To: Jackson, Ryan[jackson.ryan@epa.gov]
From: Hood, Robert/DCA
Sent: Tue 7/11/2017 8:04:49 PM
Subject: FW: Recommendations for consideration by the EPA Superfund Task Force
Recommendations for Consideraton by the EPA Superfund Task Force.pdf

Hey Ryan,

I want to follow up with you on our conversations about superfund. Below is an email my colleague Mike Tilchin sent to the Superfund working group that include our recommendations. If you think there is any value in discussing these recommendations in person, please let me know.

Thanks

Rob

Robert R. Hood

Vice President

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From: Tilchin, Mike/DCA

Sent: Tuesday, July 11, 2017 11:55 AM
To: Hood, Robert/DCA <Rob.Hood@CH2M.com>
Subject: FW: Recommendations for consideration by the EPA Superfund Task Force

I had forgotten that I did send this to both Albert Kelly and Nicholas Falvo. In a separate email, I noted that this was a CH2M product. I will send you that email, as well.

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From: Tilchin, Mike/DCA
Sent: Tuesday, June 20, 2017 11:17 PM
To: 'kelly.albert@epa.gov' <kelly.albert@epa.gov>; 'falvo.nicholas@epa.gov' <falvo.nicholas@epa.gov>
Subject: Recommendations for consideration by the EPA Superfund Task Force

Dear Senior Advisor Kelly, Special Assistant Falvo, and Members of the Superfund Task Force:

CH2M greatly appreciates the important work the Task Force has undertaken to examine the existing Superfund program and recommend ways to accelerate the remediation process, reduce cleanup costs, incentivize private investment in site cleanup, and stimulate the return of remediated properties to beneficial reuse. The Superfund program has made great progress in

cleaning up sites, creating jobs, and putting land back in to productive use, and we have had the opportunity to work on numerous benchmark remediation projects for EPA. However, as noted by the EPA Administrator, there are significant opportunities to make the program more streamlined and effective.

CH2M respectfully submits the attached recommendations and comments, and we hope the Task Force finds these helpful. We anticipate that the Task Force will have considered many of these same ideas during its deliberations. Our recommendations are organized based on the issues and expectations stated in EPA Administrator Pruitt's memorandum on Prioritizing the Superfund Program. Our recommendations are based on specific project experience (including many EPA projects) and outcomes. We would welcome the opportunity to discuss any of these recommendations with the EPA Task Force in greater detail, and how those recommendations of interest to the Task Force might be more fully and successfully implemented in the EPA Superfund program.

Thank you,

Mike Tilchin

Mike Tilchin, P.E., LEED GA

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Mr. Albert Kelly, Senior Advisor to the EPA Administrator
Mr. Nicholas Falvo, Special Assistant to the Senior Advisor
Members of the Superfund Task Force

June 21, 2017

Subject: Recommendations to the Superfund Task Force

Dear Senior Advisor Kelly, Special Assistant Falvo, and Members of the Superfund Task Force:

CH2M greatly appreciates the important work the Task Force has undertaken to examine the existing Superfund program and recommend ways to accelerate the remediation process, reduce cleanup costs, incentivize private investment in site cleanup, and stimulate the return of remediated properties to beneficial reuse.

As a company providing remediation services for over 35 years, we have been part of the development and implementation of best practices for remediation programs for EPA and a wide range of other government and private sector clients. The Superfund program has made a great deal of progress in cleaning up sites, protecting human health and natural resources from contamination, creating jobs, and putting land back in to productive use, and we have had the opportunity to work on numerous benchmark remediation projects for EPA. However, as noted by the EPA Administrator, there are significant opportunities to make the program more streamlined and effective. We have seen how focused leadership commitment has transformed remediation programs and raised the level of performance, and we applaud the work of this Task Force.

CH2M respectfully submits the attached recommendations and comments to the Task Force. We organized these recommendations per the priority areas in EPA Administrator Pruitt's memorandum on Prioritizing the Superfund Program. In virtually every instance, CH2M's recommendations are based on specific project experience (including many EPA projects) and outcomes. We would welcome the opportunity to discuss any of these recommendations with the Task Force in more detail.

Regards,

Michael Tilchin, P.E., LEED GA
Vice President
National Manager, EPA Programs

Recommendations to the EPA Superfund Task Force

Streamline and improve the efficiency and efficacy of the Superfund program, with a focus on identifying best practices within regional Superfund programs, reducing the amount of time between identification of contamination at a site and determination that a site is ready for reuse, encouraging private investment at sites during and after cleanup, and realigning incentives of all involved parties to foster faster cleanups.

