EM-21
Multi-Year Program Plan Development Process

August 26, 2008

Topics to be Covered

- **Initiative Development Team approach and structure**
- **Goals**
- **Program Administration & Management**
- **Prioritization Process**
  - Overview
  - Lessons Learned from FY 2008
  - Criteria
  - Task Development and Selection
  - Current status
  - Process output

Waste Processing Programs

Initiative Development Team Structure

Legend:

Personnel:

Blue – EM-20
Green – SRNL
Red – INL
Purple – PNNL
Brown – ORNL
Black – Other Affiliated Institutions

Waste Processing Programs
(WBS 1.0)
Steve Krahn (EM-21)
Texas Chee (EM-21)
Lead – Jeff Griffin (SRNL)
Deputy – Paul Bredt (PNNL)
Jay Roach (INL)
Ben Lewis (ORNL)

Improved Waste Storage Technology
(WBS 1.1)
Hoyt Johnson*/Chet Miller* (EM-21)
Lead – Paul Bredt (PNNL)
Karthik Subramanian (SRNL)
Rick Demmer (INL)
Rodney Hunt (ORNL)
Charlie Waggoner (ICET/MSU)
Laurie Judd (NuVision Engineering)

Reliable and Efficient Waste Retrieval Technologies
(WBS 1.2)
Texas Chee*/Gary Peterson*/ Gary Smith* (EM-21)
Lead – Sharon Marra (SRNL)
Mike Rinker (PNNL)
Rick Demmer (INL)
Mark Noakes (ORNL)
Charlie Waggoner (ICET/MSU)
Laurie Judd (NuVision Engineering)

Enhanced Tank Closure Processes
(WBS 1.3)
Gary Peterson*/Steven Ross* (EM-21)
Lead – Sharon Marra (SRNL)
Mike Rinker (PNNL)
Rick Demmer (INL)
Mark Noakes (ORNL)
Charlie Waggoner (ICET/MSU)
Laurie Judd (NuVision Engineering)

Next Generation Pretreatment Solutions
(WBS 1.4)
Nick Machara*/Chet Miller* (EM-21)
Lead – Bill Wilmarth (SRNL)
Dirk Gombert (INL)
Reid Peterson(PNNL)
Dan McCabe (SRNL)

Enhanced Stabilization Technologies
(WBS 1.5)
Kurt Gerdes*/Nick Machara* (EM-21)
Lead – John Vienna (PNNL)
Dirk Gombert (INL)
David Peeler (SRNL)
Joe Westsik (PNNL)
Innocent Joseph (VSL – Catholic U.)

Challenging Materials
(WBS 1.6)
Hoyt Johnson*/Monica Regalbuto* (EM-21)
Lead – Jay Roach (INL)

Spent Nuclear Fuel
(WBS 1.7)
Al Baione* (EM-21)
Lead – Bill Hurt (INL)
Brady Hansen (PNNL)
Natraj Iyer (SRNL)

Organizations Involved

- **Initiative Development Teams (IDT)**
  - DOE EM-21
  - National Laboratory representatives – technical expertise
  - Directed Programs
- **DOE EM Field Offices**
  - Consultation and feedback
  - Participation in prioritization effort
- **Contractor Personnel at key EM sites**
  - Consultation and feedback
  - Participation in prioritization effort
- **NuVision and Cogentus**
  - Organizations that are facilitating the process to prioritize the Technology Development & Deployment (TDD) tasks

