



FY
2014

Superfund Remedial Program Review Action Plan



EXECUTIVE SUMMARY

The Superfund remedial program has sustained substantial budget reductions over the past two fiscal years. The cumulative effect of reduced funding has put a strain on the remedial program's ability to maintain its cleanup activities. In response, the Superfund remedial program initiated a comprehensive review to evaluate the efficiency of current cleanup processes and the use of remedial program resources with the goal of minimizing reductions to the remedial program's effectiveness in protecting human health and the environment.

This action plan is the result of the remedial program review. It identifies short- and long-term measures and activities which will be undertaken to maintain an effective remedial cleanup program under budgetary constraints. The plan is divided into two major sections under the headings of Cleanup Process and Program Management Actions. The cleanup processes sections discuss adaptive management (described below) and the assessment, study, design and construction phases of the remedial process. The program management activities outline actions to use internal Agency resources such as contracts (acquisitions), budget, in-house expertise, and information technology (IT), more efficiently.

One of the key concepts of the 2010-2012 Integrated Cleanup Initiative (ICI) was managing sites to completion. In the spirit of this initiative, this plan continues to focus on project completion, from the onset of site assessment through design and construction. A major concept carried forward from the ICI is the integration of the remedial design (RD) and remedial action (RA) processes. Having early constructor involvement during design, tailoring the design to the complexity of the construction and assuring availability of project funds prior to beginning the design, among other measures, are expected to result in cost savings/avoidances as evidenced by the ICI pilot studies.

Another significant element presented within the Cleanup Process section involves the concept of adaptive management, an iterative process which allows modifications to remedial approaches based on newly acquired information. While some aspects of adaptive management were used historically, this plan emphasizes integrating it more deliberately throughout the remedial process.

The Program Management actions emphasize streamlining business processes and leveraging resources to the extent possible. The Acquisition Framework focuses on establishing a contracting strategy that promotes fair opportunity to ensure the best price for the work required. The budget and special account actions focus on building processes that simplify using deobligated, reclassified and special account resources ahead of newly appropriated funding. Actions that strengthen the use and sharing of in-house resources, both technical and programmatic, are also defined. Similarly, the implementation of the Superfund Enterprise Management System (SEMS) will significantly affect the way the program does business by moving the primary program management system to the web and providing a more robust project, records and web content management capability.

By implementing the actions presented in this plan, the Superfund remedial program is striving to continue to improve and streamline site cleanup approaches beginning with strategic upfront planning with an eye toward project completion. Modifying remedial program resource management priorities, combined with additional increases in efficiencies will contribute to this goal. In this way, the Superfund remedial program aims to minimize the adverse consequences of budget cuts on its effectiveness in protecting human health and the environment, while recognizing their impacts cannot be fully off-set.

Background	6
Introduction	6
Expected Outcomes From Implementation of Actions	7
Cleanup Process Actions	8
Adaptive Management	8
<i>Short-Term Actions</i>	9
Issue OSWER Directive to Employ Adaptive Management Approaches for Superfund Remedial Sites.....	9
Finalize Groundwater Remedy Completion Strategy	9
Develop Adaptive Management Pilots	10
Develop Portfolio of Adaptive Management Tools and Approaches	10
Implement Deletion Process Improvements	11
<i>Long-Term Action</i>	11
Identify and Document Adaptive Management and Deletions Priorities	11
RD/RA Integration	12
<i>Short-Term Actions</i>	12
Re-Distribute and Develop Training for the ICI Pilots Lessons Learned (RD/RA)	12
Conduct Additional Integrated RD/RA Pilot Projects	12
Evaluate RD/RA Process Improvements	13
Facilitate Information Sharing on Project Delivery Options	13
Revise Value Engineering Guidance	14
Revise the RD guidance.....	14
Develop Technical Memorandum for Strategic Sampling	14
Develop Technical Memorandum Outlining Best Management Practices on Data Collection.....	15
RI/FS Process	15
<i>Short-Term Actions</i>	16
Assess Practical and Funding Issues Related to Taking Early Actions at Sites... 16	
Reinforce Smart Scoping and Best Practices in the RI/FS Stage	16
Develop Training/Webinars for Site Managers for RI/FS Scoping	17
Encourage Use of Amendments at Sediment Sites to Reduce the Bioavailability of Contaminants.....	17

Explore Ways to Promote Clear and Concise Proposed Plans and RODs.....	18
Improve Process and Timing for Review of Draft Proposed Plans and RODs ...	18
<i>Long-Term Action</i>	19
Share “Best Practices” for RI/FS Studies at Mining Sites	19
Pre-Listing.....	19
<i>Short-Term Actions</i>	19
Improve Conciseness in Preparation of HRS Documentation Records.....	19
Revise Pre-CERCLIS Screening Guidance	20
<i>Long-Term Action</i>	20
Develop a Site Assessment Workload Coordination Guide	20
Streamlining the Five-Year Review Process.....	21
<i>Short-Term Action</i>	21
Explore Methods to Streamline the FYR Process by Conducting Pilots.....	21
<i>Long-Term Action</i>	22
Revise the 2001 Comprehensive Five-Year Review Guidance	22
Program Management Actions.....	22
Project Data Management	23
<i>Short-term Actions</i>	23
Develop Policy Guidance on Site Data Management.....	23
Acquisitions.....	23
Budget	24
<i>Short-Term Actions</i>	24
Require 21-day Turnaround Time for all Sample Analyses	24
Maximize Use of First Two Tiers When Procuring Analytical Services.....	24
Records Center Funding Review	25
Deobligation Recertification Policy.....	25
Revise/Sunset Pipeline Allocation Model	25
Improve Unliquidated Obligations and Deobligation/Recertification Processes.	26
Alternative Parties to Perform Site Cleanups.....	27
In-house Resources.....	27
<i>Short-Term Actions</i>	28
Prepare Guiding Principles to Identify Types of Technical Work Suited for In-	
house Resources.....	28
Catalog Technical Support Resources	28

Inventory Data Collection, Data Management and Decision Support Tools Within EPA.....	29
Implement a Superfund Learning Management System.....	29
Leveraging Special Accounts.....	30
<i>Short-Term Actions</i>	30
Use of Special Accounts for Oversight Costs.....	30
Close Low Balance Special Accounts	31
SEMS/IT.....	32
<i>Short-Term Actions</i>	32
Deploy Phase 1 of the Integrated SEMS Tool Suite.....	32
Use a Fully Integrated Software Suite	33
<i>Long-Term Action</i>	33
Minimize System Maintenance Costs.....	33
Superfund Web Special Project.....	33
<i>Short-Term Action</i>	33
Reformat Superfund Site Progress Profile Pages.....	33
<i>Long-Term Action</i>	34
Link to Other EPA/Outside Content.....	34
Communications.....	34
<i>Short-Term Actions</i>	34
Expand Use of Electronic Communications	34
Provide Electronic Access to Site Records.....	35
<i>Long-Term Action</i>	35
Identify and Document Strategies for Community Involvement Efforts.....	35
Evaluation.....	36
Appendix A: Acronym List.....	37
Appendix B: Steering Committee Membership	39
Appendix C: Subgroup Membership.....	40

BACKGROUND

The Superfund remedial program has sustained substantial budget reductions over the past two fiscal years and as a result will have over \$140 million fewer dollars to devote to site cleanup than had the program remained funded at FY 2011 levels.¹ Future levels of appropriations are uncertain as the U.S. Environmental Protection Agency (EPA), the Administration and Congress continue to make extremely difficult funding decisions in an austere budget environment. The cumulative effect of reduced funding has put a strain on the program's ability to maintain its cleanup activities. For example, due to funding needs for construction projects started in prior years combined with funding needs for new projects, the remedial program's budget cannot support funding all of the construction projects that are ready to start. The remedial program expects that there may be between 25 to 35 construction projects waiting for funding by the end of FY 2014. These projects alone are estimated to cost over \$450 million to complete construction. In addition, reduced funding has resulted in EPA extending the duration of certain ongoing remedial actions, beyond the optimal pace. Nor are the impacts limited to construction; budget constraints mean that EPA is reducing funds for site assessment including resources to states. Some sites on the National Priorities List (NPL) will await funding for detailed site characterization and remedy selection. Others will not receive funding for designs for construction projects. In addition, directed reductions in the workforce and retirements diminish the remedial program's capacity to complete work as well as contribute to the loss of institutional knowledge and skills.

INTRODUCTION

The goal of this program review is to minimize impacts to the Superfund remedial program's effectiveness in protecting human health and the environment brought on by budget constraints, workforce and technology changes by critically evaluating program resources and cleanup processes. In December 2012, the Director of the Office of Superfund Remediation and Technology Innovation (OSRTI) convened a steering committee of division directors (DDs), deputy division directors, branch chiefs and staff from Headquarters (HQ) and the Regions to oversee and guide the review (see Appendix B and C). Staff with expertise in various program areas were solicited and charged to consider all elements, processes and activities of the cleanup program for potential opportunities for increased efficiency. From their extensive list of recommendations, the steering committee, with input from Regional DDs and HQ program offices, selected those most promising and developed 14 action plans organized around remedial processes and program management functions. Some of the recommendations identified under the program review evolved from existing initiatives, efforts and studies, such as the Integrated Cleanup Initiative (ICI). Other recommendations build upon ongoing work that the Agency is undertaking. The remaining recommendations were identified as part of the program review effort.

While progress has been made on many fronts in effectively managing the program, new challenges and opportunities continue to emerge. For example, longer time frames and more resources are required to clean up the remaining NPL sites as less complex sites have been completed. The Superfund remedial program can leverage new technology developments and identify and implement innovative ideas to a greater degree to help minimize reductions to the remedial program's effectiveness in protecting human health and the environment.

¹ The FY 2013 enacted budget, accounting for sequestration, for the Superfund remedial program is about \$505 million.

EXPECTED OUTCOMES FROM IMPLEMENTATION OF ACTIONS

The Superfund remedial program review included a comprehensive look at all aspects of the cleanup program. This effort generated numerous recommendations to increase process efficiencies in all program areas over the short- and long-term. Those recommendations deemed to be most promising were developed into short- and long-term actions; these are described later in this document. The individual actions were organized into 11 categories according to remedial process activities and program management functions.

Several major ideas were identified to accelerate the remedial process and reduce site investigation and cleanup costs. A number of actions were developed for improving elements of the site investigation process such as better scoping the remedial investigation/feasibility study (RI/FS), identifying opportunities for taking early actions at sites and exploring ways to promote clear and concise proposed plans and records of decision (RODs) to facilitate document preparation and review by external stakeholders.

Other activities identified for process improvements include the site listing and the five-year review (FYR) processes. Considerable resources are spent on assessing sites that are later referred to other programs. Actions will involve developing a better process to screen sites out earlier before resources investments are made and to developing more concise listing packages. As more than 200 FYRs are prepared nationally each year at a significant resource expense, based on ongoing pilot work, a streamlined FYR model will be developed.

As a large portion of the Superfund remedial budget is devoted to construction activities, a major focus of the review was to identify time and cost efficiencies that could result from integrating RD and RA activities. Promoting concepts identified as part of the ICI RD/RA pilot studies – early constructor involvement, tailoring the design to the complexity of construction, and ensuring availability of RD and RA funding resources early in the design scoping process – is expected to result in cost savings/avoidances, as were demonstrated by the pilot studies. Building on the lessons learned from the past pilots, additional pilots are planned to test opportunities to reduce project schedules and resource outlays.

A key recommendation of the program review involves adopting an adaptive management approach to moving sites to completion within the NCP framework. With an adaptive management approach, EPA can evaluate remedy effectiveness and track progress toward attainment of remedial action objectives (RAOs) using performance metrics and data derived from site-specific remedy evaluation. The remedy effectiveness information is then used to actively manage site operations and refine remedial strategies. A groundwater remedy completion strategy would be developed as a key component of the approach to help site teams focus resources on the information and decisions needed to efficiently move sites to completion. Actions to be undertaken include developing pilot projects or case studies to demonstrate how adaptive management can be implemented at sites, finalizing the Groundwater Remedy Completion Strategy and identifying ways to improve the deletion process.