Recommendations:

- **Reach early agreement on long-term land use.** Critical to establishing a streamlined and efficient cleanup process is getting key stakeholders or partners– EPA, responsible parties, state regulators, local government agencies, tribes, local community groups – pointed in the same direction. Early alignment on the end-state vision or beneficial reuse plan is a common element of highly successful remediation projects, and a key to attracting early private sector interest in the remediated property. Conversely, lack of up-front alignment regarding what stakeholders want from the cleanup typically delays projects. Based on location and future land use, some sites (e.g., residential sites) need to be cleaned up to unrestricted use, which is referred to as unlimited use and unrestricted exposure (UU/UE). Other sites to be used for commercial, industrial, or public (infrastructure) use require less cleanup to be returned to a beneficial use. CERCLA and the NCP allow EPA to consider cleanup to reasonably anticipated future land uses. However, without stakeholder agreement on future land use, regulators commonly default to the most conservative and costly levels of cleanup. The early alignment process encourages participation of all community members in goal development, action planning, and implementation. The DOD BRAC process has successfully accelerated site cleanup with a focus on cleaning up to levels protective of future use in a manner that stimulates local development.

- **Create a best management practices (BMPs) tool to foster faster cleanup.** EPA has developed many high-quality guidance documents and directives that address best practices; however, the Agency has been challenged to get those best practices implemented broadly and consistently at sites. One of the barriers to implementation may be the number of BMP resources that are out there and how RPMs access that information. Consider developing a consolidated tool to provide project teams a one-stop, searchable means to quickly identify and screen BMPs applicable to a specific type of project to foster faster cleanups.

- **Adopt flexible work approaches.** Early actions and adaptive site management approaches common in the remediation industry foster faster cleanups. However, Superfund's work flow process generally requires 100 % completion of each process step before moving forward, thereby extending the remediation timeline. Not all site cleanup actions need 100 % completion of each CERCLA step prior to beginning the next step, e.g., for straightforward dig and haul projects.

- **Minimize revisiting and revising regulatory decisions.** Historically, previous agreements and decisions have been subject to change when staff changes occur at EPA. That is appropriate when new information leads to a different understanding of site conditions or if a new technology or work approach can accelerate cleanup progress. However, changes are sometimes a matter of personal preference, and revisiting past decisions on a site can result in months or years of delay.

- **Adopt a partnering/consensus process for work scoping and document reviews to accelerate the project life cycle.** Applying a partnering process at many DOD sites has expedited cleanups. This is accomplished through regularly engaging the principal stakeholders in review meetings to evaluate project progress and resolve issues before they result in delays. The process also can save months

on major project submittals by involving appropriate stakeholders in concurrent document reviews, as an alternative to repeated cycles of document submittal-comments (often multiple sets of comments)-response to comments.

- **Create assets by constructing infrastructure projects at remediation sites and scale cleanup levels appropriately.** Where possible, allow infrastructure projects on sites cleaned up to levels less conservative than UU/UE levels. As infrastructure assets need ongoing O&M, coordinate infrastructure O&M requirements with long-term stewardship of remediated sites, including remediation system O&M and 5-Year Reviews.
- **Revise contracting processes to incentivize faster and less costly cleanups.** EPA remediation contracting processes tend to limit opportunities for efficiencies and innovation. Implementation of design-build or performance-based contracting approaches can be implemented where the contractor takes on more project risk in return for more flexibility in means and methods, and the ability to earn higher fees if performance exceeds established targets for quality, cost, and schedule.
- **Apply Technical Impracticability (TI) Waivers more broadly.** Some sites, such as fractured rock sites with dense, non-aqueous phase liquids (DNAPL) are technically impracticable to cleanup. While EPA has a TI Waiver process, it has historically been reluctant to apply such waivers. Where waivers have been applied, EPA typically requires costly and time-consuming demonstrations that best available technologies are ineffective at that site. It is not uncommon for years of testing to be required to prove something that was reasonably certain at the outset based on site data and a desktop-level study.
- **More fully implement EPA's Integrated Cleanup Initiative (ICI).** The ICI contains several best practices to accelerate cleanups and reduce costs. However, it has been implemented on a limited basis. Employ rapid high resolution site characterization tools more broadly and take early remedial actions to reduce site risk and accelerate the cleanup process. Examine current contracting approaches, which generally do not encourage or facilitate the implementation of integrated cleanups.

The task force should propose recommendations to overhaul and streamline the process used to develop, issue, or enter into prospective purchaser agreements, bona fide prospective purchaser status, comfort letters, ready-for-reuse determinations and other administrative tools under the agency's existing authorities used to incentivize private investment at sites.