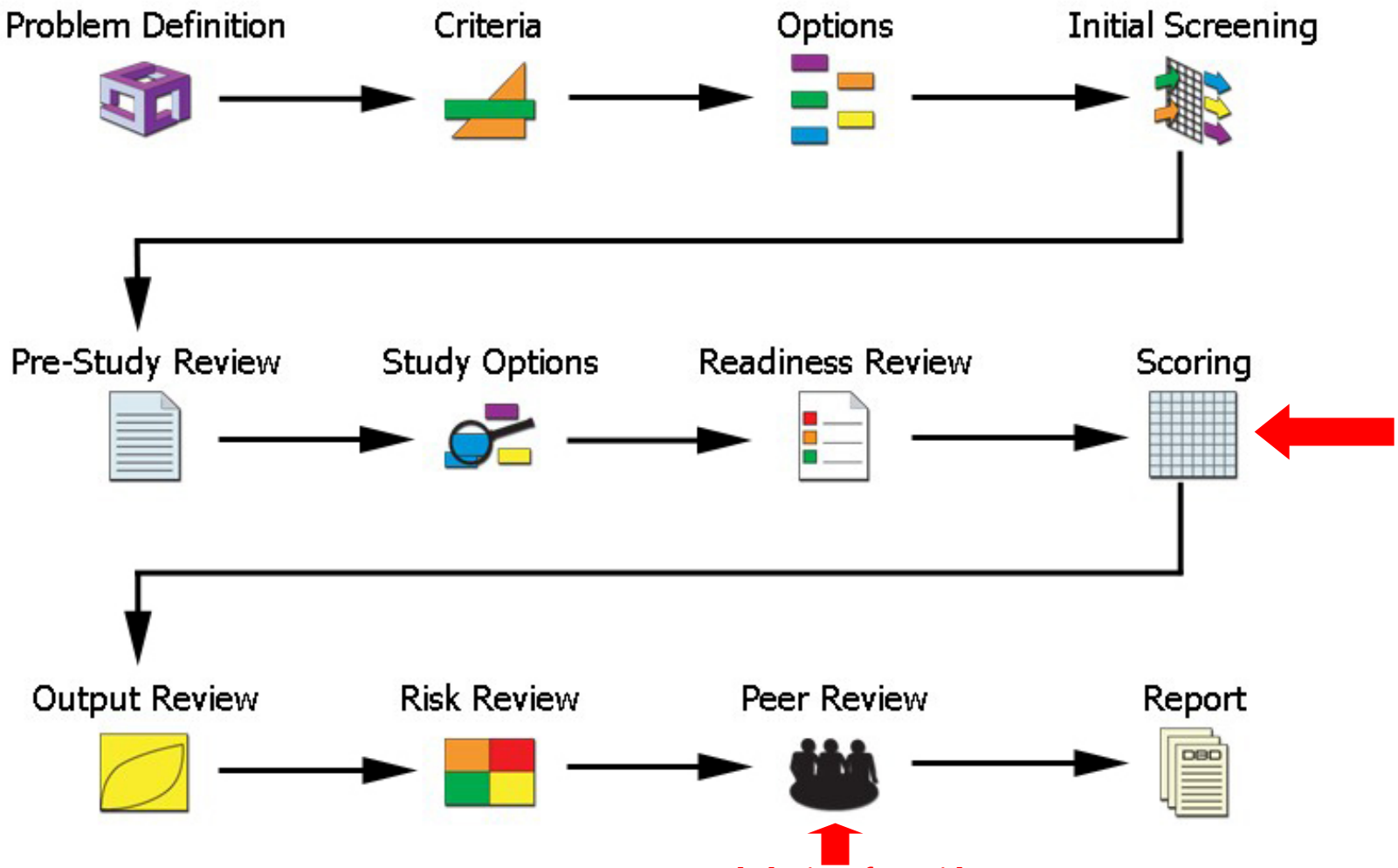
Goals

- **Provide a defensible list of Waste Processing tasks that address key site needs.**
  - Identify the portfolio of TDD tasks that maximizes overall benefit per dollar spent
  - Improved data quality
  - Increased common understanding on the projects across the complex
- **Develop a structured, consistent and robust process for program management decision making**.
  - Within a single FY – i.e. change/configuration management
  - Out-year planning facilitation – can be updated year on year

Program Administration & Management

- **Robust MYPP portfolio review process**
  - Monthly status updates through each Initiative Development Team Lead
  - External Technical Reviews of selected projects through the year
  - Mid-Year Review – all funded projects, with focus on high $ (Denver – 7/28/08)
    - Involves Initiative Development Team, EM-21 and site personnel
    - Covers technical and financial progress and issues/changes
  - Year-End Review (similar to Mid-Year Review)
    - Status update on all funded projects
- **MYPP portfolio input and modification**
  - Close contact with sites/projects to understand emerging needs
  - Portfolio change needs monitored through formal review progress
  - Annual Task Prioritization Review to address MYPP changes for new fiscal year

