

**U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

**NUCLEAR WASTE TECHNICAL REVIEW BOARD
FULL BOARD MEETING**

**SUBJECT: TESTING PROGRAM COORDINATION
AND INTEGRATION**

PRESENTER: C. THOMAS STATTON

**PRESENTER'S TITLE
AND ORGANIZATION: MANAGER, SITE CHARACTERIZATION, STRATEGIC PLANNING
AND TECHNICAL INTEGRATION
LAS VEGAS, NEVADA**

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**LAS VEGAS, NEVADA
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Testing Integration: Identifying Data Needs

- **The Site Characterization Plan (SCP) identifies scientific programs structured to address regulatory needs**
- **Scientific programs identify data needs through the Study Plans, work-scope consolidation and test-planning packages**
- **Determination of the need for test facilities (e.g., boreholes, test pits, Exploratory Studies Facility) is based on the data requirements identified in the scientific programs**
- **Boreholes and underground facilities provide access for collection of information (data) required for scientific programs to address regulatory issues**

Planning Responds to Data Needs

- **Testing Integration takes place at many levels**
 - **Framework development**
 - * **Elaboration of the data needs identified in the SCP into a comprehensive long-range plan**
 - * **Identification of prerequisites (access to data)**
 - **Near-term planning**
 - * **Development of a 1-3 year detailed plan/schedule**
 - * **Identification of budget planning assumptions from IRB/OMB**
 - * **Distribution of known resources**
 - **Annual planning**
 - * **Program/Project guidance and funding allocation**
 - * **Evaluation of previous findings**
 - * **Prioritization of technical activities**
 - * **Consolidation of work scope**
 - * **Coordination of support activities and schedule**

Framework Development Long-Range Plan

- **Who**

- DOE/RSED Site Investigations Branch
- Participant Principal Investigators
- M&O surface-based test Coordinator and Technical Integrators
- Exploratory Studies Facility test coordination office
- Activities workshops (drilling, hydrology, geochemistry, geophysics, etc.)

- **What**

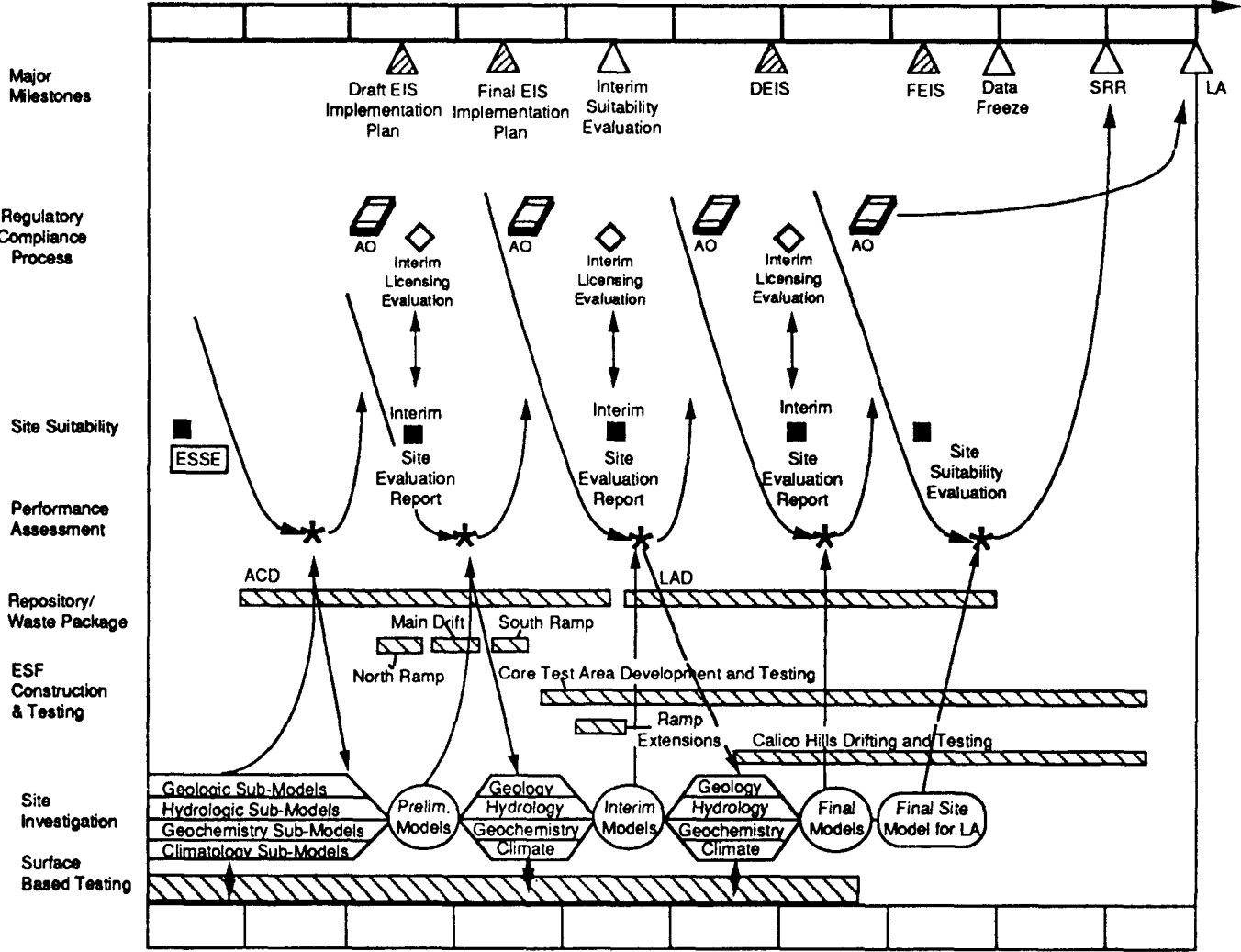
- A technical plan addressing the life of the Project with well-articulated and measureable intermediate milestones
- Prerequisites are identified for each intermediate milestone, thus identifying need for testing facilities
 - * Surface-Based Testing Program
 - * *In Situ* Testing Program (ESF)

