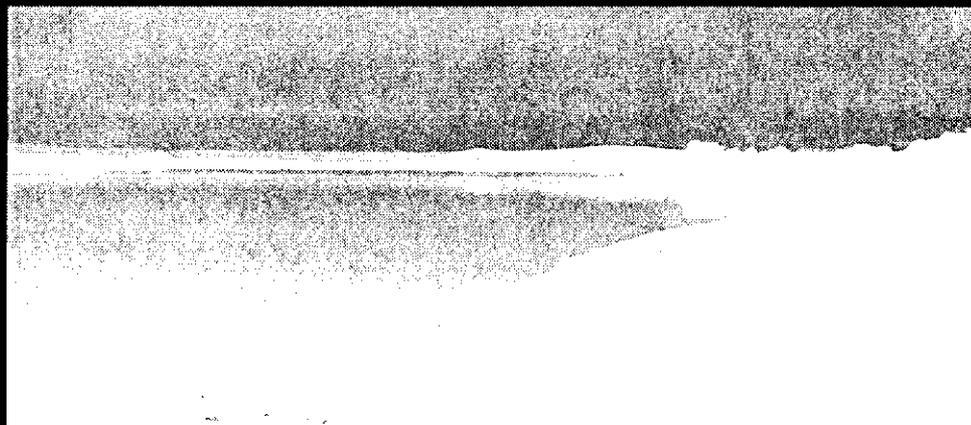


River Protection Project FY 2000 Multi-Year Work Plan Summary



Prepared for the U.S. Department of Energy

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Hanford Management and Integration Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

Approved for Public Release

River Protection Project FY 2000 Multi-Year Work Plan Summary

Lockheed Martin Hanford Corporation

Date Published
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C. Willingham

8/27/99

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RIVER PROTECTION PROJECT FY 2000 MULTI-YEAR WORK PLAN SUMMARY

1.0 RIVER PROTECTION PROJECT OVERVIEW

1.1 River Protection Project Formation

The River Protection Project (RPP), formerly the Tank Waste Remediation System (TWRS), is a major part of the U.S. Department of Energy's (DOE) Office of River Protection (ORP). The ORP was established as directed by Congress in Section 3139 of the *Strom Thurmond National Defense Authorization Act for Fiscal Year (FY) 1999*. The ORP was established to elevate the reporting and accountability for the RPP to the DOE-Headquarters level. This was done to gain Congressional visibility and obtain support for a major \$10 billion high-level liquid waste vitrification effort.

1.2 RPP Work Breakdown Structure/Organization

The RPP is organized in a structure consisting of 10 Project Baseline Summaries (PBS). The following PBSs make up the RPP:

TW01	Tank Waste Characterization
TW02	Tank Safety Issue Resolution
TW03	Tank Farm Operations
TW04	Retrieval
TW05	Process Waste Support
TW06	Privatization Phase 1
TW07	Privatization Phase 2
TW08	Privatization Infrastructure
TW09	Immobilized Tank Waste Storage and Disposal
TW10	Management Support.

The planning for RPP is consistent with the overall-planning schedule for the entire Hanford Site. Appendix A shows the overall fiscal year planning process flow. As part of the multi-year work plan (MYWP) process, work scope is prioritized and agreed to at all levels of management. This results in developing the Project Priority List (PPL) that, along with customer guidance, forms the basis for work scope determination for the revised baseline. The PPL for the fiscal year (FY) 2000 MYWP is included as Appendix B. Individual plans are then created for each PBS for incorporating scope, schedule, and

cost. Baseline planning is conducted in line with Lockheed Martin Hanford Corporation (LMHC) Management Directive LMH-MD-018, the specifics of which are depicted in the Baseline Planning Matrix (Figure 1).

Figure 1. Fiscal Year 2000 Baseline Planning Matrix.¹

WBS Level	WBS Hierarchy	Logic	Schedule	Scope	Cost	Work Authorization
1	Site					
2	TWRS	Level 0 ↓	Site Summary Schedule	MYWP ↓		PAD
3	PBS		PMBS ↓			
4	Facilities					
5	Functions					
6	Cost Account	Level 1 ↓		LIAS**		Sub-OD
7	Work Package			TBR	CACN	Work Authorization
8	Task	Level 2	Detail Schedule	CEIS	Field Work Packages	Field Work Packages
9 ↓	Sub-Task	Field Working Level 3	Field Working Level Schedules	Field Work Packages	Field Work Packages	Field Work Packages

*Line Item Projects and Salt Well Pumping can plan Logic/Schedule/Scope/Cost to Level 11 of WBS to allow visibility of discrete tasks. See alternate matrix.

**Proposed implementation after the FY 2001 PBS submittal.

The U.S. Department of Energy, Richland Operations Office (RL), LMHC, and the ORP have begun discussions leading to withdrawing LMHC's subcontract from the Project Hanford Management Contract (PHMC) and assigning it to the DOE, managed by the ORP. This will create a direct contractual relationship between LMHC and DOE that will optimize RPP integration. The transition process is expected to be complete by October 1, 1999.

¹ TWRS, used in Figure 1, is now called the River Protection Project (RPP).

1.3 Significant Changes From Previous Years

The following significant changes have been made in the MYWP from previous years:

- ◆ The major change in the MYWP from previous years is in the delivery format. For FY 2000 the MYWP need not be published as a hard-copy document. Instead, the MYWP will be available via desktop application for all Hanford Local Area Network (HLAN) (the Hanford Site computer network) users. Significant emphasis is being placed on source-system feeds of data housed in appropriate systems. See Appendix C for instructions on accessing the electronic MYWP.
- ◆ The Technical Basis Review (TBR), which forms the basis for the detail planning of the baseline, is available in a central storage location and maintained under strict configuration management. To facilitate their review, MYWP reviewers will be given access to this system. See Appendix D for access instructions.

Each mission area (RPP, Spent Nuclear Fuels, etc.) will prepare a Site Summary Schedule (SSS) which will form the basis of the SSS for the entire Hanford Site. The SSS is a high-level graphic depiction of the life cycle of the Hanford Site that displays major projects' activities and their key interfaces. It includes selected enforceable agreement milestones, end-point targets, Defense Nuclear Facility Safety Board commitments and Hanford Site Critical Closure Path milestones. Preparation of the SSS will contribute to satisfying the requirement that the MYWPs be aligned with each other and with the Integrated Site Baseline (ISB). The technical, schedule, and cost baselines that make up the ISB are the standards against which progress is measured.

1.4 Major Assumptions

The following major assumptions were used in preparing the FY 2000 MYWP.

- ◆ The FY 2000 Budget Authority (B/A) baseline and cost estimate baseline must be built to correlate with the President's Budget Submittal to Congress, which allocates \$335 million to the RPP.

For FY 2001 through 2006, the RPP shall assume funding consistent with the April 15, 1999, Project Priority List Compliance Funding Level, shown in Table 1.

Table 1. Project Priority List Compliance Funding Level
(April 15, 1999)

Fiscal Year	Funding (\$) (K)
2001	446,129
2002	436,998*
2003	434,719*
2004	447,123*
2005	442,846*
2006	339,755*

*As a result of incremental scope associated with the extended order quantities, ILAW/IHLW failed melters and sample transport design and construction, modifying/updating tank farm piping systems and infrastructure, the funding requirements have exceeded the target levels as listed above.

For the years beyond FY 2006, the RPP shall assume the compliance case plus any additional necessary requirements.

- ◆ RPP planning will incorporate and integrate all contractor requirements.
- ◆ Waste retrieval activities will be initiated consistent with the following start-up dates:
 - Start of pretreatment by April 2006
 - Start of high-level waste vitrification by February 2007
 - Start of low-activity waste vitrification by January 2008.

1.5 Significant Work Scope Changes From Last Year

Significant changes in work scope for FY 2000 are as follows:

- ◆ Consistent with the Level 0 Logic, operation and maintenance of the tank farms and program management support efforts have been extended from FY 2024 to FY 2034.
- ◆ Operation of the 242-A Evaporator has been added to the baseline.
- ◆ Equipment and systems to retrieve nine additional tanks for extended-order quantity feed requirements has been added (Projects W521, 522, and 523).
- ◆ Additional trade studies that will provide data in support of current tank retrieval strategy are included.

- ◆ Work scope to modify or update tank farm piping systems and infrastructure (Project W-314, Facility Walkdowns, Tank Farm Spare Equipment, etc.) has been added.
- ◆ New scope for design and construction of immobilized low-activity waste and immobilized high-level waste failed melters and sample transport has been added.
- ◆ Additional characterization sampling for retrieval has been added.
- ◆ Work scope to effect the acceleration of Phase 2 waste retrieval from single-shell tanks is included.

1.6 Significant Issues

The following significant issues are associated with the FY 2000 MYWP.

- ◆ The target funding levels for FY 2002 – FY 2006 were not achievable due to increased work scope that was added to the baseline. The FY 2001 funding requirements meet the target funding guidance of \$446M, but exceed the Congressional target funding of \$382M. Constraining the schedule to \$382M would impact the scheduled Privatization start-up dates.
- ◆ This MYWP defers the development and testing of alternative single-shell tank waste retrieval and heel removal techniques (Hanford Tank Initiative).
- ◆ This MYWP defers development of the balance of mission single-shell tank waste retrieval and closure of the Tank Farm Facility and defers the development of a technical basis from which to negotiate changes to the 2018 milestone date specified in the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1996) to remove waste from single-shell tanks.
- ◆ This MYWP extends the Final Safety Analysis Report (FSAR) Phase 2 Implementation across FYs 2000 and 2001 instead of scheduling completion for FY 2000. FSAR Phase 2 implementation will continue to operate under Basis of Interim Operations until implementation complete.
- ◆ This MYWP does not include increased contract support (Waste Integration Team) needed to validate the August 2000 privatization go-ahead with BNFL Inc.

1.7 The Technical Basis Review Process

The TBR process is an integral part of the integrated planning process. After the physical configuration and operational requirements have been defined in the technical baseline, the work breakdown structure (WBS), work definition, and Level 0 and Level 1 logics are developed. The TBR process provides for development of the lower levels of the

WBS and the lower levels of the schedule logic. The process documents the description, requirements, and enabling assumptions for the Level 2 and lower technical work scope using the TBR narrative format. The detailed schedule is resource loaded and documented using the cost estimating input sheet (CEIS) format. Data derived from the TBR process feed the Risk Management process. The final product of the TBR process is a resource-loaded schedule that, when priced by the scheduling software, produces the scope, schedule, and supporting cost estimates that constitute the project life-cycle baseline. This schedule serves as the basis for developing the MYWP and reporting execution-year performance.

The TBR is an effective tool for developing proposals, estimates, and budgets; and preserving the supporting data for such deliverable documents. The TBR is based on cost estimates that incorporate the following:

- ◆ Use of standardized estimating techniques using the activity-based cost (ABC) estimating method in accordance with applicable requirements
- ◆ Reductions of time and resources needed to validate or revise estimates
- ◆ Use of meaningful cost data to increase the accuracy of cost estimates
- ◆ Identification of resource requirements for the base or minimum safe operating condition
- ◆ Use of summarized program management information to support the budget and change order process
- ◆ Reduction of the number of tracking elements and development of the appropriate performance measures for the financial and program management systems.

2.0 MISSION STATEMENTS

2.1 EM Mission Statement

Hanford's environmental management, or cleanup, mission is to protect the health and safety of the public, workers, and the environment; control hazardous materials; and utilize the assets (people, infrastructure, site) for other missions.

2.2 Hanford Mission Statement

Hanford's missions are to safely clean up and manage the site's legacy wastes, and to develop and deploy science and technology.

2.3 Office of River Protection Mission Statement

The Office of River Protection's mission is to store, treat, immobilize and dispose of the highly radioactive Hanford Site tank waste (including current and future tank waste and the cesium and strontium capsules) in an environmentally sound, safe, and cost-effective manner.

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3.0 PROGRAMMATIC BACKGROUND

The Hanford Site was established in 1943 as part of the Manhattan Project. At that time, the Site's mission was to produce plutonium for use in nuclear weapons. Over the years, nine nuclear reactors and two large areas containing several nuclear chemical processing complexes were built. The chemical processing operations produced large quantities of highly radioactive waste. These waste materials were stored in many large underground tanks. Today, more than 204,412 kL (54,000,000 gal) of high-level radioactive waste are stored in 177 underground tanks.

3.1 POLICY AND PLANNING EVALUATION

As the Hanford Site evolved and additional waste storage space was needed, additional waste tanks were built. In the 1950's and 1960's, DOE recognized that more needed to be done to secure the waste, particularly because some of the tanks were confirmed to be leaking. Little else actually was done about waste disposal because of limited budgets.

In the 1970's, the pace of planning and development for safe waste storage and disposal increased. Several formal studies of waste disposal alternatives were conducted. Research, development, and demonstration of waste treatment processes, including vitrification, were completed. Much of this work was done at the Hanford Site.

In the early 1980's, Congress requested that DOE plan for the disposal of the high-level waste that had accumulated from the DOE's nuclear activities. In response to this request, in 1983, DOE issued the *Defense Waste Management Plan* (DOE 1983). In it, DOE proposed the strategy of retrieving the waste from storage tanks and treating it to make it suitable for disposal.

Because waste retrieval and immobilization facilities costing billions of dollars would be needed, and because similar facilities had not been built before, DOE selected a sequential approach to facility design and construction. Facilities to treat the waste at DOE's Savannah River Site in South Carolina would be constructed first. After processing was successfully demonstrated, facilities would be built at the DOE's Hanford Site in Washington State, followed by facilities at DOE's site in Idaho. Waste immobilization facilities began operating at the Savannah River Site in 1996. Therefore, proceeding with waste retrieval and immobilization facilities at the Hanford Site is the next logical step in this planning progression.

In 1987, the *Hanford Defense Waste Environmental Impact Statement* (DOE 1987) was issued, which laid out a strategy for addressing the Hanford Site tank waste. Waste from the double-shell tanks would be retrieved. The highly radioactive fraction would be immobilized in glass (vitrified), and the low-activity waste would be solidified in cement (grout) for disposal on the Hanford Site. Further studies would be done on the single-

shell tanks to determine appropriate actions. This strategy was the basis for the Tri-Party Agreement (Ecology et al. 1996). The original version of the Tri-Party Agreement was signed by the Washington State Department of Ecology (Ecology), the U.S. Environmental Protection Agency, and DOE in 1989 (Ecology et al. 1989).

After the Environmental Impact Statement was issued, a TWRS mission analysis was performed to provide the basis for a technical approach responsive to the disposal option selected in the Record of Decision. This technical approach includes a summary description of the problem; the system boundaries, the environment and its interfaces, mission goals, top-level mission-driven requirements; and technical and program-management strategies for project success. The mission analysis also fostered development of a systematic approach to programmatic decision-making wherein consideration of project assumptions, risks, benefits, and life-cycle costs are balanced with established stakeholder values.

3.2 WASTE TANK SAFETY ISSUES

In early 1990, issues regarding the waste in the tanks were identified that appeared to pose unacceptable risks if waste continued in storage without corrective actions. Technical and financial resources were directed toward resolving these issues. The DOE considered the requirements of the *Resource Conservation and Recovery Act of 1976* and the *Nuclear Waste Policy Act of 1982* and decided to include retrieval and treatment of single-shell tank waste in the planning for the waste disposal program. This fourfold increase in waste volume to be treated, along with additional concerns about using an old facility (B Plant) for waste pretreatment and concerns about using the proposed grout form for low-activity waste disposal, caused a reevaluation of the strategy.

In December 1991, the Secretary of Energy directed that TWRS be established to plan and implement the disposal of all Hanford Site tank waste. A systems approach was used to evaluate various alternatives. These studies were used to renegotiate the Tri-Party Agreement. A strategy was developed and negotiated and the revised Tri-Party Agreement was signed in January 1994 (Ecology et al. 1994). The strategy envisioned the following:

- ◆ Retrieval of all waste from single-shell and double-shell tanks
- ◆ Separation of the waste into high-level activity and low-activity fractions
- ◆ Immobilization of the low-activity fraction in glass or other suitable form that would reduce volume and meet long-term disposal requirements
- ◆ Vitrification of the high-level waste for disposal in a federal repository.

The revised agreement also established an enforceable milestone schedule with established objectives. The milestone schedule is used to assess progress toward completion of these actions.

In 1994, national concern about balancing the federal budget became a more significant issue. The DOE believed that a new approach was needed for funding and managing the construction and operation of the multi-billion dollar facilities needed for waste treatment. After considering experience and input from industry, the DOE decided on a "privatization" approach to accomplish tank waste treatment and immobilization at the Hanford Site.

As it is being used for the ORP, privatization is a fixed-price contracting method for providing waste treatment services. The DOE will award competitively bid contracts under which the contractor will design, build, and operate immobilization facilities.

The privatization project is divided into two phases, primarily to reduce the scale-up risk and successfully demonstrate that all parties can support the activities before making a huge capital investment. A plant with the capacity to process all the waste in a reasonable time will be several times larger than anything built so far, so a demonstration phase is appropriate. This reduces the private contractors' technical risk and proves their ability to successfully provide process waste containing the hazardous material. Following Phase 1B, more capacity can be added as required.

3.3 ENVIRONMENTAL IMPACT STATEMENT

As part of the *National Environmental Policy Act of 1969* (NEPA) process, DOE must submit its strategy and decisions for public review. An environmental impact statement (EIS) was prepared that describes the magnitude of the problem, the possible implications of continued no actions, and the alternatives that have been considered to resolve the problem (DOE EIS-0189 1996).

3.3.1 Alternatives Considered in the Environmental Impact Statement

Many potential alternatives and combinations of alternatives exist for treating and disposing of the tank waste. One of the challenges facing DOE and Ecology is to develop a range of reasonable alternatives for detailed analysis and presentation in the EIS. The alternatives presented in the EIS were chosen as representative of the many possible variations of the alternatives. The EIS contains an analysis of the full range of reasonable alternatives for managing and disposing of the tank waste. The continued safe management of the tank farms is included in all the alternatives. The tank waste alternatives can be grouped into the following four major categories, determined by the extent of waste retrieval.

-
- ◆ **Continued management alternatives.** (Waste would not be retrieved.) Two continued management alternatives were analyzed. One did not include replacing double-shell tanks; the other considered replacing double-shell tanks and upgrading tank farm waste transfer systems to provide long-term management of the double-shell tank liquids.
 - ◆ **Minimal retrieval alternatives.** Only liquid waste would be removed from the double-shell tanks and concentrated in an evaporator. The concentrated waste from the evaporator would be returned to the tanks. The solid waste would be disposed of in place in the tanks; this process is called "in situ disposal." Two in situ alternatives were analyzed. One did not include treating the waste; the other included in-tank waste treatment.
 - ◆ **Partial retrieval alternatives.** The tank waste resulting in the fewest potential environmental impacts would be disposed of in situ. The liquid waste and the portion of solid waste that would have the greatest potential long-term impact on the groundwater would be retrieved from the tanks. The retrieved waste would be immobilized and disposed of outside the tanks; "ex situ disposal." The retrieved portion of the waste would be separated by physical and chemical processing into low-activity and high-level waste. The low-activity waste would be immobilized and disposed of on Site in near-surface concrete vaults and covered with a thick earthen barrier. The high-level waste would be immobilized and stored on Site for eventual shipment to and disposal at a potential geologic repository. Two partial retrieval alternatives were analyzed. One would result in a reduced long-term risk to human health of approximately 90 percent; the other would reduce the risk by 85 percent. These alternatives provide less long-term protection of human health, but would cost less to implement.
 - ◆ **Extensive retrieval alternatives.** All the solid and liquid waste practicable (assumed for purposes of analysis to be 99 percent) would be retrieved and separated by physical and chemical processing into low-activity and high-level waste. The low-activity waste would be immobilized and disposed of on Site in near-surface vaults and covered with a thick earthen barrier. The high-level waste would be immobilized and stored on Site for eventual shipment to and disposal at a geologic repository. Three extensive retrieval alternatives were analyzed, each with a different level of waste separation. A fourth alternative was analyzed to present the potential effect of DOE choosing to implement an extensive retrieval alternative in phases rather than immediately implementing a full-scale program. This phased approach was analyzed because of the numerous uncertainties associated with the extensive retrieval alternatives.

3.3.2 Alternative Selected

DOE selected the alternative of using a phased approach to extensive retrieval. The alternative will be implemented by hiring a privatization contractor to balance the risk inherent in making sizeable investments in unproven technology. The rationale for this choice is that investment in facilities should proceed on a schedule commensurate with the development of the scientific knowledge and understanding.

3.4 The TWRS (RPP) MISSION ANALYSIS

The TWRS Mission Analysis (Acree 1996) was issued to assist in establishing systematic engineering and project-management approaches. It provides a conceptual framework for implementing the TWRS *Justification of Mission Need* (DOE 1993) and satisfying the Environmental Impact Statement.

The Mission Analysis states that the purpose of the 'TWRS Program' is to resolve tank safety issues, integrate the waste-disposal and waste-management missions, assess bases for tank-waste management and disposal, determine and develop technology needs, and ensure the availability of appropriate resources for establishing a dedicated organization to meet the technical challenges. The problem generally is described as remediation of existing waste to mitigate risks posed to the public, workers, and the environment.

The system boundary and environment descriptions include existing and future tank waste, facilities, and anticipated closure expectations. Interfaces include physical and programmatic descriptions of waste and material receipts from both onsite and offsite sources, as well as those internal and external interfaces identifying information about costs, schedules, processing status, reporting, control and associated regulations, guidance, and authorizations.

The mission-level requirements are represented as high-level quantification of the stakeholder values and mission objectives. These requirements are accomplished through implementing the 'Program Strategy' (consisting of two additional sub-strategies—the Technical Strategy and the Program Management Strategy), and an 'Acquisition Strategy'. The Technical Strategy addresses the concerns of tank-farm operations and safety issues, waste-immobilization and storage requirements, and dispositioning of capsules and transuranic waste. The Program Management Strategy describes the need to integrate the sundry project activities, operations, and technology development, using a systems engineering approach. The Acquisition Strategy discusses the combination approach using privately owned and government-owned contractor-operated resources in a two-phased acquisition strategy.

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4.0 RISK SHARING STRATEGY

DOE's approach for RPP privatization, both technically and contractually, has evolved considerably to accommodate information gained during and after the first 2 years of the project. These modifications in approach have been coordinated with DOE's Contract Reform and Privatization Project Office, which is using the experience on RPP to refine its overall approach to privatization of cleanup projects.

In designing and implementing the path forward for RPP, DOE is establishing a contract structure that provides strong incentives to achieve project schedule, cost, and performance goals while minimizing total project cost to the government. Thus, DOE is seeking to structure an optimal contracting approach for Privatization Phase 1 that will accomplish the following:

- ◆ Allocate risks to the party best able and motivated to manage them
- ◆ Obtain the best mix of private and public financing
- ◆ Maintain appropriate decision points to adjust project direction in response to new information and bring competitive pressure to bear on project costs and approaches.

Together, these principles have guided DOE's negotiation for RPP privatization services and will continue to guide refinements as that strategy is implemented.

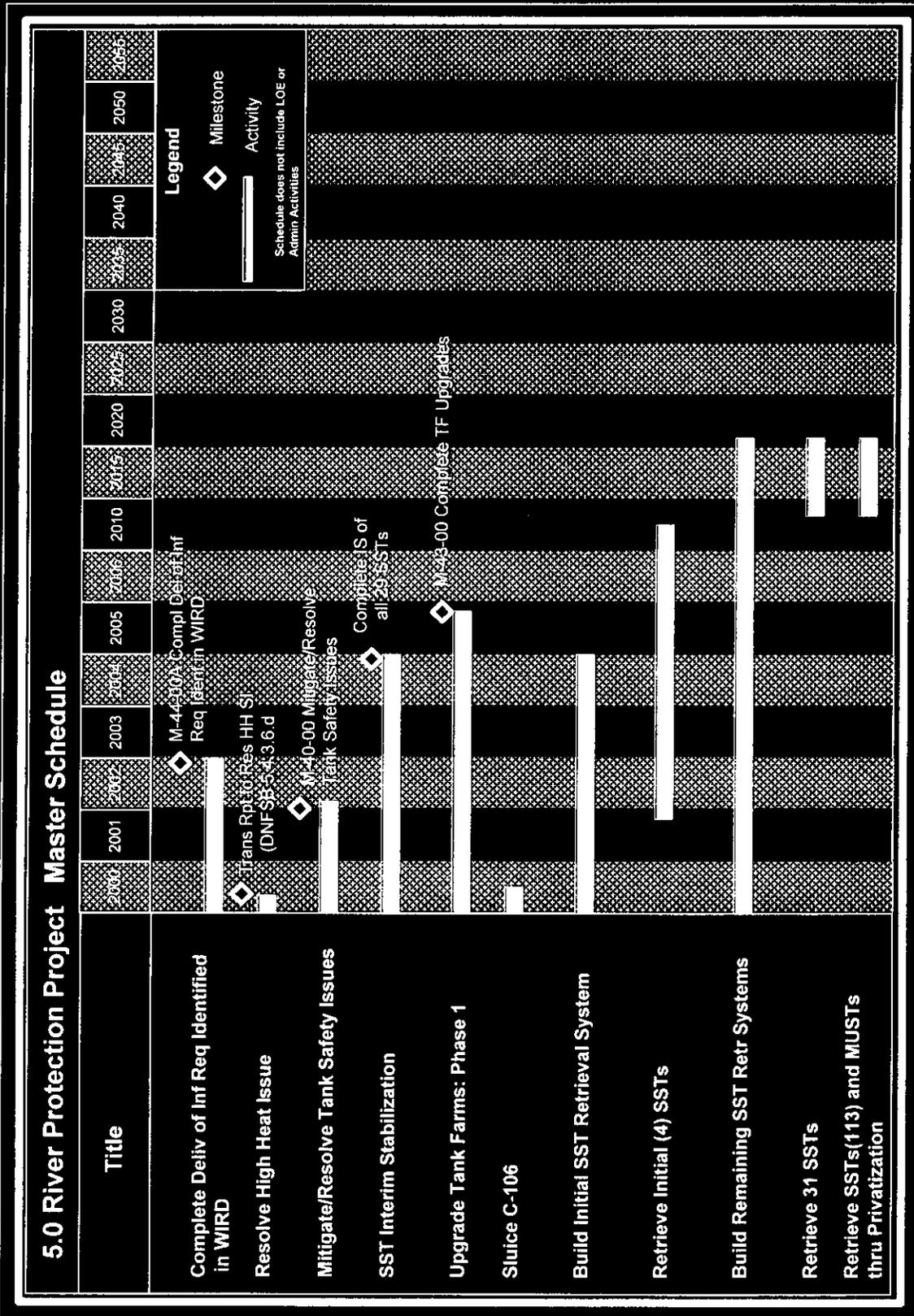
Privatization contracts differ significantly from traditional cost-reimbursement contracts in their allocation of risks between the government and the contractor. Under privatization, the contractor assumes a far greater share of the risks, particularly those under the contractor's control, such as technology performance and operating efficiency. Under the RPP contract, DOE has sought to allocate specific risks to the party most able to manage the risk and complete the work. DOE has evaluated a broad spectrum of risks that are potentially relevant to risk allocation decisions in privatization contracts. Accordingly, ORP has contracted with LMHC to perform tank farm operations and retrieval and disposal activities. It has contracted with BNFL Inc. to perform waste treatment and vitrification services.