Another major concept identified by the review was to focus actions on managing project completions to control site risk. Projects would address human and ecological exposures and control migration of contaminated media to stabilize site conditions such that achievable contaminant concentrations are met to provide risk reductions and reach other practicable endpoints in situations where desired RAOs have not yet been achieved in the near term. Final remedies would be implemented as resources become available. Consistent with the National Contingency Plan (NCP) expectation on

groundwater, EPA would make site-specific determinations on what is practicable at a site, as well as the time frames for final remedies based on the particular circumstances of the site.

Program management activities in the areas of acquisitions, budget, SEMS/ IT and communication are also identified for improved efficiencies. Of note, among the functions evaluated are leveraging the use of special accounts and in-house resources. EPA receives special account dollars from private party settlements, including bankruptcies and reimbursement work already conducted, to fund remaining activities at sites. Actions from this review emphasize the acquisition and use of special account funds before spending funds appropriated by congress. The Agency has a wealth of human resources (e.g., engineers, scientists and program analysts) who can provide internal support to project managers and who can “self-perform work” that might otherwise be given to contractors. Actions will address how to promote use of these internal resources.

The following sections of this document provide detail on the planned actions organized according to the 11 areas of program activity. Each action is described and presented along with details on how and when it will be implemented, and who will lead the action.

CLEANUP PROCESS ACTIONS

The Superfund remedial program implements numerous processes to fulfill the core mission of protection of human health and the environment. These processes include collecting data on sites to determine the need for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response, adding sites to the NPL, conducting or overseeing investigations and studies to select remedies, designing and constructing or overseeing construction of remedies and post-construction activities at sites, including returning sites to productive use.

Several areas are being considered in this program review to capture important technical developments in the cleanup process as well as innovations in remedial project management. As organized below, this portion of the plan includes actions that encompass concepts such as adaptive management and portions of the pipeline, such as the RD/RA phase, the RI/FS process, pre-listing activities, and the FYR process. It is anticipated that these actions will help the program continue to meet its core mission.

Adaptive Management

Adaptive Management is an iterative approach to site investigation and remedy implementation that provides the opportunity to respond to new information and conditions throughout the lifecycle of a site. Adaptive management assumes there is an explicit intent to respond to new information and conditions, and to the extent it can be done under CERCLA and the NCP site decision making, formal remedial decision documents as well as other project plans and reports incorporate appropriate language that enables efficient planning and execution of adaptive management techniques. Through this approach only the necessary data are collected to improve the conceptual site model, as well as select and make adjustments to the implementation of the RAs, to ensure efficient and effective remediation. The remedial program already employs some aspects of adaptive management at some sites and further applications of adaptive management are underway. For example, an iterative approach is encouraged and used,

including Triad,² to guide study design and data collection. The data quality objectives (DQOs) process is another example of adaptive management used in the site characterization. Adaptive management is a thoughtful planning process whereby questions critical to the success of a project are identified early and decision points included at key steps in the process allow sampling activities or RA to be terminated or modified based on results of data analysis.

During remedy implementation, EPA can evaluate remedy performance and modify operations to more efficiently attain RAOs. A groundwater remedy completion strategy is a key component of the approach to help site teams define achievable metrics that define remedy progress. These metrics can also be used to determine when a project has provided a valued amount of risk reduction, short of achieving final RAOs. This adaptive approach would focus resources on the information and decisions needed for overall protection of human health and the environment, allow for adjustments to the RA within the framework of the NCP, based on the monitoring results, where necessary, and facilitate moving sites to completion.

Short-Term Actions

Issue OSWER Directive to Employ Adaptive Management Approaches for Superfund Remedial Sites

An Office of Solid Waste and Emergency Response (OSWER) directive resulting from this action will aggressively, but prudently encourage adaptive management approaches for efficient and effective characterization and cleanup of Superfund sites. A strong statement of endorsement and training on the subject will help facilitate use of adaptive management by remedial program staff and management for the efficient characterization and cleanup of sites. While many adaptive management approaches can be applied at sites at any stage of the Superfund process (i.e., from site investigation through completion of RA through long-term operations of the remedy), there is currently no formal policy encouraging the use of these approaches.

The directive will provide examples of existing tools/approaches that leverage the adaptive management process, such as life-cycle conceptual site models, dynamic work plan strategies, groundwater remedy completion strategies, early source treatment response actions followed by effectiveness monitoring, and phased or iterative risk assessment approaches incorporating multiple lines of evidence and ecological monitoring.

- *Lead:* Assessment and Remediation Division (ARD) lead with support from Technology Innovation and Field Services Division (TIFSD) and Regional representatives
- *Product:* Adaptive Management directive
- *Time frame:* Target for directive issuance is Q1 FY 2014 or as needed to coincide with issuance of any Groundwater Remedy Completion Strategy guidance and tools
- *Resources:* A short document is envisioned, which would require limited attention from a small group, followed by Regional review

Finalize Groundwater Remedy Completion Strategy

This action encourages the continued assessment of Superfund's groundwater policy and the development of the Groundwater Remedy Completion Strategy document and supporting guidance. A groundwater remedy completion strategy is a step-wise plan and decision-making process for evaluating remedial alternatives, remedy operations, and progress and attainment of RAOs. This document will

² See <http://www.triadcentral.org/> for more information

provide the framework for implementing the adaptive management concept for groundwater sites where adaptive management has shown significant promise in RA implementation.

- *Lead:* Existing Groundwater Remedy Completion Strategy workgroup
- *Product:* Groundwater Remedy Completion Strategy and supporting guidance
- *Time frame:* The draft Groundwater Remedy Completion Strategy package, with supporting draft policy and implementation documents has undergone Regional review. This group has met through Q4 of FY 2013 to resolve issues that came out of Regional review. During FY 2014, OSRTI will engage with states, tribes, PRPs and other federal agencies and the final guidance should be available by Q4 FY 2014.
- *Resources:* Resource requirements will be work group members time for a limited number of meetings and HQ staff time to evaluate and implement actions. Much of the resource requirements to develop the Framework have already been expended. Significant resources may be needed during the engagement phase.

Develop Adaptive Management Pilots

To overcome technical and program management challenges, this action develops pilots and/or case studies to demonstrate how the adaptive management process can be implemented at sites. The ICI demonstrated the effectiveness of pilots in developing new practices and refining their implementation in the program. Several candidate case studies have already been identified and additional pilots will be solicited. Possible candidates for pilots can be, for example, sites with optimization activities in the RI or remedy selection phases, and sediment sites with simultaneous remedial strategies. As a result, this action will lead to significant site-specific efficiencies and will provide valuable information that can be disseminated more broadly.

- *Lead:* TIFSD and ARD with assistance from Regions
- *Product:* Pilot reports and studies
- *Time frame:* Q4 FY 2014
- *Resources:* Some of these pilots are ongoing and a small effort would be required to package the case studies in a usable form for remedial project managers (RPMs) while other pilots will need to be initiated and will be more labor intensive

Develop Portfolio of Adaptive Management Tools and Approaches

This action will build a clearly defined, routinely updated, portfolio of adaptive management tools and approaches that will become baseline tools used on all remedial sites, with particular emphasis on Fund-lead sites. Some tools may include: Triad technical support resources, Conceptual Site Model (CSM) development resources, and groundwater remedy completion strategy deliverables. Some of these examples will be developed based on the results of the adaptive management pilots referenced above. This action is intended to increase the use of adaptive management approaches in site cleanups by broadly disseminating information on best practices.

- *Lead:* Branch-chief level workgroup of Regional and HQ management to provide programmatic direction and help set priorities. TIFSD lead with support from ARD, technical forums, and the Regions
- *Product:* Adaptive Management Portfolio
- *Time frame:* One to year to develop initial portfolio of existing tools, up to three years to incorporate results of adaptive management pilots

- *Resources:* Considerable resources will be required to complete all of these tools. However, individual tools do not necessarily require significant resources

Implement Deletion Process Improvements

Certain stakeholders consider deletions to be the ultimate indication of remedial program success and EPA intends, through this action, to investigate potential process improvements or changes to eliminate unnecessary delays and impediments to deleting sites from the NPL. Reducing impediments to the deletion process will make deletions easier to achieve and may increase the number of sites deleted from the NPL, without compromising the quality of the remediation.

- *Lead:* Existing OSRTI deletion lead and the Regional deletions coordinators
- *Product:* New Federal Register deletion templates and revised guidance may result from this action
- *Time frame:* This group met in July 2013. Recommended improvements will be initiated in FY 2014
- *Resources:* All changes will be internal processes and are not expected to require significant guidance development. Workgroup members will need to meet to evaluate and implement recommendations

Long-Term Action

Identify and Document Adaptive Management and Deletions Priorities

This action commissions a branch-chief level workgroup of Regional and HQ management to provide programmatic direction and help set priorities to implement adaptive management approaches to site cleanup. Specifically, this workgroup should address project-specific interim progress metrics that define when to end a particular phase and change technologies. These metrics can also be used to identify stable interim conditions that provide a valued amount of risk reduction while remaining consistent with the NCP threshold criterion of overall protection of human health and the environment. For example, it is anticipated that significant risk reduction can be achieved and site conditions improved even if groundwater restoration cannot be achieved in the near term. The workgroup should also provide direction for developing interim metrics that are achievable within a reasonable time frame and protect human health and the environment, but are short of the final RAOs. It is anticipated that sufficient RA resources may not be available to complete all work necessary at some sites in the near term and suspending construction at stable interim conditions may be necessary or appropriate.

Alternate criteria for deletion of sites from the NPL will also be considered by this workgroup. One example that the workgroup will address includes whether to delete sites when active RA is complete and risks are reduced, and institutional controls are in place, but where achievement of cleanup goals and RAOs as described in decision documents have not yet been achieved but where no additional response action will be required (i.e., a site where monitored natural attenuation is working, monitoring is ongoing, but final cleanup levels have not been achieved but data and scientific assessment indicate cleanup goals and RAOs will eventually be achieved without ongoing/active/substantial intervention). This action is intended to provide an alternative science and risk-based mechanism by which sites, where practicable and effective RA has occurred, can be deleted. This action may increase the number of sites deleted from the NPL.

- *Lead:* A branch-chief level workgroup of Regional and HQ management. OSRTI, with Regional work groups, would develop the guidance necessary to implement actions identified by management workgroup
- *Product:* Revision to policy and guidance documents through a white paper

- *Time frame:* One to three years
- *Resources:* Management time and OSRTI resources to support the workgroup. More extensive supporting material may be necessary, depending on the recommendations and policy documents that need to be developed

RD/RA Integration

The RD/RA process has historically been a major area of focus because a large percentage of the Superfund remedial budget is used on the design, construction, and long-term operation of remedies. As such, the planning process, particularly the budget and schedule for Fund-lead projects, is frequently a target for efficiencies and cost savings. The RD/RA process is unique compared to other Regional activities because Fund-lead construction dollars are allocated by HQ following prioritization by the National Risk-based Priority Panel. The RD is funded through Regional pipeline dollars. As has been evident for the recent round of ICI pilots, opportunities for efficiencies may be realized when the RD and RA processes are considered together. In certain circumstances, this concept has been referred to as “enhanced project delivery.” The type and rigor of design, procurement strategy and ultimately the type of construction contract are interrelated – therefore, all three should be considered at the time of RD scoping. The ICI pilots recognized efficiencies in the RD/RA process such as: early constructor involvement; tailoring the design to the complexity of construction; and ensuring availability of RD and RA funding resources early in the design scoping process.

Short-Term Actions

Re-Distribute and Develop Training for the ICI Pilots Lessons Learned (RD/RA)

There were many good lessons learned from the ICI pilots and the intention of this recommendation is to re-distribute the original memorandum³ and to develop a webinar of lessons learned for RPMs. There appears to be very little knowledge of the existence of the memo. It will be more effective and meaningful for RPMs if they heard directly from fellow RPMs how they were able to be more creative in their project delivery.