Prioritization Process Overview



Includes interface with Federal Project Directors

Last Year, FY08

- Prioritization process piloted on Waste Processing tasks in FY2008
  - Compared and assessed 100+ TDD tasks in 5 work areas
- EM Field Offices were brought in after initial prioritization listing developed
  - Field office input led to adjustments in relative rankings

- Prioritization process outputs made the process for adjusting to Field input and budget changes a more structured process with bases

Lessons Learned from FY 2008

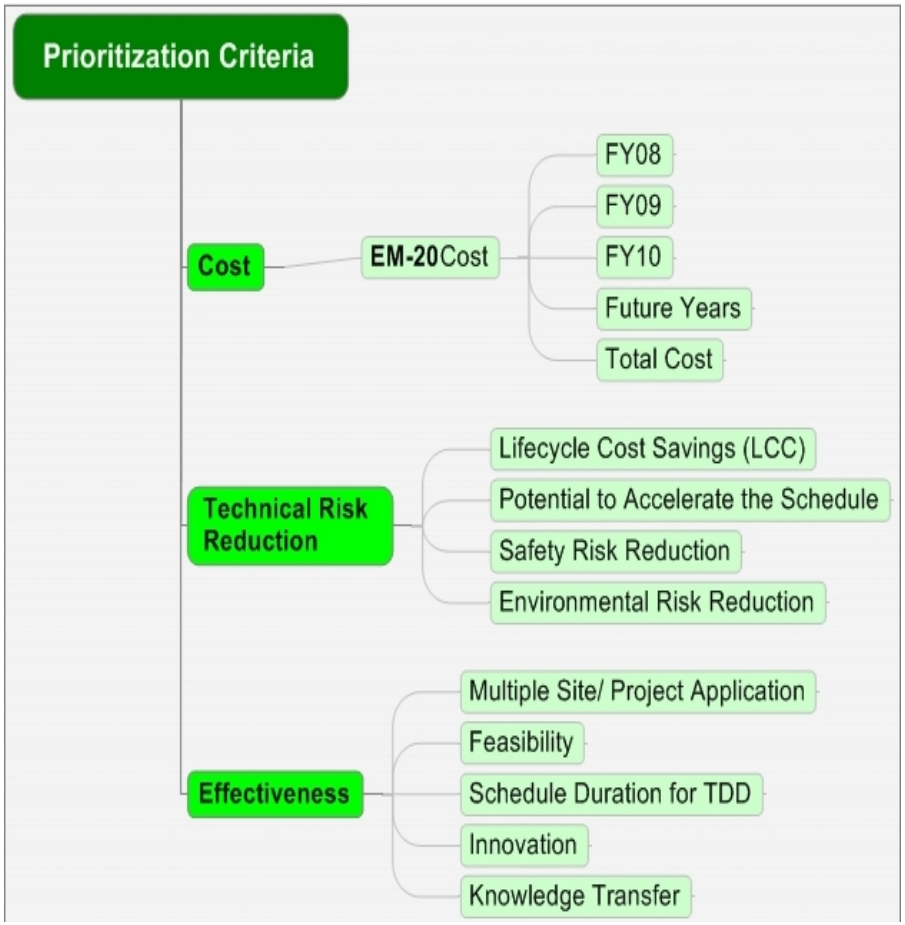
- **Participation**
  - Bring the Field Offices into the process as the datasheets are developed

- **Revision of Prioritization Criteria**
  - Overall simplification – reduction of number and improved clarity
  - Include nuclear safety (i.e., material at risk (MAR) and energy available to disperse MAR)
  - Re-evaluate use of Technology Maturity Level as a criterion
  - Ensure independence of criteria