Framework Development Long-Range Plan

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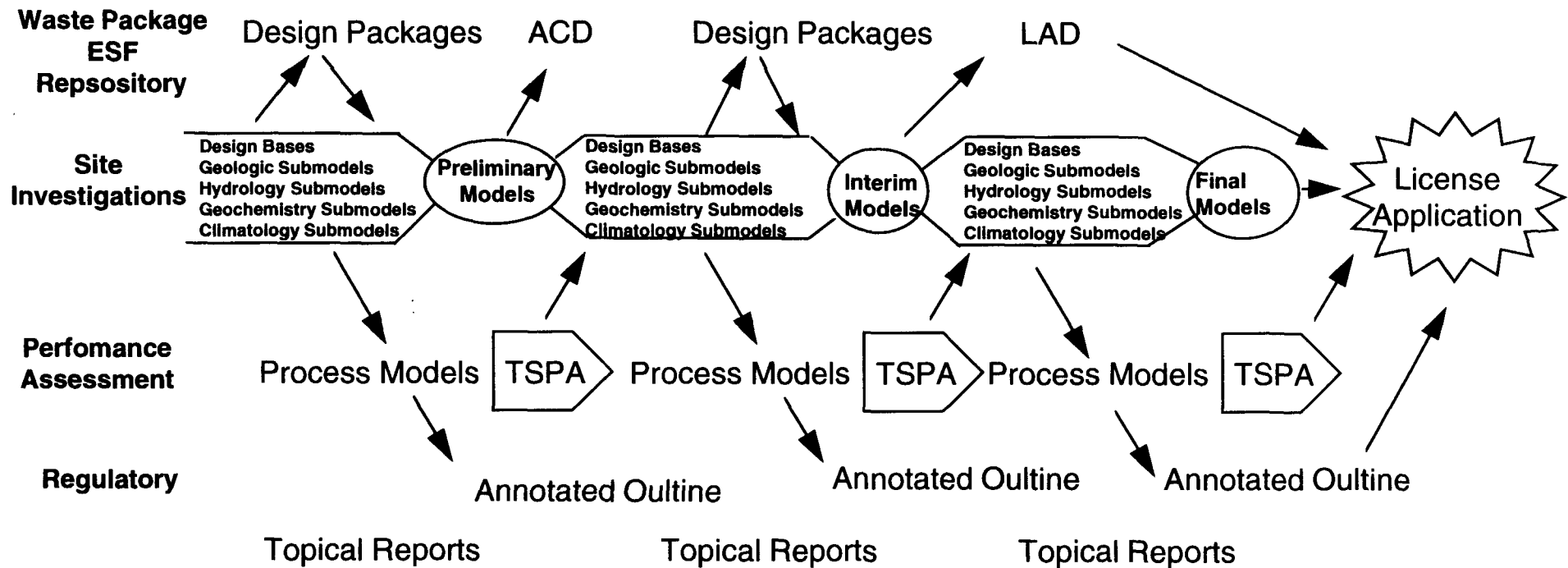
- **How**
 - **Beginning with the framework developed in the SCP, meetings are facilitated with the Participants explicitly identifying the data needs and feeds and the interrelationships among scientific program elements of the plan**