RPP-5044

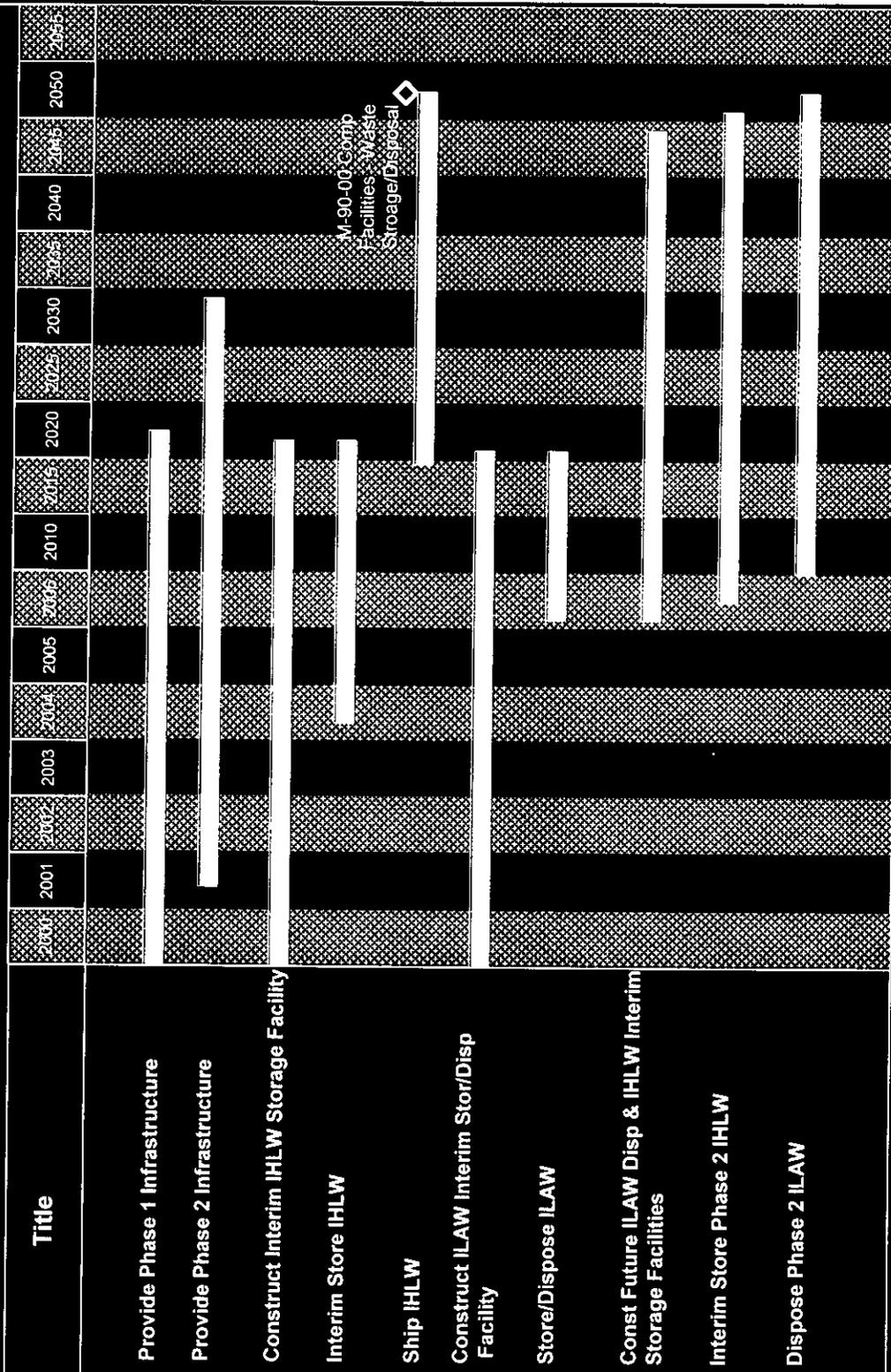
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5.0 RIVER PROTECTION PROJECT MASTER SCHEDULE



5.0 River Protection Project Master Schedule



6.0 PROJECT MASTER BASELINE SCHEDULE (FY 2000 to 2006)

01	Tank Waste Characterization		Provide Characterization PM/ES&O/QA	
100.100	01OCT98*	30SEP24		
100.11M		31MAY02*		TIP-Depl Decis/Select Tech for RPP Rep Samp PH1 ◆ T01-01-108RTX
100.2B1	01OCT99*	29SEP00		Ann TSB-WIRD Rpt to ORP/Ecology (M-44-16D)
100.2B2	01OCT99*	30JUN00		Draft 2001 TSB-WIRD (M-44-13D)
100.2B3	01OCT99*	29SEP00		Adjust/Maintain Current TSB-WIRD
100.2B4		30JUN00*		Submit Draft WIRD for FY2001 to Ecol (M-44-13D) ◆ T01-00-103HEI
100.2B5	05JUL00*	31AUG00		Final 2001 TSB-WIRD (M-44-14D)
100.2B6		31AUG00*		Submit Final WIRD for FY2001 to Ecol (M-44-14D) ◆ T01-00-104HEI
100.2B7		29SEP00*		Iss Char Del Cons w/TSB WIRD/FY2000 (M-44-15D) ◆ T01-00-105HEI
100.2B8		29SEP00*		Comp HLW Tk Input Per TSB WIRD FY2000 (M-44-16D) ◆ T01-00-106HEI
100.2C1	02OCT00*	28SEP01		Annual TSB-WIRD Report to ORP/Ecology

Project Start: 01 OCT 98
 Project Finish: 30 SEP 00
 Date Issued: 01 OCT 98
 Date Used: 01 OCT 98

Project: River Protection Project
 Program: 6.0 Project Master Baseline Schedule
 Activity: (FY 00 - FY 06)

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Activity ID	Start	End	Description
100.2C2	02OCT00*	29JUN01	<u>Adjust/Maintain Current TSB-WIRD</u>
100.2C3		29JUN01*	◆ Submit Draft WIRD for FY2002 to Ecol (M-44-13E) T01-01-106HEI
100.2C4		31AUG01*	◆ Submit Final WIRD for FY2002 to Ecol (M-44-14E) T01-01-107HEI
100.2C5		28SEP01*	◆ Iss Char Del Cons wTSB WIRD/FY2000 (M-44-15E) T01-01-102HEI
100.2C6		28SEP01*	◆ Comp HLW Tk Input Per TSB WIRD FY2000 (M-44-16E) T01-01-103HEI
100.2D1	01OCT01*	30SEP02	<u>Annual TSB-WIRD Report to ORP/Ecology</u>
100.2D2		30SEP02*	◆ Iss Char Del Cons wTSB WIRD/FY2000 (M-44-16F) T01-02-200HEI
100.2D3		30SEP02*	◆ Comp HLW Tk Input Per TSB WIRD FY2000 (M-44-16F) T01-02-201HEI
100.2D4		30SEP02*	◆ Comp Del of Inf Req Identified in WIRD (M-44-00A) T01-01-104HEM
100.4A3	01OCT99*	29SEP00	<u>Disseminate Data Information</u>
100.500	01OCT98*	22JUN18	<u>Characterization Lab Anal to meet Program Needs</u>
100.50H		30NOV02*	◆ Comp Core Sampling all Tanks (5.6.3.1.j) T01-03-300ROX

Project Start	01OCT98	Early Bar
Project Finish	30SEP02	Progress Bar
Gate Date	01OCT98	Critical Activity
Run Date	23AUG99	

River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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Activity	Start	Finish		FY00	FY01	FY02	FY03	FY04	FY05	FY06	
050.100	01OCT99*	31DEC99	Monitor Resolution of High Heat Safety Issue								
050.100A		31DEC99	Transmit Rpt to Resolve HH SI DNFSB 5.4.3.6.d ♦ T02-99-100FOX								
180.A00	01OCT99*	30SEP08	Maintain Authorization Basis								
03			TW03 Tank Farm Operations								
190.A00	01OCT99*	30SEP34	Operate and Maintain Tank Farms								
190.B11	01OCT99*	29SEP34	Provide DST Waste Inventory Ctrl (WIC) Grp								
190.B12		30NOV99*	M-46-01F Concurrence of Add'l Tank Acquisition ♦ T03-00-104HEI								
190.B13		30NOV00*	M-46-01G Concurrence of Add'l Tank Acquisition ♦ T03-01-104HEI								
190.B14		30NOV01*	M-46-01H Concurrence of Add'l Tank Acquisition ♦ T03-02-104HEI								
190.B15		27NOV02*	M-46-01I Concurrence of Add'l Tank Acquisition ♦ T03-03-104HEI								
190.B16		26NOV03*	M-46-01J Concurrence of Add'l Tank Acquisition ♦ T03-04-104HEI								
190.B17	30NOV04*		M-46-01K Concurrence of Add'l Tnk Acquisition ♦ T03-05-104HEI								
Project Start	01OCT99	Early Bar	River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)								Sheet 4 of 87
Project Finish	30SEP06	Progress Bar									
Data Date	01OCT99	Critical Activity									
Rev. Date	23AUG99										
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Activity ID	Start Date	End Date	Description
190.CT4	29APR05*		TIP Assess Need for DST Replacement T03-05-300RTX
210.A00	01OCT02*	28SEP05	Compl Cross-Site Slurry Xfr Line SY to 244-A
230.AA1	01OCT99*	29DEC99	Prepare U-102 for Isolation
230.AA5	31DEC99*	28APR03	Pump and Complete Isolation on U-102
230.AB5	01OCT99*	28APR03	Pump and Complete Isolation on U-103
230.AC1	01OCT99*	10NOV99	Prepare U-105 for Isolation
230.AC5	15NOV99*	28APR03	Pump and Complete Isolation for U-105
230.AD1	01OCT99*	31MAR00	Prepare U-109 for Isolation
230.AD5	01APR00*	28APR03	Pump and Complete Isolation on U-109
230.AE1	15JUN00*		Start IS of 4 SST's - U-103, U-105, U-102, U-109 T03-00-711HEC
230.BA1	01OCT99*	11APR00	Prepare A-101 for Isolation
230.BA5	13MAY00*	27APR04	Pump and Complete Isolation for A-101

Project Start: 01OCT99
 Project Finish: 28SEP05
 Date Code: 01OCT99
 Rev Code: 12AUG04

Entry Bar
 Program Bar
 Project Activity
 Critical Activity

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

Activity Code	Activity Name	Start Date	End Date	Activity Description
230.BB1	04JAN00*	29JUN00		Prepare AX-101 for Isolation
230.BBS	10AUG00*	30SEP03		Pump and Complete Isolation for AX-101
230.BE1	30OCT00*			Start IS of 2 SST's - A-101, AX-101 ◆ T03-01-712HEC
230.CA1	28JAN00*	10NOV00		Prepare SX-101 for Isolation
230.CA5	11NOV00*	20DEC02		Pump and Complete Isolation for SX-101
230.CB1	03APR00*	30SEP00		Prepare SX-103 for Isolation
230.CB5	01OCT00*	09SEP03		Pump and Complete Isolation for SX-103
230.CC1	01OCT99*	26JUN00		Prepare SX-105 for Isolation
230.CC5	27JUN00*	02SEP03		Pump and Complete Isolation for SX-105
230.CD1	28FEB00*	28DEC00		Prepare U-106 for Isolation
230.CD5	29DEC00*	28APR03		Pump and Complete Isolation for U-106
230.CE1	15MAR01*			Start IS of 4 SST's, SX-105, SX-103, SX-101, U-106 ◆ T03-01-713HEC

Project Start: 04/01/00
 Project End: 03/31/06
 Control Activity: 03/31/06
 Revision: 03/31/06

Project Name: River Protection Project
 Project Code: 6.0 Project Master Baseline Schedule
 Revision: (FY 00 - FY 06)

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230.DA1	04JAN00*	16FEB01	Prepare BY-105 for Isolation
230.DA5	01APR01*	27APR04	Pump and Complete Isolation for BY-105
230.DB1	05JUL00*	01FEB01	Prepare BY-106 for Isolation
230.DB5	10FEB01*	27APR04	Pump and Complete Isolation for BY-106
230.DE1	15JUL01*		Start IS of 2 SST's, BY-106, BY-105 ◆ T03-01-714HEC
230.EA1	01NOV00*	07AUG01	Prepare S-111 for Isolation
230.EA5	08AUG01*	27APR04	Pump and Complete Isolation for S-111
230.EB1	29NOV00*	28SEP01	Prepare SX-102 for Isolation
230.EB5	01OCT01*	06APR04	Pump and Complete Isolation for SX-102
230.EC1	02OCT00*	25JUN01	Prepare U-107 for Isolation
230.EC5	26JUN01*	30SEP03	Pump and Complete Isolation for U-107
230.ED1	28JUN00*	11MAY01	Prepare U-108 for Isolation

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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Project Start: 9/00/00
Project Finish: 3/00/06
Date: 9/00/00
Hour: 00:00

Legend:
 ■ Early Start
 ■ Program Bar
 ■ Critical Activity

230.ED6	12MAY01*	22DEC03	Pump and Complete Isolation for U-108
230.EE1	30DEC01*		Start IS of 4 SST's, U-108, U-107, S-111, SX-102 703-02-715HEC
230.FA1	31AUG01*	23MAY02	Prepare S-101 for Isolation
230.FA5	04JUN02*	02JUN04	Pump and Complete Isolation for S-101
230.FB1	01OCT01*	06JUN02	Prepare S-107 for Isolation
230.FB5	18JUL02*	27APR04	Pump and Complete Isolation for S-107
230.FC1	31MAY01*	08MAR02	Prepare S-109 for Isolation
230.FC5	09MAR02*	27APR04	Pump and Complete Isolation for S-109
230.FD1	28JUN01*	11APR02	Prepare S-112 for Isolation
230.FD5	20APR02*	27APR04	Pump and Complete Isolation for S-112
230.FE1	29MAR01*	24JAN02	Prepare U-111 for Isolation
230.FE5	25JAN02*	01JUN04	Pump and Complete Isolation for U-111

Project Start: 01OCT01
 Project End: 30DEC01
 Start Date: 12MAY01
 End Date: 22DEC03

River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Project Start	Project Finish	Task Code	Task Name	Activity	Activity	Activity	Activity	Activity
230.ED5	12MAY01*	22DEC03		Pump and Complete Isolation for U-108				
230.EE1	30DEC01*			Start IS of 4 SSTs, U-108, U-107, S-111, SX-102 T03-02-715HEC				
230.FA1	31AUG01*	23MAY02		Prepare S-101 for Isolation				
230.FA5	04JUN02*	02JUN04		Pump and Complete Isolation for S-101				
230.FB1	01OCT01*	06JUN02		Prepare S-107 for Isolation				
230.FB5	18JUL02*	27APR04		Pump and Complete Isolation for S-107				
230.FC1	31MAY01*	08MAR02		Prepare S-109 for Isolation				
230.FC5	09MAR02*	27APR04		Pump and Complete Isolation for S-109				
230.FD1	28JUN01*	11APR02		Prepare S-112 for Isolation				
230.FD5	20APR02*	27APR04		Pump and Complete Isolation for S-112				
230.FE1	29MAR01*	24JAN02		Prepare U-111 for Isolation				
230.FE5	25JAN02*	01JUN04		Pump and Complete Isolation for U-111				

Project Start
 Project Finish
 Task Code
 Activity

Early Start
 Program Start
 Critical Activity

Activity
 Activity
 Activity
 Activity

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

Project Item	Project Start	Project End	Project Description	Notes
230.HA2	30SEP00*		Reduce Total Organic Complexed Pump Liq to 38% ◆ T03-00-743HEC	
230.HA3	30SEP01*		Reduce Total Organic Complexed Pump Liq to 5% ◆ T03-01-744HEC	
230.HA4	30SEP02*		Reduce Total Liquids to 18% of Total Volume SST's ◆ T03-02-745HEC	
230.HA5	30SEP03*		Reduce Total Liquids to 2% of Total Volume SST's ◆ T03-03-746HEC	
230.HA6	30DEC00*		Dev path forward to remove C-103 Organic Layer ◆ T03-01-747HEC	
240.A00	01OCT99*	20SEP06	Install Remote Monitoring Equipment	
250.400	01SEP00*	14MAY07	Project W-YYY Tank Farm Upgrades	
320.A00	01OCT99*	30JUN10	Conduct Waste Consolidation And Reduction Ops	
320.A10	01OCT99*	30SEP13	Conduct Operation of Evaporator	
670.A00	01OCT99*	30SEP09	Disposition Inactive Tank Farm Facilities	
680.A00	01OCT99*	29SEP34	Prform Tank Farm Compliance Enhancements	

Project Item: 230.HA2
 Project Start: 30SEP00*
 Project End: 30SEP00*
 Project Description: Reduce Total Organic Complexed Pump Liq to 38%
 Notes: ◆ T03-00-743HEC

Project Item: 230.HA3
 Project Start: 30SEP01*
 Project End: 30SEP01*
 Project Description: Reduce Total Organic Complexed Pump Liq to 5%
 Notes: ◆ T03-01-744HEC

Project Item: 230.HA4
 Project Start: 30SEP02*
 Project End: 30SEP02*
 Project Description: Reduce Total Liquids to 18% of Total Volume SST's
 Notes: ◆ T03-02-745HEC

Project Item: 230.HA5
 Project Start: 30SEP03*
 Project End: 30SEP03*
 Project Description: Reduce Total Liquids to 2% of Total Volume SST's
 Notes: ◆ T03-03-746HEC

Project Item: 230.HA6
 Project Start: 30DEC00*
 Project End: 30DEC00*
 Project Description: Dev path forward to remove C-103 Organic Layer
 Notes: ◆ T03-01-747HEC

Project Item: 240.A00
 Project Start: 01OCT99*
 Project End: 20SEP06
 Project Description: Install Remote Monitoring Equipment

Project Item: 250.400
 Project Start: 01SEP00*
 Project End: 14MAY07
 Project Description: Project W-YYY Tank Farm Upgrades

Project Item: 320.A00
 Project Start: 01OCT99*
 Project End: 30JUN10
 Project Description: Conduct Waste Consolidation And Reduction Ops

Project Item: 320.A10
 Project Start: 01OCT99*
 Project End: 30SEP13
 Project Description: Conduct Operation of Evaporator

Project Item: 670.A00
 Project Start: 01OCT99*
 Project End: 30SEP09
 Project Description: Disposition Inactive Tank Farm Facilities

Project Item: 680.A00
 Project Start: 01OCT99*
 Project End: 29SEP34
 Project Description: Prform Tank Farm Compliance Enhancements

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Project Item: 230.HA2
 Project Start: 30SEP00*
 Project End: 30SEP00*
 Project Description: Reduce Total Organic Complexed Pump Liq to 38%
 Notes: ◆ T03-00-743HEC

120.B45	02OCT00*	30SEP02	Construct the AP-102/AP-104 Mixing/Retr Sys
120.B50	02JUL02*	19MAY03	Startup/Test AP-102/AP-104 Mixing Retrieval Sys
120.B60	20MAY03*	24JUN03	Perf Contractor Independent ORR AP-102/AP-104
120.B65	25JUN03*	20AUG03	Perf ORP ORR & Obtain CD-4 for AP-102/AP-104
120.B83	11FEB02*	19MAY03	Perf MSA for AP-102 & AP-104 Mixing Retr Sys
120.K01	01OCT99*	06JUN02	Samp AN-107 per BNFL Rqmts/Deliver Samp to BNFL CD-23
120.K10	01OCT99*	01JUN00	Establish Dilution Rqmts/Dissolution Behav AN-107
120.K31	25OCT02*	24OCT03	Procure Equipment for AN-106 Mixing/Retr Sys
120.K33	28FEB02*	05DEC03	Construct the AN-106 Mixing/Retrieval Sys
120.K35	02OCT00*	27FEB02	Den AN-106 Mixing/Retrieval System Obtain CD-3
120.K50	04JUN01*	24OCT02	Den AN-107 Mixing/Retrieval System Obtain CD-3
120.K52	25OCT02*	24NOV03	Procure Equip for the AN-107 Mixing/Retr Sys
Project Start: 01OCT99 Project Finish: 24NOV03 Start Date: 01OCT99 End Date: 24NOV03			River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)

Activity ID	Start Date	End Date	Description
120.K55	25OCT02*	08OCT04	Construct the AN-107 Retrieval System
120.K60	13JUL04*	27MAY05	Startup/Test the AN-107 Mixing and Retrieval Sys
120.K70	31MAY05*	20JUN05	Perf Contractor Standard Startup Review AN-107
120.K73	26JUL04*	13AUG04	Perf Cont Standard Startup Rev for AN-106
120.K75	21JUN05*	19JUL05	Provide CD-4 Approval for AN-107
120.K77	16AUG04*	13SEP04	Provide CD-4 Approval for AN-106
120.K79	08SEP03*	23JUL04	Startup/Test AN-106 Mixing Retrieval Sys
120.K83	24JUL03*	27MAY05	Perf MSA for AN-107 Mixing & Retrieval Sys
120.K84	19MAY03*	23JUL04	Perf MSA for AN-106 Mixing & Retrieval Sys
130.B60	17SEP04*	21OCT05	Perf Bootstrap Xfer/Shuffle Wst to Empty AP-104
130.B64	17SEP04*	21OCT05	Perf Bootstrap Xfer/Shuffle Wst to Empty AP-102
130.B65	01APR04*	12OCT05	Perf RPP MA Overall Readiness Supply LAW to BNFL

River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Project Start	4/10/02	Early Bar
Project Finish	3/26/05	Program Bar
Close Date	4/10/05	Final Activity
Plan Date	23/05/06	Critical Activity

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Activity ID	Start Date	End Date	Description
130.K20	18APR03*	02AUG06	Prepare Process Control Plan for AN-107
130.K30	17SEP04*	21OCT05	Retrieve Waste in AN-107/Receive Feed in AN-106
130.K40	17SEP04*	21OCT05	Perf Bootstrap Xier/Shuffle Wst to Empty AN-106
150.K05	22OCT05*	26OCT05	Mix AN-107 Feed in AN-106
150.K10	14OCT05*	10NOV05	Obtn AN-107 Qual Samp per LAW Qual DQO frm AN-106 LAW CERT
150.K15	11NOV05*	17NOV05	Provide AN-107 Samples from AN-106 to BNFL LAW CERT
150.K20	11NOV05*	10APR06	Anlyz AN-107 Samp/Interpret Results from AN-106 LAW CERT
150.K25	11APR06*	25APR06	Provide AN-107 Feed Batch Info frm AN-106 - BNFL LAW CERT
150.K30	26APR06*	25MAY06	Provide Approval to Deliver LAW Feed Batch # 1
150.K35	28APR05*	05JUN06	Deliver AN-107 Feed from AN-106 to BNFL Facility
150.K54	21MAR01*	18MAR03	Repair/Upgrd Existing AN TF Sys Rqd for Ph-1 WFD
150.Y54	15APR03*	11APR05	Repair/Upgrd Existing AP TF Sys Rqd for Ph-1 WFD

Project No. _____
 Project Name _____
 Client _____
 Job Date _____

100%
 75%
 50%
 25%
 0%

Enter the
 Progress Bar
 Critical Activity
 Status

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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Activity ID	Start	Finish	Description
250.N15	07APR00*	04APR01	Design W-314 Ph-2 AN TF Upgrades Obtain CD-3
250.N25	29DEC00*	10JUN02	Startup/Test W-314 Ph-1 AN TF (AN-101/AN-104) Upgr
250.N45	28MAR01*	24JUN03	Construct the W-314 Ph-2 AN Tank Farm Upgrades
250.N55	02OCT00*	16APR03	Construct the W-314 Ph-1 Upgr for AN-101/AN-104
250.N60	01OCT99*	28OCT99	Perf MSA W-314 Ph-1 AN TF(AN-A & AN-B P10)Upgr
250.N65	01OCT99*	09JUN05	Perf MSA W-314 Ph-1 AN TF(AN-101 & AN-104)Upgr
250.N75	07APR00*	04AUG03	Startup/Test the W-314 Ph-2 AN TF Upgrades
250.N95	06DEC02*	02SEP03	Perf MSA W-314 Phase 2 AN Tank Farm Upgrades
250.N97	03SEP03*	29OCT03	Perf Contractor RA W-314 Ph-2 AN Farm Upgrades
250.N99	30OCT03*	09JUN05	Perf ORP RA CD-4 W-314 Ph-2 AN Farm Upgrades
A2			LAW Tank 2 - AN-104
120.E01	04JAN00*	11APR02	Samp AN-104 per BNFL Rqmts/Divr Sample to BNFL [CD-23]

Project Start: 07/04/00
 Project Finish: 04/01/01
 CD-3 Date: 07/29/00
 Run Date: 03/09/01

Project: River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Scale: 11 of 17

Activity ID	Start	End	Description
120.E31	01OCT02*	30DEC03	Procure Equipment for AN-101 Mixing/Retr Sys
120.E33	01OCT02*	29MAR05	Construct the AN-101 Mixing and Retrieval System
120.E35	02APR01*	26SEP02	Design AN-101 Mixing Retrieval Sys Obtain CD-3
120.E50	01OCT99*	29SEP00	Design AN-104 Mixing Retrieval Sys Obtain CD-3
120.E50A	29SEP00*	29SEP00*	Issue W-211 Title II Ref Sys Design AN-104 T04-00-101ROX
120.E52	02OCT00*	28MAR02	Procure Equipment for the AN-104 Mixing/Retr Sys
120.E55	02JUL01*	30JUN03	Construct the AN-104 Mixing and Retrieval System
120.E65	03JUN03*	18FEB04	Startup/Test the AN-104 Mixing and Retrieval Sys
120.E70	03MAR04*	06APR04	Perform Contractor Independent ORR for AN-104
120.E73	11NOV05*	05DEC05	Perform Contractor SSR for AN-101
120.E75	07APR04*	02JUN04	Perform DOE-RL ORR & Obtain CD-4 for AN-104
120.E77	06DEC05*	05JAN06	Provide CD-4 Approval for AN-101

Project Name: _____
 Project No: _____
 Revision: _____
 Date: _____

W-211
 Title II Ref Sys Design AN-104
 T04-00-101ROX

6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity ID	Start Date	End Date	Description
120.E79	29DEC04*	10NOV05	Startup and Test the AN-101 Mixing Retrieval Sys
120.E83	28JUN02*	02MAR04	Perf MSA for AN-104 Mixing and Retrieval Sys
120.E84	07SEP04*	10NOV05	Perform MSA for AN-101 Mixing/Retrieval Sys
130.B17	01OCT99*	24AUG00	Dev Tech Basis Remove Wst frm Flamm Gas Watch Tk
130.B20	25AUG00*	27FEB01	Obt Permissn Add Diluent Flam Gas Watchlist DST
130.E10	25JUN03*	26AUG04	Degas AN-104
130.E30	09AUG05*	24JAN06	Mob/Retrieve Waste AN-104/Receive Feed in AN-101
130.E35	30SEP02*	27JUL09	Prepare Process Control Plan for AN-104
130.E40	17OCT05*	14JAN06	Perf Bootstrap Xfer/Shuffle Wst to Empty AN-101
150.E05	25JAN06*	29JAN06	Mix AN-104 Feed in AN-101
150.E10	17JAN06*	13FEB06	Obtn AN-104 Qual Samp per LAW Qual DQO fm AN-101 LAW CERT
150.E15	14FEB06*	21FEB06	Provide AN-104 Samples from AN-101 to BNFL LAW CERT

PROJECT: 60078
 PROJECT NAME: RPP-5044
 DATE: 08/01/06
 RUN DATE: 08/01/06

Legend:
 [] Critical Activity
 [] Project Bar
 [] Progress Bar

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity ID	Start Date	End Date	Description
150.E20	14FEB06*	10JUL06	Anlyz AN-104 Samp/Interpret Results from AN-101 LAW CERT
150.E25	11JUL06*	25JUL06	Provide AN-104 Feed Batch Info frm AN-101 - BNFL
150.E30	26JUL06*	24AUG06	Provide Approval to Deliver LAW Feed Batch #2
150.E40	25JAN06*	29JAN06	Mix Remaining AN-104 Feed
150.E45	17JAN06*	13FEB06	Obtain AN-104 Qual Samp per LAW Qual DQO frm AN-104 LAW CERT
150.E50	14FEB06*	21FEB06	Provide AN-104 Samples from AN-104 to BNFL LAW CERT
150.E55	14FEB06*	10JUL06	Anlyz AN-104 Samp/Interpret Results from AN-104 LAW CERT
150.E60	11JUL06*	25JUL06	Provide AN-104 Feed Batch Info frm AN-104 - BNFL
150.E65	26JUL06*	24AUG06	Provide Approval to Deliver LAW Feed Batch #3
A3	LAW Tank 3 - AN-102		
120.L01	12JUN00*	07FEB02	Samp AN-102 per BNFL Rqmts/Deliver Samp to BNFL ICD-23
120.L10	02OCT00*	02JUL01	Establish Dilution Rqmts/Dissolution Behavr AN-102
River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)			

Project Start: _____
 Project Finish: _____
 Data Date: _____
 Rev: _____
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120.L50	01OCT02*	01APR04	<p>Den AN-102 Mixing/Retrieval System Obtain CD-3</p> <p>Procure Equip for the AN-102 Mixing/Retr Sys</p> <p>Construct the AN-102 Mixing/Retrieval System</p> <p>Startup/Test the AN-102 Mixing/Retrieval Sys</p> <p>Perf MSA for AN-102 Mixing/Retrieval Sys</p> <p>Prepare Process Control Plan for AN-102</p> <p>Retrieve AN-102 Waste/Receive Feed in AN-106</p>
120.L52	02APR04*	31MAR05	
120.L55	02APR04*	31MAR06	
120.L60	03JAN06*	14NOV06	
120.L83	11MAR05*	14NOV06	
130.L20	03DEC04*	29NOV10	
130.L30	20MAR06*	18JAN07	
A4	LAW Tank 4 - AN-105		
120.D01	11SEP00*	08MAY02	<p>Samp AN-105 per BNFL Rqmts Deliver Sample to BNFL ICD-23</p>
120.D60	10JUL01*	16JUL01	<p>Provide Rtrvl Prog Dir to W-211 for AN-105</p>
120.D72	01OCT03*	29MAR05	<p>Procure Equipment for the AN-105 Mixing/Retr Sys</p>
120.D75	01APR04*	31MAR06	<p>Construct the AN-105 Mixing and Retrieval System</p>
<p>Project Start: 01/01/04 Project End: 03/31/06 Issue Date: 03/31/06</p>			<p>Project Name: River Protection Project Project Number: 6.0 Project Title: 6.0 Project Master Baseline Schedule Project Code: (FY 00 - FY 06)</p>

Task ID	Start Date	End Date	Description
120.D80	21SEP04*	29JUN06	Startup/Test the AN-105 Mixing and Retrieval Sys
120.D83	03AUG05*	29AUG06	Perf MSA for AN-105 Mixing and Retrieval Sys
120.D90	30AUG06*	20SEP06	Perf Contractor Standard Startup Review AN-105
120.D95	21SEP06*	22SEP06	Provide CD-4 Approval for AN-105
130.B25	15MAY06*	19DEC06	Degas AN-105
130.B55	01DEC05*	29NOV11	Prepare Process Control Plan for AN-105
A5			LAW Tank 5- SY-101
120.R01	01AUG02*	30MAR04	Samp SY-101 per BNFL Rqmts/Deliver Samp to BNFL ICD-23
120.R03	01OCT99*	18OCT99	Samp/Analyze Tank SY-101 per RL/WIT Rqmts RETR
120.R10	02OCT00*	02JUL01	Establish Dilution Rqmts/Dissolution Behav SY-101
120.R25	19OCT99*	23NOV99	Update BBI/Tank Characterization Rprt for SY-101 FLAM
120.R50	01DEC04*	30MAY06	Design the SY-101 Mixing and Retrieval System

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

Project Start
 Project Finish
 Data Entry
 New Task

Early Start
 Program Bar
 Critical Activity

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Project Start	Project Finish	Project Name	Project Status	Project Manager	Project Location	Project Description
120.R52	31MAY06*	29MAY07				Procure Equip for the SY-101 Mixing/Retr Sys
120.R55	31MAY06*	27MAY08				Construct the SY-101 Mixing and Retrieval System
A6						
LAW Tank 6 - AN-103						
120.J01	20JUL00*	19MAR02				Samp AN-103 per BNFL Rqmts/Deliver Samp to BNFL ICD-23
120.J10	01OCT99*	30JUN00				Estab Dilution Rqmts/Dissolution Behav AN-103
120.J40	03JUL00*	10JUL00				Provide Rivl Prog Dir to W-211 for AN-103
120.J50	01OCT01*	02JAN03				Dis AN-103 Mixing Retrieval System Obtain CD-3
B1						
HLW Tank 1 - AZ-101						
110.045	01OCT99*	02FEB00				Issue AZ-101 Process Test Plans/Procedures
110.047	01JUN00*	28DEC00				Perform AZ-101 Process Test Sampling/Analysis W-151
110.050	22MAY00*	19JUN00				Perf Cont Independent RA for AZ-101 Proc Test
110.055	01OCT99*	19MAY00				Perf Mgmt Self-Assessment for AZ-101 Process Test
110.070	20JUN00*	18JUL00				Perform AZ-101 Process Test
<p style="text-align: center;">River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)</p>						

Activity ID	Start Date	End Date	Description	Notes
110.070A	29SEP00*		Complete AZ-101 Process Test T04-00-102ROX	
110.075	19JUL00*	17JUL01	Perform AZ-101 Suspension and Settling Test	
110.090	02OCT00*	17JUL01	Prepare AZ-101 Process Test Report	
110.095	01OCT99*	29SEP00	Install/Test the Monitoring Equipment in AZ-101	
120.A03	01OCT99*	13DEC99	Verify AZ Tank Farm Sys/Components Functionality	
120.A04	22MAR00*	19MAR01	Perform Acquisition Strategy for AZ Tank Farm	
120.A05	02OCT00*	19MAR01	Perform AZ Tank Farm Trade Studies	
150.B14	01OCT99*	13JAN00	Develop/Establish TSRs	
150.B16	01DEC99*	24APR02	Update/Amend Authorization Basis for DST	
150.C01	02OCT01*	27SEP02	Issue Criticality Safety Eval Rpt for DST Rtrvl	
160.010	31JAN05*	29JUN05	Deliver 1st Batch HLW From AZ-101 to BNFL	
160.012	03OCT05*	05JAN06	Anlyz BNFL Samp 1st Blch HLW Fm AZ-101 Cert DCC HLW CERT	

Project Start: 11/01/99
 Project End: 11/01/06
 Critical Path: 11/01/99 - 11/01/06
 Milestones: 11/01/99, 11/01/00, 11/01/01, 11/01/02, 11/01/03, 11/01/04, 11/01/05, 11/01/06

