Sandia Site Office EM Project(s)
Baseline Summary
June 2008

BACKGROUND

Sandia National Laboratories/New Mexico (SNL/NM) is located on Kirtland Air Force Base (KAFB) in central New Mexico. SNL/NM is a government-owned contractor-operated facility owned by the Department of Energy/ National Nuclear Safety Administration (DOE/NNSA) and managed by the Sandia Site Office (SSO). KAFB is a 51,559-acre military installation, including 20,486 acres withdrawn from the Cibola National Forest through an agreement with the U.S. Forest Service (USFS). KAFB and SNL/NM are located adjacent to the City of Albuquerque, which borders KAFB on its north, northeast, west, and southwest boundaries. The total area of DOE/ NNSA-owned property that is dedicated to SNL/NM facilities and operations is approximately 8,585 acres. Sandia conducts operations within 2,841 acres of that land. An additional 5,817 acres in remote areas are provided to DOE through land use agreements with the U.S. Air Force (USAF) and Isleta Pueblo Indian reservation. An additional 9,000 acres serve as a buffer zone near the southwest boundary of KAFB.

SNL/NM began operations in 1945 as part of the Manhattan Project, which produced the first nuclear weapon. In 1949, President Harry Truman wrote American Telephone & Telegraph (AT&T) Corporation offering the company *"an opportunity to render an exceptional service in the national interest"* by managing Sandia Corporation. Sandia Corporation is the contractor that operates SNL/NM for the DOE/NNSA. AT&T managed Sandia Corporation for 44 years. Today, Sandia Corporation is managed by Lockheed Martin Corporation.

SNL/NM's enduring mission is to provide science and engineering support for the nuclear weapons stockpile. Today, the mission has grown to include other aspects of national security, such as preventing the spread of nuclear, chemical, and biological weapons; developing technologies and strategies for responding to emerging threats such as terrorism; and protecting and preventing the disruption of critical infrastructures such as the nation's energy supply and financial networks. Sandia also collaborates with representatives from the industrial sector, universities, and other government agencies to develop and commercialize new technologies.

SCOPE DESCRIPTION

The Environmental Management (EM) Program at SSO consists of a single Environmental Restoration (ER) Project at SNL/NM. Many of the processes used in carrying out SNL's mission involve the use of hazardous and radioactive materials. The ER Project is chartered with the assessment and, if necessary, the remediation of sites that were formerly used for operations such as testing and disposal. This assessment began formally in 1984 for SNL/NM, when DOE's Albuquerque Operations Office (DOE/AL) initiated the Comprehensive Environmental Assessment and Response Program (CEARP) to identify, assess, and remediate potentially hazardous waste sites. A similar assessment was conducted by the EPA Region VI in April 1987 during the Resource Conservation and Recovery Act (RCRA) Facility Assessment. These programs ultimately defined a working inventory of Solid Waste Management Units (SWMUs) to be investigated during the course of the ER Project at SNL/NM. Today there are a total of 268 legacy sites and 3 Groundwater Areas of Concern (GW AOCs) that are required to meet the

corrective action requirements to remediate environmental releases under RCRA and the New Mexico Environment Department Compliance Order on Consent. Three of the legacy sites are considered "deferred active mission" sites that pose a future cleanup liability.

To date, DOE considers remediation to be complete at 263 of the 265 legacy sites. Regulatory closure has been completed at 232 sites and 33 sites are at various stages of administrative regulatory closure. Included in the 33 sites are the Mixed Waste Landfill (MWL) and the Chemical Waste Landfill (CWL). The MWL is pending approval of final remedy installation. The CWL is pending regulatory closure through a post-closure permit. Also three GW AOCs (not included in the 265 legacy sites) are awaiting final remedies.

PROJECT MANAGEMENT

Based on the direction from EM Headquarters**,** SSO developed the near-term baseline for its project. The project baseline has undergone an independent review to verify the reasonableness of the scope, cost, and schedule for each project. An approved near-term baseline reflects the identified scope that can reasonably be accomplished for the identified cost in the identified time period if near-term baselines are funded as profiled and contingency funds are provided as required during project execution. It also establishes the baseline as an acceptable point from which to track and control future change. The review and approval process accommodates the likely changes in the EM complex, site priorities and funding plans. These changes could affect both near-term (within the next five years) and life-cycle cost, schedule and scope. Such future changes may be required to comply with applicable environmental legal obligations while maintaining essential functions necessary to protect human health, the environment and national security; reflect funding different from the baseline assumptions; incorporate technological advances; realize specific programmatic risks; or implement programmatic business cases.

