Environmental Programs

BRAC Completion Plans (BCP II)

"A Template for Success"

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Introduction – the Challenge

- AFRPA responsible for cleaning up and transferring 32 BRAC bases
- Funding/budget constraints
- Restoration efforts are in multiple phases, many sites in RA-O or LTM
- Loss of institutional knowledge at many bases

BRAC Completion Plans

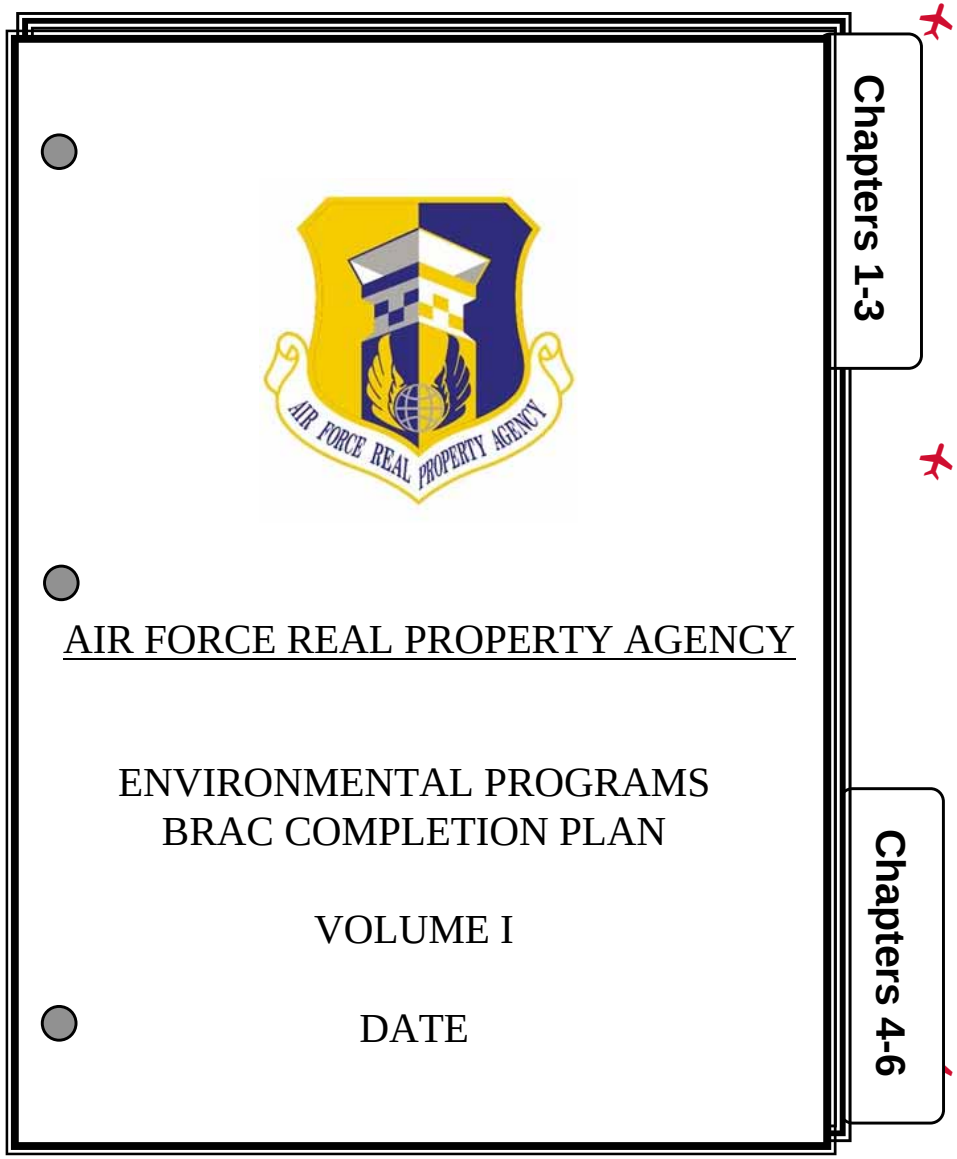
Purpose: Environmental Programs Completion

- Summarizes on the history (How did we get here?)
- Describes technical strategy (What are we doing about it?)
- Identifies technical and programmatic risks (What potentially can go wrong and what are the impacts?)
- Documents the overall path forward for all remaining environmental cleanup sites (What decisions remain?)
- Integrates real estate and environmental programs (property conveyance)
- Addresses ALL environmental programs, including compliance sites
- Provides AFRPA with a consistent and uniform approach to tracking and documenting progress

Why develop BCP with Completion Strategies?