Legend:
 - Milestone
 - Activity
 - Program Bar
 - Critical Path

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River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Activity ID	Activity Name	Start Date	End Date	Activity Description
160.020	28JUN05*	17MAY06		Deliver 2nd Batch HLW From AZ-101 to BNFL
160.022	18MAY06*	17AUG06		Anlyz BNFL Samp 2nd Btch HLW Fm AZ-101 Cert DQO HLW CERT
160.030	08AUG05*	04JUL06		Deliver 3rd Batch HLW From AZ-101 to BNFL
160.032	05JUL06*	03OCT06		Anlyz BNFL Samp 3rd Btch HLW Fm AZ-101 Cert DQO HLW CERT
160.040	16SEP05*	22AUG06		Deliver 4th Batch HLW From AZ-101 to BNFL
160.042	23AUG06*	21NOV06		Anlyz BNFL Samp 4th Btch HLW Fm AZ-101 Cert DQO HLW CERT
160.050	26OCT05*	09OCT06		Deliver 5th Batch HLW From AZ-101 to BNFL
160.060	12DEC05*	18NOV06		Deliver 6th Batch HLW From AZ-101 to BNFL
160.A03	09OCT00*	06JUN02		Samp AZ-101 per BNFL Rqmts/Deliver Samp to BNFL ICD-23
160.A04	01OCT99*	28MAR00		Sample and Analyze Tank AZ-101 per RL/MT Rqmts RETR
160.A18	01OCT03*	20AUG04		Perf RPP MA Overall Readiness Supply HLW to BNFL
160.A22	30SEP02*	19JAN07		Prepare Process Control Plan for AZ-101

Project Start: 16OCT06
 Project Finish: 01OCT06
 Date: 22AUG06
 Revision: 1

Early Start: _____
 Early Finish: _____
 Control Activity: _____

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity ID	Start Date	End Date	Description
160.A25	19JUL00*	23AUG00	Updt Best Basis Inv & Tk Char Rpt for AZ-101 RETR
160.A32	17OCT00*	16OCT01	Desn AZ-101 Mixing/Retrieval System Obtain CD-3
160.A34	17OCT01*	03SEP02	Procure Equip for the AZ-101 Mixing/Retr Sys
160.A36	17OCT01*	18JUL03	Construct the AZ-101 Retrieval System
160.A38	21MAR03*	10MAR04	Startup/Test the AZ-101 Mixing/Retrieval System
160.A40	22APR04*	26MAY04	Perform Contractor Independent ORR for AZ-101
160.A42	27MAY04*	23JUL04	Perform DOE-RL ORR and Obtain CD-4 for AZ-101
160.A43	01OCT99*	29SEP00	Perform Conceptual Design for W-521 Retr Sys
160.A48	01OCT99*	18JUL00	Perf/Document AZ-101 Samp Anlys/Rheology Tstng
160.A54	20MAR01*	17MAR03	Repair/Upgrd Existing AZ TF Sys Rqd for Ph-1 WFD
160.A64	21AUG04*	25AUG04	Mix AZ-101 Waste to Suspend Solids
160.A66	10JUN04*	24SEP04	Obtain AZ-101 Qual Samp per HLW Feed Cert. DQO HLW CERT

Project Start: 6/10/99
 Project End: 4/30/04
 Start Date: 6/10/99
 End Date: 4/30/04

Early Start: _____
 Program Start: _____
 Critical Activity: _____

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity	Start Date	End Date	Description
160.A68	27SEP04*	10MAY05	Anlyz AZ-101 Samples to HLW Feed Cert. DQC HLW CERT Provide Approval to Deliver AZ-101 Feed
160.A70	26MAY05*	24JUN05	
160.A74	27SEP04*	01OCT04	Provide Separate AZ-101 Samples to BNFL HLW CERT
160.A76	11MAY05*	25MAY05	Provide MT AZ-101 Susp Solid/Offcl Cmpstn BNFL
160.A83	15JAND03*	21APR04	Perf MSA of the AZ-101 Mixing/Retrieval System
250.D15	01OCT01*	30SEP02	Den 244-S DCRT Compliance Upgrades/Obtain CD-3
250.D45	01OCT01*	13APR04	Construct the 244-S DCRT Compliance Upgrades
250.D75	01OCT01*	03JUN04	Startup/Test the 244-S DCRT Compliance Upgrades
250.D95	15OCT03*	02JUL04	Perform MSA for 244-S DCRT Compliance Upgrades
250.D97	06JUL04*	27AUG04	Perf Cont Indpndnt ORR 244-S DCRT Comp Upgrades
250.D99	30AUG04*	26OCT04	Perf DOE/ORP ORR & Obt CD-4 244S DCR Compl Upgr
250.E05	01OCT99*	16APR01	Design W-314 Phase 1 WTS Upgrades/Obtain CD-3

Project Start: 10/01/99
 Project Finish: 04/01/06
 Date Taken: 06/27/06
 User: [Redacted]

Project ID: 160.A68
 Project Name: River Protection Project
 Project Manager: [Redacted]

Project Location: [Redacted]

River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Activity Code	Start Date	End Date	Activity Description
250.E35	01OCT99*	13MAR03	Startup/Test the W-314 Ph-1 WTS Upgrades
250.E50	01OCT99*	24NOV04	Construct W-314 Ph-1 WTS Upgrades
250.E60	03OCT02*	10APR03	Perf MSA for W-314 Ph-1 WTS Upgrades
250.E80	02DEC02*	06JUN03	Perf Cont Independent ORR W-314 Ph-1 WTS Upgrade
250.E85	09JUN03*	27OCT04	Perf ORP ORR CD-4 W-314 Ph-1 WTS Upgrades
250.Z15	01OCT01*	30SEP02	Design the W-314 Ph-2 AZ Tank Farm Upgrades
250.Z35	01OCT99*	12JUN02	Startup/Test W-314 Ph-1 AZ Tank Farm Upgrades
250.Z45	29MAR02*	13JAN04	Construct the W-314 Ph-2 AZ Tank Farm Upgrades
250.Z50	04FEB00*	26APR02	Construct the W-314 Ph-1 AZ Tank Farm Upgrades
250.Z60	27DEC01*	05APR04	Perf MSA W-314 Ph-1 AZ Tank Farm Upgrades
250.Z75	01OCT01*	21JAN04	Startup/Test W-314 Ph-2 AZ Tank Farm Upgrades
250.Z95	27MAY03*	20FEB04	Perf MSA W-314 Ph-2 AZ Tank Farm Upgrades

Project Start: 13OCT99
 Project Finish: 24NOV04
 Over Date: 01OCT01
 Run Date: 25AUG06

Early Bar: _____
 Program Bar: _____
 Critical Activity: _____

Project: River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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ID	Start	Finish	Description
250.Z98	09JAN04*	30MAR04	Perf Contractor SSR W-314 Ph-2 AZ Farm Upgrades
360.010	01APR06*	17MAY06	Process 1st Batch of HLW Feed from AZ-101
360.020	18MAY06*	04JUL06	Process 2nd Batch of HLW Feed from AZ-101
360.030	05JUL06*	22AUG06	Process 3rd Batch of HLW Feed from AZ-101
360.040	23AUG06*	09OCT06	Process 4th Batch of HLW Feed from AZ-101
HLW Tank 2 - AZ-102			
B2			
160.070	21DEC05*	05JAN07	Deliver 1st Batch HLW From AZ-102 to BNFL
160.080	31JAN06*	24FEB07	Deliver 2nd Batch HLW From AZ-102 to BNFL
160.090	14FEB06*	14MAR07	Deliver 3rd Batch HLW From AZ-102 to BNFL
160.100	02MAR06*	03APR07	Deliver 4th Batch HLW From AZ-102 to BNFL
160.110	17MAR06*	21APR07	Deliver 5th Batch HLW From AZ-102 to BNFL
160.120	03APR06*	04MAY07	Deliver 6th Batch HLW From AZ-102 to BNFL

Project Start: 01/09/04
 Project Finish: 03/30/04
 Date: 06/29/06
 Rev: 00

Activity Bar
 Program Bar
 Critical Activity

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River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity ID	Start Date	End Date	Description
160.F03	01OCT99*	09AUG02	Sample AZ-102 per BNFL Rqmts/Delvr Samp to BNFL ICD-23
160.F04	21JAN00*	25FEB00	Sample and Analyze Tank AZ-102 per RL/AMIT Rqmts RETR
160.F05	01OCT99*	20JAN00	Obtn Core Samp of AZ-102/Prep Sub-Samp/Composite RETR
160.F10	01OCT99*	18JUL00	Perform/Doc AZ-102 Samp Analyses/Rheology Tsting
160.F12	19JUL00*	23AUG00	Update BBI/Tank Characterization Rprt for AZ-102 RETR
160.F20	22MAY03*	05MAR07	Prepare Process Control Plan for AZ-102
160.F50	01OCT99*	07OCT99	Provide Retr Program Dir to W-211 for AZ-102
160.F40	01OCT99*	29SEP00	Dsn AZ-102 Mixing Retrieval System Obtain CD-3
160.F40A		29SEP00*	Issue W-211 Title II Ret Sys Design AZ-102 T04-00-100ROX
160.F50	03JUN02*	27MAY04	Construct the AZ-102 Mixing and Retrieval System
160.F52	01OCT01*	30MAY03	Procure Equipment for the AZ-102 Mixing/Retr Sys
160.F60	02MAR04*	17JAN05	Startup/Test the AZ-102 Mixing/Retrieval System

Project Start: _____
 Project Finish: _____
 Issue Date: _____
 Rev Date: _____

Entry Bar: _____
 Program Bar: _____
 Critical Path: _____
 Critical Path: _____

Project Name: River Protection Project
 Project Title: 6.0 Project Master Baseline Schedule
 Project Code: (FY 00 - FY 06)

Project Number: _____
 Revision: _____
 Date: _____

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160.F64	11FEB05*	15FEB05	Mix AZ-102 Waste to Suspend Solids
160.F66	29NOV04*	17MAR05	Obtain AZ-102 Feed Qual Samp per HLW Cert DQC HLW CERT
160.F68	18MAR05*	26OCT05	Anlyz AZ-102 Samples to HLW Feed Cert. DQC HLW CERT
160.F70	11NOV05*	10DEC05	Provide Approval to Transfer AZ-102 Feed
160.F74	18MAR05*	24MAR05	Provide Separate AZ-102 Samples to BNFL HLW CERT
160.F76	27OCT05*	10NOV05	Provide AZ-102 MT Susp Solid/Offcl Cmpstn BNFL
160.F80	18JAN05*	07FEB05	Perf Contractor Standard Startup Review AZ-102
160.F83	07AUG03*	17JAN05	Perf MSA for the AZ-102 Mixing/Retrieval System
160.F90	08FEB05*	10FEB05	Provide CD-4 Approval for AZ-102
B3	HLW Tank 3 - AY-102		
050.090	01OCT99*	31JAN00	Slutice 241-C-106 to 241-AY-102
120.A07	23OCT00*	05JAN01	Verify AY Tank Farm Sys/Components Functionality
River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)			

Early Start
 Critical Activity
 Other Activity

PROJECT: 160.F64
 PROJECT: 160.F66
 PROJECT: 160.F68
 PROJECT: 160.F70
 PROJECT: 160.F74
 PROJECT: 160.F76
 PROJECT: 160.F80
 PROJECT: 160.F83
 PROJECT: 160.F90

160.H50	02JAN03*	30DEC04	Construct the AY-102 Mixing and Retrieval System
160.H52	01OCT01*	28MAR03	Procure Equipment for the AY-102 Mixing/Retr Sys
160.H54	20JUN02*	16JUN04	Repair/Upgrd Existing AY TF Sys Rqd for Ph-1 WFD
160.H60	29SEP04*	16AUG05	Startup/Test the AY-102 Mixing/Retrieval System
160.H64	14SEP05*	18SEP05	Mix AY-102 Waste to Suspend Solids
160.H66	05JUL05*	18OCT05	Obtain AY-102 Feed Qual Samp per HLW Cert DQC HLW CERT
160.H68	19OCT05*	02JUN06	Anlyz AY-102 Samples to HLW Feed Cert. DQC HLW CERT
160.H70	20JUN06*	19JUL06	Provide Approval to Deliver AY-102 Feed Batch
160.H74	19OCT05*	25OCT05	Provide Separate AY-102 Samples to BNFL HLW CERT
160.H76	05JUN06*	19JUN06	Provide AY-102 MT Susp Solid/Offcl Cmpstn BNFL
160.H80	17AUG05*	07SEP05	Perf Contractor Standard Startup Review AY-102
160.H83	03SEP04*	16AUG05	Perf MSA for the AY-102 Mixing/Retrieval System

Project Start: 01OCT01
 Project Finish: 28MAR03
 Class Code: 61OCT01
 Run Date: 22AUG05

Early Start: 01OCT01
 Progress Bar: 28MAR03
 Critical Activity: 61OCT01

RPP-5044
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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

Activity	Start Date	End Date	Description
160.U60	29MAR04*	11FEB05	Startup/Test the AW-103 Mixing/Retrieval System
160.U64	10JUN05*	14JUN05	Mix AW-103 Waste to Suspend Solids
160.U72	08FEB06*	13JUL06	Transfer a portion of (30%) AW-103 to AY-101
160.U75	16FEB06*	26NOV06	Xfer portion 40% AW-103 to AZ-101 Blend SY-102
160.U80	14FEB05*	07MAR05	Perform Contractor SSR for AW-103
160.U83	18NOV03*	11FEB05	Perform MSA for the AW-103 Mixing/Retrieval Sys
160.U90	08MAR05*	04APR05	Provide CD4 Approval for AW-103
250.4E5	02OCT00*	01FEB01	Prep AW TF Areas for Turnover to Proj for Constr
250.W15	01OCT01*	30SEP02	Design W-314 Ph-2 AW TF Upgrades Obtain CD-3
250.W35	06MAR00*	15OCT02	Startup/Test W-314 Ph-1 AW TF(AW-A & AW-B Pit)Upgr
250.W45	01OCT02*	30NOV04	Construct the W-314 Ph-2 AW Tank Farm Upgrades
250.W50	02OCT00*	24SEP04	Construct W-314 Ph-1 AW TF AW-A/AW-B Pit Upgr

Project Start: _____
 Project Finish: _____
 Date Entry: _____
 Print Date: _____

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River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Task ID	Start Date	End Date	Description	Notes
250.W60	27DEC01*	10JUN05	Perf MSA W-314 Ph-1 AW TF(AW-A & AW-B PII)Upgr	
250.W75	01OCT01*	18JAN05	Startup/Test W-314 Ph-2 AW Tank Farm Upgrades	
250.W95	05APR04*	15FEB05	Perf MSA W-314 Ph-2 AW Tank Farm Upgrades	
250.W97	16FEB05*	13APR05	Perf Contractor RA W-314 Ph-2 AW Farm Upgrades	
250.W99	14APR05*	09JUN05	Perf DOE-ORP/Obt RA CD-4 W-314 Ph-2 AW Farm Upgr	
B5 HLW Tank 5 - AY-101				
160.S01	22OCT01*	30JUL03	Samp AY-101 per BNFL Rqmts/Deliver Samp to BNFL ICD-23	
160.S03	24MAR00*	26SEP00	Sample and Analyze Tank AY-101 per RLWIT Rqmts RETR	
160.S05	06DEC99*	23MAR00	Obtn AY-101 Core Samp/Prep Sub-Samp/Composites RETR	
160.S10	07AUG00*	21MAY01	Perf/Document AY-101 Samp Analyses/Rheology Tstg	
160.S12	22MAY01*	27JUN01	Update BBI/Tank Characterization Rprt for AY-101 RETR	
160.S20	20OCT04*	21JAN10	Prepare Process Control Plan for AY-101	
River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)				

Early Start
 Early Finish
 Critical Activity

PROJECT: 100000
 PROJECT PLAN: 100000
 DATE DATE: 100000
 PLAN DATE: 100000

Activity ID	Activity Name	Start Date	End Date	Activity Description
160.S40	01APR02*	26SEP03		Dsn AY-101 Mixing Retrieval System Obtain CD-3
160.S50	29SEP03*	26SEP05		Construct the AY-101 Mixing and Retrieval System
160.S52	01OCT03*	30SEP04		Procure Equip for the AY-101 Mixing/Retr Sys
160.S60	28JUN05*	15MAY06		Startup/Test the AY-101 Mixing/Retrieval System
160.S64	09JUL06*	13JUL06		Mix AY-101/AW-103 Waste to Suspend Solids
160.S66	28APR06*	14AUG06		Obtain AY-101/AW-103 Qual Samp per HLW Cert. DQC HLW CERT
160.S68	15AUG06*	29MAR07		Anlyz AY-101/AW-103 Samp to HLW Feed Cert. DQC HLW CERT
160.S74	15AUG06*	21AUG06		Provide Separate AY-101/AW-103 Samples to BNFL HLW CERT
160.S80	16MAY06*	06JUN06		Perf Contractor Standard Startup Review AY-101
160.S83	11MAR05*	15MAY06		Perf MSA for the AY-101 Mixing/Retrieval System
160.S90	07JUN06*	05JUL06		Provide CD-4 Approval for AY-101

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

Legend:
 [] Early Start
 [] Program Mile
 [] Critical Activity

Project Start: 01/01/00
 Project Finish: 06/30/06
 Start Date: 01/01/00
 End Date: 06/30/06

B6		HLW Tank 6 - SY-102	
120.A23	23OCT01*	07JAN02	Verify SY Tank Farm Sys/Components Functionality
120.A24	24JUN02*	19JUN03	Perform Acquisition Strategy for SY Tank Farm
120.A25	08JAN03*	19JUN03	Perform SY Tank Farm Trade Studies
120.P32	01OCT03*	07OCT03	Provide Retr Program Dir to W-211 for SY-102
150.P54	01OCT04*	28SEP06	Repair/Upgrd Existing SY TF Sys Rqd for Ph-1 WFD
160.P01	07JAN02*	23OCT03	Sample SY-102 per BNFL Rqmts/Delvr Samp to BNFL ICD-23
160.P03	19JUL00*	24JAN01	Sample and Analyze Tank SY-102 per RLAWIT Rqmts RETR
160.P05	03APR00*	18JUL00	Obtain SY-102 Core Samp/Prep Sub-Samp/Composites RETR
160.P10	02OCT02*	18JUL03	Perf/Document SY-102 Samp Analyses/Rheology Tstg
160.P12	25JAN01*	02MAR01	Update BBU/Tank Characterization Rprt for SY-102 RETR
250.S15	01OCT02*	30SEP03	Design the W-314 Ph-2 SY TF Upgrades Obtain CD-3

Project Start: 8 OCT01
 Project Finish: 30 SEP03
 Date: 08 OCT03
 Run Date: 25 JUL06

Legend:
 ■ Early Bar
 ■ Progress Bar
 ■ Critical Activity

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River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Activity ID	Activity Name	Start	End	Phase	Notes
250.S45	01OCT03*	25APR05			Construct the W-314 Phase 2 SY Tank Farm Upgrade
250.S75	01OCT02*	22APR05			Startup/Test W-314 Ph-2 SY Tank Farm Upgrades
250.S85	21JUL04*	20MAY05			Perf MSA W-314 Ph-2 SY Tank Farm Upgrades
250.S97	12APR05*	22JUN05			Perf Std Startup Rvw W-314 Ph-2 SY Farm Upgrades
Ph 1B HLLW Tank 1 - C-104					
160.J03	09DEC02*	20SEP04			Sample C-104 per BNFL Rqmts/Delvr Samp to BNFL ICD-23
160.J04	01OCT99*	10JUL03			Sample and Analyze C-104 per RL/AMT Rqmts RL REG
160.J12	26JUL00*	15AUG03			Update BBI/Tank Characterization Rprt for C-104 RL REG
160.J56	01OCT01*	04DEC01			Approve Project W-523 Mission Need (CD-1)
160.J58	06JAN03*	23SEP03			Validate Project W-523
250.C15	01OCT02*	30SEP03			Dsn W-314 Ph-2 SST Farm Upgrades & Obtain CD-3
250.C45	26JUN03*	28DEC04			Construct W-314 Ph-2 SST Farm Upgrades
River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)					

Legend:
 [] Early Start
 [] Original Start
 [] Critical Activity

Project Start: []
 Project Finish: []
 Baseline Start: []
 Baseline End: []

250.C75	01OCT02*	22OCT04	Startup/Test W-314 Ph-2 SST Farm Upgrades
250.C95	04MAY04*	28JAN05	Perf MSA for the W-314 Ph-2 SST Farm Upgrades
250.C98	31JAN05*	01MAR05	Perf Cont Sindr Startup Rvw W-314 Ph-2 SST Upgr
270.C01	02OCT00*	27SEP01	Issue Criticality Safety Evaluation Rpt SST Retr
270.C16	04OCT01*	11NOV04	Update/Amend AB for SST Retrieval
290.025	02OCT00*	28SEP07	Develop and Issue the SST Component Specs
290.100	01OCT99*	29SEP00	Perform Acqn Strategy for SST Sluicing Systems
290.A27	02OCT00*	05MAR02	Verify C Tank Farm Sys/Components Functionality
290.A28	06MAR02*	03MAR03	Perform Acquisition Strategy for C Tank Farm
290.A29	06MAR02*	15AUG02	Perform C Tank Farm Trade Studies
290.B25	01OCT03*	21AUG09	Prepare the W-523 Proj Tech Baseline Document
290.J40	30MAR04*	27MAR06	Design the C-104 Sluicing System and Obtain CD-3

Project Start: _____
 Project End: _____
 Revision: _____
 Date: _____
 Project: River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)
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Item	Start Date	End Date	Description
290.J43	05DEC01*	06MAR03	Perf Conceptual Design W-523 Sluicing Rtrvl Sys
290.J50	28MAR06*	20MAR09	Construct the C-104 Sluicing Retrieval System
290.J52	28MAR06*	20SEP07	Procure Equip for C-104 Sluicing Retrieval Sys
290.J54	04MAR03*	01MAR07	Repair/Upgrade Existing C Tank Farm Systems
290.J61	02OCT00*	28SEP01	Prep Proj Def/Tech Basis/Proj Def Crit W-523
E2			Ph 1B' HLW Tank 2 - AW-104
160.W10	17JUN03*	01APR04	Perf/Doc AW-104 Samp Analysis/Rheology Ttng
E3			Ph 1B' HLW Tank 3 - C-107
160.Q03	01JUL03*	04FEB05	Samp C-107 per BNFL Rqmts/Deliver Samp to BNFL ICD-23
160.Q04	21JAN02*	24JUL02	Sample and Analyze C-107 per RL/WIT Rqmts RETR
160.Q05	01OCT01*	18JAN02	Obtain C-107 Core Samp/Prep Sub-Samp/Composites RETR
160.Q10	21JAN02*	31OCT02	Perf/Document C-107 Samp Analyses/Rheology Tstng
160.Q12	01NOV02*	10DEC02	Update BBI/Tank Characterization Rpt for C-107 RETR

Project Start: 05DEC01
 Project End: 06MAR03
 Start Date: 05DEC01
 End Date: 06MAR03

Project: River Protection Project
 Program: 6.0 Project Master Baseline Schedule
 Activity: (FY 00 - FY 06)

Sheet 11 of 17

Activity	Start Date	End Date	Notes
120.W56	01OCT03*	03NOV03	Rvw and Appr Prj Definition Criteria for W-522
120.W67	06JUL04*	03AUG04	Provide Validation of W-522 Obtain CD-2
F3			
Ph 1B LAW Tank 3 - SY-103			
120.T01	13MAR00*	19MAY04	Samp SY-103 per BNFL Rqmts/Deliver Samp to BNFL RETR
120.T03	13MAR00*	12JUL00	Sample/Analyze Tank SY-103 per RL/WIT Rqmts RETR
120.T05	11FEB00*	10MAR00	Sample SY-103 RETR
120.T10	02OCT00*	02JUL01	Estblish Dilution Rqmts/Dissolution Behav SY-103
120.T25	13JUL00*	02AUG00	Update BBI/Tank Characterization Report SY-103 RETR
120.T50	01APR05*	27SEP06	Dsn SY-103 Mixing Retrieval System Obtain CD-3
F4			
Ph 1B LAW Tank 4 - AP-104			
120.B01	21NOV05*	18APR07	Samp AP-104 per BNFL Rqmts/Deliver Samp to BNFL ICD-23
120.B03	21NOV05*	28MAR06	Sample/Analyze AP-104 per RL/WIT Requirements RETR
120.B05	24OCT05*	18NOV05	Sample AP-104 RETR

Project Name: _____
 Project No: _____
 Start Date: _____
 End Date: _____

ICD-23
 ICD-23
 ICD-23
 ICD-23

Early Start
 Program
 Control Facility

PH-23

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River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Activity ID	Activity Name	Start Date	End Date	Activity Description
120.B20	21NOV05*	23AUG06	Early Start	Establish Dilution Rqmt/Dissolution Behavior AP-104
120.B25	29MAR06*	18APR06	Early Finish	Update BBI/Tank Char Rpt for AP-104 RETR
130.B22	30SEP02*	26MAY16		Prepare Process Control Plan for AP-104
130.B36	25JUL05*	11SEP06		Mobilize & Retrieve Waste AP-104/Rcv Feed AP-102
150.B05	12SEP06*	16SEP06		Mix AP-104 Feed in AP-102
150.B12	05SEP06*	02OCT06		Obtn AP-104 Qual Samp per LAW Qual DQO fm AP-102 LAW CERT
150.B43	12SEP06*	16SEP06		Mix Remaining AP-104 Feed
150.B45	05SEP06*	02OCT06		Obtn AP-104 Qual Samp per LAW Qual DQO fm AP-104 LAW CERT
F5 Ph 1B' LAW Tank 5 - S-102				
120.Z01	07JAN03*	27MAY04		Samp S-102 per BNFL Rqmts/Deliver Samp BNFL ICD-23
120.Z03	07JAN03*	10JUL03		Sample/Analyze S-102 per RL/WIT Requirements RETR
120.Z05	01OCT02*	06JAN03		Sample S-102 RETR

Project Start: 01OCT01
 Project Finish: 30SEP06
 Date Drawn: 01OCT06
 Run Date: 23AUG06

Legend:
 Early Bar
 Progress Bar
 Critical Activity

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**River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)**

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Project Start		Project Finish		Data Date		Run Date	
PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#
120.V25	31AUG05*	21SEP05					
250.P15	01OCT01*	30SEP02					
250.P45	26AUG02*	24JAN05					
250.P75	01OCT01*	17JAN05					
250.P95	18JUN04*	14FEB05					
250.P97	04JAN05*	12APR05					
250.P99	13APR05*	09JUN05					
Ph 1B' LAW Tank 7 - S-105							
120.I01	01NOV02*	30MAR04					
120.I03	01NOV02*	09MAY03					
120.I05	01AUG02*	31OCT02					
120.I10	01NOV02*	04AUG03					
Smp S-105 per BNFL Rqmts/Deliver Smp to BNFL ICD-23 Smp/Analyze S-105 per RL/WIT Rqmts RETR Sample S-105 RETR Establish Dition Rqmts/Dissolution Behavior S-105							
River Protection Project (FY 00 - FY 06)							
Project Start		Project Finish		Data Date		Run Date	
PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#	PROJECT#

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 PROJECT#
 PROJECT#
 PROJECT#
 PROJECT#

Empty Bar
 Program Bar
 Critical Activity

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Activity ID	Start Date	End Date	Description
130.B75	31MAY05*	28JUN05	Compare RAM/O&M Concept with OTP Results (LAW)
130.B80	15MAR05*	28MAR05	Assess Scndry Wst/Util/Samp Anlys Agnst Plns LAW
130.B90	03APR00*	28SEP00	Prepare the LAW Feed Qualification DQO
150.105	03SEP02*	22OCT15	Plan and Perform Integrated Process Testing
150.700	01OCT99*	25NOV14	Prep Test/Eval Plan for WFD Sys Verification
150.702	01OCT99*	30SEP02	Perf Waste Feed Delivery ORP/Implementation
160.A14	01OCT99*	22NOV99	Prepare for Sampling During HLW Feed Staging
160.A15	18DEC03*	05JAN04	Assess Scndry Wst, Util/Samp Anlys Agnst Pln HLW
160.A17	11MAR04*	08APR04	Compare RAM/O&M Concept with OTP Results (HLW)
160.A90	03APR00*	28SEP00	Prepare the HLW Feed Certification DQO
620.070	01OCT99*	28SEP18	Develop and Maintain WFD Environmental Baseline

Project Start: 11OCT99
 Project Finish: 28SEP00
 Date Date: 11OCT99
 Run Date: 28SEP00

Early Start: 11OCT99
 Program Start: 11OCT99
 Critical Activity: 11OCT99

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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P1		Project Definition (WFD)	
120.010	01OCT99*	28SEP18	Update the DST System Specification and ICDS
120.015	01OCT99*	20OCT00	Develop/issue the DST Component Specifications
120.020	01OCT99*	28SEP18	Update the DST Component Specification
120.025	01OCT99*	30SEP04	Update WFD O&M Concept Document/Risk Assessment
120.D34	01OCT99*	28SEP18	Perform Waste Feed Delivery Trade Studies
120.G38	01OCT99*	14MAY02	Adjust WFD Acquisition Strategy for Phase 1 Tks
120.G38A		28SEP01*	TIP - Select Tech for DST Waste Mobiliz & Mixing ◆ T04-01-C10RTX Prep Proj Definition/Tech Basis/Proj Def W-522
120.W61	01OCT02*	30SEP03	Prepare the W-621 Project Technical Baseline Doc
160.B05	03APR00*	29MAR07	Prepare the W-522 Project Tech Baseline Doc
160.B15	01OCT04*	23SEP11	
S1			SST Program
270.105	02OCT00*	19JUN01	Prepare SST Retrieval Licensing Strategy
Project Start: 01OCT98 Project Finish: 01OCT98 Start Date: 01OCT98 End Date: 01OCT98 © Primavera Systems, Inc.			
Project Name: River Protection Project Program Bar: 6.0 Project Master Baseline Schedule Critical Activity: (FY 00 - FY 06)			

Activity	Start Date	End Date	Description
270.110	02OCT00*	03OCT01	Perform SST Retrieval USQ Process
270.210	01NOV99*	28SEP01	Prepare Initial SST Program Plan
270.215	01OCT99*	10DEC99	Define Technology Evaluation Strategy
270.310	02OCT00*	30APR01	Prepare SST Retrieval Prog Test/Evaluation Plan
270.310A		30APR01*	TIP -Decis on Tech Appr for Testing Ret Solution ◆ T04-01-108RTX
270.610	13DEC00*	06JUN01	Evaluate Retrieval Technology Solutions
270.615	13DEC01*	18JUL02	Assess SST Tank Farm Infrastructure Sys Needs
270.620	13DEC99*	14AUG00	Evaluate Leak Detection Solutions
270.620B		30SEP00*	M-45-09E: Submit Annual LDMM Progress Reports ◆ T04-00-341HEI
270.620C		30SEP01*	M-45-09F: Submit Annual LDMM Progress Reports ◆ T04-01-341HEI
270.620D		30SEP02*	M-45-09G: Submit Annual LDMM Progress Reports ◆ T04-02-341HEI
270.620E		30SEP03*	M-45-09H LDMM Progress Report Complete ◆ T04-03-341HEI

Project Start: 4/10/98
 Project Finish: 3/31/06
 Cash Date: 9/30/06
 Run Date: 3/31/06

Project Name: River Protection Project
 Project ID: 6.0 Project Master Baseline Schedule
 Run Date: (FY 00 - FY 06)