Integrated Site Investigation Program



Framework Development Long-Range Plan

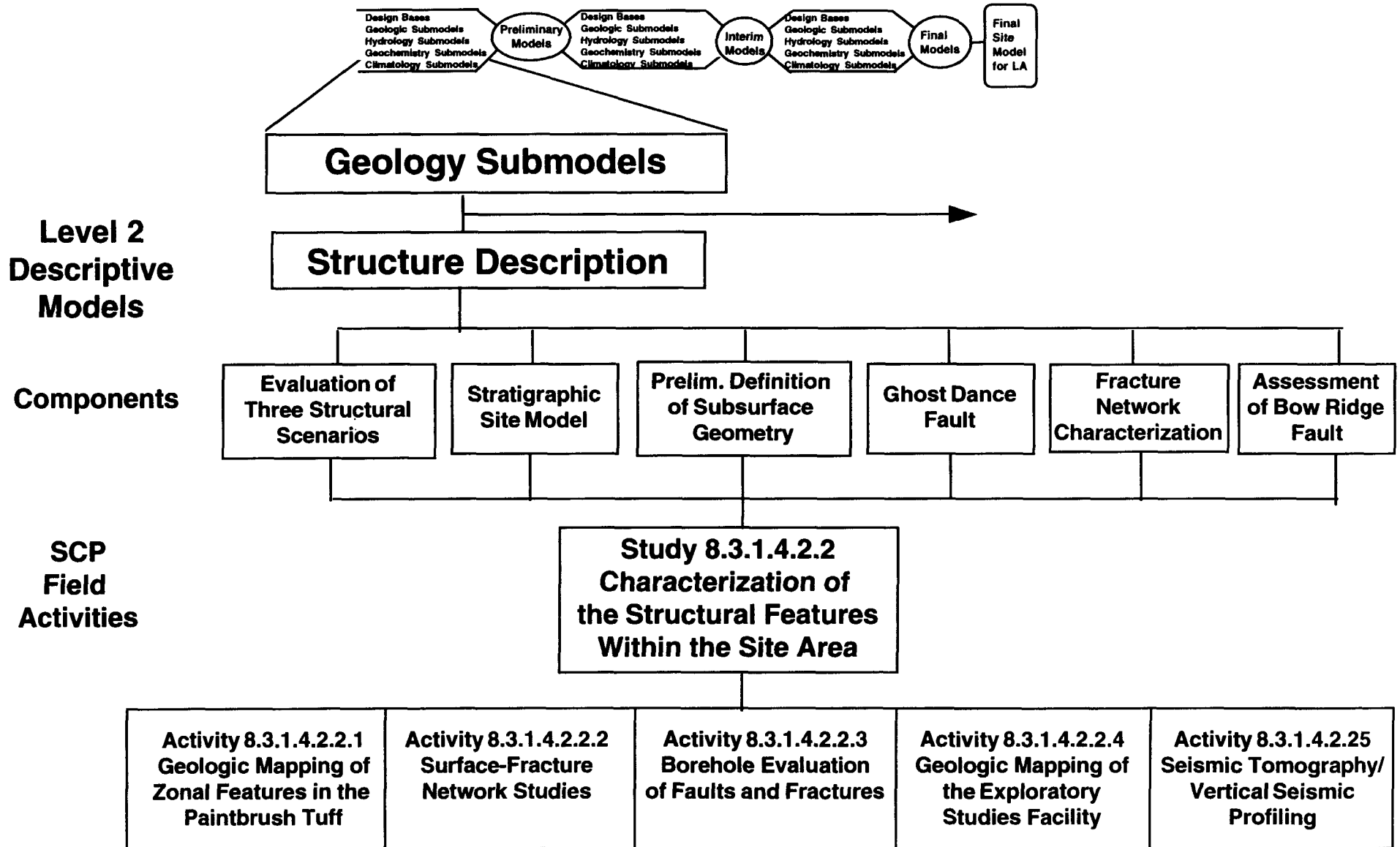
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Near-Term Planning