Recommendations:

- **Early engagement with stakeholders.** As referenced in the recommendations to the Administrator's initial priority, early engagement with stakeholders, including potential property developers, to define the post-cleanup beneficial reuse can be an incentive for private investment.
- **Inventory and categorize Superfund sites based on redevelopment/reuse potential.** To target outreach to the private sector, inventory and categorize Superfund sites based on redevelopment/reuse potential.
- **Collaborate with potential developers and investors.** At sites where there is meaningful redevelopment/reuse potential, communicate to potential developers and investors EPA's interest in collaborating to explore redevelopment and reuse of sites and prepare/enable sites for redevelopment through the remediation process.

- **Link contributory investment in cleanup efforts.** Develop concepts that link contributory investment in cleanup efforts with:
  - Speed to achieve Ready for Reuse status (more aggressive cleanup approaches can be undertaken).
  - Additional and reasonable liability protection for investment in cleanup activities; those protections associated with a level of commitment that attain and potentially exceed the standard efforts associated with All Appropriate Inquiries. Liability caps may be part of this protection.
- **Risk management linked to planned reuse.** Related to liability protections, risk management approaches linked to appropriate and protective cleanup levels consistent with the planned reuse could incentivize investment.

Streamline and improve the remedy development and selection process, particularly at sites with contaminated sediment, including to ensure that risk-management principles are considered in the selection of remedies at such sites. In addition, the task force should propose recommendations for promoting consistency in remedy selection and more effective utilization of the National Remedy Review Board and the Contaminated Sediments Technical Advisory Group (CSTAG) in an efficient and expeditious manner.

Recommendations:

- **Reduce or eliminate the 7% discount rate routinely used in EPA's FS process in developing present value cost estimates for remedial action alternatives.** The use of the 7% discount rates results in unrealistic comparisons between remedial actions that get a site cleaned up quickly and remedial actions that require long operation periods, driving decisions to remedies with "rear-loaded" costs.
- **Reduce lifecycle costs for remedial actions by re-balancing capital costs with long-term O&M costs**. Consider program-level changes that would allow EPA to share costs with states for long term O&M. The current system of cost sharing places conflicting objectives between EPA and its state partners. Due to these conflicting objectives, EPA is building some costly "walk-away" remedies with high capital expenditures to get buy-in from the state, which is seeking to eliminate or significantly minimize future O&M costs. O&M costs are a reality, but the current EPA-state dynamic can drive remedial action costs upward without benefiting human health or environmental protection. A re-balancing can result in significantly reduced capital investment and relatively nominal O&M costs to the states.
- **For contaminated sediment sites, broadly adopt remedial action strategic concepts developed by CSTAG and the Sediment Management Work Group (SMWG).** Both groups have developed similar recommendations:
  - A detailed and explicit project vision and accompanying objectives; achievable short-term and long-term goals; and metrics of remedy success at the outset of a project, refined as needed throughout the project duration.
  - Strategic engagement of stakeholders.
  - Optimization of risk reduction, risk management processes, and remedy selection with focus on early action remedies to accelerate risk reduction; and the systematic and sequential development of a suite of actions applicable to the ultimate remedy.
  - An incentive process that encourages and rewards risk reduction.

- Pursuit of sediment remediation projects as a public–private collaborative enterprise.

EPA's sediment cleanup projects for Areas of Concern (AOCs) under the Great Lakes Legacy Act (GLLA) embody many of these principles, and it has been highly successful in getting sites cleaned up quickly and returned to beneficial reuse. Projects require joint funding (a 35% non-federal match), and EPA and the private sector work collaboratively. Projects are prioritized for GLLA funding based on:

- Projects that will use an innovative approach, technology, or technique that may provide either greater or equivalent environmental benefits at a reduced cost.
- Projects that are ready to go, or commit to commence remediation not later than one year after the date of receipt of funds.

Many AOCs are NPL-caliber projects, and the principles and practices of collaboration, speed, and shared costs can be a model for Superfund cleanups.

- **Revisit the PCB Disposal Rule.** The PCB Disposal Rule's requirement to characterize for PCB remediation waste for disposal based on the in-situ (in the waterway) sediment concentration provides little or no environmental benefit and can add millions of dollars in additional costs compared to ex-situ characterization. Reforming the rule to use ex-situ waste characterization sampling of the dredged materials could significantly reduce remediation costs.
- **Streamline the National Remedy Review Board (NRRB) engagement in remedy selection.** The NRRB has the potential to play a beneficial role in strengthening risk management processes in Superfund, promote consistency in remedy selection, be a catalyst for wider application of presumptive remedies, and serve in a high-level value engineering capacity, but it is not clear that current practices optimize the potential benefits of the NRRB review. EPA leadership can support the NRRB by ensuring that the board has the technical expertise, site management and remedial strategy experience, and expertise in planning and reuse to function at its full capacity. The NRRB should *not* be a "check the box" step in the remedial action decision making process. Refocus the objectives and incentives of the NRRB and perhaps the makeup of the NRRB so it has the capability to serve in a value engineering and optimization role, and promote beneficial reuse of sites.
- **Encourage proactive remedial actions at Fund-lead sites and place additional emphasis on use of presumptive remedies**. If a presumptive remedy is going to be implemented, provide RPMs the latitude to initiate remedial action as soon as possible, assuming funding is available. Capitalize on the existing knowledge base to catalog and define more presumptive remedies for a greater variety of sites and contaminants.
- **Refocus Removal Group performance measures.** On Fund-lead sites, use the EPA Removal Group to help implement and expedite early remedial action and realign program performance measures so that taking such an action is recognized as a positive accomplishment. Currently, a removal action manager is not credited for undertaking an early remedial action.