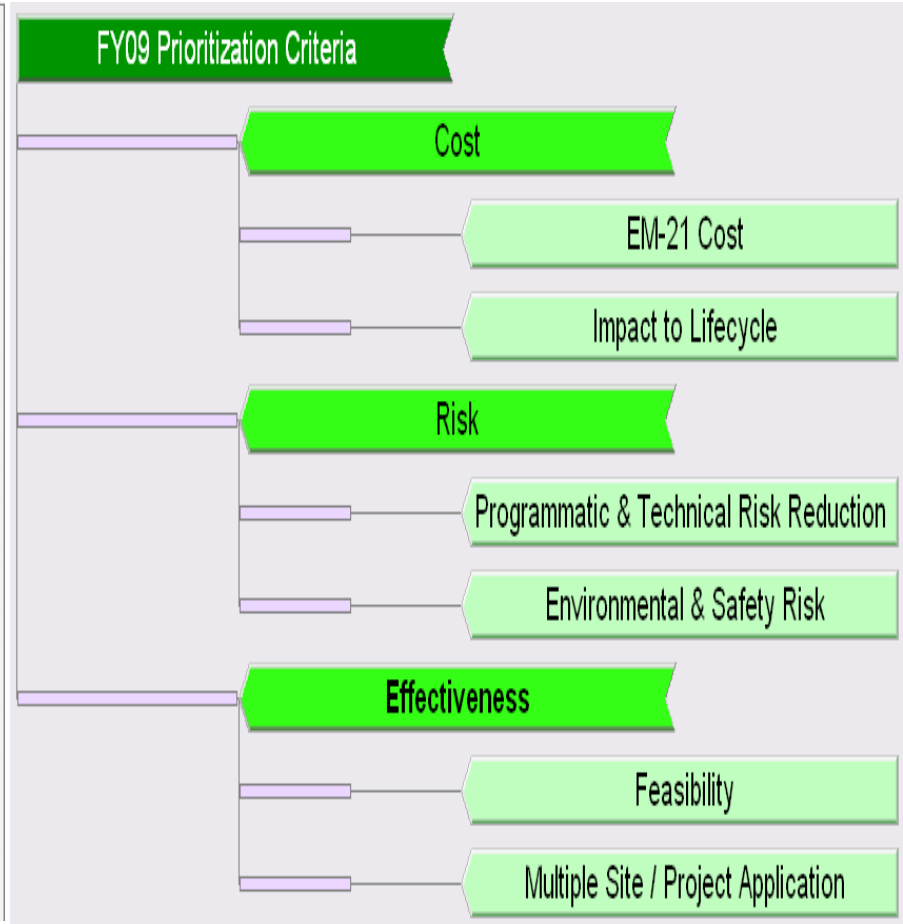
- **Workshops**
  - Essential to discussions, understanding and acceptance of program