- **Who**
 - DOE/RSED Site Investigations Branch
 - M&O surface-based Test Coordinator
 - Exploratory Studies Facility Test Coordinator
 - Participants
- **What**
 - An integrated schedule taking from one to three years from the long-range plan and developing a detailed time-phased plan for data acquisition and the links to major deliverables
- **How**
 - Project assumptions and funding levels are identified in the IRB/Office of Management and Budget
 - Preliminary work-scope consolidation efforts are undertaken in the context of described milestones
 - Known resources are distributed in most efficient manner to obtain required data, given assumptions and requirements

Flow of Data from Field Activities Identified in Near-Term Plan



Annual Planning

- **Who**

- **DOE/RSED Site Investigations Branch**
- **M&O site characterization Technical Integrators**
- **Participants**
- **Exploratory Studies Facility Test Coordinator (consultation)**

- **What**

- **Integrated technical/cost/schedule plan for achieving test objectives within budget provided**
- **Incorporates results of data obtained and analyzed in previous years**

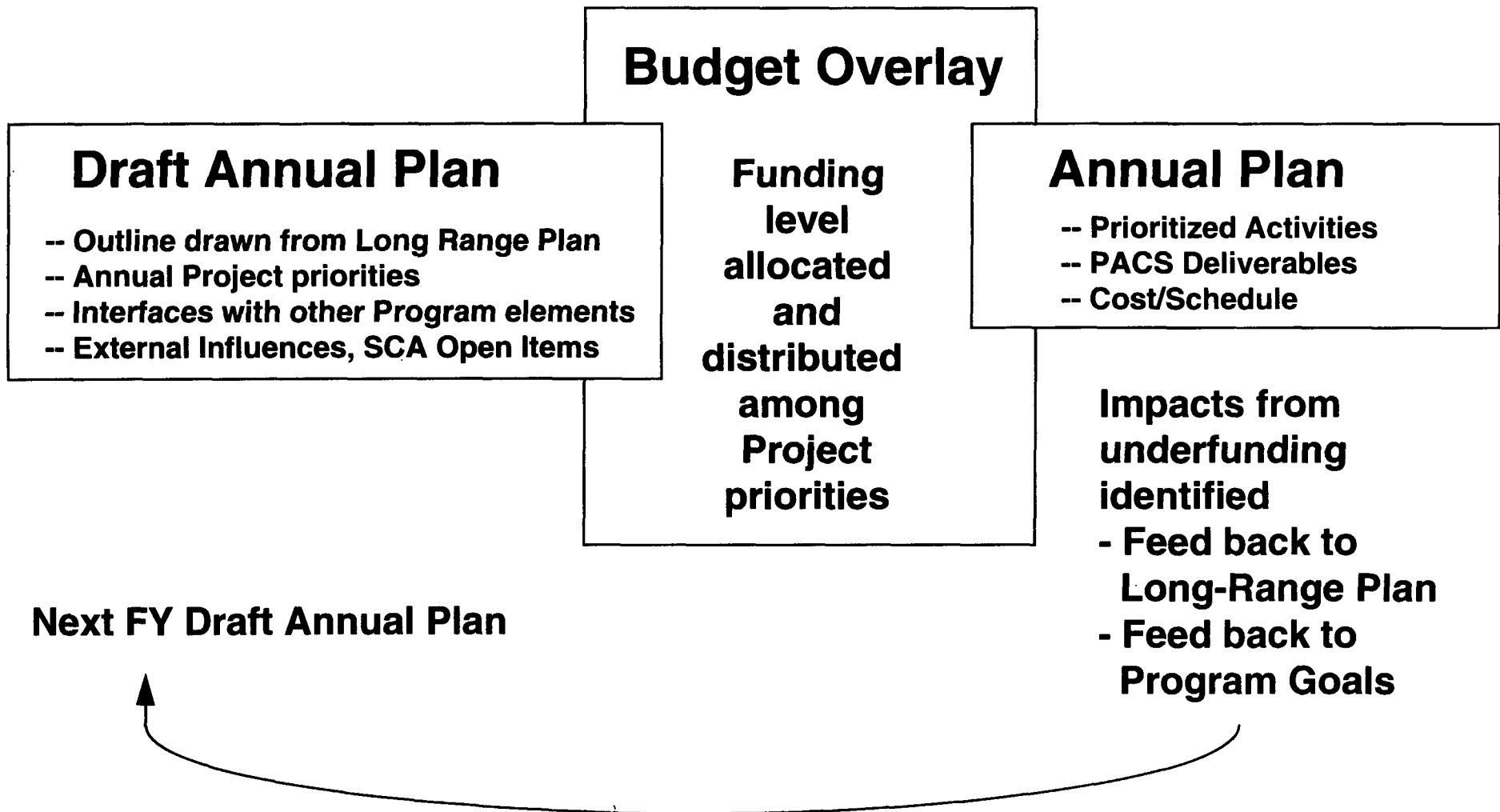
Annual Planning

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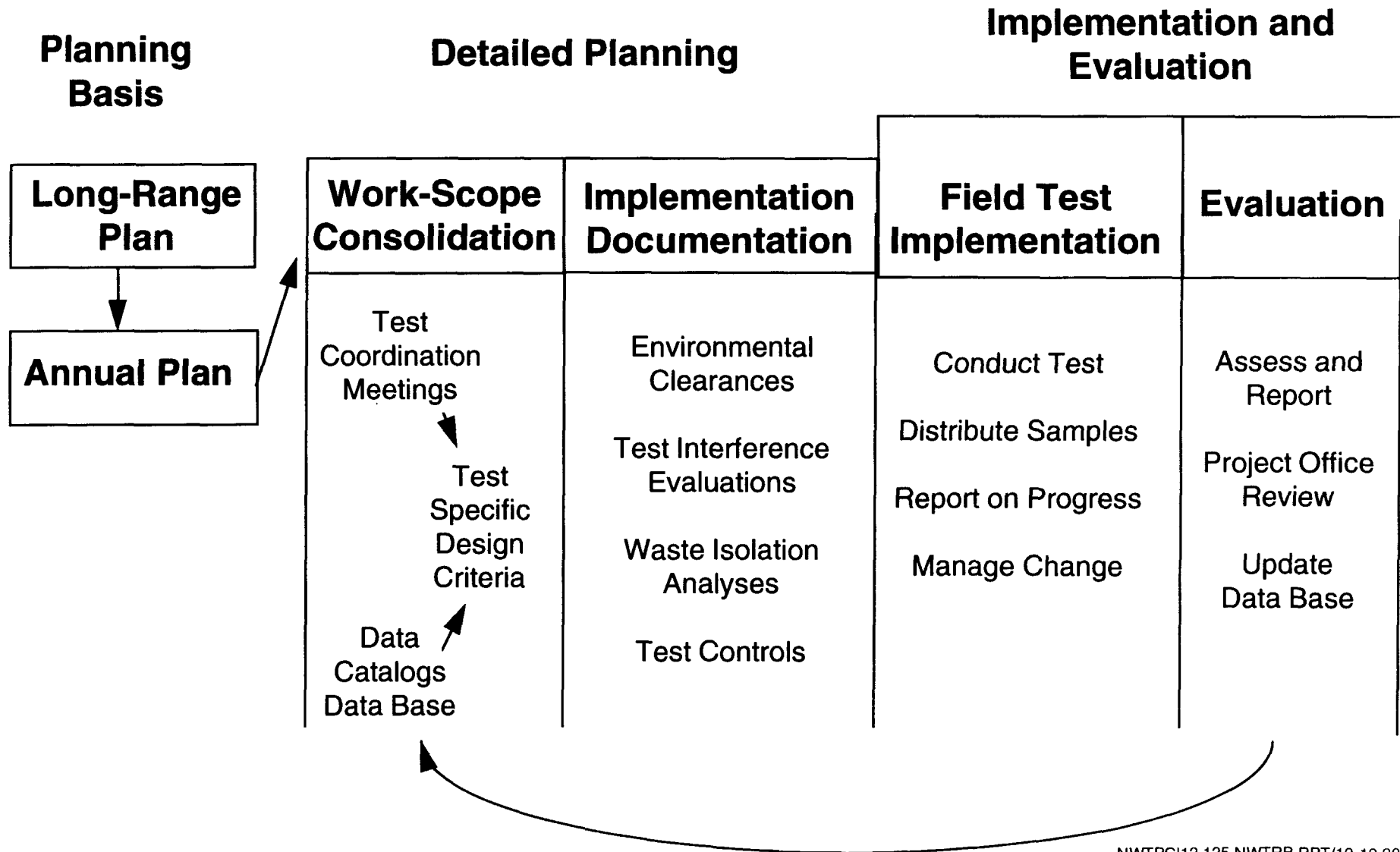
- **How**