- Provide means to review program (i.e., a template for the management reviews)
  - **Are all actions designed to support future decisions?**
  - **Can all projects be clearly linked to the strategy?**
- Provide a basis for future decision making
  - **What data are needed to support the decisions?**
  - **What are the impacts of future decisions?**
- Provide basis for evaluating program costs and schedules
  - **Are all proposed actions supportive of Site completion strategy?**
- Identify programmatic and technical “risks”
  - **What assumptions have been made that could prove to be incorrect? (i.e., soft comfort level thus require close tracking)**
  - **What are the potential impacts of having to modify an assumption?**

Organization of the BCP II



- Chapters 1-3 Describe:
  - **Overview of base history**
  - **Organize data associated with real estate, property transfer, regulatory framework**
  - **Identifies "Management Units"**
- Chapters 4 and 5 Document:
  - **Identifies problem statement**
  - **Conceptual Site Model**
  - **Remedy Selected and RAOs**
  - **Decisions logic for remaining decisions**
  - **Remedy Performance Model and Decision Criteria**
- Chapter 6
  - **Roll up of costs/schedule**

BCP II: The Framework for a Strategy

- Chapters 1 and 2 set the stage for strategic planning
- Identify regulatory framework, total number of sites, and the status of those sites
  - For AFRPA, this is pulled from Headquarters data system
  - Data are cross checked with the BECs
- Incorporates land use controls and property disposal parcels
- Integration of all activities at the BRAC base

Management Approach and Management Units

Chapter 3: Management Approach

- How the installation is collectively managing individual segments or facets (sites/OUs) of its installation's environmental program.
  - **A single site, such as a landfill;**
  - **A group of sites undergoing the same or similar processes, such as long-term maintenance of multiple landfills;**
  - **An operable unit, such as a groundwater OU made up of multiple sites that individually have contributed to the groundwater contamination where the remedy deals with the aggregate problem; or**
  - **A collective grouping of EC-CR type of factors, such as USTs**
- These individual segments or facets of the program are referred to as Management Units (MUs).

Chapters 4 and 5: Completion Strategies

- Documents the complete story for each Management Unit
- Problem Statement (i.e., what needs to be fixed?)
  - Fuel derived hydrocarbons (benzene, toluene, ethyl benzene, and xylene) and chlorinated solvents (trichloroethylene – TCE) are present in ground water at concentrations in excess of state groundwater cleanup standards.
- Conceptual Site Model (i.e., our current understanding)
  - Summary level describing the contaminant, pathway, receptor
  - Use of schematics advised
- Remedial Action Objectives (e.g., from the ROD/DD)
  - Prevent ingestion of groundwater containing contaminant concentrations above acceptable and/or appropriate requirements (ARARs);
  - Restore impacted groundwater to ARARs;
  - Prevent migration of groundwater with contaminant concentrations above ARARs beyond base boundaries; and
  - Restore surface water, that has been impacted by contaminated groundwater, to ARARs

Chapters 4 and 5: Completion Strategies

- Remedial Approach: Collect and Treat Groundwater
  - Ground water is collected in three trenches
  - The core of the plume is extracted with a series of extraction wells.
  - Water from the extraction wells and flightline trench is treated in a facility prior to discharge.
  - Contingency for a permeable treatment wall barrier at the groundwater plume southwestern lobe.
- Key Decisions that Remain
  - Do the collection systems capture all targeted water?
  - Are emissions from the treatment system within limits?
  - Will the permeable treatment walls achieving sufficient concentration reductions?
  - Are institutional controls preventing potable use of affected water?