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Activity ID	Start Date	End Date	Activity Description	Dependencies
270.630	13DEC98*	18MAY00	Assess Tank Conditions	
270.640	01OCT01*	28SEP18	Define SST Retrieval Sequences	
270.650	20MAY02*	16MAY03	Determine Retrieval Risks	
270.660	03JUN02*	19NOV02	Determine Process Improvement Breakthroughs	
280.105	01OCT01*	03OCT07	Perform C-106 Limits of Technology Demonstration	
280.105A		01NOV05*	M-45-08A Complete ISSTRS Leak Detection Design	T04-00-731HEI
280.105B		18MAY06*	M-45-08B Comp Demo/Install of Leak Monitor/Mitigtr	T04-03-792
280.105C		18MAY06*	M-45-08 Estab Capabil for Leakage Mitigation	T04-03-791
280.105E	06JUN06*		M-45-03-T02 Initiate Final Retrieval	T04-02-503
280.205	01OCT01*	18MAR02	SST Test and Demonstration Specification	
280.210	02OCT00*	08OCT03	Acquire Cold Test Capability	
280.215	13MAR01*	08MAR02	Saltcake Dissolution Cold Tests	

Project Start: 13DEC98
 Project End: 28SEP18
 Date: 06JUN06
 Rev: 01

Legend:
 Early Bar
 Program Bar
 Critical Activity

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River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Activity ID	Start Date	End Date	Description
280.220	11MAR02*	23OCT02	Saltcake Dissol Hot Tst Spec/Deployment Decision
280.225	19MAR02*	15JAN04	Confined Sluicing Cold Tests
280.230	16JAN04*	31AUG04	Confined Sluice Hot Tst Spec/Deployment Decision
280.235	09OCT03*	05OCT04	Saltcake/Sludge Cold Tests
280.240	06OCT04*	29MAY05	Saltcake/Sludge Hot Tst Spec/Deployment Decision
280.245	09OCT03*	05OCT04	Dry Retrieval Cold Tests
280.250	05OCT04*	25MAY05	Dry Retrieval Hot Tst Spec/Deployment Decision
280.255	09OCT03*	05OCT04	Congested and Limited Access Cold Tests
280.260	06OCT04*	25MAY05	Congested/Limitd Access Hot Tst Spec/Deployment Dec
280.305	01OCT03*	24AUG10	Saltcake Dissolution Retrieval Demonstrations
280.305A		21APR05*	M-45-04-T02 Complete Design for ISSTRS T04-01-K10ROT
280.305B		23JAN06*	M-45-04-T03 Comp Construction for ISSTRS T04-03-K10ROT

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

Legend:
 [] Early Start
 [] Progress Bar
 [] Critical Activity

Project Start: 01OCT00
 Project Finish: 26SEP06
 Date Data: 01OCT00
 Run Date: 28AUG06

Activity ID	Activity Start	Activity End	Activity Description
280.305C		23JAN06*	M-45-04-T01 Provide Initial SST Retrieval System T04-04-K10ROT
280.305D	28AUG06*		M-45-05-T01 Initiate Ret from 1 SST T04-04-A10
280.315	01SEP04*	15SEP09	Confined Sluice Retrieval Demonstrations
280.325	02JUN06*	04JUN10	Saltcake/Sludge Retrieval Demonstrations
280.335	02JUN06*	04JUN10	Dry Retrieval Demonstrations
280.345	02JUN06*	11JUN10	Congested/Limited Access Retrieval Demonstration
290.007	30NOV99*	27SEP13	Update SST Level 1 Specification
290.199	04OCT04*	03OCT16	Project Management for W-623
T0			Vadose Zone/Closure Program
510.111	03NOV03*	30APR15	Closure Work Plan/Closure Plan
510.112	01OCT03*	27SEP07	Closure Alternatives
510.113	01OCT03*	02OCT24	System Definition

Project Start: 01OCT99
 Project Finish: 02OCT06
 Start Date: 01OCT99
 End Date: 02OCT06

Early Start: _____
 Program Start: _____
 Critical Activity: _____

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River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity ID	Start	End	Description
650.005	01OCT99*	29SEP06	Provide Support to Vadose Zone Activities
650.005A		29FEB04*	◆ M-45-55 Submit for Ecology Review RFI Report T04-04-W18HEI
650.005B		27JAN05*	◆ M-45-58 Submit for Ecology Review CMS (Date TBD) T04-05-W18HEI
650.005C		30SEP04*	◆ M-45-60 Submit to Ecology SST RFI/CMS T04-04-W19HEI
650.100	01OCT99*	29SEP09	Perform Interim Measures and Corrective Measures
650.100C		31OCT99*	◆ M-45-56-T01 Submit Engineering Study to Ecology T04-00-W25ROT
650.A10	01OCT02*	24AUG06	Characterize Waste Management Area A-AX
650.B10	01OCT99*	24SEP02	Characterize Waste Management Area B-BX-BY
650.B10A		31MAY00*	◆ M-45-53 Submit to Ecology B-BX-BY Addendum T04-00-W20HEI
650.B10B		31MAY02*	◆ M-45-55-T02 Submit to Ecology FIR (B-BX-BY) T04-02-W20ROT
650.B10C		22MAY00*	◆ DOE Receive Rev 0 WP Addendum T04-00-W03ROX
650.C10	01OCT03*	17AUG07	Characterize Waste Management Area C

Planned Start: 01OCT99
 Project Finish: 29SEP06
 Data Date: 01OCT99
 Run Date: 22AUG08

Early Bar
 Progress Bar
 Critical Activity

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity ID	Activity Name	Start	End	Priority	Notes
650.S10	Characterize Waste Management Area S-SX	01OCT99*	22AUG01		
650.S10A	M-45-52 Submit to Ecology S-SX Addendum	31OCT99*			
650.S10B	T04-00-W19HEI	30APR01*			
650.S10C	M-45-55-T01 Submit to Ecology FIR S-SX T04-01-W19ROT 2nd Borehole, Complete Drilling T04-00-W94ROX	14SEP00*			
650.T10	Characterize Waste Management Area T-TX-TY	01OCT99*	30SEP03		
650.T10A	M-45-54 Submit to Ecology WP Addendum T-TX-TY T04-01-W21HEI	31DEC00*			
650.T10B	M-45-55-T03 Submit to Ecology FIR T-TX-TY T04-03-W20ROT	30JUN03*			
650.U10	Characterize Waste Management Area U	24AUG05			
710.712	Manage Vadose Zone/Closure Program	01OCT99*	28SEP07		
T1	TWRD Program				
150.704	Manage Waste Feed Delivery Activities	01OCT99*	28SEP18		
710.702	Manage RPP Waste Retrieval Division	01OCT99*	28SEP18		

Project Start: 01OCT99
 Project Finish: 28SEP18
 Run Date: 28AUG05
 Run User: []

Legend:
 [] Entry for
 [] Projected by
 [] Critical Activity

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River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

Activity ID	Start Date	End Date	Activity Description
710.710	01OCT99*	28SEP12	Perform Hanford Tanks Initiatives Activities
710.716	01OCT99*	28SEP18	Manage Retrieval SST Activities
710.722	01OCT99*	28SEP18	Waste Retrieval Division Business Management
710.740	01OCT99*	28SEP18	TWR Program Integration
710.740A	02JUN00*		Issue Readiness-to-Proceed Declar Prlv Ph1 T04-00-104ROX
710.750	01OCT99*	28SEP18	TWR Quality Assurance Program
710.760	01OCT99*	28SEP18	TWR Program Improvement
710.800	01OCT04*	29SEP06	RPP Risk Mitigation
710.900	01OCT99*	28SEP18	River Protection Project DOE-RL Disposal Support
W1			WFD Program
110.010	01OCT99*	28SEP01	Project Management for AZ-101 Process Test
120.A00	01OCT99*	30MAR11	Project Management for W-211

Project Start: 01OCT99
 Project Finish: 28SEP12
 Date Date: 01OCT99
 Run Date: 28SEP12

Legend:
 ■ Entry Bar
 ■ Program Bar
 ■ Critical Activity

River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity	Start	End	Description
150.B22D		30SEP00*	M-45-02E Annual Update SST Retrieval Sequence ◆ T04-00-241HEI
150.B22E		30SEP01*	M-45-02F Annual Update SST Retrieval Sequence ◆ T04-01-241HEI
150.B22F		30SEP02*	M-45-02G Annual Update SST Retrieval Sequence ◆ T04-02-241HEI
150.B22G		30SEP03*	M-45-02H Annual Update SST Retrieval Sequence ◆ T04-03-241HEI
150.B22H		30SEP04*	M-45-02I Annual Update SST Retrieval Sequence ◆ T04-04-241HEI
150.B22J		30SEP05*	M-45-02J Annual Update SST Retrieval Sequence ◆ T04-05-241HEI
150.B22K		29SEP06*	M-45-02K Annual Update SST Retrieval Sequence ◆ T04-06-241
150.B26	01OCT99*	30SEP08	Maintain Waste Feed Delivery ICDs 19 and 20
160.A99	02OCT00*	28SEP12	Project Management for W-521
250.100	01OCT99*	14MAY07	Project Management for W-314
250.E50A	24APR01*		M-43-16 Start Construction in 5th Farm ◆ T03-03-059HEI
250.W50A	21NOV00*		M-43-15 Start Construction in 4th Farm ◆ T03-02-058HEI

Project Start	01OCT98	Early Bar	
Project Finish	30SEP08	Program Bar	
Start Date	01OCT98	Critical Activity	
Run Date	22AUG99		

River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)		Sheet 18 of 27
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		FY00		FY01		FY02		FY03		FY04		FY05		FY06	
250.W99A		09JUN05*													M-43-00 Complete TF Upgrades ♦ T03-05-051HEM
250.Y50A	01OCT99*														M-43-13 Start Construction in 2nd Farm ▶ T03-00-056HEI
250.Z50A	03JUL00*														M-43-14 Start Construction in 3rd Farm ♦ T03-01-057HEI
620.090	01OCT99*	28SEP18													Align WFD Activities with the Environmental Bsln
710.711	01OCT99*	28SEP18													Waste Feed Delivery Technology Insertion Support
710.720	01OCT99*	28SEP01													Waste Retrieval Proj Development/Implementation
710.724	01OCT99*	28SEP18													Waste Feed Delivery Program Analysis and Control
710.725	01OCT99*	28SEP18													Provide Wst Feed Delivery Program Tech Analysis
710.727	01OCT99*	28SEP18													Waste Feed Delivery Sys Eng Implementation
710.730	01OCT99*	28SEP18													TWR Program Engineering and Support
W5		TW05 Process Waste													
100.1005	01OCT99*	28SEP18													M&I Vendor Interface
Project Start		01OCT99	Early Bar												
Project Finish		28SEP18	Program Bar												
Safe Date		01OCT99	Critical Activity												
Risk Date		28SEP18													
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750.A00	01OCT99*	29SEP00	WIT Phase I Project Management
750.B00	02OCT00*	28SEP01	WIT Phase I Project Management FY01
750.C00	01OCT01*	30SEP13	WIT Phase I Project Management FY02 - FY13
750.D00	02OCT00*	29SEP28	WIT Phase II Program Management
WG			TW06 Privatization Phase I
350.0106	24AUG98A	28FEB19	Maintain Phase I HLW/LAW ICDs
350.0206	24AUG98A	28FEB19	Environmental & Regulatory Compliance
350.0306	24AUG98A	28FEB19	BNFL Project Management
350.0406	01AUG00*	29SEP17	Capital Budget Outlay - FY2000 - FY2017
350.1106	24AUG98A	24AUG00	Phase I Definitive Design
350.110B		24AUG00*	Const Auth Pgm Review/Decision (Perf Expect) ◆ T06-00-101ROX
350.1206	02JUL01*	31MAR05	Pretreatment Facility Construction
River Protection Project 6.0 Project Master Baseline Schedule (FY 00 - FY 06)			

Project Start: 01OCT99
 Project End: 30SEP13
 CMAA Date: 02OCT00
 Run Date: 29SEP28

Early Bar: []
 Program Bar: []
 Conf-Authority: []

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Activity ID	Activity Name	Start	Finish	Activity Type	Activity Description	Notes
350.120A	02JUL01*				Start Pretreatment Facility Const (Perf Expect)	
350.120B	02JUL01*				M-50-04-T03 Start Const of HLW Pretreat Facility	
350.123	01APR05*	28FEB06			Pretreatment Facility Cold Startup	
350.125	01MAR06*	31OCT06			Pretreatment Facility Hot Startup	
350.130A	01MAR06*				M-50-04 Start Hot Operations Pretreat Facility	
350.2106	27AUG98A	04JAN02			Complete Design Phase - LAW Facility	
350.2206	02JAN02*	30NOV06			LAW Vitrification Facility Construction	
360.1106	02JUL01*	31JAN06			HLW Vitrification Facility Construction	
360.110A	02JUL01*				M-51-03-T03 Start Construction of HLW Vit Facility	
360.110B		31JAN06*			M-51-03-T04 Complete Construction of HLW Vit Fac	
360.113	01FEB06*	30NOV06			HLW Vitrification Facility Cold Startup	

Project Start: 01/02/00
 Project Finish: 01/02/06
 Start Date: 01/02/00
 Finish Date: 01/02/06

Legend:
 ■ Early Start
 ■ Progress Bar
 ■ Critical Activity

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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TW07 Privatization Phase II		Preliminary Phase II RFP Planning	
400.002	02OCT00*	03JUN02	Finalize Phase II RFP Planning
400.004	04JUN02*	30DEC02	Prepare/Issue Phase II Immobilization RFP
400.006	31DEC02*	30DEC03	M-92-05 Cs/Sr Treat and/or Repackng Parameters T07-03-113HEI
400.006A		30DEC02*	Prepare Final Phase II Immobilization RFP
400.007	01OCT03*	30JAN04	Award Period - Phase II Immobilization Contracts
400.008	02FEB04*	31JAN05	Project Management - LAW Facility #1
400.010	01FEB05*	31DEC24	M-60-13 Initiate Neg on Phase II LAW Treatment T07-02-111HEI
400.010A		03JUN02	Award Phase II Immobilization Contracts T07-05-112HOX
400.010B		31JAN05*	Project Management - LAW Facility #2
400.015	01FEB05*	31DEC24	Prepare/Maintain ICDS - LAW Facility #1
400.020	01OCT03*	31DEC24	

Project Start: 01OCT00
 Project Phase: 04JUN02
 Close Date: 31DEC02
 Run Date: 31JUN06

Project Bar: 03JUN02
 Progress Bar: 30DEC02
 Critical Activity: 30DEC03

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River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

WBS	Activity	Start	End	Notes
400.025	01FEB05*	31DEC24		Prepare/Maintain ICDS - LAW Facility #2
400.210	01FEB05*	30SEP08		Design - LAW Facility #1
400.310	01FEB05*	30SEP08		Design - LAW Facility #2
410.010	01FEB05*	29SEP28		Project Management - HLW Facility
410.020	01FEB05*	29SEP28		Prepare/Maintain ICDS - HLW Facility
410.110	01FEB05*	31DEC08		Design - HLW Facility
W8				TW08 Privatization Infrastructure
330.A00	01OCT99*	30SEP19		Phase 1 Privatization Infrastructure
330.BA1	01OCT99*	24MAY02		W-519 Infr. Proj Electrical Systems
330.BA2		01AUG03*		33050C3C W-519 Electrical Power for BNFL Ops Complete T08-02-100ROX
330.BB1	08NOV99*	03MAR00		W-519 Site & Roads
330.BB2		31MAR00*		Construction Water & Access Roads Ready for BNFL T08-00-100ROX

Project Name: _____
 Project Phase: _____
 Date Issued: _____
 Revision: _____

Project: _____
 Every Six Months Program for Construction Activity

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River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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Activity ID	Start	End	Activity Description
330.BC1	01OCT199*	03NOV00	W-519 Construct 7MW Power System
330.BC2		30NOV00*	Construction Power 7MW Complete for BNFL ◆ T08-01-100ROX
480.A00	02OCT00*	29SEP28	Phase II Infrastructure PM & Eng. 48010A1A
480.B00	01OCT02*	03OCT06	Phase II Infrastructure Design 48070A1A
W9			TW09 Immobilized TW Storage/Disposal
440.A00	01OCT199*	24SEP18	IHLW Project Management
440.A10	01OCT199*	29SEP00	Prep IHLW Sample Transport AGA
440.A1M		29SEP00	Issue IHLW Sample Transport AGA ◆ T09-00-009ROX
440.B10	01OCT199*	29SEP00	W-464 Advanced Conceptual Design
440.B1M		29SEP00	Comp W-464 Advanced Conceptual Products ◆ T09-00-006ROX
440.B1N	02OCT00*		CD 2-Initiate W-464 Detailed Design ◆ T09-01-002ROX
440.D00	02OCT00*	30JUN05	W-464 Design IHLW Storage Facility

River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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Early Start
 Progress Bar
 Critical Activity

11 OCT 99
 14 SEP 99
 17 OCT 99
 20 NOV 99

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Activity	Start	Early Finish	FY00	FY01	FY02	FY03	FY04	FY05
440.E10	01OCT99*	30JUN03	W-464 Part B Permit Application					
440.E1M		31MAR03	<ul style="list-style-type: none"> ◆ M-20-56: Sub CSB Part B Application to Ecology ◆ T09-01-100HEI 					
440.G00	01OCT02*	30NOV05	W-464 Construction IHLW Storage Facility					
450.A00	01JUN04*	31JAN07	W-464 Startup					
460.A00	01OCT99*	31JAN41	ILAW Project Management					
460.A10	01OCT99*	29SEP00	Prep ILAW Sample Transport AGA					
460.A1M		29SEP00	<ul style="list-style-type: none"> ◆ Issue ILAW Sample Transport AGA ◆ T09-00-008ROX 					
460.B00	02OCT00*	30SEP02	W-465 Advanced Conceptual Design					
460.B1M		31JUL02*	<ul style="list-style-type: none"> Complete W-465 Advanced Conceptual Design T09-01-001ROX 					
460.C00	01AUG02*	29SEP06	W-465 Definitive Design					
460.C1M		31MAR04*	<ul style="list-style-type: none"> ◆ M-90-04-T01: Complete W-465 Definitive Design ◆ T09-01-010ROT 					
460.D0M	01APR04*		<ul style="list-style-type: none"> ◆ M-90-03: CD 3-Initiate W-465 Construction ◆ T09-00-003HEI 					

Project Start: 01OCT99
 Project Finish: 30SEP06
 Data Date: 09OCT06
 Run Date: 22AUG08

River Protection Project
6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Activity	Start	End	Early Start	Early End	Activity
460.D10	03MAR04*	02MAY06			W-465 Modify Vaults
460.E10	01OCT02*	29APR05			W-465 Part B Permit Application
460.E1M		29APR05			M-20-57: Sub ILAW Part B Permit App to Ecology T09-01-021HEI
460.F10	01OCT99*	31DEC99			Prepare Waste Form Data Package
460.F1M		31DEC99			Issue Waste Form Dat Package for 2001 PA T09-00-005ROX
460.G10	01OCT99*	29SEP00			Write 2001 Assessment
460.G1M	28APR00*				Issue White Paper on ILAW Impacts T09-00-007ROX
470.A00	23DEC05*	31DEC07			W-465 Startup
600.A00	01OCT04*	01JUN44			ILAW Phase II Modules
780.A00	01OCT02*	24SEP18			W-XXX Design and Construct IHLW Module 1
790.A00	01OCT01*	30SEP10			W-520 Project Management and Eng
790.A10	01OCT03*	30JUN04			W-520 Conceptual Design

Project Start: 01OCT01
 Project Finish: 30SEP10
 Milestone: 01OCT01
 Start Date: 01OCT01

Legend:
 ■ Early Start
 ■ Early End
 ■ Program Start
 ■ Critical Activity

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River Protection Project
 6.0 Project Master Baseline Schedule
 (FY 00 - FY 06)

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Project Start Date	Project Finish Date	Activity	Notes
790.A1M	30JUN04	Start of Project	
790.A20	01JUL04*	Complete W-520 Conceptual Design	◆ T09-99-011R0T
790.C10	01JUN06	W-520 Design	
790.C1M	01JUN06	W-520 Part B Permit Application	
WVA		M-20-58: Sub ILAW Disp Part B Permit App to Eco	◆ T09-01-020
710.A00	01OCT98*	TW10 Management Support	
710.F00	04MAY99*	Management Support Project	
710.F0M	07AUG00	Work Mgmt Pilot in RPP	
710.G00	08JUN99*	Complete Work Mgmt Pilot in RPP	◆ T10-00-200ROX
710.G0M	27SEP00	Work Management Implementation at RPP	
	27SEP00	Complete Work Management at RPP	◆ T10-00-201ROX

River Protection Project
6.0 Project Master Baseline Schedule
(FY 00 - FY 06)

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Project Start: 01/01/98
Project Finish: 06/30/06
Date: 06/28/06
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7.0 LIFE-CYCLE COSTS (BY FISCAL YEAR)

7.1 Budget Authority (FY 2000 to FY 2006)

7.1 River Protection Project Budget Authority (FY 2000 - FY 2006)
(\$000's) (1)

	EY00	EY01	EY02	EY03	EY04	EY05	EY06
TW01 Tank Waste Characterization	29,973	38,536	38,099	37,158	37,938	38,872	39,549
TW02 Tank Safety Issue Resolution	24,199	27,437	12,567	11,805	9,246	9,661	9,366
TW03 Tank Farm Operations	160,190	212,821	187,920	160,755	120,797	138,492	112,344
TW04 Waste Retrieval	53,932	89,315	173,557	234,028	219,695	197,111	163,067
TW05 Process Waste Support	10,933	12,341	19,508	19,244	21,505	18,143	16,782
TW06 Privatization Phase 1	-	-	-	-	-	-	-
TW08 Privatization Infrastructure	16,961	15,367	12,561	12,627	13,118	41,459	21,908
TW09 Immobilized Waste Storage & Disposal	9,136	14,394	28,024	53,745	60,605	43,733	40,392
TW10 Management Support	35,524	41,575	35,108	36,845	35,361	34,919	34,085
Sub Total	<u>340,848</u>	<u>451,786</u>	<u>507,344</u>	<u>566,207</u>	<u>518,265</u>	<u>523,390</u>	<u>437,493</u>
Privatization							
TW04 Waste Retrieval	-	-	-	-	-	101,768	66,149
TW06 Privatization Phase 1	106,000	606,000	659,000	633,000	595,000	598,000	563,000
TW07 Privatization Phase 2	-	-	-	-	-	172,000	176,000
RPP TOTAL	<u>446,848</u>	<u>1,057,786</u>	<u>1,166,344</u>	<u>1,199,207</u>	<u>1,113,265</u>	<u>1,395,158</u>	<u>1,242,642</u>

(1) All dollars displayed contain applicable escalation

7.2 Life Cycle Costs (by Fiscal Year)

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
Tank Waste Characterization	57,706	48,317	35,429	29,973	38,536	38,099	37,158	37,938	38,872
Tank Safety Issue Resolution	34,070	30,205	34,699	24,199	27,437	12,567	11,805	9,246	9,661
Tank Farm Operations	156,948	122,873	147,190	160,190	212,822	187,922	160,771	120,784	139,504
Waste Retrieval	33,919	67,685	57,830	53,933	91,634	173,718	236,632	221,582	194,816
Process Waste Support	6,025	9,615	7,777	10,933	12,341	19,508	19,244	21,505	18,143
Privatization Phase 1	-	-	-	-	-	-	-	-	-
Privatization Infrastructure	5,893	5,973	6,009	18,611	18,662	13,065	12,627	13,118	41,459
Immobilized Waste Storage & Dispos	4,968	11,303	5,331	9,136	14,394	28,022	53,745	60,607	43,733
Management Support	30,644	40,232	34,716	35,480	36,232	35,108	36,845	35,361	34,919
Sub Total	330,173	336,203	328,981	342,455	452,057	508,039	568,827	520,152	521,108
Privatization									
Waste Retrieval	-	-	-	50,000	-	-	-	-	-
Privatization Phase 1	-	-	-	-	-	-	-	-	-
Privatization Phase 2	-	-	-	-	-	-	-	-	-
RPP TOTAL	330,173	336,203	328,981	392,455	452,057	508,039	568,827	520,152	521,108

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>
TW01 Tank Waste Characterization	39,549	55,367	44,899	32,372	31,372	30,847	29,495	33,196	33,912
TW02 Tank Safety Issue Resolution	9,366	9,561	9,762	-	-	-	-	-	-
TW03 Tank Farm Operations	112,344	110,811	100,025	101,856	101,141	102,780	104,519	105,415	100,670
TW04 Waste Retrieval	163,882	225,539	219,270	213,134	167,431	134,739	166,418	189,404	118,760
TW05 Process Waste Support	16,782	21,175	17,845	18,148	18,529	18,918	19,238	19,353	13,360
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW06 Privatization Infrastructure	21,908	33,384	35,067	71,603	73,253	35,482	110,630	112,219	115,035
TW09 Immobilized Waste Storage & Dispos	40,392	52,611	138,153	251,839	250,583	224,266	165,503	210,156	369,643
TW10 Management Support	34,085	34,616	35,112	35,355	35,911	36,144	36,410	37,143	37,392
Sub Total	<u>438,308</u>	<u>543,064</u>	<u>600,135</u>	<u>724,306</u>	<u>678,220</u>	<u>583,175</u>	<u>632,214</u>	<u>706,887</u>	<u>788,771</u>
<u>Privatization</u>									
TW04 Waste Retrieval	-	6,268	24,463	42,041	357,400	573,953	815,943	926,962	996,719
TW06 Privatization Phase 1	58,000	188,001	401,000	908,000	1,073,001	1,102,001	1,097,000	1,111,001	1,365,001
TW07 Privatization Phase 2	-	-	-	-	-	1,362,000	1,383,000	2,248,000	2,282,000
RPP TOTAL	<u>496,308</u>	<u>737,332</u>	<u>1,025,598</u>	<u>1,674,347</u>	<u>2,108,621</u>	<u>3,621,129</u>	<u>3,928,157</u>	<u>4,992,870</u>	<u>5,432,491</u>

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>
TW01 Tank Waste Characterization	35,418	40,358	32,191	33,125	32,110	32,929	33,394	34,034	34,444
TW02 Tank Safety Issue Resolution	-	-	-	-	-	-	-	-	-
TW03 Tank Farm Operations	103,519	105,268	106,646	109,738	111,607	114,394	118,160	119,694	120,766
TW04 Waste Retrieval	77,702	55,678	41,589	41,012	13,514	13,805	24,319	24,989	33,410
TW05 Process Waste Support	13,640	13,981	14,162	14,444	14,584	14,949	15,210	15,530	15,793
TW06 Privatization Phase 1	-	-	-	2,484	12,436	51,348	71,852	29,288	-
TW08 Privatization Infrastructure	117,450	120,394	121,947	125,006	119,660	108,581	110,422	112,741	114,649
TW09 Immobilized Waste Storage & Dispos	463,178	463,141	351,525	355,171	268,791	218,986	121,494	69,351	58,101
TW10 Management Support	<u>37,824</u>	<u>38,419</u>	<u>38,757</u>	<u>39,027</u>	<u>39,651</u>	<u>40,491</u>	<u>40,622</u>	<u>41,122</u>	<u>41,666</u>
Sub Total	<u>848,731</u>	<u>837,239</u>	<u>706,817</u>	<u>720,007</u>	<u>612,351</u>	<u>595,483</u>	<u>535,473</u>	<u>446,747</u>	<u>418,850</u>
<u>Privatization</u>									
TW04 Waste Retrieval	959,183	697,408	612,068	382,342	4,097	806	-	-	-
TW06 Privatization Phase 1	1,437,723	1,230,001	463,000	-	-	-	-	-	-
TW07 Privatization Phase 2	2,317,000	1,291,000	1,311,000	602,000	611,000	620,000	629,000	639,000	648,000
RPP TOTAL	<u>5,562,637</u>	<u>4,255,648</u>	<u>3,092,885</u>	<u>1,704,349</u>	<u>1,227,449</u>	<u>1,216,289</u>	<u>1,164,473</u>	<u>1,085,747</u>	<u>1,066,850</u>

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)
 (\$'000's) (1)

	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
TW01 Tank Waste Characterization	35,235	-	-	-	-	-	-	-	-
TW02 Tank Safety Issue Resolution	123,553	121,623	124,224	126,834	129,501	131,698	134,999	137,834	141,285
TW03 Tank Farm Operations	33,641	17,553	17,957	23,075	36,741	40,547	41,563	42,708	50,886
TW04 Waste Retrieval	16,189	16,528	16,876	17,230	15,629	-	-	-	-
TW05 Process Waste Support	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	117,526	119,994	122,514	125,065	127,713	29,744	-	2,708	2,773
TW08 Privatization Infrastructure	75,978	79,796	37,578	87,497	115,408	47,483	26,649	5,666	8,179
TW09 Immobilized Waste Storage & Dispos	42,157	42,202	42,745	43,303	43,870	44,276	45,041	45,644	46,444
TW10 Management Support	444,278	387,696	361,894	473,024	468,863	293,748	248,253	234,558	249,566
Sub Total									
Privatization									
TW04 Waste Retrieval	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	658,000	668,000	205,000	208,000	211,000	-	-	-	-
TW07 Privatization Phase 2	-	-	-	-	-	-	-	-	-
RPP TOTAL	1,102,278	1,065,698	566,894	631,024	679,863	293,748	248,253	234,558	249,566

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40	FY41
TW01 Tank Waste Characterization	-	-	-	-	-	-	-	-	-
TW02 Tank Safety Issue Resolution	-	-	-	-	-	-	-	-	-
TW03 Tank Farm Operations	143,682	146,071	-	-	-	-	-	-	-
TW04 Waste Retrieval	46,427	46,684	14,227	1,270	1,282	1,319	1,347	1,371	1,404
TW05 Process Waste Support	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW08 Privatization Infrastructure	-	-	-	-	-	-	-	-	-
TW09 Immobilized Waste Storage & Dispos	10,689	10,871	11,143	11,316	11,553	11,796	12,044	12,297	12,187
TW10 Management Support	46,892	47,349	-	-	-	-	-	-	-
Sub Total	<u>247,690</u>	<u>250,976</u>	<u>25,370</u>	<u>12,586</u>	<u>12,846</u>	<u>13,116</u>	<u>13,391</u>	<u>13,668</u>	<u>13,591</u>
Privatization									
TW04 Waste Retrieval	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW07 Privatization Phase 2	-	-	-	-	-	-	-	-	-
RPP TOTAL	<u>247,690</u>	<u>250,976</u>	<u>25,370</u>	<u>12,586</u>	<u>12,846</u>	<u>13,116</u>	<u>13,391</u>	<u>13,668</u>	<u>13,591</u>

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

	FY42	FY43	FY44	FY45	FY46	FY47	FY48	FY49	FY50
TW01 Tank Waste Characterization	-	-	-	-	-	-	-	-	-
TW02 Tank Safety Issue Resolution	-	-	-	-	-	-	-	-	-
TW03 Tank Farm Operations	-	-	-	-	-	-	-	-	-
TW04 Waste Retrieval	1,434	1,464	1,500	1,521	1,553	1,594	1,632	1,661	1,696
TW05 Process Waste Support	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW08 Privatization Infrastructure	-	-	-	-	-	-	-	-	-
TW09 Immobilized Waste Storage & Dispos	51,768	52,855	54,077	56,965	57,680	-	-	-	-
TW10 Management Support	-	-	-	-	-	-	-	-	-
Sub Total	53,201	54,319	55,577	58,486	59,233	1,594	1,632	1,661	1,696
Privatization									
TW04 Waste Retrieval	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW07 Privatization Phase 2	-	-	-	-	-	-	-	-	-
RPP TOTAL	53,201	54,319	55,577	58,486	59,233	1,594	1,632	1,661	1,696

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)
(\$000's) (1)