- **Project assumptions and funding levels are identified by program and project management**
- **Detailed work-scope consolidation efforts are developed that are consistent with scientific program objectives**
- **Resources are distributed in the most efficient manner to obtain required data, given assumptions, funding profile, Project priorities, and past information**

Annual Planning Process

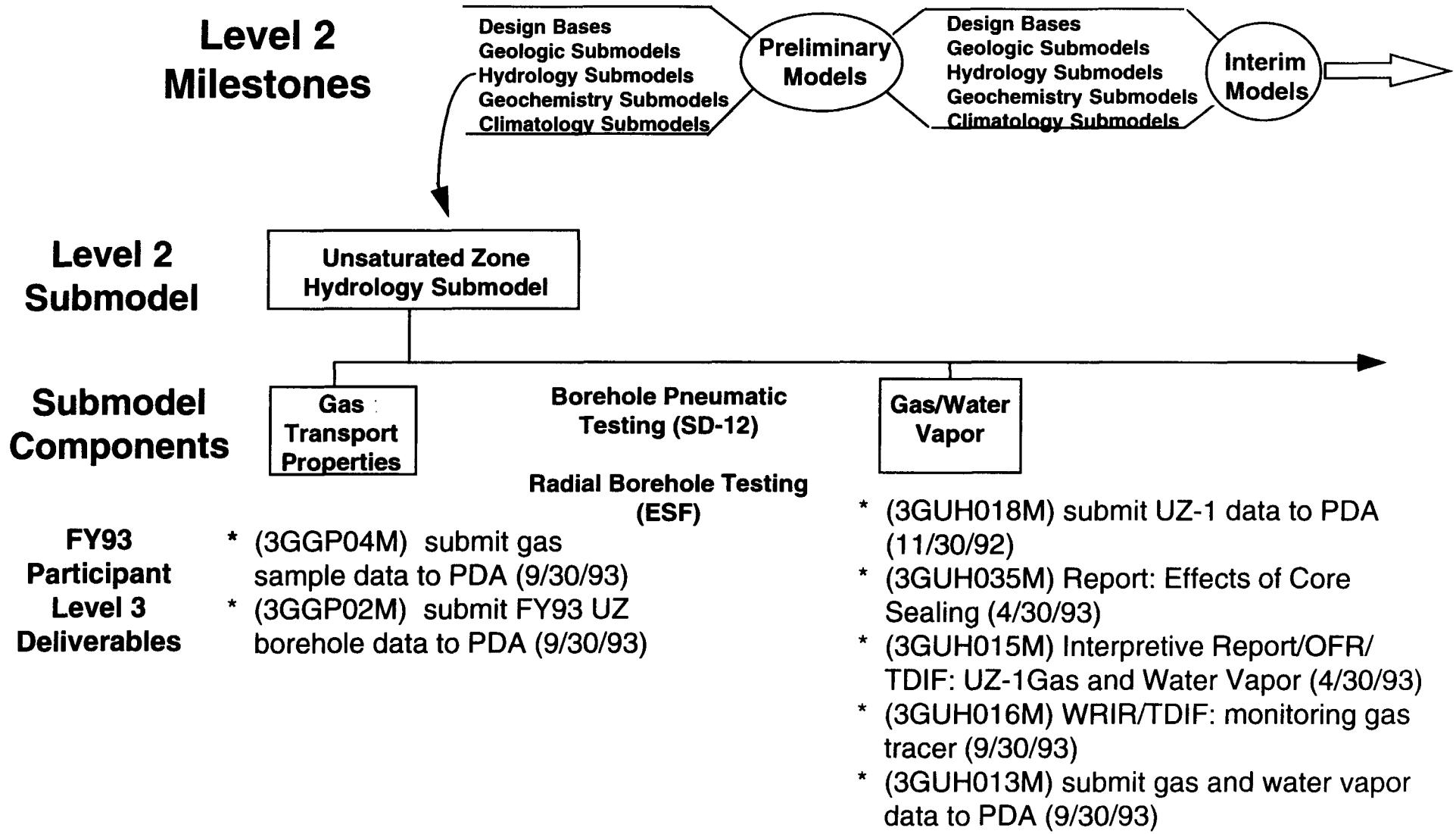


Site-Investigation Process



Site-Investigations

Model, Submodel, Component and Deliverable Hierarchy



Conclusion

- **An integrated testing program links field activities and annual deliverables through scientific programs to regulatory issues**
 - Long-range
 - Intermediate
 - Annual
- **Integration between surface-based tests and *in situ* tests (ESF) is achieved through a coordinated planning effort at the scientific program level**