- *Lead:* EPA HQ - OSRTI Front Office, TIFSD and ARD (for webinar training development), Regional RPMs
- *Product:* The directive is already written. Slight modifications will be needed to existing training presented at the National Association of Remedial Project Managers (NARPM) 2012 conference
- *Time frame:* Memo redistributed in early FY 2014, course provided at NARPM 2014
- *Resources:* The directive is already written. Slight modifications will be needed to existing training presented at the NARPM 2012 conference

Conduct Additional Integrated RD/RA Pilot Projects

This action will initiate a pilot design/build project using United States Army Corps of Engineers (USACE) or other contracts as appropriate and initiate other pilot projects integrating RD and RA project delivery with the objectives of reducing schedules and resource outlays. Reports from pilots will inform process changes, highlight best management practices, and inform guidance revisions. The pilots are expected to result in more efficient project delivery for the site(s) and efficiencies will be documented to

³ http://www.epa.gov/oswer/docs/ici/broader_applications_rd_ra_pilot_project_lessons_learned.pdf

highlight the benefits of performance-based designs and other innovations, and to inform development of Statements of Work (SOWs) for construction.

- *Lead:* HQ (OSRTI) and the Regions
- *Product:* Site-specific pilot reports
- *Time frame:* Initiation of pilots is targeted for FY 2014. Selection and evaluation criteria for pilots will be developed in early FY 2014
- *Resources:* Pilots typically require dedicated resources, focused RPM attention, and report writing at the end, which may divert RPM and HQ attention from other projects

Evaluate RD/RA Process Improvements

In order to evaluate areas for improvement, the National Risk-Based Priority Panel will be tasked to consider options, including program process and resource allocation adjustments, to integrate RD/RA and thereby deliver RA projects more efficiently while not compromising the Superfund program's Enforcement First principle. In evaluating the budget, policy and procedures currently in place for RD and RA project delivery, the Panel should consider the following: 1) Ability for the Regions to better plan future resource needs and for HQ to provide greater certainty on resource availability, 2) Leverage opportunities for integration of the RD and RA budgets, policies, and procedures, and 3) Find opportunities to use tools to streamline data collection, remedy decision-making, and RD/RA project delivery through adaptive management processes.

Specific topics for the Priority Panel to consider will include: 1) Improving coordination of the management and allocation of resources for both Fund-lead RD and RA projects, 2) Methods for allocating funds to give greatest assurance of RA funds at the time of pre-RD, or at least a good understanding of the likely funding stream for very large RA projects, 3) How to prioritize risk for sites with multiple projects in an adaptive management approach, and 4) How to encourage the use of early actions, as appropriate.

- *Lead:* Priority Panel, OSRTI – Construction and Post-Construction Management Branch (CPCMB) and the Budget, Planning, and Evaluation Branch (BPEB)
- *Product:* Options paper for senior management to evaluate potential adjustments to the Fund-lead RD/RA Regional and National resource management process
- *Time frame:* Six months to a year
- *Resources:* Priority panel members' time to attend one to three meetings and HQ staff to support those meetings and develop the white paper

Facilitate Information Sharing on Project Delivery Options

For RD/RA projects funded by special account or other Fund monies, the Regions have informally worked with HQ and the Priority Panel to discuss plans for funding projects prior to those projects formally going to the Priority Panel for consideration. Early discussions between HQ and the Region will allow the program to consider how best to provide resources for delivery of these projects and leverage both Regional and national RD and RA resources. Incorporating this practice into normal business practice, sometimes even for smaller projects, will ensure that this useful communication occurs. This communication, through standard reports or meetings, should occur among the RPM, the RPM's Branch chief, the Regional Priority Panel member and HQ RA funding coordinator earlier in the process, before the record of decision (ROD) is signed and continue into the immediate post-ROD or RD scoping phase to allow the program to refine the project delivery and funding plan.

- *Lead:* HQ (OSRTI ARD/ CPCMB) with assistance from Site Assessment and Remedy Decisions Branch (SARDB) and the Regions
- *Product:* A memo to the Regions that encourages information sharing on project delivery options
- *Time frame:* Better communication can be implemented immediately. Developing standard operating procedures (SOPs) can be completed by Q3 FY 2014
- *Resources:* Incorporating HQ design and construction expertise involvement into the pre-RD phase for Fund-lead construction projects. Additional expertise (TIFSD, USACE) can be included, as appropriate

Revise Value Engineering Guidance

Revising the current Value Engineering (VE) policy is the focus of this action. The VE policy was written before integration of RD/RA delivery was considered. As a result, the current policy indicates that VE completion is required prior to construction funds being allocated to a Region. In addition, the Office of Management and Budget (OMB) provided new requirements for VE last year, which now necessitate revisions to the VE guidance. Revisiting the policy proposed here would focus on whether the VE screen is required before allocation of RA funding to potentially allow for funding of sites earlier in the RD/RA process. Making this revision to the VE policy would allow more flexibility in the timing of RA fund allocation and could result in better integration of RD and RA.

- *Lead:* HQ (OSRTI ARD)
- *Product:* Revised VE guidance
- *Time frame:* Incorporate both revisions into the guidance by Q4 FY 2014
- *Resources:* Writing a short guidance should not require significant resources. This would not be major guidance and likely would not require the formation of a workgroup

Revise the RD guidance

The RD guidance will be updated to reflect different RD/RA project delivery scenarios using valuable lessons learned from the ICI pilots as well as any process improvements suggested by the Priority Panel. Modifications are intended to standardize factors for RD/RA project delivery at the time of scoping to provide RPMs with a better understanding of methods/options for RD/RA project delivery. The guidance will discuss, for example, schedule and design considerations, different technology applications, and RA procurement and contract types.

- *Lead:* HQ (OSRTI ARD/CPCMB) with input from Regions
- *Product(s):* Revised guidance and associated training
- *Time frame:* Two years
- *Resources:* This would be the first revision to the guidance in more than a decade and will take considerable resources

Develop Technical Memorandum for Strategic Sampling

This memorandum will be developed to highlight how to implement strategic data collection during the RD/RA process and will build on the ICI RD/RA pilot recommendations. The memorandum will provide guidance on planning and scoping activities to ensure the confirmation objectives are well understood, that an updated conceptual site model is maintained, and encourage the use of high resolution tools to reduce uncertainty. In addition, examples/templates will be provided to help guide the effort.

- *Lead:* HQ (OSRTI TIFSD and ARD)
- *Product:* Memo, templates, background resources
- *Time frame:* Q3 FY 2014
- *Resources:* Will require both HQ and Regional staff/management input and review

Develop Technical Memorandum Outlining Best Management Practices on Data Collection

The memorandum will discuss Best Management Practices (BMPs) and provide technical resources for RI and CSM development to make data collection most efficient through real time tools and assessments. This memorandum will also provide recommendations to best leverage data collection during RI to help streamline data needed during RD. Over the past decade, the Superfund remedial program has witnessed a significant increase in RI/FS cost. Some of it can be attributed to extensive data collection that may not have been needed. Better planning and scoping the RI/FS up front can help reduce RI/FS cost. Many sites have only a small number of potential remedial technologies that might be considered and often specific information such as geotechnical parameters, aquifer geochemistry, and nonaqueous phase liquid (NAPL) chemistry /physical characteristics are beneficial to the CSM and future remedy design, regardless of technologies chosen in the ROD. To the extent possible, these parameters and future design data need to be considered during RI systematic planning as opportunities arise to collect much of this information during characterization efforts. For example, significant and costly supplemental design investigations are likely not the most efficient manner to collect this information considering that during RI field efforts similar equipment and personnel are onsite, test pits and boreholes are open, wells are being constructed, and collection of samples or other information is optimal.

- *Lead:* HQ (OSRTI TIFSD) – in coordination with the adaptive management subgroup of the Program Review
- *Product:* Memorandum of BMPs
- *Time frame:* Q4 FY 2014
- *Resources:* Will require both HQ and Regional staff/management input and review

RI/FS Process

The purpose of the RI/FS in the Superfund remedial program is to characterize the nature and extent of contamination in various environmental media and the associated risks posed by uncontrolled hazardous waste sites and to evaluate potential remedial options. Generally, the RI/FS process can be both complex and time consuming. Often, even after multiple rounds of sampling, uncertainties remain at the site which may affect the quality and range of remedial alternatives. Data collection and analysis can require a significant amount of time, funding and coordination among technical and policy team members and other stakeholders. As a result, it is important to ensure careful focus on site-specific risk management needs.

The broad range of activities that comprise the RI/FS and ROD processes were considered along with barriers to timely completion of this work. From this, a number of actions were identified with potential to improve overall process. These areas highlight: the potential to be smarter about defining the scope of RI/FS work as early as possible in the remediation process (including strategic use of risk assessment); broader application of lessons learned from over 30 years of program experience at other sites; the use of early actions to address site threats and the potential for contaminant migration before conditions worsen and how funding to support such actions may be prioritized; and the feasibility of developing clear and concise proposed plans and RODs to facilitate preparation of these documents and review by external

stakeholders. In addition, action plans for addressing sediment sites and mining sites, specific categories of sites generally requiring significant resource outlays, are presented.

Short-Term Actions

Assess Practical and Funding Issues Related to Taking Early Actions at Sites

The goal of this action is to better understand and facilitate more frequent use of early actions (e.g., time critical removals, non-time critical removals, and interim remedies) at sites, rather than relying on longer term, site-wide, “final” remedial strategies. The Risk-Based Prioritization Panel will consider the potential value of taking early actions and explore concerns with, and options for, prioritizing the funding of early actions (and also the funding needed to address remaining site work once the most significant risks have been addressed by early actions). Recommendations from the Panel are expected to highlight any work prioritization strategies that ensure the Enforcement First principle and yet permit more rapid, surgical focus on current risk, more immediate threats, source control, and the control of groundwater migration. The Panel’s white paper would present options for senior management to refine work prioritization strategies such that significant cleanup at sites may be achieved earlier than is encouraged by current prioritization infrastructure. This activity is related to the “Evaluate RD/RA Process Improvements” action in the section on RD/RA integration.

- *Lead:* HQ (OSRTI Risk-Based Prioritization Panel)
- *Product:* White paper analysis that discusses options and implications for funding early actions (as well as options for funding the balance of site cleanups once the most significant risks have been addressed through early actions)
- *Time frame:* One year (by Q4 FY 2014)
- *Resources:* Minimal; the Panel is already established and knowledgeable about key issues. Panel may include these agenda topics on already established meeting schedule and follow up with draft white paper

Reinforce Smart Scoping and Best Practices in the RI/FS Stage

This action will issue a directive applicable to both Fund- and PRP-lead sites that reinforces the value of smart scoping and encourages consideration of strategies that have been shown to work well at other sites. The directive will seek to improve the RI/FS scoping process by encouraging the commitment of resources and time upfront in order to develop a robust CSM, and by anticipating the use of “best practices” or tried-and-true strategies for cleanup of similar contamination profiles. It will highlight the importance of: (1) including participation by and input from RPMs, technical experts, risk managers, as well as other stakeholders; (2) establishing appropriate land and groundwater resource use assumptions; (3) the appropriate design and use of risk assessment (including collection of appropriate information on natural or anthropogenic “background” and the bioavailability of contaminants of potential concern); (4) leveraging use of in-house expertise (in lieu of contractor support); and (5) the appropriate use of early actions. The paper will emphasize planning for considering the use of best practices to address common contaminant profiles, stakeholder outreach, acquisition and funding challenges. The paper will also identify key guidance and resources. This action is intended to spotlight the importance of properly scoping the RI/FS process and highlight the potential to improve overall program efficiency by targeting data collection where it is needed most. This action is expected to reduce contract costs, reduce backtracking to fill data gaps in the CSM, and improve the timeliness of program decisions.