Criteria

FY 2008 Criteria

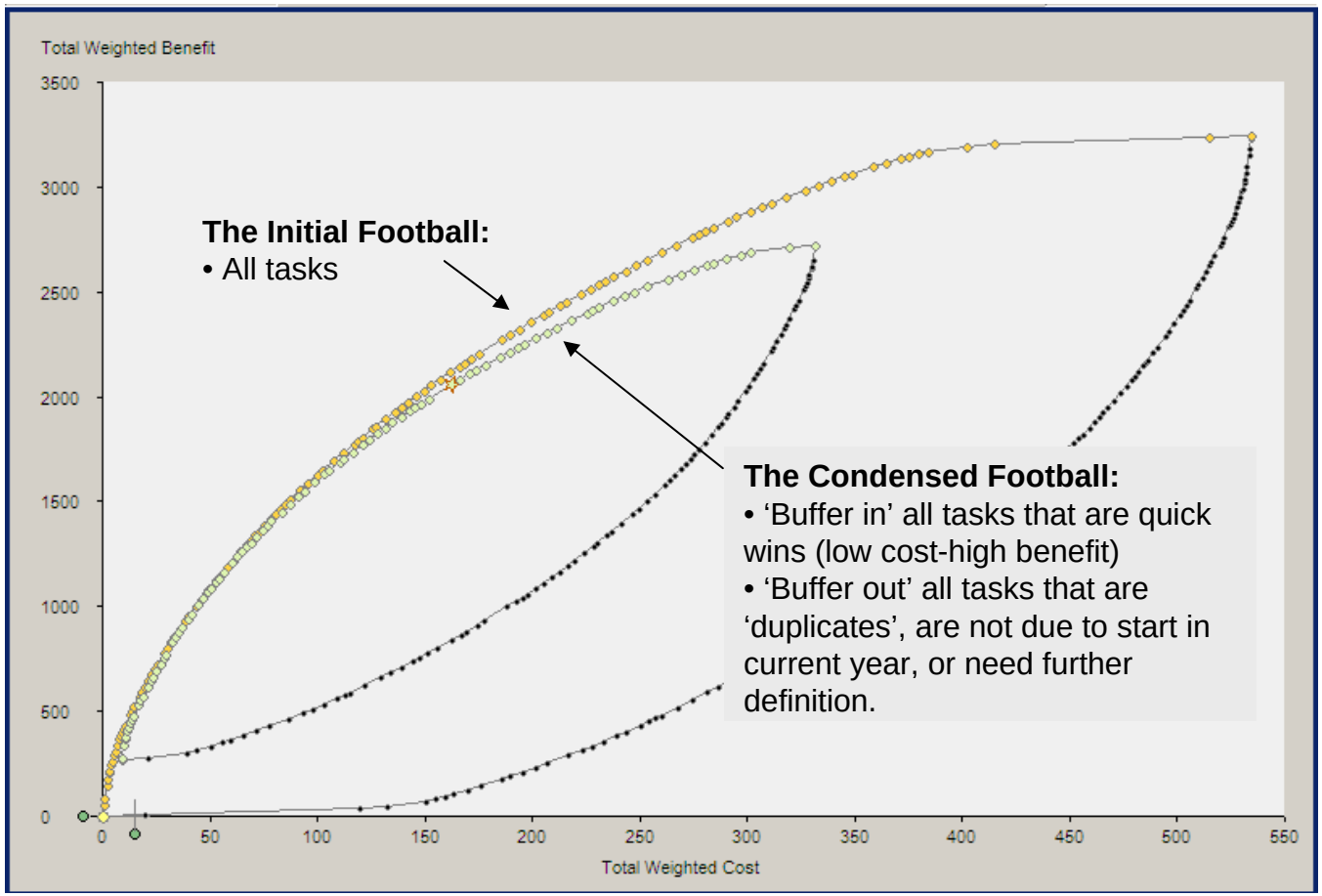


FY 2009 Criteria



Prioritization Process Output - Initial and Condensed Footballs Reasons for Inclusion/Exclusion

The total number of tasks and combinations of tasks requiring detailed analysis is reduced