The currently approved near term baseline is scheduled through FY 2009, however, completion of the public interaction and regulatory processes may increase the total costs and require an extension of the schedule. There is no Out Year Planning Estimate Range (OPER) for ER activities scheduled because of the small scope of the activities planned for those last few years. Of Sandia's 265 legacy release sites, 263 (99%) of the sites will have met all regulatory requirements and will have been transitioned to LTS by the end of FY 2009. The Baseline Change Control Process is being used to fund the scope necessary to close the last two legacy release sites and the three GW AOCs.

LIST OF PROJECTS

The SSO EM program consists of one project as shown below: The Near-Term Baseline (NTB) for this project is from FY 2005 – FY 2009.

Project	Date Approved	
	Near Term Baseline (NTB)	Out Year Planning Estimate Range (OPER)
VL-SN-0030 – Soil and Water Remediation - Sandia	4/15/2008	N/A

PROJECT SCOPE

VL-SN-0030, Soil and Water Remediation - Sandia

The remaining scope of VL-SN-0030 as shown in the figure titled Summary Lifecycle Baseline Schedule includes:

- Emplacement of the MWL Corrective Measure Implementation (CMI) (rock-barrier and soil cover) in FY 2009,
- Implementation and documentation of soil gas sampling at the MWL required prior to approval of the CMI Plan,
- Installation of a long-term monitoring system for the MWL including replacement of existing wells,
- Technical support through the CMI process and final regulatory approval of the MWL, technical support through the Closure Permit process for the CWL,
- Final Class III Permit Modification processes for the remaining legacy sites,
- Final characterization monitoring of the new monitoring wells at the Burn Site Groundwater (BSGW) area, and
- Agreement on final remedies for the three groundwater GW AOCs.

Note: Compliance monitoring of all non-MWL groundwater wells and responsibility for institutional controls was transitioned to the long-term stewardship (LTS) program at the beginning of FY 2007 and is not funded through EM.

A risk exists for project scope to be extended beyond the baseline completion date of FY 2009 due to delays in decisions and public interactions affecting the Mixed Waste Landfill, Chemical Waste Landfill, and three Groundwater areas. In addition there is potential for the New Mexico Environment Department (NMED) to mandate additional requirements for sites without final regulatory approval due to the public review and comment process. The work to be performed beyond the baseline completion date will be funded with carryover money from FY09 and continued use of the Baseline Change Control Process. Also, the work includes administrative regulatory activities to close out the project.