- *Lead:* HQ (OSRTI) and Regional co-chairs
- *Product:* Directive from OSRTI and Federal Facilities Restoration and Reuse Office (FFRRO) Office Directors (ODs) to Regional Superfund DDs
- *Time frame:* Develop initial draft directive in Q2 FY 2014; Regional review in Q3 FY 2014; and finalize by end of Q1 FY 2015
- *Resources:* This will require both HQ and Regional staff/management input and review

Develop Training/Webinars for Site Managers for RI/FS Scoping

This action is meant to design and conduct a training program (e.g., sustained series of classroom and webinar trainings) for site managers on the use of best practices in scoping and cost-effective management of the RI/FS process. Training may be designed in multiple formats for delivery under various scenarios (e.g., NARPM conference, webinars, RPM minimum training requirements, etc.).

- *Lead:* OSRTI and Regional co-chairs, NARPM (webinar training development), OSRTI (TIFSD) training resources
- *Product:* Training for NARPM and webinars
- *Time frame:* Once directive is completed (Q1 FY 2015), training may be developed by Q2 FY 2015
- *Resources:* This action will solicit senior RPMs to deliver face-to-face training for NARPM and occasional webinars

Encourage Use of Amendments at Sediment Sites to Reduce the Bioavailability of Contaminants

The *in situ* sequestering or destruction of contaminants through the use of amendments (such as activated carbon, organoclays, or apatite added directly to sediment or incorporated within a cap) has the potential to reduce risks from sediment exposure at Superfund sites. An EPA technical report⁴ issued in April 2013 summarizes key information about the successful and promising use of such amendments. This action would develop a policy directive to encourage appropriate site-specific consideration of this technology for the management of risk from contaminated sediments more broadly. The policy directive should facilitate consideration of *in situ* sequestration and/or contaminant destruction and application of these technologies may improve the cost effectiveness of sediment remedies more broadly in the program.

- *Lead:* OSRTI Sediments Team with Regional support
- *Product:* Directive that provides policy context for appropriate use of amendments at sediment sites. A supporting technical document has already been issued
- *Time frame:* One year (Q4 FY 2014), given that much of the technical work is completed
- *Resources:* Although guidance is already written, policy context requires consideration of wide range of circumstances and variables that are applicable to sediment sites

⁴ See "Use of Amendments for In Situ Remediation at Superfund Sediment Sites" (OSWER Directive OSWER Directive 9200.2-128FS) at http://www.epa.gov/superfund/health/conmedia/sediment/pdfs/In_situ_AmendmentReportandAppendix_FinalApril2013.pdf.

Explore Ways to Promote Clear and Concise Proposed Plans and RODs

This action will explore the potential to improve the content and overall readability of proposed plan and ROD documents so that they present the information in a clear and concise manner. This action seeks to better manage the length and content of proposed plans and RODs while ensuring that the documents provide a sufficient record to support the selected remedy.⁵ Doing so would facilitate review of these documents by both EPA and site stakeholders. A workgroup review of well prepared documents may be undertaken as part of the effort. Results of the group's effort would be communicated in a policy memorandum. The memorandum is expected to improve remedy documentation and communication of key site-specific findings among all stakeholders. Clarity in the presentation of information and rationale in the proposed plan and ROD (including the description of selected remedy) will help ensure transparency in the remedy selection process and that the expectations of all parties involved are met.

- *Lead:* HQ (OSRTI and FFRRO) and Regional co-chairs
- *Product:* Policy memorandum encouraging improved documentation of remedies
- *Time frame:* One year (Q4 FY 2014)
- *Resources:* Will require workgroup members' time to discuss the appropriate length and content of proposed plans and RODs

Improve Process and Timing for Review of Draft Proposed Plans and RODs

This action will explore ways to improve the process and timing of HQ and Regional review of draft proposed plans and RODs. The current process relies upon firm end-of-year target completion dates for these documents. However, often, even when Regions plan for even distribution of work across the fiscal year, the early and mid-year deadlines slip resulting in several difficult outcomes: (1) a significant number of proposed plans and RODs are prepared (by Regions) and submitted for HQ review in the same time frame (July/August/September) placing significant stress on the limited Regional and HQ review staff and management resources; (2) the quality of end-of-year proposed plans and RODs can be affected since time to prepare and review them is short (i.e., limited resources are divided among many reviews over a short period of time); and (3) the potential for HQ and Regions to resolve significant issues (should they arise) without impact to site schedules is reduced since issue resolution can involve multiple phone calls, meetings, and/or senior management briefings. The goal of this action is to develop a process that minimizes the traditional end-of-year review crunch and its associated program challenges by spreading out HQ reviews of draft documents evenly throughout the year. The workgroup may consider the number and types of draft document reviews, consultations and concurrences required by Superfund delegations of authority or other program guidance, and workload balancing.

- *Lead:* HQ (OSRTI) and Regional co-chairs. Cross Regional workgroup should also include FFRRO
- *Product:* White paper for OSRTI/FFRRO ODs and DDs that presents options and recommendations for more evenly distributing the development and review of proposed plans and RODs throughout the year. This paper will also consider how best to encourage adherence to planned schedules. Recommendations may consider the potential to tailor level of effort for the review of documents based on the types of reviews, consultations and/or concurrences that are relevant for a particular site document or decision
- *Time frame:* One year (Q4 FY 2014)

⁵ See "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents" (OSWER Directive OSWER 9200.1-23P) at http://www.epa.gov/superfund/policy/remedy/rods/pdfs/guide_decision_documents_071999.pdf.

- *Resources:* An initial draft paper will likely require Regional branch chief involvement

Long-Term Action

Share “Best Practices” for RI/FS Studies at Mining Sites

This action will identify and share broadly the “best practices” for conducting RI/FS studies at mining sites. Mining sites often require significant resource investments. Use of best practices may assist in scoping or focusing of the RI/FS SOW. Lessons might involve policy or technical (e.g., optimization) strategies, EJ assessment, stakeholder outreach, watershed-wide collaboration among federal and state agencies, site team collaboration, or funding strategies. In addition, the workgroup may identify lessons learned from addressing common mine site waste or risk characteristics. Since mining sites require significant resources, and since remediation options are sometimes limited for certain types of releases, significant streamlining of FS work at mine sites may be feasible.

- *Lead:* HQ (Superfund Mining Team) with Regional mining site RPM co-chair; cross-Regional workgroup to include OSRTI, Office of Site Remediation Enforcement (OSRE), Office of General Counsel (OGC)
- *Product:* Directive from OSRTI and OSRE ODs to Regional DDs that summarizes best practices in response to mining site releases
- *Time frame:* Two years
- *Resources:* Multi-office HQ and Regional involvement will be required. This will involve careful discussion and articulation of appropriate response strategies (not remedies) for selected circumstances

Pre-Listing

The Superfund remedial site assessment (Pre-Listing) process is used to evaluate potential or confirmed releases of hazardous substances that may pose a threat to human health or the environment. The process is guided by criteria established under the Hazard Ranking System (HRS), Appendix A of the NCP, and is carried out by EPA, State, Tribal, or other federal agency environmental programs. Remedial site assessments begin with low cost pre-CERCLIS screenings to determine whether the CERCLA site assessment process is appropriate. Appropriate sites are placed in the active site assessment inventory. Using criteria established under the HRS, EPA and/or its partners then conduct a Preliminary Assessment and if warranted, a Site Inspection or other more in-depth assessment to determine whether the site warrants short- or long-term cleanup attention.

Upon completion of site assessment work, sites that do not warrant further interest are assigned a No Further Remedial Action Planned (NFRAP) decision. Sites that do warrant further removal- or remedial-type study are referred to appropriate cleanup programs for further work. These cleanup alternatives include EPA removal, Resource Conservation and Recovery Act (RCRA), state/tribal cleanup programs such as Voluntary Cleanup Programs (VCPs), the use of Superfund Alternative Approach (SAA) agreements, and the NPL. A HRS documentation record is generally prepared for sites that will be addressed through the SAA or NPL approaches.

Short-Term Actions

Improve Conciseness in Preparation of HRS Documentation Records

The HRS documentation record explains EPA's basis for assigning the HRS site score and provides the rationale for placing the site on the NPL. Specifically, the HRS documentation record must contain:

- Sufficient information to fully support the site score,
- Sufficient documentation for an independent reviewer to replicate measurements and calculations and reach the same conclusions.

The HRS documentation record, however, need not contain all information and data available for the site. Extraneous information in the HRS documentation record can detract from the actual basis of HRS scoring for the site. EPA HQ will provide outreach and assistance to the Regional NPL listing coordinators to promote the preparation of HRS documentation records that are as concise and focused as possible. This will save Regional resources by reducing the collection and writing up of excessive information and will save HQ resources by eliminating the quality assurance review of data and information that is not necessary to the HRS scoring of the site.

- *Lead:* OSRTI/SARDB will lead training and assistance on generating concise and focused HRS documentation records. EPA Regions will lead development of the actual HRS documentation records
- *Product:* Concise HRS documentation records. This will not require any regulatory, policy, or guidance revision
- *Time frame:* Concise HRS documentation records will be prepared for the spring 2014 NPL proposed rule (date TBD) and beyond. Initial discussions with Regional NPL listing coordinators began in March 2013. The HQ NPL Listing Team will continue to provide outreach to the Regions to prepare for the drafting of HRS documentation records for sites to be included in the spring 2014 NPL proposed rule
- *Resources:* Implementation of this action will be carried out via conference calls/meetings with the Regions and site-specific assistance, thereby requiring a low level of resources

Revise Pre-CERCLIS Screening Guidance

The current Pre-CERCLIS Screening guidance document needs revision to incorporate process improvements and efficiencies. The existing guidance was last revised in October 1999. Revision to this guidance is also planned under the current Superfund Lead Smelter Strategy. Revised pre-CERCLIS screening guidance will continue to assist the program to improve pre-CERCLIS screening practices.

- *Lead:* SARDB within the Office of Superfund Remediation and Technology Innovation (OSRTI) will serve as the lead on this revision with assistance from EPA Regional site assessment programs, the Site Evaluation Focus Group (SEFG) within the Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
- *Product:* Revised pre-CERCLIS screening guidance
- *Time frame:* SARDB plans to complete the revision by Q3 FY 2014 based on availability of resources
- *Resources:* Requirements include minimal workload and \$15,000 for contractor support

Long-Term Action

Develop a Site Assessment Workload Coordination Guide

OSRTI will work with site assessment partners to develop a site assessment workload coordination guide for EPA and its State and Tribal partners. The Site Assessment Workload Coordination Guide will describe minimum requirements for implementing a partnership approach to managing sites through the Superfund remedial site assessment process. The scope of this guide will cover coordinating the flow of information among EPA and its State and Tribal partners at non-federal sites from site notification through completion of remedial site assessment activities. The goal of this guide is to reduce the overall cost to assess sites by helping to prevent duplication of data collection and site management efforts while at the same time improving awareness, clarity and transparency regarding lead entity, site conditions, and progress of assessments at non-federal sites in the remedial site assessment inventory.

Any new requirements resulting from this guide may impact existing processes used by EPA and its partners to implement the site assessment program. SARDB expects the partnership approach to developing the guide will help ensure the benefits of any new requirements will outweigh the costs to implement them.

- *Lead:* Development of the Site Assessment Workload Coordination Guide will be lead by OSRTI/SARDB with assistance from EPA Regional site assessment programs, the ASTSWMO/SEFG, and the Tribal Superfund Working Group
- *Product:* Site Assessment Workload Coordination Guide
- *Time frame:* SARDB plans to complete the guide by Q1 FY 2015 based on availability of resources
- *Resources:* Requirements include minimal workload and \$20,000 for contractor support

Streamlining the Five-Year Review Process

The purpose of FYRs is to evaluate the implementation and performance of the remedy in order to determine if the remedy is or will be protective of human health and the environment. For non-federal facility sites, the ten EPA Regions have been developing approximately 200 or more FYRs each year. These FYRs range in cost from \$20,000 to \$450,000 each, depending on site complexity. In addition, CPCMB has been reviewing nearly 100% of the FYRs that come into HQ for review, requiring additional staff resources.

