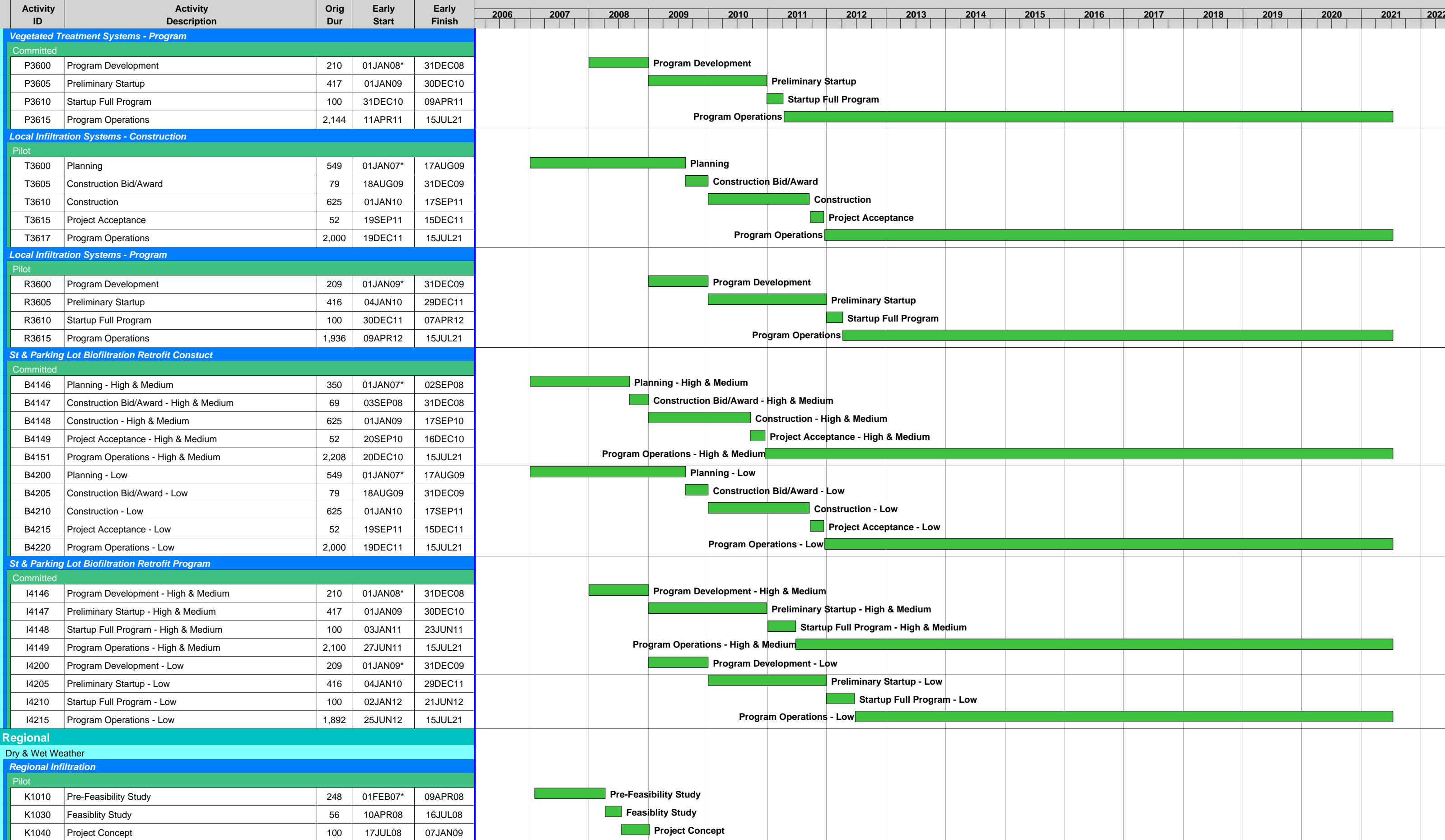
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Year																	
					2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Provide (OWTS) Pumpers and Customers w/ Guides																						
Committed																						
A3080	Program Development	209	01JAN07*	31DEC07	[Green Bar: 2007-2008] Program Development																	
A3085	Preliminary Startup	419	01JAN08	31DEC09	[Green Bar: 2008-2009] Preliminary Startup																	
A3090	Startup Full Program	100	04JAN10	24JUN10	[Green Bar: 2010] Startup Full Program																	
A3095	Program Operations	2,308	28JUN10	15JUL21	[Green Bar: 2010-2021] Program Operations																	
Investigate Incentive Prog for Replacing Septic																						
Committed																						
E3080	Program Development	209	01JAN07*	31DEC07	[Green Bar: 2007-2008] Program Development																	
E3085	Preliminary Startup	419	01JAN08	31DEC09	[Green Bar: 2008-2009] Preliminary Startup																	
E3090	Startup Full Program	100	04JAN10	24JUN10	[Green Bar: 2010] Startup Full Program																	
E3095	Program Operations	2,290	28JUN10	15JUN21	[Green Bar: 2010-2021] Program Operations																	
Septic Inspections Upon Change in Ownership																						
Pilot																						
A3720	Program Development	210	01JAN08*	31DEC08	[Green Bar: 2008-2009] Program Development																	
A3724	Preliminary Startup	417	01JAN09	30DEC10	[Green Bar: 2009-2010] Preliminary Startup																	
A3725	Startup Full Program	100	03JAN11	23JUN11	[Green Bar: 2011] Startup Full Program																	
A3726	Program Operations	2,100	27JUN11	15JUL21	[Green Bar: 2011-2021] Program Operations																	
Institutional																						
Dry & Wet Weather																						
Development Standards																						
Committed																						
A3760	Program Development	210	01JAN08*	31DEC08	[Green Bar: 2008-2009] Program Development																	
A3765	Preliminary Startup	417	01JAN09	30DEC10	[Green Bar: 2009-2010] Preliminary Startup																	
A3770	Startup Full Program	100	03JAN11	23JUN11	[Green Bar: 2011] Startup Full Program																	
A3775	Program Operations	2,100	27JUN11	15JUL21	[Green Bar: 2011-2021] Program Operations																	
Pilot																						
A3780	Program Development	209	01JAN09*	31DEC09	[Green Bar: 2009-2010] Program Development																	
A3785	Pilot	416	04JAN10	29DEC11	[Green Bar: 2010-2011] Pilot																	
A3786	Program Operations	1,992	02JAN12	15JUL21	[Green Bar: 2012-2021] Program Operations																	
Voluntary Horse Farm Retrofit Program																						
Committed																						
A4000	Program Development	210	01JAN08*	31DEC08	[Green Bar: 2008-2009] Program Development																	
A4005	Preliminary Startup	417	01JAN09	30DEC10	[Green Bar: 2009-2010] Preliminary Startup																	
A4010	Startup Full Program	100	03JAN11	23JUN11	[Green Bar: 2011] Startup Full Program																	
A4015	Program Operations	2,100	27JUN11	15JUL21	[Green Bar: 2011-2021] Program Operations																	
Pilot																						
A4020	Program Development	209	01JAN09*	31DEC09	[Green Bar: 2009-2010] Program Development																	
A4025	Pilot	416	04JAN10	29DEC11	[Green Bar: 2010-2011] Pilot																	
A4026	Program Operations	1,992	02JAN12	15JUL21	[Green Bar: 2012-2021] Program Operations																	
Distributed																						
Dry & Wet Weather																						
Vegetated Treatment Systems - Construction																						
Committed																						
B3600	Planning	350	01JAN07*	02SEP08	[Green Bar: 2007-2008] Planning																	
B3605	Construction Bid/Award	69	03SEP08	31DEC08	[Green Bar: 2008] Construction Bid/Award																	
B3610	Construction	625	01JAN09	17SEP10	[Green Bar: 2009-2010] Construction																	
B3615	Project Acceptance	52	20SEP10	16DEC10	[Green Bar: 2010] Project Acceptance																	
B3617	Program Operations	2,208	20DEC10	15JUL21	[Green Bar: 2010-2021] Program Operations																	