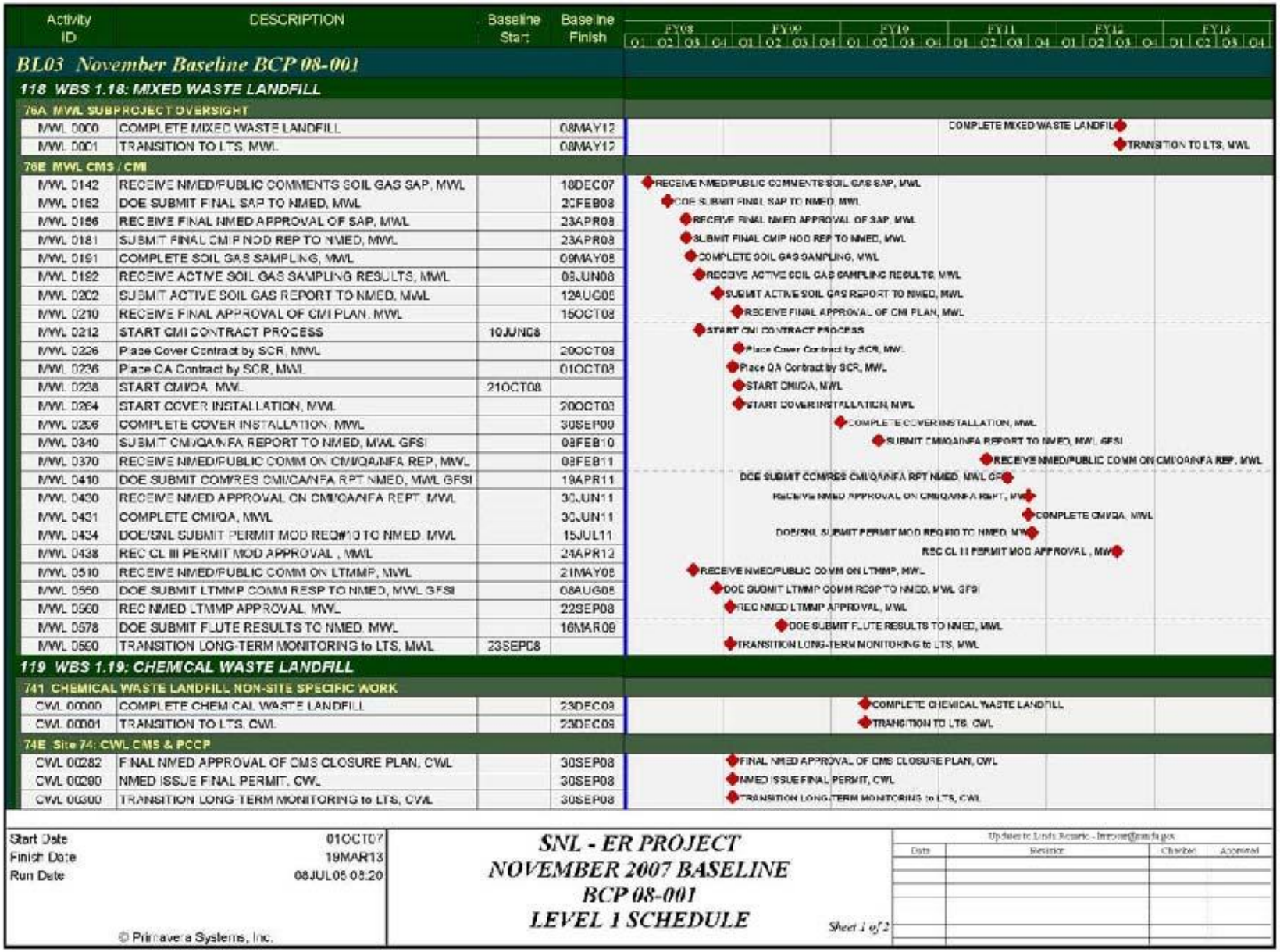
PROJECT COST

(dollars in millions)

Cost Element	Project Number
	VL-SN-0030
1. Prior Year Costs (1997-2004)	$177.6
2. Total Near-Term Baseline (50% Confidence Level)	$57.6
3. Unfunded Contingency	$0.6

4. Performance Baseline (80% Confidence Level)	$58.3
5. Out Year Planning Estimate Range	Not Applicable
6. **Total Life Cycle Cost**	$235.8