The Agency believes there are changes that can be made to the FYR process to reduce the resources to produce them by focusing the reviews on the information and conclusions necessary to evaluate protectiveness of human health and the environment. The changes are presented below and include a mix of both short- and long-term actions. Some of these actions are already being addressed by an ongoing workgroup consisting of HQ staff and the Regional FYR coordinators. New actions will also be addressed by this group.

Short-Term Action

Explore Methods to Streamline the FYR Process by Conducting Pilots

OSRTI is currently conducting a pilot with Region 5 on a “streamlined” report that is intended to reduce the financial and management resources incurred primarily by the Region to conduct their, on average, 45 reports a year. This “streamlined” report format mainly reorganizes background information on the site into the appendices while presenting progress and updates since the last FYR earlier in the document. Other Regions have proposed their own pilots and those will be considered by OSRTI on a site-specific basis. The Regions and OMB have previously expressed interest in streamlining the FYR

process. Due to the large volume of FYRs conducted in a given fiscal year, any improvements to the FYR process can have broad impact across the program.

- *Lead:* HQ FYR team, CPMCB Regional coordinators, and relevant Regional staff (e.g., RPM, FYR coordinator)
- *Product:* Site-specific FYR reports
- *Time frame:* Initial phase of pilot will complete at end of FY 2013 and will be evaluated to determine whether to extend the pilot or incorporate into regular business practices. Pilots with other Regions will be considered in FY 2014
- *Resources:* No additional resources are anticipated beyond what would normally be required to conduct a traditional FYR report

Long-Term Action

Revise the 2001 Comprehensive Five-Year Review Guidance

The *2001 Comprehensive Five-Year Review Guidance* will be updated to accomplish a few different objectives. First, the revised guidance will provide a “streamlined” FYR template for national use that builds off of the lessons learned from the Region 5 pilot (the short-term FYR action identified above) and incorporates feedback from other Regional FYR coordinators. This change is meant to reduce the overall costs and effort to develop FYRs by reducing duplication of existing documentation in the FYR (e.g., site description data) while still providing the critical information needed to assess the protectiveness of human health and the environment. Second, the revised guidance will provide flexibility for the Regions to focus the FYR process on those elements that are necessary to determine protectiveness at that particular site (e.g., interviews, title searches for certain types of ICs, evaluating toxicity changes). Third, the workgroup revising the guidance will evaluate the possibility of developing criteria for the Regions to eliminate or reduce the frequency of policy FYRs when there is appropriate technical justification to do so. For instance, there may be sites where EPA already has an ongoing presence because RAs are occurring and therefore, the FYR process is an administrative burden that hinders the overall site cleanup by diverting time and management resource away from ongoing activities. And lastly, revised FYR guidance will incorporate supplemental FYR guidance that has been released since the *2001 Comprehensive Five-Year Review Guidance* to provide a consolidated guidance for FYRs.

- *Lead:* HQ FYR team staff (including FFRRO). Coordination with Regional FYR coordinators will be done prior to any general concurrence review
- *Product:* Revised FYR guidance, including a streamlined FYR template and criteria to eliminate or reduce the frequency of policy FYRs
- *Time frame for completion:* Two years
- *Resources:* Staff in HQ and Regions will be needed to develop a revised draft. Time spent on workgroup calls and to review straw documents will be necessary to accomplish this action

PROGRAM MANAGEMENT ACTIONS

The remedial program also conducts technical and administrative support activities to assist, monitor and track response actions to ensure remedies are and remain protective, to provide public accountability and to recover costs from Potentially Responsible Parties (PRPs), redevelopment functions, participation

of states, tribes and communities in cleanups, and enhancement of response capabilities of states and tribes.

Project Data Management

There is a myriad of site data management approaches used across the nation and more consistent use of the available options across the remedial program should be a high priority item in the program review that are anticipated to increase efficiencies and lower costs for the program.

Short-term Actions

Develop Policy Guidance on Site Data Management

This action commissions a workgroup of Regional and HQ management and staff to provide programmatic direction and set priorities to implement improvements to the management of site investigation data (e.g., sampling results, characterization, treatability studies) from RI/FS and RD/RA activities. Specifically, this workgroup should address standardization around a set of site data management tools that will foster consistency in site data management across the remedial program. It is anticipated that this will increase efficiencies and lower costs for the program. For example, START and ERRS contracts in the removal program mandate the use of SCRIBE and require outputs from other database frameworks in use by the Regions (e.g., WQX, EQUIS) to output into SCRIBE-compatible formats. This increases the utility of the data to EPA technical staff, project managers, and decision makers in concert with other Superfund IT systems (e.g., SEMS). Similar examples exist within the remedial program and will be considered by the workgroup in their development of the standardized tool set. This action is intended to provide a robust, common, cost- and time-efficient capability to the management of site data within the program to ensure improved collection, storage, organization, use, and sharing of information. This data management tool set will support site decision making and outreach and communication with stakeholders including the public.

- *Lead:* A workgroup comprised of Regional and HQ management assisted by select staff. The workgroup will be chaired by a TIFSD manager and Regional manager. OSRTI, with Regional work groups, would develop the guidance necessary to implement actions identified by the workgroup
- *Product:* Clear policy and guidance on site data management in the remedial program
- *Timeframe:* One year
- *Resources:* Management and staff time and OSRTI resources, including Emergency Response Team (ERT) data management specialists, to support the workgroup

Acquisitions

The Superfund remedial program has been working with EPA contracting staff and managers to develop a contracting strategy to guide the acquisition of services in the Superfund remedial program. The strategy, called the “Remedial Acquisition Framework” follows on from the “Contracts 2010” effort in FY 2012. The Remedial Acquisition Framework outlines the acquisition approach for the next round of remedial contracts and includes contracts at the National and Regional levels. A report entitled “Superfund Remedial Acquisition Framework” is under development to outline the structure of the classes of contracts and to set the stage for the development of implementation documents.

As part of the Remedial Acquisition Framework, competition, emphasis on small businesses and streamlined and efficient processes are highlighted. OSRTI anticipates that Regional staff will be working through workgroups and Remedial Acquisition Framework group to prepare and implement future changes to Regional acquisition plans. In FY 2014, OSRTI will coordinate the implementation of the Remedial Acquisition Framework in consultation with Regional contract and program representatives.

Budget

In light of the substantial budget reductions sustained over the past two fiscal years, the program has fewer dollars to devote to site cleanup than if the program had remained funded at FY 2011 levels. This downward budget trend is likely to continue in the future, as EPA and Congress continue to make extremely difficult funding decisions in an austere budget environment. The cumulative effect of reduced funding has put a strain on the program's ability to maintain its cleanup activities. The budget portion of this plan outlines actions to review the Pipeline Site Allowance allocation model and various actions related to implementing process improvements including the Agency's deobligation/recertification process and OSRTI's and Office of the Chief Financial Officer (OCFO's) unliquidated obligations review processes. In addition, other actions are outlined that are relatively easy to implement or currently underway.

Short-Term Actions

Require 21-day Turnaround Time for all Sample Analyses

This action would establish a 21-day turnaround time for all analyses (including Tier IV) as a standard procedure unless a manager requests approval in the case of a deviation. Implementing this action could save the remedial program a significant amount of money annually, depending on the number of analyses that are not already using a 21-day turnaround time.

- *Lead:* OSRTI/TIFSD Contracts Laboratory Program (CLP)
- *Product:* Change to process (and Regional adoption of process changes)
- *Time frame:* Process changes targeted for Q1 FY 2014
- *Resources:* Implementing this recommendation will not have a significant cost

Maximize Use of First Two Tiers When Procuring Analytical Services

This action is to maximize use of first two tiers (i.e., using EPA Regional labs and CLP) when procuring analytical services (chemistry) for the Superfund remedial program. Manager signature/concurrence would be required when utilizing Tier III and Tier IV (Region-wide analytical contract or RACs and START contractors) to procure analytical services. Implementing this action could save the remedial program a significant amount of money annually.

- *Lead:* OSRTI/TIFSD CLP
- *Product:* Memorandum or directive that either reinforces or re-releases the Field and Analytical Services Teaming Advisory Committee (FASTAC) strategy
- *Time frame:* Process changes targeted for Q1 FY 2014
- *Resources:* Implementing this recommendation will not have a significant cost but will require cooperation from the Regions (and/or HQ enforcement mechanisms)

Records Center Funding Review

This action is to facilitate a cross program review (among OSRTI, Office of Emergency Management (OEM), OSRE, FFRRO and Office of Environmental Information (OEI)) of how records centers are funded in the Regions to figure out what is the most efficient way to fund the records centers in a consistent fashion across the Regions. This action could result in modest annual reductions in staff time if guidelines are clear. It will require guidance development and cooperation among HQ offices. While it is unlikely that other programs will want to, or be able to, contribute more to these functions, they may be able to decrease their reliance on these systems/processes or develop process savings.

- *Lead:* OSRTI/Resource Management Division (RMD)
- *Product:* Report with recommendations
- *Time frame:* Process changes targeted for FY 2015
- *Resources:* Not a significant cost, though it would require a time investment to collaborate on labor saving practices; could be more costly if each function requires its own analysis/policy; could also be more costly if database application changes are involved

Deobligation Recertification Policy

This action would formalize or document process for Regions to make requests to the OSRTI OD for a different allocation for their deobligation recertification packages than a 75% (HQ) to 25% (Region) split. It will potentially affect HQ ability to use funds for national priority implementation (i.e., new RA starts) and will require guidance development including establishing and implementing criteria for approving, disapproving, and monitoring Regional resource use plans. This action will potentially give greater flexibility to Regions to retain funds for their own use, but will increase administrative costs to Regions and HQ for review and oversight of plans. It will also potentially reduce HQ ability to redistribute resources among Regions, especially affecting Regions that have few deobligations.

- *Lead:* OSRTI and Regions
- *Product:* Documented process may be included in the annual deobligation Target Memo
- *Time frame:* Anticipated completion in FY 2014
- *Resources:* Not a significant cost, though it would require time investment from Regions and HQ

Revise/Sunset Pipeline Allocation Model

OSRTI uses the Pipeline Site Allowance to distribute annually appropriated extramural resources to the Regions to support components of the Superfund remedial program other than construction activities. Since 2002, the Pipeline Allocation Model has been used to allocate the Pipeline Site Allowance among the Regions.⁶

The Regional pipeline site allowance has been severely reduced over the past decade from a high of close to \$190 million to a current budget of \$108 million. In this diminished resource environment some have questioned whether the current Pipeline Model is the best way to allocate these scarce resources to the Regions. A new or improved pipeline allocation methodology may help the Remedial program focus more resources site-specifically and implement national priorities more efficiently.

⁶ The pipeline allocation model was officially implemented pursuant to a 9/25/2001 OSWER Directive (#9200.2-44) and first described in the FY 2004/2005 SPIM. This version of the SPIM is available at: <http://www.epa.gov/superfund/action/process/spim04.htm>.

To address this, OSRTI will convene a national workgroup consisting of the Regions and OSRTI RMD and Assessment and Remediation Division (ARD) representatives to recommend what to do with the Pipeline Allocation Model, i.e., whether to keep it in place with appropriate adjustments or replace it with a new Regional allocation process. The workgroup should consider revising the Pipeline Allocation Model so that minimal or no resources are allocated for PRP-lead actions at sites with special accounts, including Superfund Alternative sites.⁷ The workgroup will make recommendations to OSRTI DDs and OD and Regional DDs, with final approval by OSWER Assistant Administrator (AA). Refinement will be considered following implementation in FY 2015.