Developing Remedy Performance Models

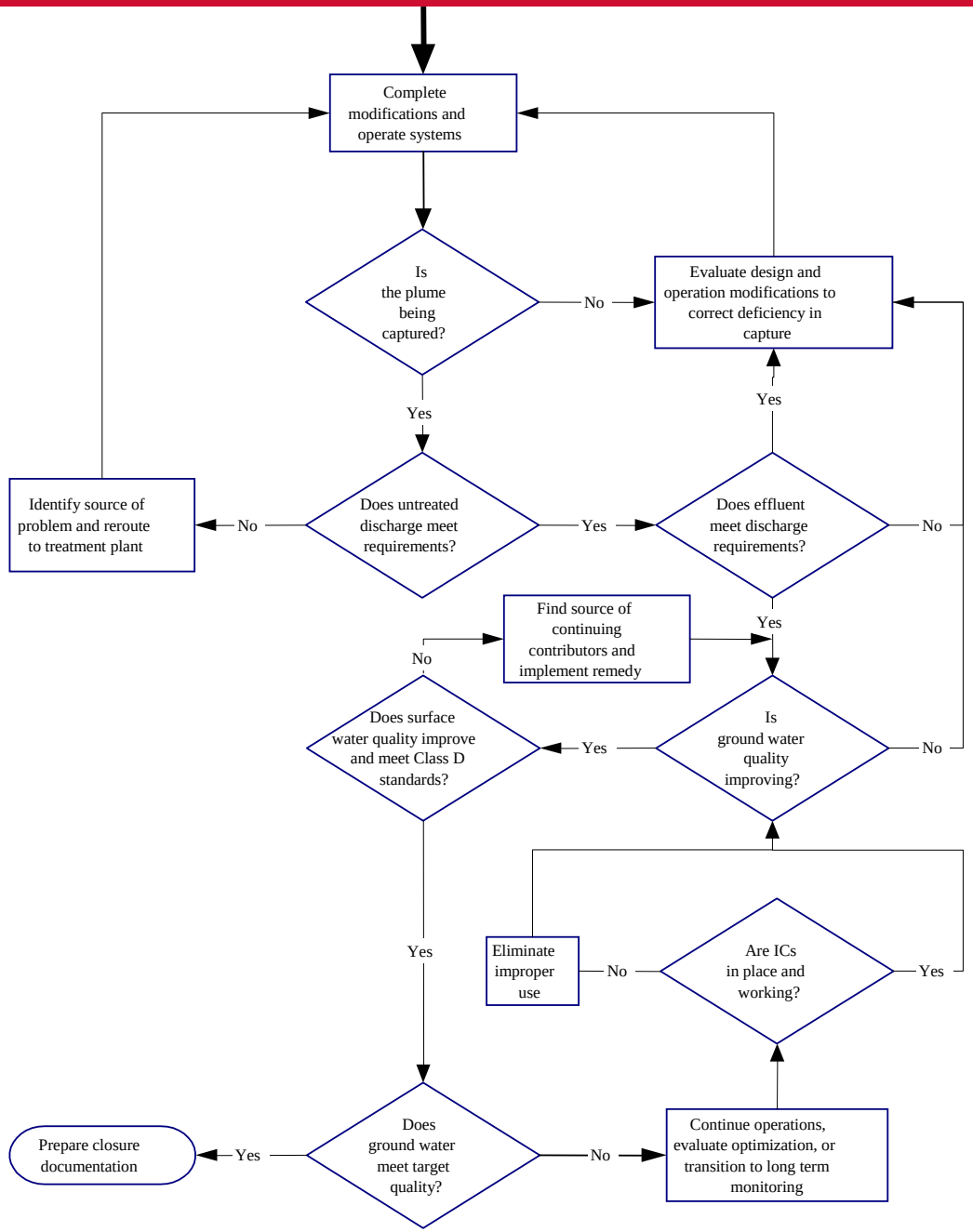
Develop Remedy Performance Models for each Management Unit

Table 4.1 Remedy Performance Model Example: Groundwater Collect and Treat System			
Performance Model Assessment Parameters (P)	**Performance Metrics (PM)**	**Expectations (E)**	**Decision Criteria (DC)**
P1. Discharge to surface water does not exceed ARARs	**PM 1. Sampling effluent from three discharge points**	**E1. Effluent from three discharge points will be below ARARs**	**DC1. Effluent exceeds standards**

Remedy Performance Models

Table 4.2 Conditions Affecting Achievement of RAOs Example: Groundwater Collect and Treat System			
Performance Model Assessment Parameters (P) and Decision Criteria (DC) from Table 4.1	**Potential Deviations from the Performance Model (D)**	**Impact of Unacceptable Performance (I)**	**Response (R)**
P1. Discharge to surface water does not exceed ARARs	**D1. Effluents exceed standard.**	**I1. Potentially violate standards and impact wetlands ecology**	**R1: Evaluate remedial systems design/operation, determine cause of deviation, identify most effective response or action.**
DC1. Effluent exceeds standards			

Decision Diagrams for each Management Unit



Status of AFRPA BCP IIs

- As of date of conference:
  - All bases have completed sections 1-3
  - 6 based have completed sections 4-6
  - Targeted to have working drafts by mid-July 2004
    - **Used during program management reviews**
  - Annual updates in support of Agency's Program Management Review process

Benefits to the BCP II Approach

- Single uniformly structured source of information
- Allows consistent management reviews
- Documents decisions and associated rationale
- Links funding with key decisions and actions of the process
- Provides BECs and Management a means for reviewing contractor work
- Provides a means for communicating progress as well as potential issues
  - Identifies decision points and contingencies