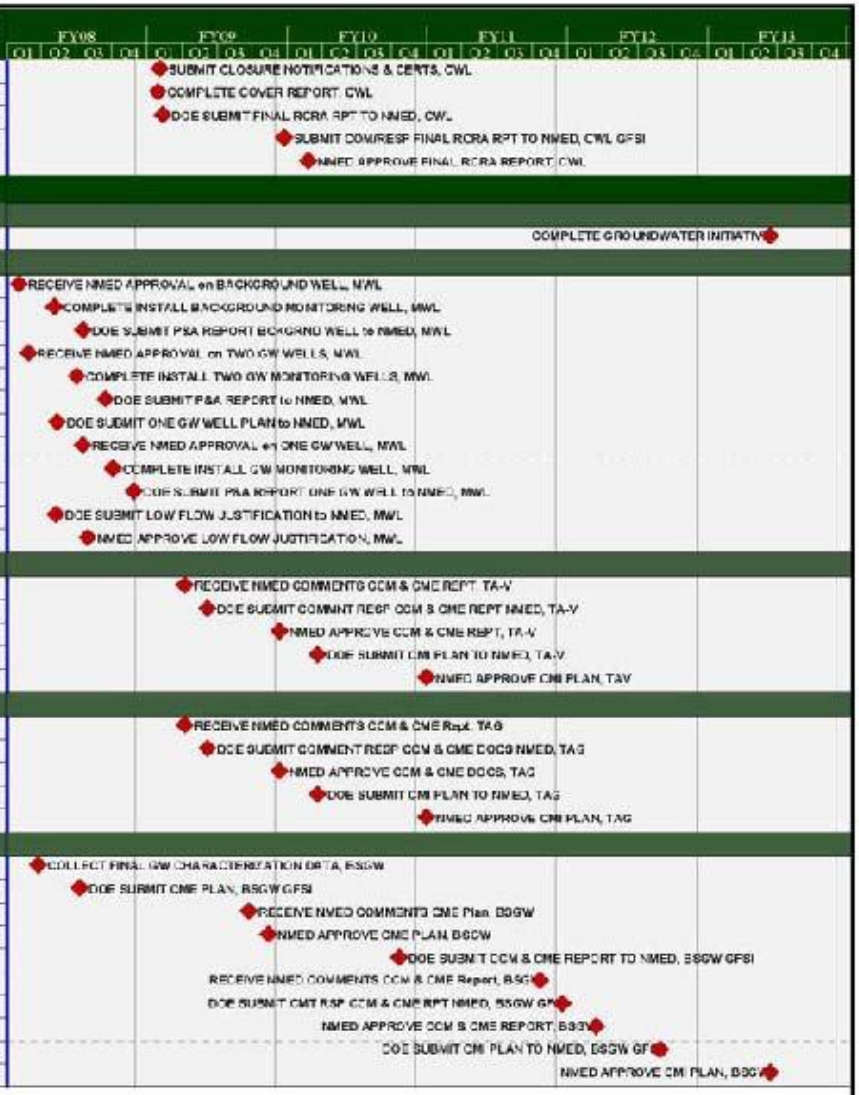
SUMMARY LIFECYCLE BASELINE SCHEDULE



Activity ID	DESCRIPTION	Baseline Start	Baseline Finish
BL03 November Baseline BCP 08-001			
118 WBS 1.18: MIXED WASTE LANDFILL			
78A MWL SUBPROJECT OVERSIGHT			
MWL 0000	COMPLETE MIXED WASTE LANDFILL		08MAY12
MWL 0001	TRANSITION TO LTS, MWL		08MAY12
78E MWL CMS / CMI			
MWL 0142	RECEIVE NMED/PUBLIC COMMENTS SOIL GAS SAP, MWL		18DEC07
MWL 0162	DOE SUBMIT FINAL SAP TO NMED, MWL		20FEB08
MWL 0156	RECEIVE FINAL NMED APPROVAL OF SAP, MWL		23APR08
MWL 0161	SUBMIT FINAL CMIP MOD REP TO NMED, MWL		23APR08
MWL 0191	COMPLETE SOIL GAS SAMPLING, MWL		09MAY08
MWL 0192	RECEIVE ACTIVE SOIL GAS SAMPLING RESULTS, MWL		09JUN08
MWL 0202	SUBMIT ACTIVE SOIL GAS REPORT TO NMED, MWL		12AUG08
MWL 0210	RECEIVE FINAL APPROVAL OF CMI PLAN, MWL		15OCT08
MWL 0212	START CMI CONTRACT PROCESS	10JUN08	
MWL 0226	Place Cover Contract by SCR, MWL		20OCT08
MWL 0236	Place QA Contract by SCR, MWL		01OCT08
MWL 0238	START CMI/QA, MWL	21OCT08	
MWL 0264	START COVER INSTALLATION, MWL		20OCT08
MWL 0356	COMPLETE COVER INSTALLATION, MWL		30SEP09
MWL 0340	SUBMIT CMI/QA/NFA REPORT TO NMED, MWL GFSI		09FEB10
MWL 0370	RECEIVE NMED/PUBLIC COMM ON CMI/QA/NFA REP, MWL		09FEB11
MWL 0410	DOE SUBMIT COMRES CMI/QA/NFA RPT NMED, MWL GFSI		19APR11
MWL 0420	RECEIVE NMED APPROVAL ON CMI/QA/NFA REPT, MWL		30JUN11
MWL 0431	COMPLETE CMI/QA, MWL		30JUN11
MWL 0434	DOE/SNL SUBMIT PERMIT MOD REQ#10 TO NMED, MWL		15JUL11
MWL 0438	REC CL III PERMIT MOD APPROVAL , MWL		24APR12
MWL 0510	RECEIVE NMED/PUBLIC COMM ON LTMMP, MWL		21MAY08
MWL 0550	DOE SUBMIT LTMMP COMM RESP TO NMED, MWL GFSI		08AUG08
MWL 0560	REC NMED LTMMP APPROVAL, MWL		22SEP08
MWL 0578	DOE SUBMIT FLUTE RESULTS TO NMED, MWL		16MAR09
MWL 0590	TRANSITION LONG-TERM MONITORING to LTS, MWL	23SEP08	
119 WBS 1.19: CHEMICAL WASTE LANDFILL			
74I CHEMICAL WASTE LANDFILL NON-SITE SPECIFIC WORK			
CWL 00000	COMPLETE CHEMICAL WASTE LANDFILL		23DEC09
CWL 00001	TRANSITION TO LTS, CWL		23DEC09
74E Site 74: CWL CMS & PCCP			
CWL 00282	FINAL NMED APPROVAL OF CMS CLOSURE PLAN, CWL		30SEP08
CWL 00290	NMED ISSUE FINAL PERMIT, CWL		30SEP08
CWL 00300	TRANSITION LONG-TERM MONITORING to LTS, CWL		30SEP08