	FY51	FY52	FY53	FY54	FY55	FY56	FY57	FY58	FY59
TW01 Tank Waste Characterization	-	-	-	-	-	-	-	-	-
TW02 Tank Safety Issue Resolution	-	-	-	-	-	-	-	-	-
TW03 Tank Farm Operations	-	-	-	-	-	-	-	-	-
TW04 Waste Retrieval	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,989	2,041
TW05 Process Waste Support	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW07 Privatization Infrastructure	-	-	-	-	-	-	-	-	-
TW08 Immobilized Waste Storage & Dispos	-	-	-	-	-	-	-	-	-
TW09 Management Support	-	-	-	-	-	-	-	-	-
Sub Total	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,989	2,041
<u>Privatization</u>									
TW04 Waste Retrieval	-	-	-	-	-	-	-	-	-
TW06 Privatization Phase 1	-	-	-	-	-	-	-	-	-
TW07 Privatization Phase 2	-	-	-	-	-	-	-	-	-
RPP TOTAL	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,989	2,041

(1) All dollars displayed contain applicable escalation

7.2 River Protection Project Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

	FY60	FY61	FY62	FY63	FY64	FY65	FY66	Life-Cycle Total
TW01 Tank Waste Characterization	-	-	-	-	-	-	-	1,036,276
TW02 Tank Safety Issue Resolution	-	-	-	-	-	-	-	222,577
TW03 Tank Farm Operations	-	-	-	-	-	-	-	4,819,871
TW04 Waste Retrieval	2,085	2,128	2,166	2,211	2,276	2,313	-	3,520,534
TW05 Process Waste Support	-	-	-	-	-	-	-	503,186
TW06 Privatization Phase 1	-	-	-	-	-	-	-	167,408
TW08 Privatization Infrastructure	-	-	-	-	-	-	-	2,442,934
TW09 Immobilized Waste Storage & Dispos Management Support	-	-	-	-	-	-	-	5,165,599
TW10	-	-	-	-	-	-	-	1,489,225
Sub Total	2,085	2,128	2,166	2,211	2,276	2,313	-	19,367,409
<u>Privatization</u>								
TW04 Waste Retrieval	-	-	-	-	-	-	-	6,599,873
TW06 Privatization Phase 1	-	-	-	-	-	-	-	10,483,729
TW07 Privatization Phase 2	-	-	-	-	-	-	-	17,893,000
RPP TOTAL	2,085	2,128	2,166	2,211	2,276	2,313	-	54,343,811

(1) All dollars displayed contain applicable escalation

8.0 MAJOR RISKS AND MITIGATION ACTIONS

Major Risk and Mitigation Actions

Risk Number	Risk Title	Risk Owner	Issue	Baseline Risk	Mitigating Actions
CR-032	222-S Analytical Laboratory Capability	Waste Feed Delivery	High-quality, accurate waste analysis for certification of transfers to BNFL Inc. cannot be provided unless the 222-S Laboratory staff, skill level, training, and technical capability are established and maintained throughout the Phase I work scope	If the analytical certification requirements are not consistent with a level-load staffing plan, the turnaround time and cost of analytical services will increase. Note: Laboratory risks also appear under "Human Resources"	<ol style="list-style-type: none"> 1. Evaluate BNFL Inc. contract for requirements to use 222-S and/or WSCF laboratories (TBR 150.B29). 2. Evaluate backup laboratory option.
CR-046	LMHC Funding for 80% Confidence of Success	Planning and Integration	DOE Budget allocation will not support LMHC annual funding requirements, including sufficient risk mitigation funding to ensure an 80% confidence of successfully executing the RPP mission	If out-year funding for LMHC activities does not match the requirements, LMHC may not be able to support the April 1, 1999 guidance.	<ol style="list-style-type: none"> 1. Ensure FY00 MYWP submittal supports June 21, 1999 Baseline Updating Guidance. 2. Validate sufficiency of funding during update to the baseline that will be performed in FY 1999 (TBR 720.740). 3. Implement SST Retrieval Program Plan

Major Risk and Mitigation Actions

Risk Number	Risk Title	Risk Owner	Issue	Baseline Risk	Mitigating Actions
CR-065	Maintaining Configuration Management of Critical Drawings	Projects	Projects are not currently required or funded to incorporate outstanding ECNs for work completed or to perform physical verification efforts before the design phase begins	If critical baseline plant drawings are not current and accurate at design phase initiation, delays in design, construction, and turnover phases may occur because reconciliation of project drawings with plant drawings is required for completion of ORR.	<p>1. Continue the Operations As-Building Project to develop Operational P&IDs, incorporate ECNs, and perform field verification of plant-essential H-2 drawings as defined on the Tank Farm Essential Drawing Plan.</p> <p>2. Projects will include ECN incorporation and field verification activities for those drawings not covered under the Operations As-Building Project.</p> <p>3. Projects will reconcile project drawings with plant drawings before the ORR.</p>

Major Risk and Mitigation Actions

Risk Number	Risk Title	Risk Owner	Issue	Baseline Risk	Mitigating Actions
CR-070	Increasing Obsolescence/Deterioration of Tank Farm and Its Infrastructure	Waste Feed Delivery	SSTs have exceeded their design lives and much of the supporting piping, utility, and infrastructure, and many DSTS are deteriorating.	If LMHC loses one or more DSTS or suffers repeated failure of infrastructure support/operating equipment as a result of overall funding delays or reductions, this will force reduction of emergency tank reserve capacity, and slow the retrieval and waste feed delivery activities.	<ol style="list-style-type: none"> 1. Perform walk downs and evaluations of existing systems. 2. Conduct and complete RAM analysis. 3. Complete integrity assessment/ corrosion studies. 4. Develop and fund a comprehensive maintenance and spare parts program (TBR 130.B05). 5. Ensure redundancy in piping and high-risk infrastructure.

DOE	U.S. Department of Energy	ORR	Operational Readiness Review
DST	double-shell tank	P&ID	
ECP	Engineering Change Notice	RAM	
FY	fiscal year	RPP	River Protection Project
LMHC	Lockheed Martin Hanford Corporation	TBR	Technical Basis Review
MYWP	multi-year work plan	WSCF	Waste Sampling and Characterization Facility

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9.0 PROJECT BASELINE SUMMARY OVERVIEWS

9.1 TANK WASTE CHARACTERIZATION (TW01)

9.1.1 Mission Statement

Tank Waste Characterization (TW01) was established to characterize the Hanford Site high-level radioactive waste and to ensure safe storage and retrieval or disposal of this waste. This waste is stored in large, underground double-shell tanks and single-shell tanks. The work involved is to plan, sample, and analyze the tank waste, and report its contents. Activities include the following: program management, characterization data development, sampling equipment, samples and measurements, and sample analyses.

9.1.2 Life-Cycle Costs by Fiscal Year

9.1.2 Tank Waste Characterization (TW01) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY07	FY08	FY09	FY00	FY01	FY02	FY03	FY04	FY05	FY06
TW01 Tank Waste Characterization										
1.1.1 TW CHARACTERIZN	57,706	48,317	35,429	29,973	38,536	38,099	37,158	37,938	38,872	39,549
TOTAL TW CHARACTERIZN	57,706	48,317	35,429	29,973	38,536	38,099	37,158	37,938	38,872	39,549

(1) All dollars displayed contain applicable escalation

9.1.2 Tank Waste Characterization (TW01) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
TW01 Tank Waste Characterization									
1.1.1 TW CHARACTERIZN	55,367	44,888	32,372	31,372	30,847	29,495	33,196	33,912	35,418
TOTAL TW CHARACTERIZN	55,367	44,888	32,372	31,372	30,847	29,495	33,196	33,912	35,418

(1) All dollars displayed contain applicable escalation

9.1.2 Tank Waste Characterization (TW01) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
TW01 Tank Waste Characterization									
1.1.1 TW CHARACTERIZATION	40,358	32,191	33,125	32,110	32,929	33,394	34,034	34,444	35,235
TOTAL TW CHARACTERIZATION	40,358	32,191	33,125	32,110	32,929	33,394	34,034	34,444	35,235

(1) All dollars displayed contain applicable escalation

9.1.2 Tank Waste Characterization (TW01) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

	Fund Type	FY26	Life-Cycle Total
TW01 Tank Waste Characterization			
1.1.1 TW CHARACTERIZATION	Expense Line Item	-	1,036,276
TOTAL TW CHARACTERIZATION		-	1,036,276

(1) All dollars displayed contain applicable escalation

9.1.3 Budget Profile by Month (Execution Year)

9.1.3 Tank Waste Characterization (TW01) Budget Profile by Month (Execution Year) (1)
(\$000's)

Level & Title	Fund Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.1.1.1.1 Char'zn Proj Mgmt	Expense	316	301	316	301	301	346	301	330	331	286	346	300	3,775
1.1.1.1.1.2 Char'zn Data Develop	Expense	363	360	378	360	360	413	360	395	395	342	414	347	4,607
1.1.1.1.1.3 Sampling Equipment	Expense	284	260	284	260	260	288	246	271	271	257	312	272	3,345
1.1.1.1.1.4 Acq Samples & Meas'mt	Expense	740	1,155	1,300	977	988	803	1,326	1,476	1,884	807	400	202	12,080
1.1.1.1.1.5 Sample Analysis	Expense	458	427	498	384	427	504	484	556	677	685	758	510	6,286
Total	Expense	2,191	2,523	2,724	2,302	2,356	2,354	2,687	3,030	3,558	2,377	2,230	1,651	29,673

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1				Hanford Site												
1.01				River Protection Project												
1.01.01				Tank Waste Characterization												
1.01.01.01				Tank Farm System												
1.01.01.01.01				Sample & Characterize Tank Waste												
1.01.01.01.01.01				Characterization Project Management												
100.100	01OCT98*	30SEP24	11,883.10	Provide Characterization PM/ES&Q/QA												
100.500	30SEP98*	21JUN18	6,680.40	Characterization Lab Anal to meet Program Needs												
1.01.01.01.01.02				Characterization Data Development												
100.2B1	01OCT99*	29SEP00	66.70	Ann TSB-WIRD Rpt to ORP/Ecology (M-44-15D)												
100.2B2	01OCT99*	30JUN00	120.50	Draft 2001 TSB-WIRD (M-44-13D)												
100.2B3	01OCT99*	29SEP00	29.60	Adjust/Maintain Current TSB-WIRD												
100.2B4		30JUN00*	0.00	Submit Draft WIRD for FY2001 to Ecol (M-44-13D) T01-00-103HEI												
100.2B5	05JUL00*	31AUG00	28.00	Final 2001 TSB-WIRD (M-44-14D)												
100.2B6		31AUG00*	0.00	Submit Final WIRD for FY2001 to Ecol (M-44-14D) T01-00-104HEI												
100.2B7		29SEP00*	0.00	Iss Char Del Cons wTSB WIRD/FY2000 (M-44-15D) T01-00-105												
Project Start	01OCT97	Progress Bar		River Protection Project												
Project Finish	01OCT98	Progress Bar		9.1.4 Schedule (Execution Year)												
Date Date	21AUG99	Progress Bar		TW01 Tank Farm Characterization												
Run Date		Progress Bar		Sheet 1 of 2												
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Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
100.2B8		29SEP00*	0.00	Comp HLW Tk Input Per TSB WIRD FY2000 (M-44-16D)												◆ T01-00-106
100.4A3	01OCT99*	29SEP00	221.40	Disseminate Data Information												
1.01.01.01.01.04				Acquire Samples & Measurements												
100.510	01OCT99*	15AUG00	9,385.00	Complete 12 Core Samples												
100.51M		29SEP00*	0.00													Complete 12 Core Samples ◆ T01-00-107
100.610	01OCT99*	12SEP00	1,102.40	Complete 12 Grab Samples												
100.61M		29SEP00*	0.00													Complete 12 Grab Samples ◆ T01-00-108
100.710	05OCT99*	28JUL00	455.40	Complete 6 Vapor Samples												
100.71M		29SEP00*	0.00													Complete 6 Vapor Samples ◆ T01-00-109
Subtotal	30SEP98	30SEP24	29,972.50													

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Project Start 01OCT97	Project Finish 21AUG99	Early Start 01OCT98	Early Finish 21AUG99	Progress Bar	PROJ	SHEET 2 OF 2
River Protection Project 9.1.4 Schedule (Execution Year) TW01 Tank Farm Characterization						
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9.1.5 Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>IPA Date</u>
T01-00-103	Submit Draft WIRD for FY 2001 to Ecology	HQ-I	M-44-13D	30-Jun-00	30-Jun-00
T01-00-104	Submit Final WIRD for FY 2001 to Ecology	HQ-I	M-44-14D	31-Aug-00	31-Aug-00
T01-00-105	Issue Characterization Deliverables Consistent with WIRD Developed for FY 2000	HQ-I	M-44-15D	29-Sep-00	30-Sep-00
T01-00-106	Complete Input of Characterization Information for HLW Tanks for which Sampling and Analysis Were Completed per WIRD	HQ-I	M-44-16D	29-Sep-00	30-Sep-00
T01-00-107	Complete 12 Core Samples	ORP	-	29-Sep-00	-
T01-00-108	Complete 12 Grab Samples	ORP	-	29-Sep-00	-
T01-00-109	Complete 6 Vapor Samples	ORP	-	29-Sep-00	-

FY fiscal year
HLW high-level waste
WIRD Waste Information Requirements Document

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9.2 TANK SAFETY ISSUE RESOLUTION (TW02)

9.2.1 Mission Statement

This project is designed to provide an adequate, comprehensive, and reliable safety basis for the RPP to manage and store waste. This will be accomplished by developing and maintaining an integrated Authorization Basis and by resolving outstanding safety issues to ensure safe storage of waste.

The Tank Safety Issue Resolution Project was established to address hazards associated with storing radioactive mixed waste in the large underground storage tanks at the Hanford Site. Safety issues have been raised for flammable gas and organic complexants stored in single-shell tanks, double-shell tanks, and ancillary facilities. In response to Public Law 101-510, Section 3137, "Safety Measures for Waste Tanks at Hanford Nuclear Reservation," tanks for which the concern is highest have been placed on the Watch List. This project develops the technical basis for closing unreviewed safety questions (USQ), resolving the safety issues, and removing all tanks from the Watch List. It also supports upgrades to the Final Safety Analysis Report (FSAR), which is the authorization basis for safe operations of the tank farms and continued safe storage of the tank contents.

9.2.2 Life-Cycle Costs by Fiscal Year

9.2.2 Tank Safety Issue Resolution (TW02) Life-Cycle Costs (by Fiscal Year)
(\$000's) (1)

TW02 Tank Safety Issue Resolution		FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06
1.1.2	T SAFETY ISSUE RESOLUTN	34,070	30,205	34,699	24,199	27,437	12,567	11,805	9,246	9,861	9,366
	Expense										
	Life Item										
	TOTAL T SAFETY ISSUE RES	34,070	30,205	34,699	24,199	27,437	12,567	11,805	9,246	9,861	9,366

(1) All dollars displayed contain applicable escalation

9.2.2 Tank Safety Issue Resolution (TW02) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	Expense Line Item	Life-Cycle Total		
		FY07	FY08	FY09
TW02 Tank Safety Issue Resolution				
1.1.2 T SAFETY ISSUE RESOL TN		9,561	9,762	-
		---	---	---
TOTAL T SAFETY ISSUE RES		9,561	9,762	222,577

(1) All dollars displayed contain applicable escalation

9.2.3 Budget Profile by Month (Execution Year)

9.2.3 Tank Safety Issue Resolution (TW02) Budget Profile By Month (Execution Year) (1)
(\$000's)

Level & Title	Fund Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.2.1.1.1 Flammable Gas	Expense	1,095	1,177	1,265	1,265	1,218	1,361	1,042	1,458	1,641	1,348	1,238	895	15,001
1.1.2.1.1.2 Project Management	Expense	69	66	69	68	66	76	66	72	72	63	76	66	827
1.1.2.1.1.3 Organic	Expense	15	14	15	22	34	39	34	37	37	32	39	32	360
1.1.2.1.1.4 High Heat	Expense	33	32	48	27	15	0	0	0	0	0	0	0	165
1.1.2.1.1.5 Authorization Basis	Expense	665	654	687	635	714	775	665	698	635	545	646	545	7,898
Totals	Expense	1,877	1,943	2,084	2,015	2,047	2,251	1,807	2,265	2,385	1,899	1,999	1,539	24,189

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01	
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
1				Hanford Site													
1.01				River Protection Project													
1.01.02				TANK SAFETY ISSUE RESOLUTION PROJECT													
1.01.02.01				TANK FARM SYSTEM													
1.01.02.01.01				ESTABLISH AND MAINTAIN SAFETY AUTH BASIS													
1.01.02.01.01.01				FLAMMABLE GAS													
030.100	01OCT99	28SEP01	4,069.90	Resolve Flammability Safety Issue													
1.01.02.01.01.02				NS&L PROJECT MANAGEMENT													
180.A00	01OCT99	30SEP08	3,379.80	Maintain Authorization Basis													
1.01.02.01.01.03				ORGANIC													
020.100	01OCT99	30SEP02	350.00	Resolve Organic Safety Issues													
1.01.02.01.01.04				HIGH HEAT													
010.100	01OCT99	29SEP00	16,353.10	Tank Safety Issue Resolution Project													
050.100	01OCT99	31DEC99	46.40	Monitor Resolution of High Heat Safety Issue													
050.100A		31DEC99	0.00	Transmit Rpt to Resolve HH SI DNFSB 5.4.3.6.d T02-99-100FOX													
Subtotal	01OCT99	30SEP08	24,199.20														

Project Start: 01OCT99
 Project Finish: 30SEP08
 Data Date: 01OCT99
 Run Date: 21AUG99

PMB2

Sheet 1 of 1

River Protection Project
9.2.4 Schedule (Execution Year)
TW02 TANK SAFETY ISSUE RESOLUTION

9.2.5 Milestone Log (Execution Year)

9.2.5 Tank Safety Issue Resolution Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>DNFSB Date</u>
T02-99-100	Transmit Letter to DNFSB Reporting Completion of Topical Report to Resolve High Heat Safety Issue	FO	5.4.3.6.d	31-Dec-99	31-May-98

DNFSB

Defense Nuclear Facilities Safety Board

9.3 TANK FARM OPERATIONS (TW03)

9.3.1 Mission Statement

Tank Farms Operations operates and maintains the RPP mission-required tank farm systems, structures, and components (SSC) in a safe, reliable, and operable condition to meet mission requirements. The technical approach to Tank Farms Operations is to conduct all activities pertaining to the operation of a permitted treatment, storage, and disposal (TSD) facility within the boundary of the current Authorization Basis and in a manner that ensures compliance with all applicable Federal, State, and local laws and regulations. (Ensuring a safe working environment for all employees and support groups also is a top priority.) Tank Farm Operations performs all operations support functions required for routine surveillance, operation, and maintenance of the 200 East Area and 200 West Area tank farms. These functions include the following:

- ◆ Performing preventive and corrective maintenance (routine and non-routine)
- ◆ Performing waste transfers to feed tanks in support of waste concentration operations
- ◆ Conducting radiological health physics activities
- ◆ Conducting routine surveillance monitoring
- ◆ Conducting industrial hygiene and safety functions
- ◆ Performing engineering and analysis (trade studies and analysis capability upgrades)
- ◆ Managing and controlling projects and upgrades to facilities and infrastructure
- ◆ Enhancing the safety of facility operations and preparing the facilities for eventual turnover to the Retrieval Project for closure.

In addition, Tank Farms Operations has the mandate to pump interstitial liquid from the aging, single-shell tanks in the 200 Area Tank Farms and transfer it to the safer, compliant double shell tanks in accordance with the Consent Decree, Tri-Party Agreement milestones, and other schedules as set by DOE.

9.3.2 Life-Cycle Costs by Fiscal Year

9.3.2 Tank Farm Operations (TW03) Life-Cycle Costs (by Fiscal Year)
(\$000's) (1)

	Fund Type	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	
TW03 Tank Farm Operations												
	Expense	108,880	92,161	128,605	133,974	154,110	136,309	134,267	103,925	116,398	92,660	
	Expense	3,505	2,138	5,700	5,700	7,388	7,441	4,709	2,749	3,008	2,945	
	Line Item	7,584	13,434	12,885	20,516	51,324	44,172	21,796	14,120	20,097	16,739	
TOTAL W-314		11,089	15,572	18,585	26,216	58,712	51,613	26,504	16,869	23,108	19,684	
	Expense	5,330	8,810	-	-	-	-	-	-	-	-	
	Line Item	6,745	2,972	-	-	-	-	-	-	-	-	
TOTAL W-030		12,075	11,782	-	-	-	-	-	-	-	-	
	Expense	1,978	1,075	-	-	-	-	-	-	-	-	
	Line Item	22,928	2,283	-	-	-	-	-	-	-	-	
TOTAL W-058		24,904	3,358	-	-	-	-	-	-	-	-	
1.1.3 TF OPERN'S	Expense	119,693	104,184	134,305	139,674	161,498	143,749	138,975	106,674	119,407	95,605	
	Line Item	37,255	18,689	12,885	20,516	51,324	44,172	21,796	14,120	20,097	16,739	
TOTAL TF OPERATIONS		156,948	122,873	147,190	160,190	212,822	187,922	160,771	120,794	139,504	112,344	

(1) All dollars displayed contain applicable escalation

9.3.2 Tank Farm Operations (TW03) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
TW02 Tank Farm Operations									
Expense	106,760	100,025	101,858	101,141	102,780	104,519	105,415	100,670	103,519
Expense Line Item	2,173	-	-	-	-	-	-	-	-
	1,878	-	-	-	-	-	-	-	-
	4,051	-	-	-	-	-	-	-	-
TOTAL W-314									
Expense Line Item	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-030									
Expense Line Item	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-056									
Expense Line Item	108,933	100,025	101,858	101,141	102,780	104,519	105,415	100,670	103,519
	1,878	-	-	-	-	-	-	-	-
TOTAL TF OPERATIONS	110,811	100,025	101,858	101,141	102,780	104,519	105,415	100,670	103,519

(1) All dollars displayed contain applicable escalation

9.3.2 Tank Farm Operations (TW03) Life-Cycle Costs (by Fiscal Year)
 (\$'000's) (1)

Fund Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
TW03 Tank Farm Operations									
Expense	105,268	106,646	109,738	111,607	114,394	118,160	119,694	120,768	123,553
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-314	-	-	-	-	-	-	-	-	-
Expense	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-030	-	-	-	-	-	-	-	-	-
Expense	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-058	-	-	-	-	-	-	-	-	-
1.1.3 TF OPERN'S	105,268	106,646	109,738	111,607	114,394	118,160	119,694	120,768	123,553
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL TF OPERATIONS	105,268	106,646	109,738	111,607	114,394	118,160	119,694	120,768	123,553

(1) All dollars displayed contain applicable escalation

9.3.2 Tank Farm Operations (TW03) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type		FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33
<u>TW03 Tank Farm Operations</u>									
Expense		121,623	124,224	129,501	131,698	134,999	137,834	141,285	143,682
Expense Line Item		-	-	-	-	-	-	-	-
TOTAL W-314		-	-	-	-	-	-	-	-
Expense		-	-	-	-	-	-	-	-
Expense Line Item		-	-	-	-	-	-	-	-
TOTAL W-030		-	-	-	-	-	-	-	-
Expense		-	-	-	-	-	-	-	-
Expense Line Item		-	-	-	-	-	-	-	-
TOTAL W-058		-	-	-	-	-	-	-	-
Expense		121,623	124,224	129,501	131,698	134,999	137,834	141,285	143,682
Expense Line Item		-	-	-	-	-	-	-	-
TOTAL TF OPERATIONS		121,623	124,224	129,501	131,698	134,999	137,834	141,285	143,682

(1) All dollars displayed contain applicable escalation

9.3.2 Tank Farm Operations (TW03) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

TW03 Tank Farm Operations	Fund Type	FY34	FY35	Life-Cycle Total	
	Expense	148,071	-	4,495,549	
	Expense Line Item	-	-	47,457	
		-	-	224,545	
TOTAL W-314		-	-	272,002	
	Expense Line Item	-	-	14,140	
		-	-	9,717	
TOTAL W-030		-	-	23,857	
	Expense Line Item	-	-	3,053	
		-	-	25,209	
TOTAL W-058		-	-	28,262	
1.1.3 TF OPERATIONS	Expense Line Item	148,071	-	4,680,200	
		-	-	259,471	
TOTAL TF OPERATIONS		148,071	-	4,819,671	

(1) All dollars displayed contain applicable escalation

9.3.3 Budget Profile by Month (Execution Year)

9.3.3 Tank Farm Operations (TW03) Budget Profile By Month (Execution Year) (1)
(\$000's)

Fund Type	Level 1 Title	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Expense	1.1.3.1.1.1 Project Management	3,054	2,823	2,820	2,801	2,762	3,177	2,762	3,037	3,021	2,742	3,155	2,745	34,899
Expense	1.1.3.1.1.2 Ancillary Facilities	186	182	176	236	283	180	156	172	172	156	180	157	2,236
Expense	1.1.3.1.1.3 Desactivating Facilities	18	15	15	16	15	18	15	17	17	15	18	16	193
Expense	1.1.3.1.1.4 Waste Process Facility	52	49	49	52	49	57	49	54	54	49	57	49	620
Expense	1.1.3.1.1.5 Tank Farm Complexes	1,418	1,351	1,351	1,418	1,351	1,554	1,351	1,486	1,486	1,351	1,554	1,351	17,022
Expense	1.1.3.1.1.6 Waste Transfers	804	674	538	556	481	560	510	599	558	512	536	466	6,804
Expense	1.1.3.1.1.7 Essential Services	3,019	2,576	2,430	2,289	2,105	2,411	2,093	2,317	2,320	2,101	2,398	2,107	28,186
Expense	1.1.3.1.1.8 Drawing & Labeling	1,012	786	1,095	939	804	785	644	687	643	510	463	320	8,698
Expense	1.1.3.1.1.9 Interim SST Stabzn(SWP)	2,797	2,385	2,477	3,049	3,381	3,822	2,982	3,115	2,431	2,841	2,821	2,899	35,000
Expense	1.1.3.1.1.10 Project W-314	342	279	279	293	279	318	285	319	319	355	408	2,224	5,700
Line Item		<u>1,413</u>	<u>1,223</u>	<u>1,214</u>	<u>1,274</u>	<u>1,375</u>	<u>1,720</u>	<u>1,453</u>	<u>1,606</u>	<u>1,598</u>	<u>1,764</u>	<u>2,045</u>	<u>3,781</u>	<u>20,516</u>
Expense	Totals (W/O W-314 & W-300 & W-058)	1,755	1,552	1,483	1,567	1,654	2,038	1,738	1,925	1,917	2,119	2,453	6,005	26,218
Expense		12,384	10,876	10,976	11,474	11,258	12,583	10,579	11,502	10,720	10,294	11,201	10,127	133,974
Expense		12,726	11,155	11,255	11,767	11,537	12,901	10,884	11,821	11,039	10,649	11,609	12,351	139,674
Line Item		<u>1,413</u>	<u>1,223</u>	<u>1,214</u>	<u>1,274</u>	<u>1,375</u>	<u>1,720</u>	<u>1,453</u>	<u>1,606</u>	<u>1,598</u>	<u>1,764</u>	<u>2,045</u>	<u>3,781</u>	<u>20,516</u>
		14,139	12,428	12,469	13,041	12,912	14,621	12,317	13,427	12,637	12,413	13,654	16,132	160,190

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Hanford Environmental Management

River Protection Project

Tank Farm Operations
 Tank Farm System
 Maint Safe & Comp Waste in TF System
 Waste Transfers

Conduct Waste Consolidation And Reduction Ops

Conduct Operation of Evaporator

Essential Services

Operate and Maintain Tank Farms

Provide DST Waste Inventory Ctrl (WIC) Grp

M-46-01F Concurrence of Add'l Tank Acquisition
 ♦ T03-00-104HEI

Revise Op Waste Volume Projection Document

Prform Tank Farm Compliance Enhancements

Drawing and Labeling

Install Remote Monitoring Equipment

Activity ID	Start Date	End Date	Duration	Activity Description
1				
1.01				
1.01.03				
1.01.03.01				
1.01.03.01.01				
1.01.03.01.01.06				
320.A00	01OCT99	30JUN10	134.30	Conduct Waste Consolidation And Reduction Ops
320.A10	01OCT99	30SEP13	5,647.50	Conduct Operation of Evaporator
190.A00	01OCT99	30SEP34	83,865.40	Operate and Maintain Tank Farms
190.B11	01OCT99	29SEP34	108.60	Provide DST Waste Inventory Ctrl (WIC) Grp
190.B12		30NOV99	82.24	M-46-01F Concurrence of Add'l Tank Acquisition ♦ T03-00-104HEI
190.BM1	01OCT99	29SEP34	160.30	Revise Op Waste Volume Projection Document
680.A00	01OCT99	29SEP34	5,559.80	Prform Tank Farm Compliance Enhancements
1.01.03.01.01.08				Drawing and Labeling
240.A00	01OCT99	20SEP06	3,062.00	Install Remote Monitoring Equipment

Project Start: 01OCT99
 Project Finish: 30SEP34
 Issue Date: 01OCT99
 Run Date: 27AUG99

Legend:
 Early Bar
 Progress Bar
 Critical Activity

Sheet 1 of 4

River Protection Project
 9.3.4 Schedule (Execution Year)
 TW03 Tank Farm Operations

Activity ID	Early Start	Early Finish	BCWS	Activity Description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
101.03.01.01.09				SST Interim Stabilization											
230.AA1	01OCT99	29DEC99	511.50	Prepare U-102 for Isolation											
230.AA5	31DEC99	28APR03	415.70	Pump and Complete Isolation on U-102											
230.AB5	01OCT99	28APR03	432.50	Pump and Complete Isolation on U-103											
230.AC1	01OCT99	10NOV99	247.40	Prepare U-105 for Isolation											
230.AC5	15NOV99	28APR03	418.80	Pump and Complete Isolation for U-105											
230.AD1	01OCT99	31MAR00	849.90	Prepare U-109 for Isolation											
230.AD5	01APR00	28APR03	226.50	Pump and Complete Isolation on U-109											
230.AE1	15JUN00		0.00	Start IS of 4 SST's - U-103, U-106, U-102 T03-00-711HEC											
230.BA1	01OCT99	11APR00	864.40	Prepare A-101 for Isolation											
230.BA5	13MAY00	27APR04	201.80	Pump and Complete Isolation for A-101											
230.BB1	04JAN00	29JUN00	789.90	Prepare AX-101 for Isolation											

River Protection Project
9.3.4 Schedule (Execution Year)
TW03 Tank Farm Operations

Project Start: 10/01/99
 Project Finish: 04/29/04
 Date Used: 04/29/04
 Run Date: 04/29/04

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Activity ID	Early Start	Early Finish	BCWS	Activity Description
230.BB5	10AUG00	30SEP03	189.80	Pump and Complete Is
230.CA1	28JAN00	10NOV00	1,071.30	Prepare SX-101 for Isolation
230.CB1	03APR00	30SEP00	1,131.40	Prepare SX-103 for Isolation
230.CC1	01OCT99	26JUN00	1,496.90	Prepare SX-105 for Isolation
230.CC5	27JUN00	02SEP03	189.10	Pump and Complete Isolation for S
230.CD1	28FEB00	28DEC00	876.50	Prepare U-106 for Isolation
230.DA1	04JAN00	16FEB01	821.30	Prepare BY-105 for Isolation
230.DB1	05JUL00	01FEB01	918.10	Prepare BY-106 for Isolation
230.ED1	29JUN00	11MAY01	678.40	Prepare U-108 for Isolation
230.GB5	01OCT99	27APR04	306.30	Pump and Complete Isolation for S-103
230.GC5	01OCT99	27APR04	437.40	Pump and Complete Isolation for S-102
230.GD5	01OCT99	27APR04	427.30	Pump and Complete Isolation for S-106

Project Start: 01OCT98
 Project Finish: 30SEP04
 Date Date: 01OCT98
 Run Date: 27AUG98

Legend:
 ■ Early Bar
 ■ Progress Bar
 ■ Critical Activity

Sheet 1 of 4

River Protection Project
9.3.4 Schedule (Execution Year)
TW03 Tank Farm Operations

Activity ID	Early Start	Early Finish	BCWS	FY00												FY01	
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		OCT
230.GE5	01OCT99	22JAN04	427.50	Pump and Complete Isolation for SX-104													
230.GF5	01OCT99	23JAN02	406.40	Pump and Complete Isolation for SX-106													
230.GG5	01OCT99	23JAN02	42.00	Pump and complete Isolation on T-104													
230.GH5	01OCT99	23JAN02	206.00	Pump and Complete Isolation on T-110													
230.GJ1	01OCT99	30SEP02	178.70	Prepare C-103 for Isolation													
230.HA1	01OCT99	30SEP05	20,236.90	Complete Misc Isolation Activities													
1.01.03.01.03				Transition Tank Farm Facilities													
1.01.03.01.03.01				Deactivate Facilities													
670.A00	01OCT99	30SEP09	235.50	Disposition Inactive Tank Farm Facilities													
Subtotal	01OCT99	30SEP34	133,973.10														



Project Start: 01OCT99 Project Finish: 30SEP04 Data Date: 01OCT99 Run Date: 27AUG99	Legend: [Bar with diagonal lines] Early Bar [Bar with horizontal lines] Progress Bar [Bar with vertical lines] Critical Activity	PMIS	Sheet 4 of 4
River Protection Project 9.3.4 Schedule (Execution Year) TW03 Tank Farm Operations			

9.3.5 Milestone Log (Execution Year)

9.3.5 Tank Farm Operations Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
T03-00-056	M-43-13 Start Construction for Upgrades in the 2nd Tank Farm	HQ-I	M-43-13	1-Oct-99	01-Oct-99
T03-00-104	M-46-01F Concurrence of Additional Tank Acquisition	HQ-I	M-46-01F	30-Nov-99	30-Nov-99
T03-00-711	Start Interim Stabilization of 4 Single-Shell Tanks - 241-U-103, 241-U-105, 241-U-102, 241-U-109 (Consent Decree Items 8,9,10, and 11)	HQ-C	D-001-04	15-Jun-00	15-Jun-00
T03-01-057	M-43-14 Start Construction for Upgrades in the 3rd Tank Farm	HQ-I	M-43-14	3-Jul-00	31-Mar-01
T03-00-105	M-46-00G Double-Shell Tank Space Evaluation	HQ-I	M-46-00G	29-Sep-00	30-Sep-00
T03-00-743	Reduce Total Organic Complexed Pumpable Liquids to 38% of Total Volume from Single-Shell Tanks	HQ-C	D-001-05V	30-Sep-00	30-Sep-00

9.4 RETRIEVAL (TW04)

9.4.1 Mission Statement

The mission of the Retrieval Project is, "in an environmentally sound, safe, secure, and cost-effective manner, to:

1. Retrieve wastes from single-shell tanks, double-shell tanks, and designated miscellaneous underground storage tanks;
2. Provide waste to privatization contractors for processing; and
3. Close those tanks in accordance with regulatory requirements."