Utilize alternative and non-traditional approaches for financing site cleanups, as well as improvements to the management and use of Superfund special accounts.

Recommendations:

- **Adopt a site-specific appropriation model for very large and complex sites.** For select sites in or entering the RA phase, especially those that are large, complex, and have costly remedies, a site-specific funding model like DOE/DOD's legacy site model could be employed. This would entail seeking site-specific appropriations to fund the full remedy over a shorter duration instead of relying

on annual allocations out of the Superfund Trust Fund. The site-specific appropriation could be a one-time, full-cost appropriation, or the cost of the remedy could be appropriated over a few years.

- **Increase total project funding capacity by applying both Special Account (SA) funds and Fund-lead funds to increase efficiency and complete greater work volumes.** Typically, when SA funds are available, they are exhausted before Fund-lead funds are used. As a result, work is broken up into smaller components, extending the time and increasing the cost of cleaning up the site. Opportunities may exist to combine SA funds and Fund-lead funds to aggregate scope of work efforts, which maximizes cost and schedule efficiencies.
- **Broader use of Environmental Trusts.** Numerous Environmental Trusts have been established to provide fiduciary and management support of settlement funds. While Environmental Trusts are like special accounts, Environmental Trusts may offer some unique benefits or advantages to SA:
  - Trusts can procure services at commercial market rates. Additionally, because FAR compliance is not required, there are opportunities for savings.
  - While the trust is obliged by law to act in the government's best interest, the trust also has greater flexibility in how and when the money is spent, and there are greater incentives to innovate, accelerate cleanups, and reduce costs.

Reduce the administrative and overhead costs and burdens borne by parties remediating contaminated sites, including a reexamination of the level of agency oversight necessary.

Recommendations:

- **Scale oversight.** Scale oversight based on the technical capability and degree of cooperation of the PRP. Where a PRP demonstrates that it is capable and cooperative, reducing the level of oversight can increase efficiency, diminish costs, and speed cleanups. In cases where a PRP demonstrates capability and cooperation, consider adjusting oversight activities from direct observation with considerable duplication of effort to an oversight approach based on specific milestones and confirming that the milestones are achieved and properly documented. Where the PRP misses milestones or provides inadequate documentation, the oversight approach may shift back to a more traditional on-site presence.
- **Reduce instances of overlapping oversight from multiple regulatory agencies.** This issue is prevalent at Federal Facilities, where EPA and the state both have an oversight role. Dual oversight can be problematic, especially when different regulatory agencies have different expectations and capabilities, and differences between the regulatory agencies can prolong document reviews and resolution of issues. Where multiple regulatory agencies are involved, those agencies should work to gain consensus early in the process on a clear division of responsibilities.

Improve the agency's interactions with key stakeholders under the Superfund program, particularly other federal agencies at federal facilities and federal potentially responsible parties, and expand the role that tribal, state and local governments, local and regional economic development zones and public-private partnerships play in the Superfund program. In addition, the task force should propose recommendations for better addressing the liability concerns of state, tribes and local governments.

Recommendations:

- **End-state visioning and alignment on project goals.** With multiple government stakeholders, collaborative end-state visioning and alignment on project goals is critical to maintaining progress and reducing the overall project timelines and lifecycle costs. Without up-front alignment,

differences and diverging opinions at later stages of the project are more likely to arise and have greater impact on cost and schedule.

- **Partner with state and local governments.** For public-private partnerships to promote economic development, state and especially local governments are essential partners. It is at this level that crucial understanding of local needs and priorities is greatest and where economic interests are most closely aligned. Engaging local governments, community groups, and private sector developers early in the remediation process maximizes the opportunity of getting to win-win solutions for integrating remediation and redevelopment.
- **Leverage remediation capabilities at the state level.** Greater use of state-level remediation capabilities can enhance the overall cleanup program. Any decisions regarding re-balancing of roles and responsibilities between EPA and the states should be informed by a detailed understanding of the technical and resource capabilities of the individual states. Some states have significant capabilities and resources; other states have substantially less. This will likely be a state-by-state evaluation, not a one-size-fits-all solution.