SUMMARY LIFECYCLE BASELINE SCHEDULE (Concluded)

Activity ID	DESCRIPTION	Baseline Start	Baseline Finish
CWL 00401	SUBMIT CLOSURE NOTIFICATIONS & CERTS, CWL		04NOV08
CWL 00404	COMPLETE COVER REPORT, CWL		26OCT08
CWL 00410	DOE SUBMIT FINAL RCRA RPT TO NMED, CWL		11NOV08
CWL 00440	SUBMIT COM/RESP FINAL RCRA RPT TO NMED, CWL GFSI		21SEP09
CWL 00460	NMED APPROVE FINAL RCRA REPORT, CWL		23NOV09
120 WBS 1.20: GROUNDWATER INITIATIVE			
SW1 GROUNDWATER INITIATIVE OVERSIGHT			
GW 00020	COMPLETE GROUNDWATER INITIATIVE		12MAR13
SW3 GROUNDWATER INITIATIVE - MWL			
GW 00845	RECEIVE NMED APPROVAL on BACKGROUND WELL, MWL		02NOV07
GW 00900	COMPLETE INSTALL BACKGROUND MONITORING WELL,		31JAN08
GW 00930	DOE SUBMIT P&A REPORT BCKGRND WELL to NMED, MWL		15APR08
GW 00970	RECEIVE NMED APPROVAL on TWO GW WELLS, MWL		27NOV07
GW 01020	COMPLETE INSTALL TWO GW MONITORING WELLS, MWL		31MAR08
GW 01055	DOE SUBMIT P&A REPORT to NMED, MWL		13JUN08
GW 01085	DOE SUBMIT ONE GW WELL PLAN to NMED, MWL		11FEB08
GW 01095	RECEIVE NMED APPROVAL on ONE GW WELL, MWL		16APR08
GW 01150	COMPLETE INSTALL GW MONITORING WELL, MWL		03JUL08
GW 01175	DOE SUBMIT P&A REPORT ONE GW WELL to NMED, MWL		28AUG08
GW 01186	DOE SUBMIT LOW FLOW JUSTIFICATION to NMED, MWL		06FEB08
GW 01188	NMED APPROVE LOW FLOW JUSTIFICATION, MWL		30APR08
SW5 GROUNDWATER INITIATIVE - TA III/V			
GW 00205	RECEIVE NMED COMMENTS CCM & CME REPT, TA-V		09JAN09
GW 00225	DOE SUBMIT COMMNT RESP CCM & CME REPT NMED,		06MAR09
GW 00245	NMED APPROVE CCM & CME REPT, TA-V		11SEP09
GW 00260	DOE SUBMIT CMI PLAN TO NMED, TA-V		21DEC09
GW 00280	NMED APPROVE CMI PLAN, TAV		29SEP10
SW6 GROUNDWATER INITIATIVE - TAG			
GW 00305	RECEIVE NMED COMMENTS CCM & CME Rept, TAG		09JAN09
GW 00330	DOE SUBMIT COMMENT RESP CCM & CME DOCS NMED,		06MAR09
GW 00350	NMED APPROVE CCM & CME DOCS, TAG		11SEP09
GW 00365	DOE SUBMIT CMI PLAN TO NMED, TAG		21DEC09
GW 00385	NMED APPROVE CMI PLAN, TAG		29SEP10
SW7 GROUNDWATER INITIATIVE - BURN SITE			
GW 00425	COLLECT FINAL GW CHARACTERIZATION DATA, BSGW		21DEC07
GW 00455	DOE SUBMIT CME PLAN, BSGW GFSI		08APR08
GW 00485	RECEIVE NMED COMMENTS CME Plan, BSGW		22JUN09
GW 00498	NMED APPROVE CME PLAN, BSGW		11AUG09
GW 00480	DOE SUBMIT CCM & CME REPORT TO NMED, BSGW GFSI		21JUL10
GW 00505	RECEIVE NMED COMMENTS CCM & CME Report, BSGW		21JUL11
GW 00525	DOE SUBMIT CMT RSP CCM & CME RPT NMED, BSGW		16SEP11
GW 00535	NMED APPROVE CCM & CME REPORT, BSGW		13DEC11
GW 00550	DOE SUBMIT CMI PLAN TO NMED, BSGW GFSI		31MAY12
GW 00560	NMED APPROVE CMI PLAN, BSGW		12MAR13



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