The Retrieval Project will establish the functions and requirements and install the equipment needed to deliver the proper waste feed on schedule to the private immobilization contractor for Privatization Phase 1, and transition the waste retrieval and treatment to private contractors for Privatization Phase 2.

The TWRS Environmental Impact Statement Record of Decision calls for retrieving waste from all 149 single-shell tanks, 28 double-shell tanks, and miscellaneous underground storage tanks. Until all waste is retrieved, the double-shell tanks must be used to store and prepare waste retrieved from single-shell and miscellaneous underground storage tanks for waste treatment facilities.

9.4.2 Life-Cycle Costs by Fiscal Year

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY07	FY08	FY09	FY00	FY01	FY02	FY03	FY04	FY05
<u>TW04 Waste Retrieval</u>									
Expense Line Item	24,661	51,280	51,530	27,288	28,715	35,955	31,064	44,235	77,662
Expense Line Item	235	359	1,400	-	-	-	-	2,425	10,298
Expense Line Item	440	-	-	-	-	-	-	-	-
Expense Line Item	675	359	1,400	-	-	-	-	-	-
TOTAL W-151									
Expense Line Item	983	1,207	800	843	1,011	1,036	801	798	787
Expense Line Item	7,600	14,839	4,100	4,061	26,029	28,681	28,604	20,888	11,705
Expense Line Item	8,583	16,046	4,900	4,904	27,040	29,689	27,408	21,684	12,492
TOTAL W-211									
Expense Line Item	-	-	-	21,741	21,614	30,731	28,983	35,128	35,720
Expense Line Item	-	-	-	-	13,925	48,902	85,115	53,504	37,648
Expense Line Item	-	-	-	21,741	35,539	79,633	112,098	88,632	73,367
Expense Line Item	-	-	-	-	-	326	8,153	10,041	6,108
Expense Line Item	-	-	-	-	341	28,704	57,912	54,565	14,890
Expense Line Item	-	-	-	-	341	29,030	66,065	64,606	20,987
TOTAL W-211									
TOTAL W-YYY									
1.1.4 WASTE RETRIEVAL (WITHOUT PRIVATIZATION)									
Expense Line Item	25,879	52,846	53,730	49,872	51,339	67,451	67,001	90,201	120,277
Expense Line Item	8,040	14,839	4,100	4,061	40,295	106,267	189,632	131,390	74,540
TOTAL WASTE RETRIEVAL	33,919	67,685	57,830	53,933	91,634	173,718	236,632	221,592	194,816
TW04 Waste Retrieval (PRIVATIZATION)									
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL PRIVATIZATION									
1.1.4 WASTE RETRIEVAL									
Expense Line Item	25,879	52,846	53,730	49,872	51,339	67,451	67,001	90,201	120,277
Expense Line Item	8,040	14,839	4,100	4,061	40,295	106,267	189,632	131,390	74,540
TOTAL WASTE RETRIEVAL	33,919	67,685	57,830	53,933	91,634	173,718	236,632	221,592	194,816

(1) All dollars displayed contain applicable escalation

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY06	FY07	FY08	FY08	FY10	FY11	FY12	FY13	FY14
TW04 Waste Retrieval									
Expense Line Item	69,578	82,416	93,623	68,885	59,087	36,293	33,285	16,349	18,947
	21,568	49,108	58,064	54,931	46,663	51,291	58,327	103,371	39,688
Expense Line Item	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-151									
Expense Line Item	775	763	759	743	728	347	-	-	-
	14,815	17,438	10,887	10,072	3,332	456	-	-	-
TOTAL W-211									
Expense Line Item	15,590	18,202	11,846	10,815	4,059	803	-	-	-
Expense Line Item	34,450	19,595	22,889	22,883	23,042	25,160	19,331	21,278	23,022
	22,706	56,217	33,067	55,599	34,580	21,192	55,476	48,407	37,093
TOTAL W-321									
Expense Line Item	57,156	75,812	55,936	78,493	57,622	46,352	74,807	69,684	60,115
Expense Line Item	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-YYY									
1.1.4 WASTE RETRIEVAL (WITHOUT PRIVATIZATION)									
Expense Line Item	104,802	102,775	117,251	92,531	82,856	61,799	52,616	37,626	41,969
	59,080	122,764	102,018	120,603	84,575	72,939	113,802	151,778	76,790
TOTAL WASTE RETRIEVAL									
	163,882	225,539	219,270	213,134	167,431	134,739	166,418	189,404	118,760
TW04 Waste Retrieval (PRIVATIZATION)									
Expense Line Item	-	3,551	7,140	6,050	7,412	2,419	-	-	-
	-	2,717	17,323	35,991	349,988	571,533	815,943	926,982	966,719
TOTAL PRIVATIZATION									
	-	6,268	24,463	42,041	357,400	573,953	815,943	926,982	966,719
1.1.4 WASTE RETRIEVAL									
Expense Line Item	104,802	106,326	124,391	98,581	90,268	64,219	52,616	37,626	41,969
	59,080	125,481	119,342	156,593	434,563	644,472	929,746	1,078,760	1,073,510
TOTAL WASTE RETRIEVAL									
	163,882	231,806	243,733	255,174	524,831	708,691	982,361	1,116,396	1,115,479

(1) All dollars displayed contain applicable escalation

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
TW04 Waste Retrieval									
Expense Line Item	21,545	18,934	20,778	20,728	13,159	13,656	24,319	24,989	33,410
	19,823	10,828	834	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-151									
Expense Line Item	23,273	20,814	19,977	20,284	355	149	-	-	-
Expense Line Item	13,060	5,104	-	-	-	-	-	-	-
Expense Line Item	36,333	25,918	19,977	20,284	355	149	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-211									
Expense Line Item	44,819	39,748	40,755	41,012	13,514	13,805	24,319	24,989	33,410
Expense Line Item	32,883	15,830	834	-	-	-	-	-	-
Expense Line Item	77,702	55,578	41,589	41,012	13,514	13,805	24,319	24,989	33,410
TOTAL W-YYY									
1.1.4 WASTE RETRIEVAL (Without PRIVATIZATION)									
Expense Line Item	959,183	897,408	612,068	382,342	4,097	806	-	-	-
Expense Line Item	959,183	897,408	612,068	382,342	4,097	806	-	-	-
TOTAL PRIVATIZATION									
Expense Line Item	44,819	39,748	40,755	41,012	13,514	13,805	24,319	24,989	33,410
Expense Line Item	992,068	913,338	812,922	382,342	4,097	806	-	-	-
Expense Line Item	1,036,884	953,087	653,657	423,354	17,611	14,611	24,319	24,989	33,410

(1) All dollars displayed contain applicable escalation

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
TW04 Waste Retrieval									
Expense Line Item	33,641	17,553	17,957	23,075	36,741	40,547	41,563	42,708	50,886
	-	-	-	-	-	-	-	-	-
TOTAL W-151	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-211	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-521	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL W-YYY	-	-	-	-	-	-	-	-	-
1.1.4 WASTE RETRIEVAL (Without PRIVATIZATION)									
Expense Line Item	33,641	17,553	17,957	23,075	36,741	40,547	41,563	42,708	50,886
	-	-	-	-	-	-	-	-	-
TOTAL WASTE RETRIEVAL	<u>33,641</u>	<u>17,553</u>	<u>17,957</u>	<u>23,075</u>	<u>36,741</u>	<u>40,547</u>	<u>41,563</u>	<u>42,708</u>	<u>50,886</u>
TW04 Waste Retrieval (PRIVATIZATION)									
Expense Line Item	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL PRIVATIZATION	-	-	-	-	-	-	-	-	-
1.1.4 WASTE RETRIEVAL									
Expense Line Item	33,641	17,553	17,957	23,075	36,741	40,547	41,563	42,708	50,886
	-	-	-	-	-	-	-	-	-
TOTAL WASTE RETRIEVAL	<u>33,641</u>	<u>17,553</u>	<u>17,957</u>	<u>23,075</u>	<u>36,741</u>	<u>40,547</u>	<u>41,563</u>	<u>42,708</u>	<u>50,886</u>

(1) All dollars displayed contain applicable escalation

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40	FY41
TW04_Waste Retrieval									
Expense Line Item	46,427	46,684	14,227	1,270	1,292	1,319	1,347	1,371	1,404
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-151									
TOTAL W-211									
TOTAL W-521									
TOTAL W-YYY									
1.1.4 WASTE RETRIEVAL (WITHOUT PRIVATIZATION)									
Expense Line Item	46,427	46,684	14,227	1,270	1,292	1,319	1,347	1,371	1,404
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL WASTE RETRIEVAL	46,427	46,684	14,227	1,270	1,292	1,319	1,347	1,371	1,404
TW04_Waste Retrieval (PRIVATIZATION)									
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL PRIVATIZATION									
1.1.4 WASTE RETRIEVAL									
Expense Line Item	46,427	46,684	14,227	1,270	1,292	1,319	1,347	1,371	1,404
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL WASTE RETRIEVAL	46,427	46,684	14,227	1,270	1,292	1,319	1,347	1,371	1,404

(1) All dollars displayed contain applicable escalation

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY61	FY62	FY63	FY64	FY65	FY66	FY67	FY68	FY69
TW04 Waste Retrieval									
Expense Line Item	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,999	2,041
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-151									
TOTAL W-211									
TOTAL W-521									
TOTAL W-YYY									
1.1.4 WASTE RETRIEVAL (Without PRIVATIZATION)									
Expense Line Item	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,999	2,041
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL WASTE RETRIEVAL	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,999	2,041
TW04 Waste Retrieval (PRIVATIZATION)									
Expense Line Item	-	-	-	-	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL PRIVATIZATION									
1.1.4 WASTE RETRIEVAL	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,999	2,041
TOTAL WASTE RETRIEVAL	1,723	1,768	1,805	1,843	1,882	1,921	1,952	1,999	2,041

(1) All dollars displayed contain applicable escalation

9.4.2 Waste Retrieval (TW04) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY80	FY81	FY82	FY83	FY84	FY85	FY86	Life-Cycle Total
TW04_Waste Retrieval								
Expense Line Item	2,095	2,128	2,166	2,211	2,276	2,313	-	1,505,972
	-	-	-	-	-	-	-	527,217
Expense Line Item	-	-	-	-	-	-	-	1,994
	-	-	-	-	-	-	-	440
	-	-	-	-	-	-	-	2,434
Expense Line Item	-	-	-	-	-	-	-	12,382
	-	-	-	-	-	-	-	201,486
	-	-	-	-	-	-	-	213,869
Expense Line Item	-	-	-	-	-	-	-	468,407
	-	-	-	-	-	-	-	621,595
	-	-	-	-	-	-	-	1,090,003
Expense Line Item	-	-	-	-	-	-	-	24,628
	-	-	-	-	-	-	-	156,412
	-	-	-	-	-	-	-	181,039
TOTAL W-151								
TOTAL W-211								
TOTAL W-521								
TOTAL W-YYY								
1.1.4. WASTE RETRIEVAL (WITHOUT PRIVATIZATION)								
Expense Line Item	2,095	2,128	2,166	2,211	2,276	2,313	-	2,013,383
	-	-	-	-	-	-	-	1,507,150
	-	-	-	-	-	-	-	3,520,534
TOTAL WASTE RETRIEVAL								
TW04_Waste Retrieval (PRIVATIZATION)								
Expense Line Item	-	-	-	-	-	-	-	26,572
	-	-	-	-	-	-	-	6,573,101
	-	-	-	-	-	-	-	6,599,673
TOTAL PRIVATIZATION								
1.1.4. WASTE RETRIEVAL								
Expense Line Item	2,095	2,128	2,166	2,211	2,276	2,313	-	2,039,955
	-	-	-	-	-	-	-	8,080,251
	-	-	-	-	-	-	-	10,120,206
TOTAL WASTE RETRIEVAL								

(1) All dollars displayed contain applicable escalation

9.4.3 Budget Profile by Month (Execution Year)

9.4.3 Waste Retrieval (TW04) Budget Profile By Month (Execution Year)
 (\$000's)

Level 6 Title	Fund Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.4.1.1.1 TWR Proj. Mgmt & Adm	Expense	818	804	844	804	1,097	1,262	686	640	747	655	684	563	9,604
1.1.4.1.1.2 Feed/Process Devlp/Defin	Expense	353	367	386	341	337	502	444	426	308	225	262	232	4,183
1.1.4.1.1.3 DST Retr'l Sys Defin	Expense	529	595	619	649	702	665	797	802	751	613	706	559	7,987
1.1.4.1.1.4 AZ-101 Proc Test (W-151)	Expense	520	473	428	348	386	451	326	410	573	567	204	177	4,863
1.1.4.1.1.5 Project W-211 (ITRS)	Expense	70	67	70	67	67	77	67	74	74	64	77	69	843
	Line Item	366	350	367	367	398	455	396	333	288	227	275	239	4,061
		436	417	437	434	465	532	463	407	362	291	352	308	4,904
1.1.4.1.1.6 Project W-521 (Sludge Wa	Expense	408	330	377	428	495	487	324	279	246	212	257	223	4,066
1.1.4.1.1.10 Ph 1 DST Retrieval Ops	Expense	744	399	415	260	34	33	29	38	104	74	90	77	2,297
1.1.4.1.1.14 Retrieval Systems Devop?	Expense	726	734	700	508	591	795	730	625	429	278	341	258	6,715
1.1.4.1.2.1 SST Ret'l Mgmt & Admin	Expense	20	20	21	20	20	23	20	22	22	19	23	20	250
1.1.4.1.2.2 SST Ret'l Sys Defin	Expense	60	78	91	66	66	76	66	71	25	21	26	20	666
1.1.4.1.2.5 Hanford Tank Initiative	Expense	6	6	6	6	5	6	6	6	6	5	6	6	70
1.1.4.1.2.6 SST Tech'gy & Assm'ts	Expense	0	0	41	63	85	98	50	19	9	8	3	0	376
1.1.4.1.3.1 Closure/Vadose Zone Proj	Expense	70	67	70	67	67	77	67	73	73	63	77	67	838
1.1.4.1.3.3 Vadose Zone Activities	Expense	513	529	511	401	473	483	568	609	625	799	1,069	534	7,114
Totals	Expense	4,837	4,469	4,579	4,028	4,425	5,035	4,180	4,094	3,992	3,603	3,825	2,805	49,872
	Line Item	366	350	367	367	398	455	396	333	288	227	275	239	4,061
		5,203	4,819	4,946	4,395	4,823	5,490	4,576	4,427	4,280	3,830	4,100	3,044	53,933

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS	FY00											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				Hanford Site											
1.01				River Protection Project											
1.01.04				Retrieval											
1.01.04.01				Tank Farm System											
1.01.04.01.01				Deliver Waste Feed											
620.070	01OCT99	28SEP18	227.10	Develop and Maintain WFD Environmental Baseline											
620.090	01OCT99	28SEP18	174.00	Align WFD Activities with the Environmental Bsln											
1.01.04.01.01.0				1.01.04.01.01.0											
710.702	01OCT99	28SEP18	567.30	Manage RPP Waste Retrieval Division											
1.01.04.01.01.01				TWR Project Mgmt & Admin											
150.704	01OCT99	28SEP18	1,242.40	Manage Waste Feed Delivery Activities											
150.715	01OCT99	28SEP18	616.30	Waste Feed Delivery Engineering Management											
710.722	01OCT99	28SEP18	521.90	Waste Retrieval Division Business Management											
710.724	01OCT99	28SEP18	1,351.70	Waste Feed Delivery Program Analysis and Control											
710.740	01OCT99	28SEP18	3,554.20	TWR Program Integration											
710.740A		02JUN00	0.00	Issue Readiness-to-Proceed Declar Priv Ph1 T04-00-104ROX											

Project Start: 01OCT99
 Project Finish: 30SEP98
 Data Date: 01OCT99
 Run Date: 22AUG99

Legend:
 [Solid Bar] Early Bar
 [Hatched Bar] Progress Bar
 [Dashed Bar] Critical Activity

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River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

Sheet 1 of 8

Activity ID	Early Start	Early Finish	BCWS	FY00											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
710.750	01OCT99	28SEP18	137.00	TWR Quality Assurance Program											
710.760	01OCT99	28SEP18	1,449.80	TWR Program Improvement											
710.900	01OCT99	28SEP18	119.10	River Protection Project DOE-RL Disposal Support											
1 01 04 01 01 02				Feed/Process Development/Definition											
120.J10	01OCT99	30JUN00	315.80	Estab Dilution Rqmts/Dissolution Behav AN-103											
120.K10	01OCT99	01JUN00	79.10	Estblish Dilution Rqmts/Dissolution Behav AN-107											
130.028	01OCT99	28SEP18	246.00	Perform Special Cases and Studies											
130.033	01OCT99	28SEP18	206.80	Support DOE/BNFL Proposals and Studies											
150.726	01OCT99	28SEP18	863.50	Waste Feed Delivery Process Development											
150.B08	01OCT99	28SEP18	100.00	Maintain WFD Char Matrices/Prblm DQOs/Samp Sched											
150.B22	01OCT99	28SEP18	1,433.00	Maintain RPP Operations/Utilization Plan (O&UP)											
150.B22B		31MAY00	0.00	Update TWRS O&UP Using Latest BBI for Ph1 T04-00-105ROX											

Project Start 01OCT99
 Project Finish 28SEP98
 Data Date 01OCT99
 Run Date 22AUG99

Early Bar
 Progress Bar
 Critical Activity

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**River Protection Project
 9.4.4 Schedule (Execution Year)
 TW04 Tank Waste Retrieval**

Sheet 2 of 8

Activity ID	Early Start	Early Finish	BCWS	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
150.B26	01OCT99	30SEP08	170.70	Maintain Waste Feed Delivery ICDs 19 and 20												
160.A48	01OCT99	18JUL00	318.50	Perf/Document AZ-101 Samp Anlyls/Rheology Tstng												
160.F10	01OCT99	18JUL00	318.50	Perform/Doc AZ-102 Samp Analyses/Rheology Tstng												
160.S10	07AUG00	21MAY01	44.10	Perf/Document AY-101 Samp Analyses/Rheology Tstng												
710.711	01OCT99	28SEP18	97.40	Waste Feed Delivery Technology Insertion Support												
1.01.04.01.01.03				DST Retrieval Proj Definition												
120.010	01OCT99	28SEP18	831.20	Update the DST System Specification and ICDs												
120.015	01OCT99	20OCT00	1,558.30	Develop/Issue the DST Component Specifications												
120.020	01OCT99	28SEP18	728.30	Update the DST Component Specification												
120.025	01OCT99	30SEP04	2,802.10	Update WFD O&M Concept Document/Risk Assessment												
120.A04	22MAR00	19MAR01	29.30	Perform Acquisition Strategy for AZ Tank Farm												
120.A16	23MAR00	20MAR01	29.10	Perform Acquisition Strategy for AN Tank Farm												

Project Start 01OCT99
 Project Finish 30SEP00
 Data Date 01OCT99
 Run Date 23AUG99

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Sheet 3 of 8

River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

Activity Id	Early Start	Early Finish	BCWS	FY01											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
120.B30	01OCT99	07OCT99	3.00	Provide Rtrvl Prog Dir W-211 for AP-102 & AP-104											
120.G38	01OCT99	14MAY02	774.20	Adjust WFD Acquisition Strategy for Phase 1 Tks											
120.J40	03JUL00	10JUL00	3.00	Provide Rtrvl Prog Dir to W-211 for AN-103											
130.C35	03APR00	27JUN03	808.00	Acquire Cold Pump Test, Training/Mock-Up Facil											
150.F18	01OCT99	28SEP18	370.10	Manage Retrieval Project Definition											
160.B05	03APR00	29MAR07	129.00	Prepare the W-521 Project Technical Baseline Doc											
160.F30	01OCT99	07OCT99	3.00	Provide Retr Program Dir to W-211 for AZ-102											
160.H30	01OCT99	07OCT99	3.00	Provide Retr Program Dir to W-211 for AY-102											
710.720	01OCT99	28SEP01	573.70	Waste Retrieval Proj Development/Implementation											
710.725	01OCT99	28SEP16	675.70	Provide Wst Feed Delivery Program Tech Analysis											
710.727	01OCT99	28SEP16	287.90	Waste Feed Delivery Sys Eng Implementation											
710.730	01OCT99	28SEP18	1,195.00	TWR Program Engineering and Support											

River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

Project Start: 01OCT99
 Project Finish: 28SEP02
 Data Date: 28SEP02
 Revision: 1

Early Start: 01OCT99
 Early Finish: 28SEP02
 Project Dir: []
 Critical Activity: []

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 Sheet 2 of 3

Activity ID	Early Start	Early Finish	BCWS	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.01.04.01.01.04				AZ-101 Process Test												
110.010	01OCT99	28SEP01	914.10	Project Management for AZ-101 Process Test												
110.045	01OCT99	02FEB00	621.60	Issue AZ-101 Process Test Plans/Procedures												
110.050	22MAY00	19JUN00	280.40	Perf Cont Independent RA for AZ-101 Proc Test												
110.055	01OCT99	19MAY00	470.60	Perf Mgmt Self-Assessment for AZ-101 Process Tst												
110.070	20JUN00	18JUL00	731.80	Perform AZ-101 Process Test												
110.075	19JUL00	17JUL01	19.50	Perform AZ-101 Suspension and Settling Test												
110.095	01OCT99	29SEP00	1,824.60	Install/Test the Monitoring Equipment in AZ-101												
1.01.04.01.01.05				Project W-211, ITRS												
120.A00	01OCT99	30MAR11	2,140.20	Project Management for W-211												
120.B37	01OCT99	04MAY00	424.00	Update Design for AP-102/AP-104 Mixing/Rtrvl Sys												
120.E50	01OCT99	29SEP00	1,339.60	Design AN-104 Mixing Retrieval Sys Obtain CD-3												
160.F40	01OCT99	29SEP00	1,000.10	Dsn AZ-102 Mixing Retrieval System Obtain CD-3												

Project Start: 01OCT99
 Project Finish: 30SEP04
 Data Date: 01OCT99
 Run Date: 23AUG99

Early Bar
 Progress Bar
 Critical Activity

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River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

Activity ID	Early Start	Early Finish	BcWS	
1.01.04.01.01.05				Project W-521
160.A43	01OCT99	29SEP00	4,076.80	Perform Conceptual Design for W-521 Retr Sys
160.A67	09JUN00	07JUL00	0.00	Provide Validation of W-521 Obtain CD-2
1.01.04.01.01.1				1.01.04.01.01.1
150.B16	01DEC99	24APR02	317.80	Update/Amend Authorization Basis for DST
1.01.04.01.01.10				Phase 1 DST Retrieval Operations
050.090	01OCT99	31JAN00	712.00	Sluice 241-C-106 to 241-AY-102
120.B10	23MAY00	06FEB02	88.30	Def Req./Design/Install Cntrl Rm/Shift Ofc Fac
120.B40	01OCT99	02FEB00	213.10	Prep Tks AP-102 & AP-104/Turnover to Proj Constr
130.B10	29JUN00	05AUG04	33.50	Procure WFD Spare Equip per Retrieval Spec
130.B15	23JUN00	28SEP01	106.30	Prep/Maintain Waste Feed Staging in Prod Mode
130.B16	01OCT99	28SEP18	804.90	Maintain Waste Feed Delivery System Operable
150.700	01OCT99	25NOV14	86.60	Prep Test/Eval Plan for WFD Sys Verification
150.702	01OCT99	30SEP02	253.80	Perf Waste Feed Delivery ORP/Implementation

Project Start	01OCT99	Early Bar
Project Finish	30SEP02	Progress Bar
Start Date	01OCT99	Critical Activity
Run Date	21AUG99	

River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

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Activity Id	Early Start	Early Finish	BCWS	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1 01 04.01.01.12				Phase 1 WFD Safety Basis												
150.B14	01OCT99	13JAN00	149.00	Develop/Establish TSRs												
1 01 04.01.01.14				Retrieval System Development												
120.A03	01OCT99	13DEC99	383.50	Verify AZ Tank Farm Sys/Components Functionality												
120.A15	01OCT99	22MAR00	421.30	Verify AN Tank Farm Sys/Components Functionality												
120.D34	01OCT99	28SEP18	1,835.50	Perform Waste Feed Delivery Trade Studies												
130.B17	01OCT99	24AUG00	282.30	Dev Tech Basis Remove Wst frm Flamm Gas Watch Tk												
130.B20	25AUG00	27FEB01	1.20	Obt Permissn Add Diluent Flam Gas Watchlist DST												
150.B17	01OCT99	30SEP16	130.30	Maintain AB/Criticality Safety Eval Reports												
1 01.04.01.01.18				Project W-YYY Tank Farm Upgrades												
250.400	01SEP00	14MAY07	0.00	Project W-YYY Tank Farm Upgrades												
1.01 04.01.02				Retrieve SST Waste												
1 01 04.01.02.01				SST Retrieval Mgmt & Administration												
710.716	01OCT99	28SEP18	250.10	Manage Retrieval SST Activities												
1.01 04.01.02.02				SST Retrieval System Definition												
270.210	01NOV99	28SEP01	207.30	Prepare Initial SST Program Plan												

Project Start	01OCT99	Early Bar	
Project Finish	30SEP00	Progress Bar	
Data Date	01OCT99	Critical Activity	
Run Date	23AUG99		

River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

Activity ID	Early Start	Early Finish	BCWS	FY00											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
270.215	01OCT99	10DEC99	129.90	Define Technology Evaluation Strategy											
290.007	30NOV99	27SEP13	274.00	Update SST Level 1 Specification											
290.100	01OCT99	29SEP00	54.30	Perform Acqn Strategy for SST Sluicing Systems											
01.04.01.02.05				Hanford Tanks Initiative (HTI)											
710.710	01OCT99	28SEP12	70.30	Perform Hanford Tanks Initiatives Activities											
01.04.01.02.06				SST Technology & Assessments											
270.620	13DEC99	14AUG00	235.40	Evaluate Leak Detection Solutions											
270.630	13DEC99	18MAY00	139.80	Assess Tank Conditions											
01.04.01.03				D&D Tank Farm Facility											
01.04.01.03.01				Closure Vadose Zone Project Mgmt											
710.712	01OCT99	28SEP07	838.90	Manage Vadose Zone/Closure Program											
01.04.01.03.03				Vadose Zone Activities											
650.005	01OCT99	29SEP06	2,183.10	Provide Support to Vadose Zone Activities											
650.100	01OCT99	29SEP09	197.40	Perform Interim Measures and Corrective Measures											
650.100C		31OCT99	0.00	M-45-56-T01 Submit Engineering Study to Ecology T04-00-W25ROT											

Project Start	01OCT99	Early Bar
Project Finish	30SEP05	Progress Bar
Date Date	01OCT99	Critical Activity
Start Date	23AUG99	

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River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

Activity ID	Early Start	Early Finish	BCWS	FY00												FY01		
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT		
650.B10	01OCT99	24SEP02	818.40	Characterize Waste Management Area B-BX-BY														
650.B10A		31MAY00	0.00															M-45-53 Submit to Ecology B-BX-BY Addendum T04-00-W20HEI
650.B10C		22MAY00	0.00															DOE Receive Rev 0 WP Addendum T04-00-W03ROX
650.S10	01OCT99	22AUG01	3,311.10	Characterize Waste Management Area S-SX														
650.S10A		31OCT99	0.00															M-45-52 Submit to Ecology S-SX Addendum T04-00-W19HEI
650.S10C		14SEP00	0.00															2nd Borehole, Complete Drilling T04-00-W94ROX
650.T10	01OCT99	30SEP03	602.00	Characterize Waste Management Area T-TX-TY														
Subtotal	01OCT99	28SEP18	53,932.80															

Project Start: 81OCT99
 Project Finish: 28SEP95
 Data Date: 81OCT99
 Run Date: 23AUG99

Legend:
 [Solid Bar] Early Bar
 [Hatched Bar] Progress Bar
 [Dashed Bar] Critical Activity

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PMBA
River Protection Project
9.4.4 Schedule (Execution Year)
TW04 Tank Waste Retrieval

9.4.5 Milestone Log (Execution Year)

9.4.5 Retrieval Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
T04-00-W19	Site Specific SST WMA Phase 1 RFI/CMS Work Plan Addenda for WMA S-SX	HQ-I	M-45-52	31-Oct-99	31-Oct-99
T04-00-W25	Summarize Results of Engineering Studies and Recommendations on Isolating Water Lines in or Near SST WMAs, Sealing Abandoned Wells in or Near SST WMAs, and Controlling Surface Drainage at SST WMAs and Submit to Ecology	ORP-Target	M-45-56-T01	31-Oct-99	31-Oct-99
T04-00-W03	Transmit Draft B-BX-BY Site Specific Work Plan	ORP	-	22-May-00	-
T04-00-W20	Site Specific SST WMA Phase 1 RFI/CMS Work Plan Addenda for WMA B-BX-BY	HQ-I	M-45-53	31-May-00	31-May-00
T04-00-105	RPP Operations and Utilization Plan	ORP	-	31-May-00	-
T04-00-104	Project Schedule Phase I RTP	ORP	-	02-Jun-00	-
T04-00-W94	Complete Drilling a Borehole for Waste Management Area S-SX	ORP	-	14-Sep-00	-
T04-00-102	Large Scale Mixer Pump Demonstration	ORP	-	29-Sep-00	-
T04-00-101	Issue W-211 Title Retrieval System Design AN-104	ORP	-	29-Sep-00	-
T04-00-100	Issue W-211 Title II Retrieval System Design AZ-102	ORP	-	29-Sep-00	-
T04-00-241	Submit Annual Update SST Retrieval Sequence Document	HQ-I	M-45-02E	30-Sep-00	30-Sep-00
T04-00-341	Submit Annual Progress Report on Development of Waste Tank Leak Monitoring and Mitigation Activities in Support of M-45-08	HQ-I	M-45-09E	30-Sep-00	30-Sep-00
CMS	corrective measures study	RTP	readiness-to-proceed		
RFI	RCRA facility investigation	SST	single-shell tank		
RPP	River Protection Project	WMA	waste management area		

9.5 PROCESS WASTE SUPPORT (TW05)

9.5.1 Mission Statement

The mission of Process Waste Support is to assist the Office of River Protection in the management of Privatization Phase 1 and Privatization Phase 2. This includes integrating privatized and non-privatized activities; assisting in the execution of the privatization contracts; managing interfaces with the PHMC and private contractors; assisting in managing the interfaces with stakeholders and regulators, and assisting in the management of the key risks and key decisions associated with tank waste disposal.