- *Lead:* OSRTI/RMD and ARD, OSRE and Regions
- *Product:* New allocation tool/methodology
- *Time frame:* Finalize changes in time for the FY 2015 Pipeline allocation
- *Resources:* Will require HQ and Regional managers to discuss and make decisions on best approach

Improve Unliquidated Obligations and Deobligation/Recertification Processes

In an severely constrained budget environment where the remedial program's appropriations budget is absorbing increasing reductions, the Regions are highly dependent on resources garnered from deobligations and special account reclassifications to provide funding for their cleanup activities. In this regard, streamlining and improving the deobligation/recertification and unliquidated obligation (ULO) review processes will go a long way to providing the Regions with the funds that they need when they need them and will also reduce the workload associated with deobligations/ULOs.

Since OCFO administers the Agency's deobligation/recertification process and Office of Acquisitions Management (OAM) is a major player in effecting deobligations, the remedial program will need to partner with both of these offices to make improvements. Therefore, the key element is to begin a dialogue with OCFO and OAM concerning the need for process improvements. Two sub-actions address the deobligation and recertification process and a third sub-action addresses the ULO review process which are outlined below.

- A. *Identify changes in the Agency's deobligation/recertification process so that HQ and Regions can recertify funds earlier in the year.*
- B. *Evaluate Agency deobligation and recertification process to identify opportunities to streamline the workload for processing small dollar amounts.*
 - a) Convene group of OSRTI and Regional budget coordinator representatives to develop list of issues/concerns with current Agency deobligation/recertification process (e.g., develop streamlined process for small deobligations/recertifications, opening up recertification database earlier in the year, etc.).
 - b) Request OCFO and OAM to participate in a thorough analytical review of the Agency's deobligation/recertification processes and identify process improvements. The review will be conducted jointly by OCFO, OAM and Superfund HQ and Regional program offices.

⁷ Some special accounts are restricted to OU-specific actions and therefore pipeline monies may be appropriate for other OUs or areas of the site that are not subject to PRP-lead actions or have special accounts.

- c) Develop and present recommendations for process improvements to senior OAM, OCFO managers, the OSRTI OD and the Regional SF DDs. HQ and Regional senior managers come to final decisions.
- d) Pilot process improvements during last two quarters of FY 2014 and begin full implementation during the FY 2015 deobligation/recertification cycle.

- *Lead:* OSRTI RMD, Regional budget coordinators, OCFO and OAM
- *Product:* Implemented process improvements
- *Time frame:* Targeted for FY 2015 deobligation/recertification cycle
- *Resources:* OSRTI/OCFO/OAM and Regions

C. *Improve coordination efforts on ULO review exercises: 1) Remedial program Regional ULO review, 2) Regional annual deobligation plan setting, 3) OCFO ULO exercise, 4) Regional budget offices do different ULO analyses after recertification deadline.*

- a) Convene group of OSRTI and Regional budget coordinator representatives to consider ways to streamline/improve the OSRTI ULO review process and align it better with OCFO's HQ and Regional ULO review requirements.
- b) Share findings and improvement recommendations with OCFO HQ and Regional representatives to get their input/buy in. Engage with OCFO as necessary if recommending improvements to the Agency ULO process.
- c) Obtain concurrence from OSRTI OD and Superfund DDs to begin implementing process improvements during the FY 2014 and FY 2015 OSRTI/Regions ULO review exercise cycles.

- *Lead:* OSRTI
- *Product:* Implementation of process improvements
- *Time frame:* Targeted for FY 2015
- *Resources:* OSRTI/OCFO and Regions

Alternative Parties to Perform Site Cleanups

There are several instances where developers have conducted part or all of a site cleanup at Fund-lead sites (often through a Bona Fide Prospective Purchaser agreement) and conserved EPA funds. Potential exists to save significant amounts of Fund money at additional sites by promoting the Program's contribution to such efforts, recognizing successes, and disseminating the information to encourage additional funding of cleanups by parties with redevelopment interests.

- *Lead:* OSRTI and Region 4
- *Product:* Streamlined outreach package (handbook, factsheet, case studies, awards)
- *Time frame:* Completed by end of FY 2014
- *Resources:* HQ and Regional team to conceptualize and draft materials; limited extramural funds for production of documents

In-house Resources

Many EPA staff members are respected national experts in many technical areas, including site characterization, risk assessment and remediation. These staff members have also developed or adopted advanced tools and approaches to collect, manage and use remedial project data to enable smarter site

decisions and implementation. There are opportunities for the Regions to more broadly and thoughtfully leverage in-house technical resources to improve site decision making and prudently shift some technical work from pipeline-funded contractor services to in-house staff to maximize use of pipeline funds for work that must be done by contractors. Exploring opportunities to expand leveraging in-house resources and expertise is expected to help preserve resources while allowing essential cleanup work to continue.

Short-Term Actions

Prepare Guiding Principles to Identify Types of Technical Work Suited for In-house Resources

This action is to prepare guiding principles to assist Regional, OSRTI and Office of Research Development (ORD) resource managers to identify types of technical work that may be feasibly conducted by in-house resources rather than contractors. Regions have developed expertise in different areas, depending on their needs and opportunities. In addition, Regions have varying resources and different cleanup needs, which may impact which work can most effectively be conducted in-house. For example, a Region may be constrained by workload of expert RPMs which may prevent bringing some work in-house within the Region.

Through this action, guiding principles will be developed describing/outlining types of work, examples of processes/deliverables, who determines what work is conducted in-house and what qualifications are required, what internal resources are available, additional resources required, how to coordinate use of available resources with others, and mechanisms to match resources with needs.

- *Lead:* Regional managers (both of RPMs and technical resources) and OSRTI
- *Product:* Remedial Program Issue Paper with guiding principles
- *Time frame:* Since Regional management and staff are familiar with the work products, the types of work are easily identified. Communication and coordination strategies would need to be developed. Targeted completion is Q4 FY 2014
- *Resources:* A workgroup of Regional managers and Technical Support Project (TSP) Forum and NARPM members with OSRTI and ORD input

Catalog Technical Support Resources

Due to experienced RPMs and technical experts across the Regions, ORD and HQ, the Superfund Program is rich in in-house expertise. Facilitating identification and access to in-house experts by RPMs by means of a “catalog” of in-house resources promises to increase efficiencies and reduce extramural cost. The facilitation process would help match each request with the optimal experienced personnel and have a means of managing constraints on resource allocation (schedules, travel dollars, etc.). In addition to the benefits to the Region and RPM requesting the resource, individuals providing the service benefit from professional enhancement and the ability to share expertise, experience and ‘lessons learned’ with others with similar sites and issues.

- *Lead:* Technical Support Center Directors, Regional and OSRTI first-line supervisors, NARPM co-chairs, Regional TSP Forum, and ORD Superfund and Technology liaisons
- *Product:* A clearinghouse tool that identifies resources available and points of contact to manage them. A separate memo would serve to raise awareness of available resources, foster the change process and encourage the use of new resources, and identify the entities charged with maintaining and updating the listing. Identify potential pilot opportunities would be identified through the work planning process

- *Time frame:* An initial listing of resources already exists; remaining tasks include tool development, credential verification and writing the memo. Target completion is Q4 FY 2014
- *Resources:* Workgroup to identify housing for information and how to update on long-term basis and verify credentials. A need for a coordinator in a long-term role and/or a potential for contractor resources (e.g., web support, assessment strategies, etc.). A potential need for IT support for consultation regarding available tools and platforms to meet the needs of a “clearinghouse” or other tool envisioned by the workgroup

Inventory Data Collection, Data Management and Decision Support Tools Within EPA

In recent years the Superfund Program has developed numerous valuable tools to manage data, information, projects, etc at site cleanups. Several of these tools are not site-specific and could easily be adapted and adopted to use at other sites, saving the Program the cost of developing them from scratch. Identifying available tools, however, is a cumbersome “word-of-mouth” process. Gathering basic information on data collection tools and points of contact in one spot will facilitate locating existing tools and expertise/experience applying them, saving new development costs and shortening the learning curve.

- *Lead:* Technical Support Center Directors, ERT and OSRTI
- *Product:* A clearinghouse of in-house technical tools (field equipment, data management and decision support tools, data interpretation tools, etc). This tool would identify resources available and the points of contact to manage time and dollar resources, provide information on the resource tools’ capabilities, limitations and best use scenarios, and identify tool accessibility and availability of accompanying support (e.g., ERT owned and operated vs. phone tech support). Suggestions regarding how to determine the appropriate match of tool and operator and the feasibility of sharing ESAT resources (e.g., government equipment) would be provided. A means to maintain/update listing and an entity to do this would be identified by the authors/development workgroup. An accompanying memo and outreach effort will reinforce the awareness of available resources
- *Time frame:* The available tools are known within each group that houses them; listing the resources should be done by Q3 FY 2014
- *Resources:* The owners/operators of the tools collect the information and provide the additional information listed above. The clearinghouse is best made available on line and accessible by external parties hired by EPA at site cleanups

Implement a Superfund Learning Management System

Maintaining a well-trained and informed staff is an essential goal of the Superfund program and crucial to the efficient consistent, and effective operations. The retirement of senior subject matter experts (SMEs), combined with staff reductions and restrictions on travel, limits access to traditional classroom training. This limitation necessitates a training program that delivers learning and knowledge acquisition opportunities to our staff through a real-time, integrated approach; a new and more robust Superfund Learning Management System (SLMS) utilizing innovative tools along with proven methods. The new SLMS leverages curriculum based approaches (classroom and online training opportunities) with SME knowledge transfer (existing and retiring SMEs), self guided access to information resources and tools, and access to current processes and procedures. The overall SLMS is conceived to capture, organize and disseminate knowledge and experiences from retiring SMEs for the benefit of the Program’s new generation of professionals, and its own future.

- *Lead:* TIFSD/OSRTI & Regional Remedial Branch Chiefs

- Product: Superfund Training Strategy with a SLMS
- Time frame: Release Training Needs Assessment in FY 2014. New SLMS operating system in FY 2015
- Resources: Completed Superfund Training Needs Assessment, and infrastructure to host and maintain SLMS/SLLS (e-Learning, SharePoint, Intranet, Independent System)

Leveraging Special Accounts

Special accounts are site-specific, interest bearing sub-accounts within the Superfund Trust Fund used to fund site-specific work. The Agency's goal for the establishment and use of special accounts is to ensure responsible parties pay for cleanup by providing PRP settlement dollars to fund future response work. Through the use of special accounts, appropriated Trust Fund resources can be conserved for sites where PRP resources are not available. At the end of FY 2012, a balance of \$1.8 billion was available in 1,011 site-specific accounts and more than \$2.4 billion had been used from special accounts to finance response actions at Superfund sites.

In order to further improve management, transparency, and accountability among the offices involved with special accounts, the Special Accounts Senior Management Committee (SASMC) was officially established in April 2009 in response to a recommendation by the Office of Inspector General to centralize EPA's management of special accounts.⁸ Over the past four years the SASMC has undertaken a number of initiatives and directives to improve EPA's management and use of special accounts. The Superfund program review established a subgroup whose membership consists of participants on the SASMC as well as special account contacts in each Region to identify ways to further leverage special account resources.

Short-Term Actions

Use of Special Accounts for Oversight Costs

- A. *Emphasize the use of special accounts for payroll associated with oversight activities as part of the site-specific charging fact sheet under development.*

The vast majority of appropriated funds used for oversight activities is now for payroll. The fact sheet will include a reminder that Regions should carefully monitor special account balances where payroll is being charged as negative account balances are typically the result of charging payroll to a special account after the account has been depleted. In order to facilitate use of special accounts for payroll, the fact sheet will also include a site charging cheat sheet for RPMs, On-scene Coordinators (OSCs), enforcement, legal and other Regional staff. This action is intended to increase the use of special account resources for oversight activities.