Start Date	24JAN06	[Green Bar]	Early Bar
Finish Date	15JUL21	[Green Bar]	Progress Bar
Data Date	24JAN06	[Blue Bar]	
Run Date	21AUG06 16:42	[Red Bar]	Critical Activity

TMD1	LACDPW	Sheet 3 of 5
TMDL Schedule For Integrated Plan With Dry Weather Extension		

Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	



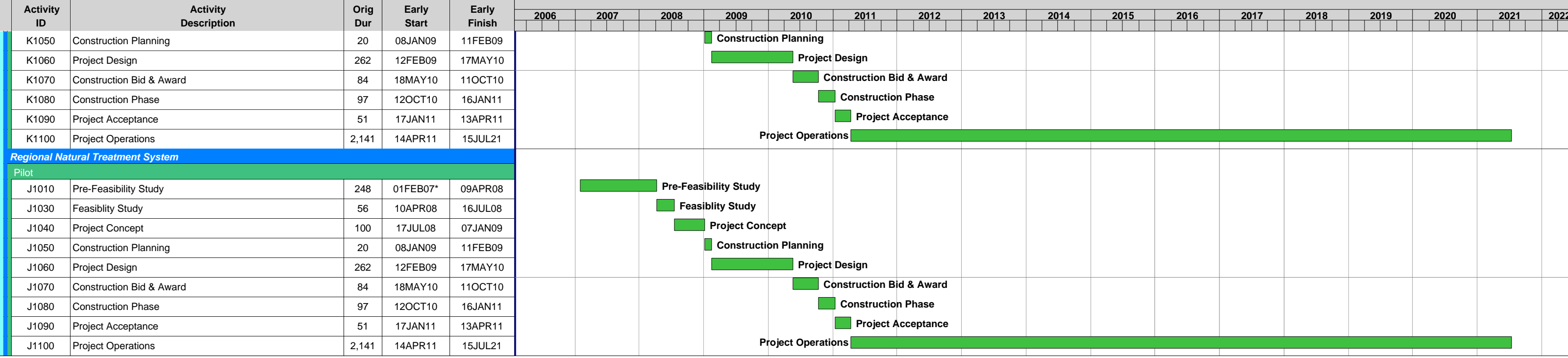


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Finish Date	15JUL21		Progress Bar
Data Date	24JAN06		Critical Activity
Run Date	21AUG06 16:43		

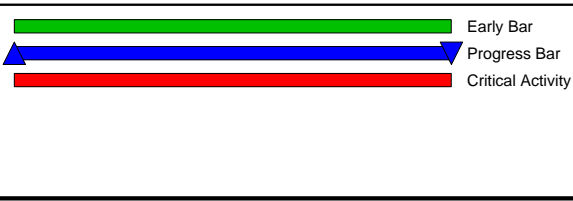
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Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	





Start Date 24JAN06
 Finish Date 15JUL21
 Data Date 24JAN06
 Run Date 21AUG06 16:44



Date	Revision	Checked	Approved
21AUG06	FINAL	CAB	