9.5.2 Life Cycle Costs by Fiscal Year

9.5.2 Process Waste Support (TW05) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06
<u>TW05 Process Waste Support</u>										
Expense	6,025	9,615	7,777	10,933	12,341	19,508	19,244	21,505	18,143	16,782
Expense Line Item	6,025	9,615	7,777	10,933	12,341	19,508	19,244	21,505	18,143	16,782
TOTAL PROC WASTE SUPPT	6,025	9,615	7,777	10,933	12,341	19,508	19,244	21,505	18,143	16,782

(1) All dollars displayed contain applicable escalation

9.5.2 Process Waste Support (TW05) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
<u>TW05 Process Waste Support</u>									
Expense	21,175	17,845	18,148	18,529	18,918	19,238	19,353	13,360	13,640
Expense Line Item	21,175	17,845	18,148	18,529	18,918	19,238	19,353	13,360	13,640
TOTAL PROC WASTE SUPPT	21,175	17,845	18,148	18,529	18,918	19,238	19,353	13,360	13,640

(1) All dollars displayed contain applicable escalation

9.5.2 Process Waste Support (TW05) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
1105 Process Waste Support									
Expense	13,981	14,162	14,444	14,584	14,949	15,210	15,530	15,793	16,189
1.1.5 PROC WASTE SUPPT	13,981	14,162	14,444	14,584	14,949	15,210	15,530	15,793	16,189
TOTAL PROC WASTE SUPPT	13,981	14,162	14,444	14,584	14,949	15,210	15,530	15,793	16,189

(1) All dollars displayed contain applicable escalation

9.5.2 Process Waste Support (TW05) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	Expense Line Item	FY				Life-Cycle Total
		FY23	FY26	FY27	FY28	
IWB5 Process Waste Support	Expense	16,529	16,876	17,230	15,629	503,186
	1.1.5 PROC WASTE SUPPT	16,529	16,876	17,230	15,629	503,186
TOTAL PROC WASTE SUPPT		16,529	16,876	17,230	15,629	503,186

(1) All dollars displayed contain applicable escalation

9.5.3 Budget Profile by Month (Execution Year)

9.5.3 Process Waste Support (TW05) Budget Profile By Month (Execution Year) (1)
(\$000's)

Level 6 Title	Fund Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.5.1.1.1 M&I Vendor Interface	Expense	480	289	289	314	298	344	289	328	328	289	343	284	3,916
1.1.5.1.1.2 PH Project Mgmt	Expense	588	558	558	588	558	641	588	613	613	558	641	547	7,017
Totals	Expense	1,066	857	857	900	857	985	857	941	941	857	984	831	10,933

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01	
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
1				Hanford Site													
1.01				River Protection Project													
1.01.05				Process Waste Support Project													
1.01.05.01				Process Waste Support Project													
1.01.05.01.01				Process Waste Support Project													
1.01.05.01.01.01				M&I Vendor Interface													
100.100	01OCT99	28SEP18	3,902.90	M&I Vendor Interface													
1.01.05.01.01.02				Phase I Project Management													
750.A00	01OCT99	29SEP00	7,000.00	WIT Phase I Project Management													
Subtotal	01OCT99	28SEP18	10,902.90														

Project Start: 01OCT99
 Project Finish: 29SEP28
 Data Date: 01OCT99
 Run Date: 21AUG98

Legend:
 [Bar with start] Early Bar
 [Bar with end] Progress Bar
 [Bar with both] Critical Activity

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PWBS
 Sheet 1 of 1
River Protection Project
9.5.4 Schedule (Execution Year)
TW05 Process Waste

9.5.5 Milestone Log (Execution Year)

9.5.5 Process Waste Support Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
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There are no FY 2000 milestones in this PBS.

9.6 PRIVATIZATION PHASE 1 (TW06)

9.6.1 Mission Statement

Phase 1 objectives are to demonstrate the technical and business viability of using privatized facilities to treat Hanford Site tank waste; define and maintain required levels of radiological, nuclear, process, and occupational safety; maintain environmental protection and compliance; and substantially reduce life-cycle costs and time required to treat Hanford Site tank waste. This project demonstrates progress in limiting potential contamination of the Columbia River by removing high-level waste from underground storage tanks, which can leak into the groundwater.

9.6.2 Life-Cycle Costs by Fiscal Year

9.6.2 Privatization Phase 1 (TW06) Life-Cycle Costs (by Fiscal Year)
(\$000's) (1)

Fund Type	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
<u>TW06 Privatization Phase 1</u>									
Expense	-	-	-	50,000	-	-	-	-	-
Expense Line Item	-	-	-	50,000	-	-	-	-	-
TOTAL PRIVATZN PHASE 1	-	-	-	50,000	-	-	-	-	-

(1) All dollars displayed contain applicable escalation

9.6.2 Privatization Phase 1 (TW06) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
TW06 Privatization Phase 1									
Expense	58,000	188,001	401,000	908,000	1,073,001	1,102,001	1,097,000	1,111,001	1,365,001
Expense Line Item	58,000	188,001	401,000	908,000	1,073,001	1,102,001	1,097,000	1,111,001	1,365,001
TOTAL PRIVATZN PHASE 1	58,000	188,001	401,000	908,000	1,073,001	1,102,001	1,097,000	1,111,001	1,365,001

(1) All dollars displayed contain applicable escalation

9.6.2 Privatization Phase 1 (TW06) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Life-Cycle Total
TW06 Privatization Phase 1										
Expense	1,437,723	1,230,001	463,000	2,484	12,436	51,348	71,852	29,288	-	10,651,137
Expense Line Item	1,437,723	1,230,001	463,000	2,484	12,436	51,348	71,852	29,288	-	10,651,137
TOTAL PRIVTZN PHASE 1	1,437,723	1,230,001	463,000	2,484	12,436	51,348	71,852	29,288	-	10,651,137

(1) All dollars displayed contain applicable escalation

9.6.3 Budget Profile by Month (Execution Year)

9.6.3 Privatization Phase I (TW06) Budget Profile By Month (Execution Year) (1)
(\$000's)

Level & Title	Fund	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.6.1.1. PC Capital Pj. LAW/HLWP Expense	0	0	0	0	0	0	0	0	0	50,000	0	50,000
Totals	0	0	0	0	0	0	0	0	0	50,000	0	50,000

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01	
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
1				Hanford Site													
1.01				River Protection Project													
1 01 00				TWRS Privatization Phase I													
1 01 00 01				LAW/HLW Plant, Phase I													
1 01 00 01 01				Treat & Immobilize LAW/HLW, Phase I													
1 01 00 01 01 01				1 01 00 01 01 01													
350.010	24AUG98A	28FEB19	0.00	Maintain Phase I HLW/LAW ICDs													
350.020	24AUG98A	28FEB19	0.00	Environmental & Regulatory Compliance													
350.030	24AUG98A	28FEB19	0.00	BNFL Project Management													
350.040	01AUG00*	29SEP17	0.00	Capital Budget Outlay - FY2000 - FY2017													
350.110	24AUG98A	24AUG00	50,000.00	Phase I Definitive Design													
350.110B		24AUG00	0.00	Const Auth Pgm Review/Decision (Perf Expect)													
				T06-00-101ROX													
350.210	24AUG98A	31DEC01	0.00	Complete Design Phase - LAW Facility													
Subtotal	24AUG98A	28FEB19	50,000.00														

Project Start: 01OCT97
 Project Finish: 29SEP03
 Data Date: 01OCT99
 Run Date: 21AUG99

River Protection Project
9.6.4 Schedule (Execution Year)
TW06 Phase I Privatization

Sheet 1 of 1

9.6.5 Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
T06-00-101	Construction Authorization Program Review/Decision	ORP	-	24-Aug-00	-

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9.7 PRIVATIZATION PHASE 2 (TW07)

9.7.1 Mission Statement

Phase 2 will be the full-scale production phase, in which the facilities will be configured so all the waste can be processed. The objectives of Phase 2 are to implement the lessons from Phase 1; to process all tank waste and the cesium and strontium capsules into forms suitable for final disposal; achieve competition and cost savings; and meet the Tri-Party Agreement milestones.

9.7.2 Life-Cycle Costs by Fiscal Year

9.7.2 Privatization Phase 2 (TW07) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06
TW07_Privatization_Phase2										
Expense										
Expense Line Item										
TOTAL PRIVTZN PHASE 2										

(1) All dollars displayed contain applicable escalation

9.7.2 Privatization Phase 2 (TW07) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
TW07 Privatization Phase 2									
Expense	-	-	-	-	1,362,000	1,383,000	2,248,000	2,282,000	2,317,000
Expense Line Item	-	-	-	-	1,362,000	1,383,000	2,248,000	2,282,000	2,317,000
TOTAL PRIVTZIN PHASE 2	-	-	-	-	1,362,000	1,383,000	2,248,000	2,282,000	2,317,000

(1) All dollars displayed contain applicable escalation

9.7.2 Privatization Phase 2 (TW07) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
TW07 Privatization Phase 2									
Expense	1,291,000	1,311,000	602,000	611,000	620,000	629,000	639,000	648,000	658,000
Expense Line Item	1,291,000	1,311,000	602,000	611,000	620,000	629,000	639,000	648,000	658,000
TOTAL PRIVATZN PHASE 2	1,291,000	1,311,000	602,000	611,000	620,000	629,000	639,000	648,000	658,000

(1) All dollars displayed contain applicable escalation

9.7.2 Privatization Phase 2 (TW07) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	Fiscal Year					Life-Cycle Total
	FY25	FY26	FY27	FY28	FY29	
Expense	668,000	205,000	208,000	211,000	-	17,893,000
Expense Line Item	668,000	205,000	208,000	211,000	-	17,893,000
TOTAL PRIVATZN PHASE 2	668,000	205,000	208,000	211,000	-	17,893,000

(1) All dollars displayed contain applicable escalation

9.7.3 Budget Profile by Month (Execution Year)

There are no FY 2000 activities.

9.7.4 Schedule (Execution Year)

There are no FY 2000 activities.

9.7.5 Milestone Log (Execution Year)

There are no FY 2000 activities.

9.8 PRIVATIZATION INFRASTRUCTURE (TW08)

9.8.1 Mission Statement

Part of the RPP mission is to separate the Hanford Site's tank waste into low-activity waste (LAW) and high-level waste (HLW) fractions and to immobilize and dispose of them in an environmentally sound, safe, and cost-effective manner. This will be done using a two-phased strategy involving private contractors. Phase 1 will encompass treating, immobilizing, and storing or disposing of approximately 10 percent (by volume) of the tank waste. Phase 2 will encompass pretreating, immobilizing, and disposing of the remaining 90 percent using full-scale production facilities.

The contract that DOE and the Privatization Contractor signed in August 1998 establishes the general scope and timing requirements for the Privatization Infrastructure Program. These requirements are defined in more detail in the TWRS Privatization Project Interface Control Document (BNFL 1998), and will be modified based on DOE's decision on whether to proceed with privatization. This decision will be made in August 2000.

9.8.2 Life-Cycle Costs by Fiscal Year

9.8.2 Privatization Infrastructure (TW08) Life-Cycle Costs (by Fiscal Year)

(\$'000's) (1)

Fund Type	FY07	FY08	FY09	FY00	FY01	FY02	FY03	FY04	FY05	FY06
TW08 Privatization Infrastructure										
Expense Line Item	5,893	5,973	1,553	1,648	7,271	11,515	12,697	13,102	41,459	18,314
	-	-	-	-	-	-	-	-	-	3,594
Expense Line Item	-	-	1,368	1,324	541	450	30	16	-	-
	-	-	3,098	15,638	10,850	1,130	-	-	-	-
	-	-	4,456	16,862	11,391	1,581	30	16	-	-
TOTAL PROJ W-519										
	5,893	5,973	2,921	2,973	7,812	11,965	12,627	13,118	41,459	18,314
	-	-	3,098	15,638	10,850	1,130	-	-	-	3,594
1.1.8 PRIVZIN INFRASTRUCTURE										
Expense Line Item	5,893	5,973	6,009	18,611	18,862	13,085	12,627	13,118	41,459	21,908

(1) All dollars displayed contain applicable escalation

9.8.2 Privatization Infrastructure (TW08) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
TW08 - Privatization Infrastructure									
Expense Line Item	18,774	34,088	34,802	35,533	35,482	110,630	112,219	115,035	117,450
	14,610	981	38,801	37,721	-	-	-	-	-
Expense Line Item	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
TOTAL PROJ W-519									
1.1.9 PRIVZM INFRASTRUCTURE									
Expense Line Item	18,774	34,088	34,802	35,533	35,482	110,630	112,219	115,035	117,450
	14,610	981	38,801	37,721	-	-	-	-	-
	33,384	35,067	71,603	73,253	35,482	110,630	112,219	115,035	117,450
TOTAL PRIVZM #INFRAST									

(1) All dollars displayed contain applicable escalation

9.8.2 Privatization Infrastructure (TW08) Life-Cycle Costs (by Fiscal Year)
 (\$'000's) (1)

Fund Type	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
TW08 Privatization Infrastructure									
Expense Line Item	120,394	121,947	125,006	119,660	108,581	110,422	112,741	114,649	117,528
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL PROJ W-519									
1.1.8 PRIVZIN INFRASTRUCTURE									
Expense Line Item	120,394	121,947	125,006	119,660	108,581	110,422	112,741	114,649	117,528
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL PRIVZIN INFRAST									

(1) All dollars displayed contain applicable escalation

9.8.2 Privatization Infrastructure (TW08) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33
TW08 Privatization Infrastructure									
Expense Line Item	119,994	122,514	125,085	127,713	29,744	-	2,708	2,773	-
Expense Line Item	-	-	-	-	-	-	-	-	-
TOTAL PROJ W-519									
1.1.6 PRIVZN INFRASTRUCTURE	119,994	122,514	125,085	127,713	29,744	-	2,706	2,773	-
TOTAL PRIVZN INFRAST	119,994	122,514	125,085	127,713	29,744	-	2,708	2,773	-

(1) All dollars displayed contain applicable escalation

9.8.2 Privatization Infrastructure (TW08) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	Life-Cycle Total
TW08 Privatization Infrastructure	
Expense Line Item	2,314,791
	83,707
Expense Line Item	3,730
	<u>30,706</u>
TOTAL PROJ W-518	34,436
1.1.8 PRIVZN INFRASTRUCTURE	
Expense Line Item	2,318,521
	124,413
TOTAL PRIVZN INFRAST	2,442,934

(1) All dollars displayed contain applicable escalation

9.8.3 Privatization Infrastructure (TW08) Budget Profile By Month (Execution Year) (1)
 (\$000's)

Level 6 Title	Fund Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.8.1.1.1 Ph 1 Infrastructure(W-519)	Expense	219	275	298	308	272	240	210	230	231	212	255	223	2,973
	Line Item	<u>461</u>	<u>759</u>	<u>651</u>	<u>681</u>	<u>675</u>	<u>1,343</u>	<u>1,373</u>	<u>1,522</u>	<u>1,405</u>	<u>1,147</u>	<u>1,271</u>	<u>4,350</u>	<u>15,638</u>
		680	1,034	949	989	947	1,583	1,583	1,752	1,638	1,359	1,528	4,573	18,611
Totals	Expense	219	275	298	308	272	240	210	230	231	212	255	223	2,973
	Line Item	<u>461</u>	<u>759</u>	<u>651</u>	<u>681</u>	<u>675</u>	<u>1,343</u>	<u>1,373</u>	<u>1,522</u>	<u>1,405</u>	<u>1,147</u>	<u>1,271</u>	<u>4,350</u>	<u>15,638</u>
		680	1,034	949	989	947	1,583	1,583	1,752	1,638	1,359	1,528	4,573	18,611

9.8.3 Budget Profile by Month (Execution Year)

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01	
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		OCT
1				Hanford Site													
1.01				River Protection Project													
				Privatization Infrastructure TW08													
				Privatization Infrastructure													
				Privatization Infrastructure													
				Phase I Privatization Infrastructure													
330.A00	01OCT99	30SEP19	5,672.00	Phase 1 Privatization Infrastructure													
330.BA1	01OCT99	24MAY02	10,454.00	W-519 Infr. Proj Electrical Systems													
330.BB1	08NOV99	03MAR00	566.00	W-519 Site & Roads													CXX
330.BB2		31MAR00	0.00	 Construction Water & Access Roads Ready for BNFL T08-00-100ROX													
330.BC1	01OCT99	03NOV00	1,918.00	W-519 Construct 7MW Power System													
Subtotal	01OCT99	30SEP19	18,610.00														

Project Start 01OCT99
 Project Finish 30SEP19
 Data Date 01OCT99
 Run Date 21AUG99

River Protection Project
9.8.4 Schedule (Execution Year)
TW08 Privatization Infrastructure

Sheet 1 of 1

9.8.5 Milestone Log (Execution Year)

9.8.5 Privatization Infrastructure Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
T08-00-100	Construction Water and Roads Ready for BNFL	ORP		31-Mar-00	

BNFL

British Nuclear Fuel Limited, Inc.

RPP-5044

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9.9 IMMOBILIZED TANK WASTE STORAGE AND DISPOSAL (TW09)

9.9.1 Mission Statement

The Immobilized Tank Waste Storage and Disposal project will provide safe storage and final near-surface disposal on the Hanford Site for immobilized low-activity tank waste (ILAW), and interim storage for immobilized high level waste (IHLW).

The ILAW project will be complete when the ILAW is disposed of on the Hanford Site, long-term surveillance and monitoring of the ILAW disposal site is ongoing, interim storage facilities have been decontaminated and decommissioned, and closure barriers have been placed over disposal sites. The ILAW storage and disposal facilities will accept the ILAW from the RPP Privatization Contractor. The ILAW waste packages will be placed in near-surface disposal facilities. The near-surface disposal systems and the waste package must meet DOE regulatory requirements for near-surface disposal of low-level waste.

The IHLW Interim Storage Facility will receive IHLW and transport it to a Canister Storage Building (CSB), where the product will be stored until it is shipped to a geologic repository. Storage of the Phase 1 product in the CSB will consolidate the high-level waste in one area and provide a safe environmentally sound storage of the IHLW product. HLW Interim Storage will provide additional storage capacity during Phase 1B and 2. In addition, HLW interim storage will provide loadout capability for shipment of IHLW canisters to a geologic repository.

IHLW and ILAW waste receipts are currently planned to commence in 2007 and 2008, respectively.

9.9.2 Life-Cycle Costs by Fiscal Year

9.9.2 Immobilized Waste Storage and Disposal (TW09) Life-Cycle Costs (by Fiscal Year)
(\$000's) (1)

Fund Type	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06
TW09 Immobilized Waste Storage & Disposal										
Expense	4,968	11,303	5,331	7,608	7,649	7,512	9,743	17,920	15,680	7,342
Line Item	-	-	-	-	-	-	-	-	-	19,499
Expense	-	-	-	-	715	2,177	1,518	1,516	2,201	1,018
Line Item	-	-	-	-	-	-	4,254	13,179	16,712	3,998
TOTAL W-465	-	-	-	-	715	2,177	5,773	14,695	18,913	5,016
Expense	-	-	-	1,528	1,530	1,817	2,265	2,848	2,739	1,025
Line Item	-	-	-	-	4,500	16,428	35,950	22,672	1,750	-
TOTAL W-464	-	-	-	1,528	6,031	18,245	38,215	25,518	4,490	1,025
Expense	-	-	-	-	-	89	14	2,473	4,411	1,937
Line Item	-	-	-	-	-	-	-	-	239	5,573
TOTAL W-520	-	-	-	-	-	89	14	2,473	4,651	7,510
1.1.9 IMMOB W STG & DISPOSAL										
Expense	4,968	11,303	5,331	9,136	9,894	11,594	13,540	24,756	25,032	11,322
Line Item	-	-	-	-	4,500	16,428	40,204	35,851	18,702	29,070
TOTAL IMMOB W STG	4,968	11,303	5,331	9,136	14,394	28,022	53,745	60,607	43,733	40,392

(1) All dollars displayed contain applicable escalation

9.9.2 Immobilized Waste Storage and Disposal (TW09) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
TW09 Immobilized Waste Storage & Disposal									
Expense Line Item	15,611	59,463	69,935	46,460	85,183	59,164	88,723	37,125	62,511
	28,549	55,824	151,009	171,200	135,466	106,339	141,433	332,518	400,667
Expense Line Item	241	-	-	-	-	-	-	-	-
Expense Line Item	858	-	-	-	-	-	-	-	-
	1,098	-	-	-	-	-	-	-	-
TOTAL W-465									
TOTAL W-464									
Expense Line Item	1,575	1,367	1,208	4,561	3,292	-	-	-	-
	5,778	21,498	29,696	28,361	325	-	-	-	-
	7,353	22,866	30,894	32,922	3,616	-	-	-	-
TOTAL W-520									
1.1.1 IMMOB W STG & DISPOSAL									
Expense Line Item	17,427	60,831	71,143	51,021	88,475	59,164	88,723	37,125	62,511
	35,184	77,322	180,695	198,561	135,791	106,339	141,433	332,518	400,667
	52,611	138,153	251,839	250,583	224,266	165,503	210,156	369,643	463,178
TOTAL IMMOB W STG									

(1) All dollars displayed contain applicable escalation

9.9.2 Immobilized Waste Storage and Disposal (TW09) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY16	FY17	FY18	FY18	FY18	FY20	FY21	FY22	FY23	FY24
TW09 Immobilized Waste Storage & Disposal										
Expense	45,968	37,630	47,891	22,987	23,656	33,940	25,174	35,731	28,565	
Line Item	417,173	313,895	307,280	245,804	195,329	87,553	44,177	22,370	46,413	
Expense	-	-	-	-	-	-	-	-	-	-
Line Item	-	-	-	-	-	-	-	-	-	-
TOTAL W-665										
TOTAL W-664										
Expense	-	-	-	-	-	-	-	-	-	-
Line Item	-	-	-	-	-	-	-	-	-	-
TOTAL W-520										
1.1.8 IMMOB W STG & DISPOSAL										
Expense	45,968	37,630	47,891	22,987	23,656	33,940	25,174	35,731	28,565	
Line Item	417,173	313,895	307,280	245,804	195,329	87,553	44,177	22,370	46,413	
TOTAL IMMOB W STG	463,141	351,525	355,171	268,791	218,966	121,494	69,351	58,101	75,978	

(1) All dollars displayed contain applicable escalation

9.9.2 Immobilized Waste Storage and Disposal (TW09) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33
TW09 Immobilized Waste Storage & Disposal									
Expense	32,222	37,578	26,549	29,098	5,035	5,329	5,666	8,179	10,689
Line Item	47,574	-	60,948	86,309	42,447	21,320	-	-	-
Expense	-	-	-	-	-	-	-	-	-
Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-465	-	-	-	-	-	-	-	-	-
TOTAL W-464									
Expense	-	-	-	-	-	-	-	-	-
Line Item	-	-	-	-	-	-	-	-	-
Expense	-	-	-	-	-	-	-	-	-
Line Item	-	-	-	-	-	-	-	-	-
TOTAL W-520	-	-	-	-	-	-	-	-	-
1.1.1 IMMOB W STG & DISPOS									
Expense	32,222	37,578	26,549	29,098	5,035	5,329	5,666	8,179	10,689
Line Item	47,574	-	60,948	86,309	42,447	21,320	-	-	-
Expense	-	-	-	-	-	-	-	-	-
Line Item	-	-	-	-	-	-	-	-	-
TOTAL IMMOB W STG	79,796	37,578	87,497	115,408	47,483	26,649	5,666	8,179	10,689

(1) All dollars displayed contain applicable escalation

9.9.2 Immobilized Waste Storage and Disposal (TW09) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY43	FY44	FY45	FY46	FY47	Life-Cycle Total
TW09 Immobilized Waste Storage & Disposal						
Expense Line Item	52,855	54,077	56,965	57,680	-	1,428,673
	-	-	-	-	-	3,481,100
Expense Line Item	-	-	-	-	-	9,386
	-	-	-	-	-	39,001
TOTAL W-465	-	-	-	-	-	48,387
Expense Line Item	-	-	-	-	-	13,751
	-	-	-	-	-	81,300
TOTAL W-464	-	-	-	-	-	95,051
Expense Line Item	-	-	-	-	-	20,928
	-	-	-	-	-	91,460
TOTAL W-520	-	-	-	-	-	112,388
1.1.9 IMMOB W STG & DISPOS	52,855	54,077	56,965	57,680	-	1,472,738
	-	-	-	-	-	3,692,861
TOTAL IMMOB W STG	52,855	54,077	56,965	57,680	-	5,165,599

(1) All dollars displayed contain applicable escalation

9.9.3 Budget Profile by Month (Execution Year)

9.9.3 Immobilized Waste Storage & Disposal (TW09) Budget Profile By Month (Execution Yr) (1)
(\$000's)

Level & Title	Fund	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Total
1.1.9.1.1.1 ILAW Project Mgmt	Expense	38	37	37	39	52	58	44	44	58	53	61	50	571
1.1.9.1.1.2 ILAW Systems Definition	Expense	82	78	78	73	69	80	77	100	100	75	69	45	928
1.1.9.1.1.3 ILAW Perform Assm't	Expense	459	438	437	297	262	300	269	341	338	302	352	384	4,157
1.1.9.2.1.1 IHLW Project Mgmt	Expense	64	61	61	64	75	85	87	70	59	54	62	50	772
1.1.9.2.1.2 IHLW Systems Definition	Expense	124	102	89	89	85	97	98	105	105	96	110	84	1,182
1.1.9.2.1.3 Project W-464	Expense	129	122	144	177	171	168	143	143	128	109	49	44	1,528
Totals (W09-W-464W-465W-520)	Expense	767	714	702	562	543	620	553	660	660	580	654	593	7,608
Totals	Expense	898	838	846	739	714	788	696	803	789	689	703	637	9,136

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1				Hanford Site												
1.01				River Protection Project												
1.01.09				Immobilized Tank Waste Storage/Disposal (TW09)												
1.01.09.01				Immobilized LAW Disposal Facility												
1.01.09.01.01				Dispose Immobilized LAW On-Site												
1.01.09.01.01.02				ILAW Systems Definition												
460.A00	01OCT99	31JAN41	4,935.00	ILAW Project Management												
460.A10	01OCT99	29SEP00	195.00	Prep ILAW Sample Transport AGA												
460.A1M		29SEP00	0.00	Issue ILAW Sample Transport AGA												◆ T09-00-008
1.01.09.01.01.03				ILAW Performance Assessment												
460.F10	01OCT99	31DEC99	388.00	Prepare Waste Form Data Package												
460.F1M		31DEC99	0.00	Issue Waste Form Dat Package for 2001 PA												◆ T09-00-005ROX
460.G10	01OCT99	29SEP00	136.00	Write 2001 Assessment												
460.G1M	28APR00		0.00	Issue White Paper on ILAW Impacts												◆ T09-00-007ROX
1.01.09.02				Canister Storage Building												
1.01.09.02.01				Receive/Store IHLW, Part 1.												
1.01.09.02.01.02				IHLW Systems Definition												
440.A00	01OCT99	24SEP18	1,786.00	IHLW Project Management												

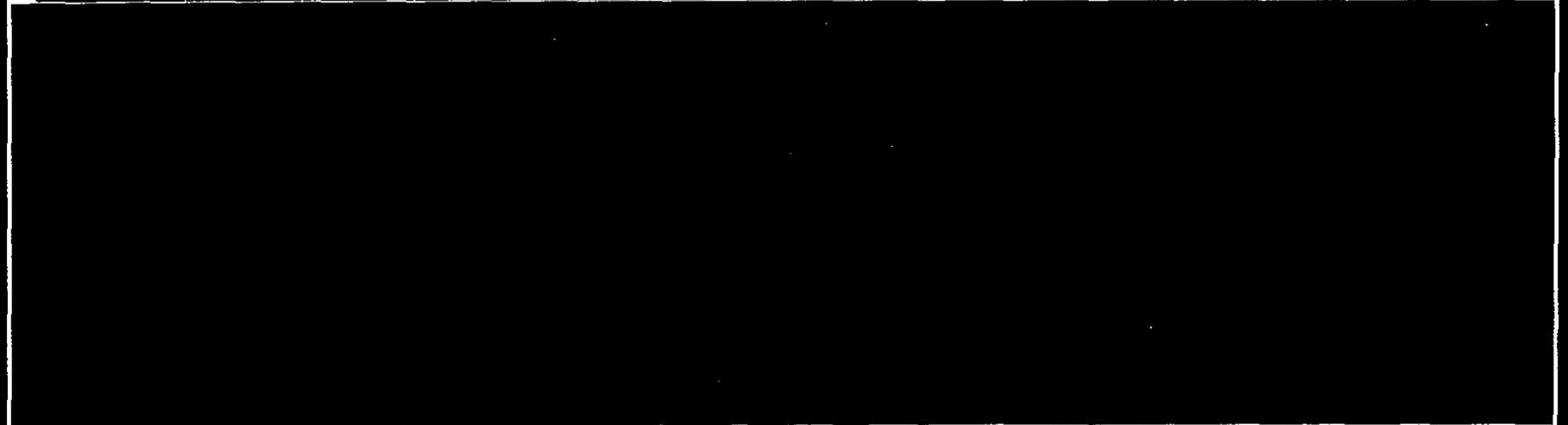
Project Start	01OCT99	Early Bar
Project Finish	28SEP00	Progress Bar
Data Date	01OCT99	Critical Activity
Run Date	21AUG99	

River Protection Project
9.9.4 Schedule (Execution Year)
TW09 Immobilized TW Storage/Disp

Sheet 1 of 2

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Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
440.A10	01OCT99	29SEP00	283.00	Prep IHLW Sample Transport AGA												
440.A1M		29SEP00	0.00	Issue IHLW Sample Transport AGA												T09-00-009
101 09 02 01 03				Project W-464, Immobilized HLW Interim Stor Fac												
440.B10	01OCT99	29SEP00	1,326.00	W-464 Advanced Conceptual Design												
440.B1M		29SEP00	0.00	Comp W-464 Advanced Conceptual Products												T09-00-006
440.E10	01OCT99	30JUN03	86.00	W-464 Part B Permit Application												
Subtotal	01OCT99	31JAN41	9,135.00													



9.9.5 Milestone Log (Execution Year)

9.9.5 Immobilized Tank Waste Storage and Disposal Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
T09-00-005	Issue Waste Form Data Packages for 2001 PA	ORP	-	31-Dec-99	-
T09-00-007	Issue White Paper on Impacts of BNFL ILAW Glass on PA Objectives	ORP	-	28-Apr-00	-
T09-00-006	Complete W-464 Advanced Conceptual Products	ORP	-	29-Sep-00	-
T09-00-008	Issue ILAW Sample Transport AGA	ORP	-	29-Sep-00	-
T09-00-009	Issue HLW Sample Transport AGA	ORP	-	29-Sep-00	-

AGA alternative generation analysis
 BNFL British Nuclear Fuel Limited, Inc.
 ILAW Immobilized low-activity waste
 PA Performance Assessment

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9.10 RPP MANAGEMENT SUPPORT (TW10)

9.10.1 Mission Statement

The RPP Management Support Project (MSP) provides program management services and oversight that sustain RPP integration and control. Practical products of MSP work are systems developed, improved, deployed, and maintained to structure program strategy, direction and business management in support of the RPP technical functions, waste storage and waste disposal. Primary MSP functions include the following:

- ◆ Executive management and strategic planning
 - ◆ Systems engineering to support risk and decision management and ongoing evolution of the RPP technical bases
 - ◆ Administration of a core program and crosscutting services to ensure environmental, safety, health, and quality assurance compliance to all regulatory and contractual requirements applicable for the RPP
 - ◆ Life-cycle project management that includes work to establish and maintain technical, cost, and schedule elements for the RPP baseline.