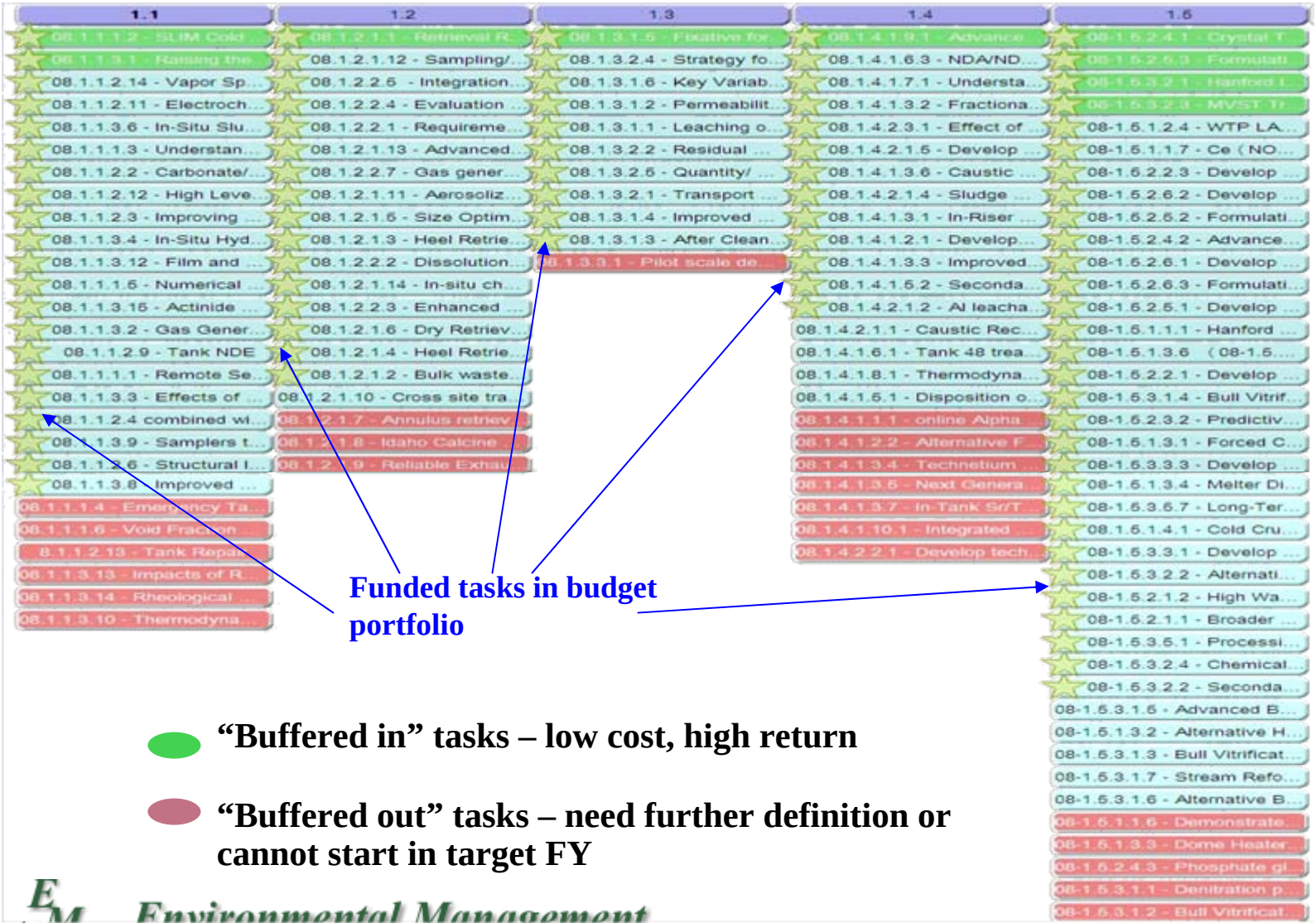


EM-21 Task Development & Selection Process

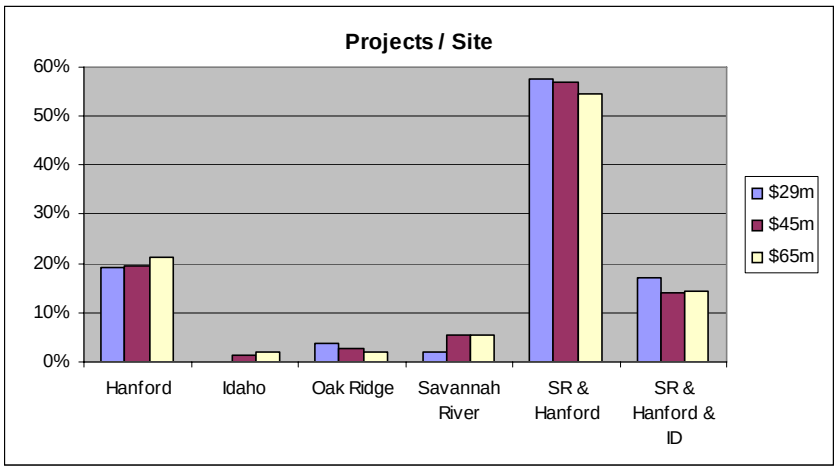
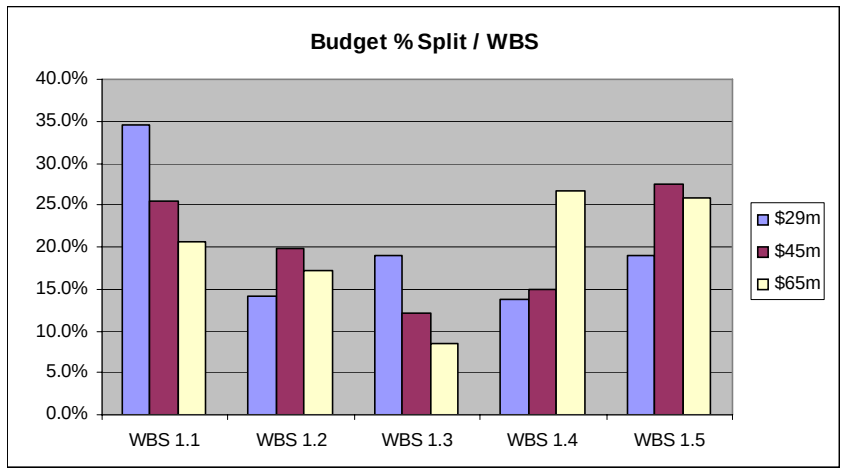
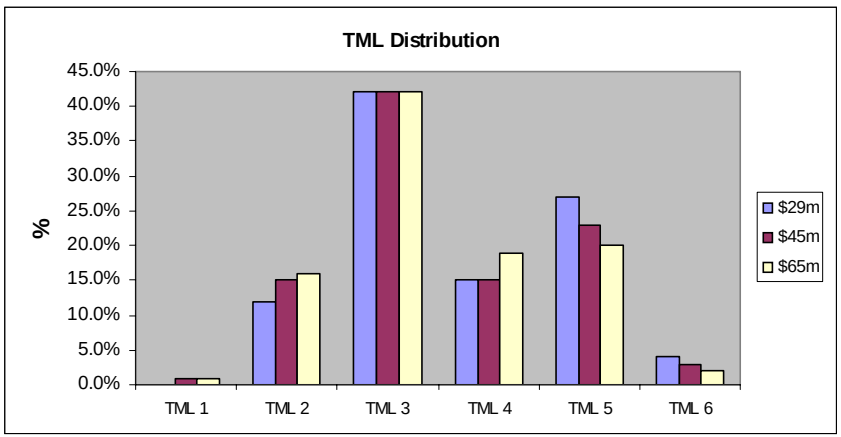
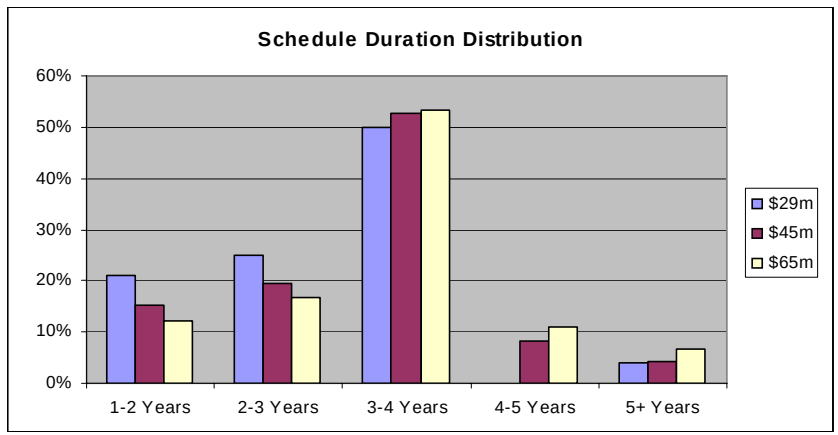
- **Completed for FY09**
  - Analyze risks and impacts called out in Roadmap (done in FY07)
  - Perform gap analysis of risks against current projects funded by sites, projects and/or EM-21
  - Identify potential tasks to mitigate risks
  - Review/discuss potential tasks with Site Field Offices and contractor personnel
  - Develop data packages (datasheets) for each task to be scored and submitted to be merged into data warehouse.
  - Score tasks against accepted criteria
- **On-going**
  - Workshop results reviewed – HQ and Field Offices August
    - Consideration for balance with respect to sites, technical areas, etc.
  - Revise portfolio as indicated from review August/September
  - Prioritized task list available for input to MYPP September

Waste Processing TDD Portfolio

Example Output Display



- "Buffered in" tasks – low cost, high return
- "Buffered out" tasks – need further definition or cannot start in target FY

Portfolio Balance

Example Output