- *Lead:* OSRE led the effort to draft the fact sheet in coordination with the SASMC. The Regional special accounts network, which includes Regional program, finance, and legal staff that work on special accounts, had an opportunity to review and comment on the draft fact sheet before it was finalized
- *Product:* Fact sheet described in detail above
- *Time frame:* Completed; the fact sheet was issued on September 16, 2013

⁸ The Charter establishing the SASMC can be found at:
<http://intranet.epa.gov/osrti/topics/pdf/FinalSignedCharterforSFSpecialAccountsSrMgmtCommittee.pdf>.

- *Resources:* Staff has already been tasked with this activity so no additional resources are expected

B. Encourage Regions to use special account dollars for oversight activities through a memorandum from the OSRTI OD (on behalf of the SASMC) to Regional Superfund DDs, Regional Counsel, and Assistant Regional Administrators (ARAs).

While an analysis of historical spending for oversight activities shows a shift in funding from appropriated dollars to special account funds for oversight activities has already occurred, this is still a good management practice to be encouraged to the greatest extent possible. The memo will encourage activities meant to increase special account use for oversight, such as encouraging the use of prepayment provisions in settlement agreements for oversight activities. By conducting this action, Regional awareness of using special accounts for PRP oversight will increase.

- *Lead:* OSRTI took the lead in drafting the memo in coordination with the SASMC. A draft of the memo was shared with the Regional special accounts network for their review and input prior to finalization
- *Product:* Memorandum issued by the OSRTI OD on behalf of the SASMC
- *Time frame:* Completed; the memorandum was issued on September 13, 2013.
- *Resources:* Staff time was required to draft the memorandum and coordinate reviews by the SASMC and Regional special account network

C. Modify notification requirements so that Regions are no longer required to notify HQ if they will be depositing funds in a special account where the original agreement is silent on special accounts.

When the original agreement does not contain special account language, Regions are currently required to notify OSWER and OECA of their intent to establish a special account or deposit newly received funds into an existing special account.⁹ Modification of the original agreement is not necessary because EPA is still receiving the funds pursuant to an agreement, as required by CERCLA 122(b)(3). Regions will be advised to make a note in the site file of the change in where the payments are deposited rather than sending a notification to HQ. Regions would still be required to inform CFC, but this would be done through the accounts receivable process already established. This action will reduce the workload of staff in the Regions by no longer requiring notifications to HQ where payments will be deposited in a special account and the original agreement was silent on special accounts.

- *Lead:* OSRTI in coordination with the SASMC
- *Product:* Memorandum amending the April 2011 Model Notifications memo
- *Time frame:* Completed; the memorandum was issued on September 13, 2013.
- *Resources:* Minimal staff time was required to revise the previous notification requirements

Close Low Balance Special Accounts

While it would be difficult to incentivize the closure of special accounts with small balances given the low dollar amounts involved, a greater focus by senior managers on these accounts may help to facilitate the closure of accounts no longer needed to improve EPA's management of special accounts.

⁹ "Model Notifications to Headquarters of Milestone Special Accounts Transactions," April 22, 2011, is available at: <http://www.epa.gov/compliance/resources/policies/cleanup/superfund/sa-mod-notice-trans-mem.pdf>. "Consolidated Guidance on the Establishment, Management, and Use of CERCLA Special Accounts," p. 3, October 4, 2002 is available at: <http://www.epa.gov/compliance/resources/policies/cleanup/superfund/congui-estmgt-specacct.pdf>.

Regional Superfund DDs should annually review open special accounts with less than \$25,000 available for potential closure, in coordination with their review of special accounts with more than \$1 million available or special accounts with no obligation or disbursement activity in the past 5 years. This is intended to increase the number of special accounts that are closed each year. The number of special accounts that are closed is monitored quarterly by OSRTI and is provided to Regional Superfund Division Directors and the SASMC. OSRTI will also report on the status of closed accounts in the annual report to EPA senior managers on SASMC activities.

- *Lead:* OSRTI on behalf of the SASMC
- *Product:* HQ will provide a list of accounts that should be reviewed as part of the annual work planning special account data review. HQ will filter the open accounts with less than \$25,000 available to include only those where no future deposits are expected (post transition to SEMS). This review will be done in coordination with the Regional Superfund Division Director review of accounts with more than \$1 million available or no obligation/disbursement activity in the past 5 years, and an update to the Monitoring Plan for Special Account Planning Data will incorporate these changes
- *Time frame:* The Monitoring Plan for Special Account Planning Data will be updated by Q2 FY 2014, and Superfund DDs will review a list of accounts for closure in FY 2015.
- *Resources:* Minimal staff time would be required to update the Monitoring Plan and provide the data to the Regions as part of the other data provided for the Superfund Division Director review

SEMS/IT

The SEMS, once completed, will integrate three primary Superfund data collection, reporting and tracking systems: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Superfund Document Management System (SDMS) and Institutional Controls Tracking System (ICTS) into an overarching information management system using a commercially available off-the-shelf tool suite.

SEMS will improve information management capabilities by streamlining business processes, enhancing system utility to the users, consolidating program legacy systems to achieve best value to the government and achieving qualitative cost savings (e.g., more efficient system navigation, reduced number of screens, rapid response to new or changing program needs etc.). The system will incorporate Agency Architecture tools to lengthen system horizon and improve data exchange between Agency and Superfund Program systems. This effort will improve operations effectiveness by consolidating systems, retiring outdated tools, addressing program performance gaps and enhancing data quality.

Short-Term Actions

Deploy Phase 1 of the Integrated SEMS Tool Suite

The first phase of the SEMS efforts integrates SDMS, ICTS and re-engineers CERCLIS. SEMS will include a more robust project management tool (Primavera), portfolio management tool and business intelligence tools to build easily accessible reports and dashboards.

- *Lead:* IMB & Superfund Information Management Workgroup
- *Product:* SEMS v. 1.0

- *Time frame:* SEMS deployment to staging by September 30, 2013; Production deployment by November 15, 2014
- *Resources:* Requires HQ cross program and Regional management and staff requirements development, testing and feedback

Use a Fully Integrated Software Suite

This action implements web services and Department of Defense (DOD) 5015 compliant records management tool.

- *Lead:* Information Management Branch (IMB) & Superfund Information Management Workgroup
- *Product:* Web Center and Universal Records Management tools are deployed
- *Time frame:* Deployment in FY 2014
- *Resources:* Requires HQ cross program and Regional management and staff requirements development, testing and feedback

Long-Term Action

Minimize System Maintenance Costs

Capitalize on the integration of the legacy systems and manage the system change process.

- *Lead:* IMB & Superfund Information Management Workgroup
- *Product:* Implementing the SEMS Change Management Panel and governance structure
- *Time frame:* FY 2015 and beyond
- *Resources:* Requires HQ cross program and Regional management and staff requirements development, testing and feedback

Superfund Web Special Project

After ten years of rapid growth, there is an urgent need to reorganize the Superfund web presence to ensure that the most accurate and relevant information for each intended audience is readily available via this important communications channel. As a primary source of information about our activities, it is important to define organizationally acceptable levels of quality for published content as well as the types of expertise, level of effort and cost to maintain that quality. By taking advantage of the well organized content and strong organization support available through the SEMS, our process for publishing content to the web can be greatly simplified. The process of systematically reviewing and updating information for the new Superfund web presence is having significant beneficial effects on internal business processes, data quality and website operations and maintenance. Additional organizational benefits accrue from proactively managing content which in turn improves institutional memory and succession planning.

Short-Term Action

Reformat Superfund Site Progress Profile Pages

This action is to: 1) reformat all Final, Deleted and Proposed Site Summary pages and combine Regional content with national content, and 2) Migrate website to dynamic loading, using SEMS as the

data source. The benefits of doing this include significantly improved data quality and lowered cost to operate and maintain the Superfund website, coupled with improved customer satisfaction and website usefulness.

- *Lead:* IMB (R4, R1 on loan)
- *Product:* New Site Summary pages, accurate and timely content on website
- *Time frame:* Launch date is scheduled in Q2 FY 2014
- *Resources:* A Regional Editorial Board, consisting of at least two members per Region, plus two HQs Superfund Editors-in-Chief. Financial support provided through IMB budget. Significant financial and resource reductions are being realized as this work is being completed

Long-Term Action

[Link to Other EPA/Outside Content](#)

Following completion of the Site Summary Page launch, an estimated 30,000 web pages or more will exist in the Superfund system. The program does not have sufficient resources to maintain this amount of content as evidenced by the fact that much of the currently publicly available content is at best out of date.

In addition to reducing redundant, outdated and trivial (ROT) material throughout the website, this action will integrate Superfund content with other EPA content. Examples include: asbestos or lead information incorporated with EPA information, rather than Superfund specific pages; the <http://epaosc.org> site needs to be consolidated into an epa.gov site; guidance documents need to be reviewed, assessed and organized in SEMS; Superfund is the lead on designing the OSWER presence.

- *Lead:* IMB
- *Product:* ROT removed; remaining content reviewed and organized in SEMS; epaosc.org output redirected to SEMS; reduce HQs web pages by 90% while improving content quality and reducing the cost to maintain the website
- *Time frame:* One EPA requires that all this be completed by September 30, 2014. With currently available resources, that deadline is not possible. What is possible by that time is to define the entire universe of content and a time frame to review and finalize all content on the Superfund website
- *Resources:* Will require both HQ and Regional staff/management input and review

Communications

Short-Term Actions

[Expand Use of Electronic Communications](#)

This is an ongoing action to communicate with the public through use of social media to disseminate information and to look for opportunities to put a “human face” on Superfund by better communicating the impact the program has on people’s and communities’ well being.

- *Lead:* OSRTI (including TIFSD, ARD and RMD), Regional Community Involvement and Public Affairs, and with Site Teams
- *Product:* Social media communication

- *Time frame:* Ongoing; Regions are already doing this, some more than others. The recommendation is to continue to tailor the use of social media according to each Region's unique needs and available resources
- *Resources:* Social media accounts like FaceBook, Twitter, Instagram, and YouTube. Other tools include Quick Response barcodes (QR) and SharePoint (potentially). Staff time will be necessary for posting and blogging and media staff time to film and edit video. Coordination with HQ (Office of Multimedia) will also be necessary when publishing to epa.gov, when appropriate

Provide Electronic Access to Site Records

This ongoing action will transition information repositories from paper to electronic media, focusing first on newly created repositories. By further supporting the Administrative Records on the Web (ARWeb) effort through this action Superfund will save staff time while increasing the public's access to information.

- *Lead:* Community Involvement and Program Initiatives Branch (CIPIB), Regional Community Involvement Coordinators (CICs) and Records Managers
- *Product:* Electronic information repositories
- *Time frame:* The ARWEB effort is currently underway, involving both HQ and Regional staff, to develop both an electronic administrative record system and standard operating procedures for maintaining and operating this system
- *Resources:* Additional resources may be needed for converting paper information repository documents to electronic files and/or transitioning existing site information repositories to electronic repositories

Long-Term Action

Identify and Document Strategies for Community Involvement Efforts

This action commissions facilitated discussions within each Region among CICs, RPMs, branch chiefs, Superfund program review steering committee representatives, and DDs to determine how to strategically and deliberately leverage our existing community engagement skills and resources (including PRP resources) for Superfund cleanups and emergency response.

- *Lead:* Each Regional division director will delegate responsibility to the Regional Superfund Community Involvement Manager and a Superfund branch chief to convene and facilitate discussion on the topic of *How Superfund Can Be More Strategic and Deliberate in Its Community Involvement Efforts*
- *Product:* Written summary of the facilitated discussion(s) along with a series of recommendations for further consideration at both the Regional and national level
- *Time frame:* Facilitated discussions to be completed by Q2 FY 2014 and recommendations submitted to the steering committee by Q3 FY 2014
- *Resources:* Management time and OSRTI resources to support the facilitated discussions. More extensive time will be needed to assess any recommendations and to determine next steps

EVALUATION

[Under development – what follows are general thoughts to be captured, a small Superfund program review steering committee subgroup is reviewing this section and identifying the relevant metrics.]

The Superfund remedial program initiated this comprehensive review to evaluate the efficiency of current cleanup processes and use of program resources with the goal of minimizing reductions to the program's effectiveness in protecting human health and the environment.