9.10.2 Life-Cycle Costs by Fiscal Year

9.10.2 Management Support (TW10) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY07	FY08	FY09	FY00	FY01	FY02	FY03	FY04	FY05	FY06
TW10_Management_Support	30,644	40,232	34,716	35,480	36,232	35,108	36,845	35,361	34,919	34,085
Expense	30,644	40,232	34,716	35,480	36,232	35,108	36,845	35,361	34,919	34,085
1.1.10 NCMAT SUPPT	30,644	40,232	34,716	35,480	36,232	35,108	36,845	35,361	34,919	34,085
Line Item										

(1) All dollars displayed contain applicable escalation

9.10.2 Management Support (TW10) Life-Cycle Costs (by Fiscal Year)
 (\$000's) (1)

Fund Type	FY07	FY08	FY08	FY10	FY11	FY12	FY13	FY14	FY15
TW10 Management Support	34,616	35,112	35,355	35,911	36,144	36,410	37,143	37,392	37,824
Expense	34,616	35,112	35,355	35,911	36,144	36,410	37,143	37,392	37,824
1.1.10 MGMT SUPPT	34,616	35,112	35,355	35,911	36,144	36,410	37,143	37,392	37,824
Expense Line Item	34,616	35,112	35,355	35,911	36,144	36,410	37,143	37,392	37,824

(1) All dollars displayed contain applicable escalation

9.10.2 Management Support (TW10) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY18	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
<u>TW10 Management Support</u>									
Expense	38,419	38,757	39,027	39,651	40,491	40,622	41,122	41,686	42,157
Expense Line Item	38,419	38,757	39,027	39,651	40,491	40,622	41,122	41,686	42,157
1.1.10 NIGHT SUPPT	38,419	38,757	39,027	39,651	40,491	40,622	41,122	41,686	42,157

(1) All dollars displayed contain applicable escalation

9.10.2 Management Support (TW10) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	FY28	FY28	FY28	FY28	FY28								
TW10 Management Support	42,202	42,745	43,303	43,870	44,276	45,041	45,644	46,444	46,892				
Expense	42,202	42,745	43,303	43,870	44,276	45,041	45,644	46,444	46,892				
Line Item													
1.1.10 MGMT SUPPT	42,202	42,745	43,303	43,870	44,276	45,041	45,644	46,444	46,892				

(1) All dollars displayed contain applicable escalation

9.10.2 Management Support (TW10) Life-Cycle Costs (by Fiscal Year)

(\$000's) (1)

Fund Type	Life-Cycle Total	
	FY24	FY25
TW10 Management Support		
Expense	47,349	-
		1,489,225
1.1.10 MGMT SUPPT		
Expense	47,349	-
Line Item	-	-
	47,349	-
		1,489,225

(1) All dollars displayed contain applicable escalation

9.10.3 Budget Profile by Month (Execution Year)

9.10.3 Management Support (TW10) Budget Profile By Month (Execution Year)
 (\$000's)

Level & Title	Fund Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1.1.10.1.1.1 RPP Mgmt & Admin	Expense	396	378	396	378	378	434	378	415	415	359	434	378	4,739
1.1.10.1.1.2 RPP Integration	Expense	777	843	822	752	685	625	522	563	595	518	599	496	7,787
1.1.10.1.1.3 RPP Planning/Control	Expense	538	512	537	512	512	601	523	575	569	492	595	518	6,484
1.1.10.1.1.4 RPP Direction	Expense	1,378	1,312	1,378	1,312	1,313	1,509	1,312	1,444	1,444	1,247	1,509	1,312	16,470
Totals	Expense	3,089	3,045	3,133	2,954	2,888	3,169	2,735	2,987	3,023	2,616	3,127	2,704	36,480

(1) Monthly Profile Based Upon P3 Calendar Month Profile, NOT Accounting Realized Hours Calendar

Activity ID	Early Start	Early Finish	BCWS (000)	FY00												FY01			
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
1				Hanford Site															
1.01				River Protection Project															
				RPP Management Support															
				RPP Management Support															
				RPP Management Support															
				RPP Management Support															
710.A00				01OCT98	29SEP34	34,464.50	Management Support Project												
710.F00				04MAY99	07AUG00	667.50	Work Mgmt Pilot in RPP												
710.F0M					07AUG00	0.00	Complete Work Mgmt Pilot in RPP												T10-00-200ROX
710.G00				08JUN99	27SEP00	347.70	Work Management Implementation at RPP												
710.G0M					27SEP00	0.00	Complete Work Management at RPP												T10-00-201
Subtotal				01OCT98	29SEP34	35,479.70													

Project Start 01OCT98
 Project Finish 29SEP34
 Data Date 01OCT98
 Run Date 21AUG99

Early Bar
 Progress Bar
 Critical Activity

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River Protection Project
9.10.4 Schedule (Execution Year)
TW10 Management Support

Sheet 1 of 1

9.10.5 Milestone Log (Execution Year)

<u>MS #</u>	<u>Title</u>	<u>Level</u>	<u>DNFSB/TPA #</u>	<u>Schedule Date</u>	<u>TPA Date</u>
T10-00-200	Complete Work Management Pilot at RPP	ORP	-	07-Aug-00	-
T10-00-201	Complete Work Management at RPP	ORP	-	27-Sep-00	-

RPP River Protection Project

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10.0 REFERENCES

- Acree, C. D., Jr., 1996, *Tank Waste Remediation System Mission Analysis*, HNF-SD-WM-MAR-008, Rev. 1, Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.
- DOE, 1993, *Tank Waste Remediation System Justification of Mission Need*, U.S. Department of Energy, Washington, D.C.
- DOE, 1996, *Tank Waste Remediation System, Hanford Site, Final Environmental Impact Statement*, DOE/EIS-0189, U.S. Department of Energy, Washington, D.C.
- Ecology, EPA, and DOE, 1989, *Hanford Federal Facility Agreement and Consent Order*, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.
- Ecology, EPA, and DOE, 1994, *Hanford Federal Facility Agreement and Consent Order*, two volumes, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.
- Ecology, EPA, and DOE, 1996, *Hanford Federal Facility Agreement and Consent Order*, as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.
- LMC-MD-018, *FY 2000 Planning, Work Authorization, and Cost Collection Guidance*, Lockheed Martin Hanford Corporation, Richland, Washington
- LMHC, 1998, *Tank Waste Remediation System Final Safety Analysis Report*, HNF-SD-WM-SAR-067, Rev. 0, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.
- National Environmental Policy Act of 1969*, 42 USC 4321, et seq.
- Nuclear Waste Policy Act of 1982*, 42 USC 10101, et seq.
- Resource Conservation and Recovery Act of 1976*, 42 USC 6901, et seq.
- "Safety Measures for Waste Tanks at Hanford Nuclear Reservation," Public Law 101-510.
- Strom Thurmond National Defense Authorization Act for Fiscal Year 1999*

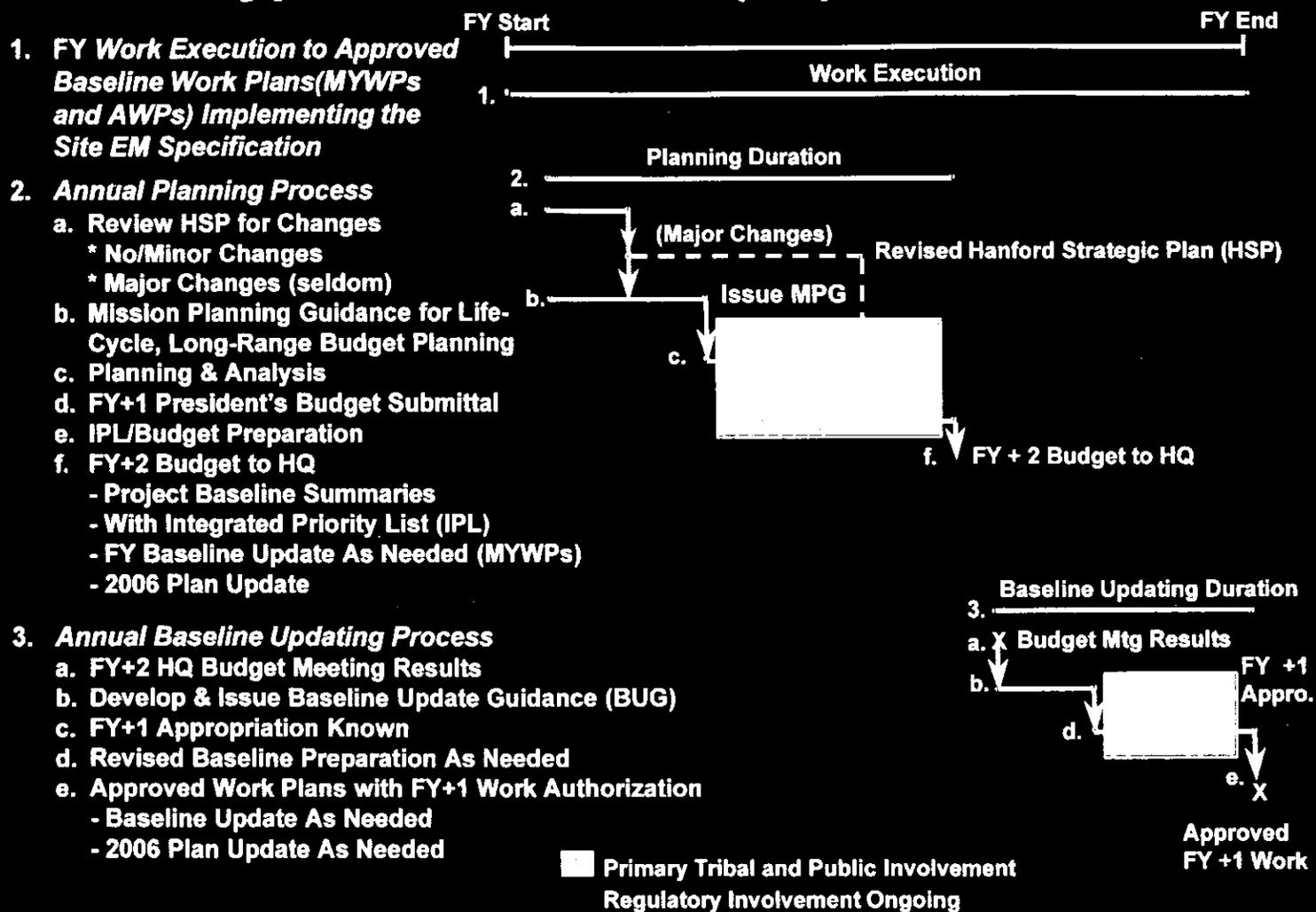
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Appendix A

TYPICAL FISCAL YEAR CALENDAR

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Typical Fiscal Year (FY) Calendar



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Appendix B

PROJECT PRIORITY LIST

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Appendix B PROJECT PRIORITY LIST

		River Protection Project									
		Project Priority List (1)									
UAS	PBS	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006			
		"UNIT OF ANALYSIS"									
		61,310	69,246	66,325	64,367	62,533	59,827	59,026			
		11,716	14,897	13,277	13,219	13,373	11,753	11,862			
		1,596	1,596	1,814	3,723	1,863	2,808	1,128			
		1,965	4,178	2,107	5,329	6,121	3,582	606			
		24	25	25	530	-	-	-			
		1,137	1,178	2,977	-	-	278	-			
		9,430	7,340	3,605	3,906	1,538	1,469	1,530			
		2,453	2,771	2,634	2,680	2,862	2,804	2,770			
		784	618	639	654	672	680	608			
		8,426	6,071	7,056	7,656	7,491	7,960	7,819			
		298	489	489	489	478	245	249			
		351	367	374	382	360	369	407			
		2,565	2,821	2,700	2,810	2,878	2,185	2,472			
		209	97	99	101	103	84	86			
		620	622	759	617	631	578	589			
		365	2,271	875	-	82	576	-			
		98	102	104	67	68	3	3			
		655	1,181	155	558	430	459	448			
		163,187	117,946	106,641	107,614	101,974	96,048	90,887			
		14,740	15,050	15,365	15,688	16,018	16,354	16,697			
		1,125	817	834	651	689	171	173			
		2,563	2,872	2,513	2,064	1,065	1,095	1,073			
		1,100	1,047	208	213	217	222	227			
		125	128	130	133	136	139	142			
		605	-	-	-	-	-	-			
		11,330	12,515	11,700	14,151	12,045	12,257	11,458			
		2,640	2,809	2,857	2,811	2,865	2,443	2,063			
		1,223	1,230	1,258	1,283	1,309	1,337	1,369			
		771	644	658	672	686	685	683			
		1,303	1,051	1,182	-	-	-	-			
		7,951	9,048	9,133	8,405	9,378	10,068	9,337			
		100	100	102	104	108	111	113			
		140,163	164,767	162,178	163,708	148,488	138,769	133,048			

(1) All Dollars displayed contain applicable Escalation

River Protection Project
Project Priority List (1)

UAS	PBS	UNIT OF ANALYSIS	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
042	TW02	RPP STY 101 USD LEVEL GROWTH	5,000	2,097	-	-	-	-	-
043	TW04	RPP SBT (C-100) RETRIEVAL OPERATIONS	712	-	-	-	-	-	-
044	TW03	RPP PROCESS SYSTEMS UPGRADE	22	-	-	-	-	-	-
045	TW06	RPP OAM REPLACEMENT	419	109	-	-	-	-	-
046	TW03	RPP TMACS AND BSRMF	2,642	2,784	2,582	3,278	-	-	-
SUBTOTAL URGENT RISK- SAFETY			167,868	169,687	164,641	168,888	146,488	159,789	133,848
048	TW01	RPP CHRYZN - SUPPORT TO EVAPORATOR	353	619	2,657	2,531	1,444	1,310	638
049	TW03	RPP SBT LIQUID PUMPING - 2 CREW	30,802	31,287	28,388	20,541	8,670	8,500	-
050	TW03	RPP SBT LIQUID PUMPING - 3 CREW	4,174	2,478	4,787	3,129	6,643	8,791	8,935
051	TW03	EVAPORATOR	6,848	5,658	6,334	6,480	6,643	8,791	8,935
052	TW01	RPP CHRYZN - SUPPT TO INTERIM STABILIZ	-	-	-	-	-	-	-
SUBTOTAL URGENT RISK-TANK PUMPING			199,136	208,739	194,907	189,678	161,676	168,318	141,411
053	TW04	RPP DISPOSAL FL SUPPORT	119	123	125	128	130	133	136
054	TW04	RPP W-151-101-AZ CORRLN AND READINESS ASSMNT	4,863	461	-	-	-	-	-
055	TW03	RPP PRIVZN INFRASTRUCTURE (INCL W-519)PHASE II	1,324	541	450	30	-	-	-
056	TW03	RPP TR RES & SAFE OPS (W-519)	5,700	7,388	7,441	4,709	2,749	3,008	2,845
057	TW03	RPP TR RES & SAFE OPS (W-519) LI	20,518	51,323	44,171	21,780	14,123	20,065	18,738
058	TW04	RPP W-TYR. TANK FARM UPGRADES	-	-	328	8,153	10,041	8,108	-
059	TW04	RPP W-TYR. TANK FARM UPGRADES - LI	-	341	28,704	57,912	54,585	14,800	775
060	TW04	RPP INTNL TK RETRIEVAL SYS DST (W-211) LI	4,060	23,710	28,500	24,000	18,000	14,000	14,000
061	TW01	RPP CHRYZN - SUPPT TO RETRIEVAL / PRIVATIZATION	28,388	21,184	29,624	28,165	30,237	33,585	38,183
062	TW04	RPP DST WASTE RETRIEVAL	21,741	21,814	30,731	26,883	35,128	35,720	34,450
063	TW04	RPP DST WASTE RETRIEVAL - LI	-	13,825	48,802	85,115	53,504	37,848	22,708
064	TW03	RPP PRIVATIZATION PROGRAM MGMT (W17) PHASE 1	7,017	8,775	15,521	15,338	17,502	14,072	12,888
065	TW03	RPP PLANNING & INTEGRATION	3,818	3,588	3,987	3,905	4,003	4,071	4,063
066	TW04	RPP HIGHLEVEL WASTE SUPPORT (M-01) PHASE 1	2,858	3,747	2,523	3,285	3,222	3,307	3,055
067	TW04	RPP LWV SUPPORT PHASE 1	8,424	8,563	7,788	7,747	8,008	8,408	8,542
068	TW06	RPP INFRASTRUCTURE PROGRAM ENGRADMIN	1,108	1,140	1,163	1,167	1,216	865	358
069	TW06	RPP WASTE MANAGEMENT	411	1,194	463	398	3,810	897	-
070	TW09	RPP RLWV - PROGRAM, SYSTEMS DEFOPS	1,953	1,735	1,885	4,888	7,821	6,827	3,130

(1) All Dollars displayed contain applicable Escalation

River Protection Project Project Priority List (1)

UAS	PBS	"UNIT OF ANALYSIS"	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
04R	TW08	RPP H.L.W. - PROGRAM, SYS DEFNOPS-LI	-	-	-	-	-	-	19,499
0MG	TW09	RPP W-464, H.L.W INTERIM STG FACILITY	1,528	1,530	1,817	2,285	2,848	2,739	1,025
0MG	TW09	RPP W-464, H.L.W INTERIM STG FACILITY LI	-	4,500	18,430	35,950	22,870	1,750	-
04X	TW08	RPP LAW PROGRAM, SYSTEMS DEFNOPS	5,855	5,814	5,828	4,874	10,000	9,054	4,212
04X	TW09	RPP LAW PROGRAM, SYS DEFNOPS-LI	-	-	-	-	-	-	-
0MH	TW09	RPP W-465 ILAW INTERIM STG FACILITY	-	715	2,177	1,518	1,518	2,201	1,018
0MH	TW09	RPP W-465 ILAW INTERIM STG FACILITY LI	-	-	-	4,254	13,179	16,712	3,998
0SU	TW09	RPP W-520 ILAW DISPOSAL COMPLEX	-	-	89	14	2,473	4,411	1,837
0SU	TW09	RPP W-520 ILAW DISPOSAL COMPLEX-LI	-	-	-	-	-	239	5,573
04Q	TW08	RPP PRIVATIZATION INFRASTRUCTURE (PHASE II)	-	715	4,885	5,840	1,269	1,311	1,589
04Q	TW08	RPP PRIVZN INFRASTRUCTURE (PHASE II)-LI	-	-	-	-	-	-	3,594
06A	TW04	RPP TANK FARM CLOSURE	-	-	-	-	1,275	1,345	1,058
08U	TW08	RPP UTIL OPERS SUPPORT	130	4,222	5,004	5,374	6,887	36,276	16,396
0H7	TW03	RPP RAW WATER FLOW TOTALIZERS INSTALL'N	-	175	-	182	-	-	-
0H8	TW03	RPP TRANSFER PUMP REPLACEMENT 104-AW	-	542	-	-	-	-	-
04X	TW09	RPP LAW PROGRAM, SYSTEMS DEFNOPS	-	-	-	-	-	-	-
0ME	TW04	RTP RISK ALLOWANCE -TW04	-	-	-	-	-	18,882	13,594
SUBTOTAL -URGENT RISK-PRIV'ZN - 90 %			332,652	405,918	484,873	545,235	489,683	457,591	376,655
066	TW04	RPP HANFORD TANKS INIT'VE: EM-30 -PHMC	70	221	225	230	236	240	244
03V	TW02	RPP ORGANIC OPERATIONS	350	3,424	984	-	-	-	-
06J	TW02	RPP FLAMMABLE GAS ADDIT'L MONIT'G UPGRADES	186	1,779	-	-	-	-	-
0AC	TW03	RPP INTEGRITY INSPECTION M-32	2,742	2,351	1,932	1,972	2,000	1,878	1,957
0G4	TW03	RPP DST RCRA PART B APPLICATION	558	284	47	-	-	-	-
0G6	TW03	RPP WASTE ACCEPTANCE PROGRAM	23	25	25	26	26	9	9
0MF	TW04	RPP SST PROGRAM DEVELOPMENT	1,291	7,581	15,682	11,289	21,985	35,220	33,813
0MF	TW04	RPP SST PROGRAM DEVELOPMENT-LI	-	-	-	-	2,425	10,288	21,558
13K	TW01	RPP CHAR'ZN SUPPORT TO IMUSTS	-	10,389	404	-	-	-	-
098	TW02	FSAR IMPLEMENTATION	1,685	3,739	503	-	-	-	-
0J6	TW03	DRAWINGS/ DOC'N FOR INACTIVE SYSTEMS	-	43	38	35	38	37	34
0T3	TW03	NATURAL PHENOMENON HAZARD MITIG'N	-	149	-	-	-	-	-
069	TW03	RPP CASS CLOSURE	554	735	-	-	-	-	-
0MA	TW03	TANK PH ISSUE RESOLUTION	145	3,807	982	478	619	680	372
0J6	TW03	FACILITY DEACTIVATION	238	728	360	630	118	11,487	1,748
0JD	TW03	DST SSC ANALYSIS & DESIGN RECONSTITUTION	289	2,089	424	148	152	155	202

(1) All Dollars displayed contain applicable Escalation

River Protection Project									
Project Priority List (1)									
UAS	PBS	UNIT OF ANALYSIS	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
8LE	TW03	SST BSC ANALYSIS & DESIGN RECONSTITUTION	-	-	-	1,590	76	76	76
8GG	TW10	RPP MGMT - RESERVE	44	5,343	-	-	-	-	-
9T2	TW03	RPP TANK ISOLATION & ABANDONED EQUIP	-	-	-	2,271	-	540	-
9JK	TW03	REMOVE INACTIVE SYSTEMS FROM OPERATIONS	-	1,205	-	2,134	-	3,871	-
9JF	TW03	TANK STRUCTURAL ISSUE RESOLN	-	1,059	798	46	-	-	-
9JH	TW03	UPGRADE DBT HARDWARE & TECH. BASELINE	-	660	40	40	41	42	42
9JJ	TW03	UPGRADE SST HARDWARE & TECH. BASELINE	-	97	78	80	82	83	84
9MQ	TW03	LOW INSTALLATIONS	-	-	-	-	606	1,372	666
9T4	TW03	METRIFICATION PROGRAM	-	-	51	-	-	-	-
MYWP SUBMITTAL (INCL'G 242A EVAP'R)			348,848	451,786	607,344	566,207	518,285	523,390	437,493
OTHER REQUIREMENTS									
8A7	TW04	RPP ACCEL'N VADOSE ZONE CHARACTERIZATION	2,377	-	-	-	-	-	-
10P	TW04	RPP DBT RETRYL TRADE STUDIES/O&M CONCEPTS	1,200	-	-	-	-	-	-
9WE	TW02	FSAR IMPLEMENTATION	4,146	-	-	-	-	-	-
9KF	TW01	RPP CHARZLN - SUPPORT TO SAFETY SCREENING	5,000	-	-	-	-	-	-
9CK	TW04	RPP SST PROGRAM DEVELOPMENT	5,747	-	-	-	-	-	-
9KL	TW04	RPP HANFORD TANKS INITIATIVE: EM-30 - (PHMC)	10,682	-	-	-	-	-	-
9DZ	TW10	RL SUPPT - ICE REVIEW OF RPP	800	-	-	-	-	-	-
9VZ	TW05	RPP PRIV'ZN PROGRAM MGMT (WIT)	3,800	-	-	-	-	-	-
10V	TW05	RPP PLANNING & INTEGRATION	2,500	-	-	-	-	-	-
1AU	TW09	RPP DATA COLL'N-STORAGE PERF. ASSMT.	1,810	-	-	-	-	-	-
9P6	TW04	RPP W-151 CONTINGENCY	1,000	-	-	-	-	-	-
1AV	TW02	RPP ORGANIC COMPLEXANT USQ (IMUST)	3,600	-	-	-	-	-	-
9J0	TW02	RPP FLAMMABLE GAS ADDITL. MONIT'G UPGRADES	4,600	-	-	-	-	-	-
10Q	TW03	RPP WEED & PEST CONTROL	2,500	-	-	-	-	-	-
10R	TW03	RPP DTS / CAM SUPPORT	2,100	-	-	-	-	-	-
10W	TW03	RPP OPERATIONS RL SUPPORT (TAP/TIER II)	150	-	-	-	-	-	-
9HN	TW02	RPP SAFETY RL SUPPT (TAP/TIER II)	150	-	-	-	-	-	-
10X	TW01	RPP CHARZLN SUPPORT TO RL	200	-	-	-	-	-	-
1AW	TW05	RPP PINAL SCIENCE / TECHNOLOGY INTEG'N	15,000	-	-	-	-	-	-
10Y	TW03	RPP ROVER PATROL - INCREMENT	500	-	-	-	-	-	-
SUBTOTAL - ADDITIONAL REQUESTS			67,692	-	-	-	-	-	-
TOTAL RPP REQUEST (EM-30)			408,540	451,786	607,344	566,207	518,285	523,390	437,493

(1) All Dollars displayed contain applicable Escalation

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Appendix C
INSTRUCTIONS ON ACCESSING
ELECTRONIC MYWP

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INSTRUCTIONS ON ACCESSING ELECTRONIC MYWP

1. Click on your Windows "Start" button.
2. Select "Programs".
3. Select "(HLAN)".
4. Select "Software Distribution".
5. Once in Software Distribution go to the "Hanford Site Applications" menu, Click the "OK" button .
6. Select "Hanford Data Integrator-HANDI v4.1", Click on the Install button.
7. After following the Install instructions, Click on your Windows "Start" button.
8. Select "Programs".
9. Select HANDI 4.x, ("x" indicates version and may change due to updates, this does not mean you need to reinstall, these updates will occur automatically at the time you access HANDI, unless otherwise directed from SP&I).
10. Select MYWP from the HANDI Menu.
11. Select what version of the MYWP you want to access (currently only Planning is available).
12. Once in the MYWP, select if you want to view the Table of Contents (TOC) for the complete MYWP or by a subset of the complete document (i.e.. Baseline data, or Specs/Requirements).
13. Select either a Mission or PBS level from the WBS tree, then select what products you want to view from the TOC list.

NOTE: Access is limited to computers connected to the HLAN.

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Appendix D

ELECTRONIC ACCESS OF TBR DATA

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APPENDIX D ELECTRONIC ACCESS OF TBR DATA

Purpose

The purpose of the Access Database is to provide an electronic, configuration-controlled, central-file repository for Technical Basis Review (TBR) packages using a predefined directory structure and naming convention.

System Description

The electronic repository for the River Protection Project (RPP) TBRs is located on fileserver AP005, share name TWRSTbrData. Each TBR package consists of the following four files.

- | | | |
|---|------------------------|---------------------------------------|
| ◆ | Cost Est. Input Sheets | CEIS999999.XLS |
| ◆ | Fragnets | FRAG999999.pdf |
| ◆ | Resource Report | Resr999999.out (.pdf at a later date) |
| ◆ | Narrative | TBR999999.doc |

A TBR package can be in the following three states at any given time, reflected by the following root directory structure.

BaselineXX. This is the state of the baseline at the time of approval.

Baseline+Changes. This is the BaselineXX with approved changes providing the current state of the baseline at any given time.

ChangeInProg. Files in this directory are undergoing some type of change action.

Microsoft SourceSafe is the management tool used to maintain configuration control of the files located in Baseline+Changes. SourceSafe both provides the history of all changes and assigns the revision numbers. SourceSafe is controlled by at least one administrator from each project baseline summary (PBS). The administrators have permission to manage only their own PBSs within SourceSafe. To date, all designated PBS administrators have been trained in the use of SourceSafe.

Access Instructions

The following steps provide access to the TWRSTbrData repository.

1. Log on to Hanford Local Area Network (HLAN).
2. Open either "My Computer" or "Windows Explorer."
3. Map a drive to \\AP005\TWRSTbrData, unless the drive has been previously mapped.
4. Open the drive just mapped and drill down to one of the following directories.
 - ◆ Baseline99
 - ◆ Baseline+Changes
 - ◆ ChangeInProg.
5. The 10 PBSs are listed in each directory.
6. The supporting TBRs are located under each PBS, one folder for each TBR. The exception is in the directory "CangeInProg." Under this directory, each folder lists the name of the person responsible for a particular change in progress.
7. Each TBR folder contains the four files that make up a TBR; the CEIS, the Narrative, the Resource Report, and the Logic Diagram. For example:
 - ◆ Cost Est. Input Sheets CEIS9999999.XLS
 - ◆ Fragnets FRAG9999999.pdf
 - ◆ Resource Report Resr9999999.out (.pdf at a later date)
 - ◆ Narrative TBR9999999.doc.

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