The actions undertaken through this review have their own timelines. Many of the actions identified are underway and results will be realized quickly. Others may take several years to observe any results. Progress and outcomes from the actions will be evaluated and reported on an annual basis. This review will be incorporated into the Program's annual planning cycle making it a part of the program's operations. It will ensure that the actions are reviewed, discussed and modified as needed to allow the program to adapt and evolve effectively. We anticipate that the implementation of the individual actions will result in the efficiency improvements they seek to achieve. It is also expected that the synergy of these actions, over the next three to five years, is what will generate the most impact to the overall program.

The achievement of these improvements is conditioned by factors beyond the control of the Superfund Program, such as appropriations levels, retirement of experienced senior staff, complex nature of sites entering the program, among others.

APPENDIX A: ACRONYM LIST

AA.....	Assistant Administrator
ARAs	Assistant Regional Administrators
ARD.....	Assessment and Remediation Division
ARWeb	Administrative Records on the Web
ASTSWMO.....	Association of State Territorial Solid Waste Management Officials
BMPs	Best Management Practices
BPEB	Budget, Planning and Evaluation Branch
CERCLA.....	Comprehesnive Environmental Response Compensation and Liability Act
CERCLIS	Comprehesnive Environmental Response Compensation Liability Information System
CICs	Community Involvement Coordiantors
CIPIB	Community Involvement and Program Initiatives Branch
CLP	Contracts Laboratory Program
CPCMB.....	Construction and Post-Construction Managmeent Branch
CSM.....	Conceptual Site Model
DDs	Division Directors
DOD.....	Department of Defense
DQO.....	Data Quality Objectives
EPA.....	United States Environmental Protection Agency
ERT	Emergency Response Team
FASTAC	Field Analytical Services Teaming Advisory Committee
FFRRO.....	Federal Facilities Restoration and Reuse Office
FTE	Full-time Equivalent
FYR.....	Five-Year Review
HQ.....	Headquarters (EPA)
HRS.....	Hazard Ranking System
ICI	Integrated Cleanup Initiative
ICTS.....	Institutional Controls Tracking System
IMB	Information Management Branch
IO	Immediate Office
IT.....	Information Technology
NAPL.....	Nonaqueous Phase Liquid
NARPM	National Assoication of Remedial Project Managers
NCP.....	National Contingeny Plan
NFRAP.....	No Futher Remedial Action Planned
NPL.....	National Priorities List
OAM	Office of Acquisitions Management
OCFO.....	Office of the Chief Financial Officer
ODs	Office Directors
OGC.....	Office of General Counsel
OMB	Office of Management and Budget
ORD.....	Office of Research Development
OSCs	On-scene Coordinators
OSRE	Office of Site Remediation Enforcement
OSRTI.....	Office of Superfund Remediation and Technology Innovation

OSWER	Office of Solid Waste and Emergency Response
PRP	Potentially Responsible Party
QR.....	Quick Response Barcodes
RA.....	Remedial Actions
RAOs	Remedial Action Objectives
RCRA.....	Resource Conservation and Recovery Act
RD.....	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
RMD	Resource Management Division
ROD.....	Record of Decision
ROT	Redundant, Outdated and Trivial
RPMs	Remedial Project Managers
SAA	Superfund Alternative Agreement
SARDB	Site Assessment and Remedy Decisions Branch
SASMC.....	Special Accounts Senior Management Committee
SDMS.....	Superfund Document Management System
SEFG.....	Site Evaluation Focus Group
SEMS	Superfund Enterprise Management System
SLLS	
SLMS	Superfund Learning Managemenet System
SMEs.....	Subject Matter Experts
SOPs.....	Standard Operating Procedures
SOWs.....	Statements of Work
TIFSD	Technology Innovation and Field Services Division
TSP.....	Technical Support Project
ULO	Unliquidated Obligations
USACE	United States Army Corps of Engineers
VCPs	Voluntary Cleanup Programs
VE.....	Value Engineering

APPENDIX B: STEERING COMMITTEE MEMBERSHIP

Last Name	Region	Role	Job Title
John LaPadula	2	Co-Chair	DDD
Robin Richardson	HQ	Co-Chair	DD
James Owens	1	Member	DD
Jim Webb	3	Member	BC
Bill Denman	4	Member	RPM
Franklin Hill	4	Member	DD
Tom Short	5	Member	BC
Alcamo Tom	5	Member	RPM
Edlund Carl	6	Member	DD
Nancy Lindsay	9	Member	DDD
Cami Grandinetti	10	Member	BC
Becki Clark	HQ	Member	DD
David Cooper	HQ	Member	BC
Monica Gardner	HQ	Member	DD
Greg Gervais	HQ	Member	BC
Marc Greenberg	HQ	Member	Staff
Tracey Stewart	HQ	Member	Staff
Steve Ridenour	HQ	ELB*	Staff
Carlos Pachon	HQ	ELB*	Staff
Bill Dalebout	HQ	ELB*	Staff

*Executive Liaison Board

APPENDIX C: SUBGROUP MEMBERSHIP

Cleanup Process					
<u>Reg/HQ</u>	<u>Adaptive Management</u>	<u>Integrating RD/RA</u>	<u>RI/FS Process</u>	<u>Pre-Listing</u>	<u>Five-Year Review Streamlining</u>
Co-Chairs (HQ/Reg)	David Cooper, OSRTI Tom Short, R5	David Cooper, OSRTI Nestor Young, R4	<i>Bruce Means, OSRTI Richard Campbell, R4</i>	<i>Doug Ammon, OSRTI</i>	<i>Steve Ridenour, OSRTI</i>
R1	James Chow			Meghan Cassidy	Patti Ludwig Meghan Cassidy
R2	Jeff Josephson	Carole Petersen	John LaPadula Carole Petersen	Mel Hauptman	Michael Sivak Chloe Metz
R3			Kristine Matzko	Alizabeh Olhasso	Chris Corbett
R4	Derek Matory Bill Denman	Nestor Young	Richard Campbell	Don Rigger	Samantha Urquhart-Foster
R5	Tom Short		Joan Tanaka	Patrick Hamblin	Bonnie Eleder
R6	Carlos Sanchez	Vince Mallott	Vince Mallott	Brenda Cook	Ruben Moya
R7	Diana Engeman			Michele Quick	Pamela Samek Diana Engeman
R8	Bill Murray Steven Wharton Stanley Christensen	Russ Leclerc	Russ Leclerc	Johanna Miller	Kerri Fiedler Patricia Smith
R9	Herb Levine			Cami Grandinetti	Cynthia Wetmore
R10		Beth Sheldrake		Ken Marcy	Susan Haas
HQ	David Cooper, ARD	David Cooper, ARD	Bruce Means, ARD	Doug Ammon, ARD	Steve Ridenour, ARD
HQ	Anne Dailey, ARD	Dan Powell, TIFSD	Dan Powell, TIFSD	Steve Dymont, TIFSD	Monica McEaddy, FFRRO
HQ	Tom Kady, ERT	Richard Jeng, ARD	Steve Dymont, TIFSD	Terry Jeng, ARD	
HQ	Nancy Jones, ARD	Greg Gervais, TIFSD	Shahid Mahmud, ARD	Randy Hippen, ARD	
HQ	Michael Healey, OSRE	Susan Boushell, OSRE	Silvina Fonseca, ARD	James Miles, OSRE	
HQ	James Miles, OSRE	Kate Garufi, ARD	James Miles, OSRE		
HQ	Marc Greenberg, ERT		Marc Greenberg, ERT		
HQ	Greg Gervais, TIFSD		Robin Anderson, ARD		

Program Management						
Reg/HQ	Budget	Acquisitions	SEMS/IT	Leveraging Special Accounts	In-house Resources	Communications
Co-Chairs (HQ/Reg)	Art Flaks, OSRTI Carlene Chambers, R6	Raoul Scott, OAM Robin Richardson, OSRTI	Jennifer Hovis, OSRTI Paul Leonard, R3	Tracey Stewart, OSRTI	Gary Newhart, OSRTI Kathy Davies, R3	Suzanne Wells, OSRTI Claudia Deane, R1
R1		Maggie Leshen Francis Callaghan	Brenda Haslett	Joan Buonopane		Claudia Deane Jim Owens
R2	Courtney McEnergy Phil Cocuzza	Courtney McEnergy Karen Giacobbe	Leslie Peterson	Leslie Peterson Jennifer Chernowski		
R3		Andy Blaney Jim Webb	Paul Leonard	Joanne Marinelli	Jim Webb Kathy Davies	Helen Duteau
R4	Charlotte Whitley	Charles Swan Raquel Hill		Anita Davis	Carol Monell	Keriema Newman
R5	Vince Saunders	Pat Bamford Cecilia Moore		Larry Schmitt		Yolanda Bouchee- Cureton
R6	Carlene Chambers	Carlene Chambers Brenda Durden		Doretha Christian Lisa Price	Jon Rauscher John Meyer	Joy Campbell
R7	Teri Hankins Debbie Bishop	Lee Thomas Dave Drake	Gene Gunn	Teri Hankins	Matt Jefferson	Hattie Thomas
R8	Russ Leclerc	Russ Leclerc Bethany Mills		Kelcey Land	Deborah McKean	
R9	Kathleen Salyer	Nancy Riveland Alex Kramer Nancy Lindsay		Claire Trombadore	Lynn Suer	
R10	Cami Grandinetti Lynne Kershner	Judith Leckrone-Lee Gary Sink		Lynne Kershner		
HQ	Art Flaks, RMD	Robin Richardson, RMD	Jennifer Hovis, RMD	Tracey Stewart, IO	Gary Newhart, ERT	Suzanne Wells, ARD
HQ	Robin Richardson, RMD	Raoul Scott, OAM	John Gilbert, ERT		Greg Gervais, TIFSD	Jean Balent, TIFSD
HQ	Melanie Hoff, TIFSD	Barbara McDonough, RMD	Joe Schaefer, ERT		Jim Cummings, TIFSD	Chris Gallo, ERT
HQ	Alan Youkeles, RMD	Emily Johnson, RMD	Robin Richardson, RMD		Deana Crumbling, TIFSD	Lois Gartner, ARD
HQ	Amy Vandenburg, RMD	Steve Dymont, TIFSD			John McKernan, ORD	Marc Greenberg, ERT
HQ		David Cooper, ARD			Loren Danforth, RMD	Susan Boushell, OECA
HQ		Frank Avvisato, ARD			Jennifer Edwards, ARD	
HQ					Melanie Hoff, TIFSD	
BOLD names reflect Steering Committee member liaisons						

In addition to those members listed above, additional subgroups met in phase 1 of this effort but were later consolidated into the “In-house Resources” subgroup in phase 2 of the effort. These individual workgroups and members are listed below:

<u>Reg/HQ</u>	<u>Science Policy/Technical</u>	<u>Workforce</u>
<i>Co-Chairs (HQ/Reg)</i>	<i>Greg Gervais, TIFSD</i>	<i>Connie Andrews, RMD Jim Webb, R3</i>
R1		
R2		
R3	Kathy Davies	Jim Webb, R3
R4	Glenn Adams	Carol Monell
R5		
R6	Jon Rauscher	Ben Banipal Charles Faultry
R7		
R8	Deborah McKean	
R9	Herb Levine	
R10		Lori Cohen
HQ	Greg Gervais, TIFSD	Connie Andrews, RMD
HQ	Ray Ledbetter, ERT	Gary Turner, TIFSD
HQ	Deana Crumbling, TIFSD	Zena Aldridge, OECA
HQ	Jim Cummings, TIFSD	
HQ	Becki Clark, ARD	
HQ	Marc Greenberg, ERT	
HQ	Marlene Berg	

The following program management action areas were incorporated in the action plan after the conclusion of the subgroup brainstorming and deliberative processes:

- Project Data Management
- Alternative Parties to Perform Site Cleanups
- Superfund Web Special Project