

CONTAMINANTS CLEANUP BRANCH, NPS

TRANSITION REPORT

Transforming a Program - Creating a Discipline
2012 - 2018



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- **NPS LANDS SHOULD BE FREE OF CONTAMINATION.**
- **ESTABLISHED LAWS PROVIDE POWERFUL AND PROVEN METHODS TO RESPOND TO CONTAMINATED SITES.**
- **THOSE RESPONSIBLE FOR CONTAMINATING PARK RESOURCES SHOULD PAY TO CLEAN THEM UP.**

CONTAMINANTS CLEANUP BRANCH NATIONAL PARK SERVICE



INTRODUCTION

NPS's recent elevation of the Contaminated Sites Program (CSP) to a branch (the Contaminants Cleanup Branch or CCB) signals the opportunity to replace RRC-provided capacity with NPS personnel, thus ensuring CCB's stability and future. This has been the overarching goal from the outset of RRC's engagement, and reaching it is a significant milestone for NPS and for CCB.

To facilitate the smooth transition from RRC-provided capacity to CCB, RRC has prepared this Transition Report, which outlines major initiatives and activities, with status updates and considerations for future action. The intent of this report is to document the transformation of CSP to CCB, including the creation of a standardized NPS Cleanup discipline, to inform CCB's determination of its future strategic course and staffing plan.

BACKGROUND

In late 2012, RRC was engaged to develop a Strategic Plan for CSP. At the time, this program was directly managing about 24 of NPS's most complex cleanup projects. The program had begun some 20 years prior and had pioneered model cleanup practices on a few of the agency's most complex cleanup projects, involving cost recovery cases with potentially responsible parties. These successes in cleanup capability resulted in more and more sites being brought to this small shop. By 2012, program capacity was severely stretched, while demand continued to grow. And still, only a fraction of the agency's site inventory was being addressed.

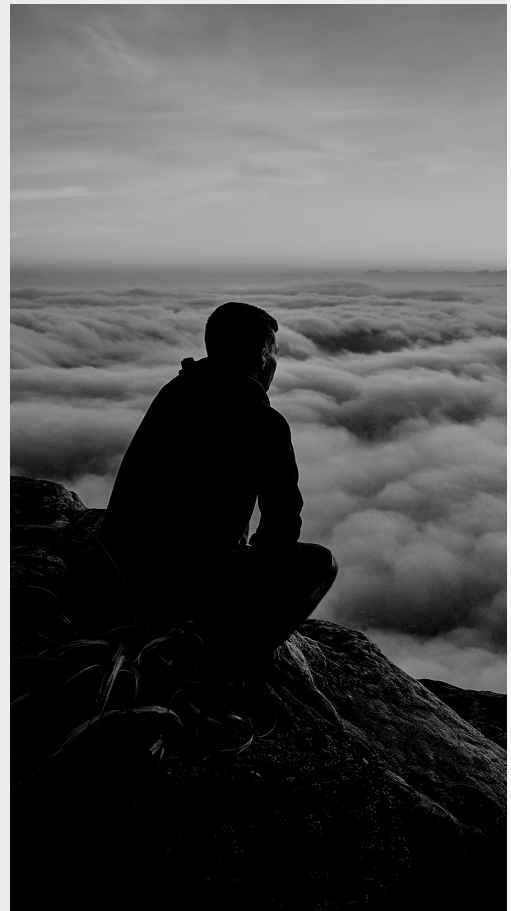
Findings from the planning process supported the NPS decision to transition CSP from direct management of site cleanup to the fulfillment of a broader WASO role, whose purpose would be to enable the field to address the full inventory of sites. The 2013 CSP Strategic Plan called for the transformation of CSP's business model and ultimately, of NPS's approach to contaminated site cleanup overall, and outlined an ambitious set of objectives that has involved every aspect of the program's operations.

This transformation effort was referred to as the Contaminated Sites Initiative (CSI).

CSI SCOPE

RRC was asked to bring about the CSI transformational effort, acting as strategic adviser to NPS CSP leads on strategy, messaging, governance, IT, staffing and other capacity development, and providing foundational strategy, plans, and documents for key mission initiatives that would result in the effective transition of CSP from direct site management to a WASO role overseeing a standardized Cleanup discipline within NPS.

A key early development in the scope of this effort was based on CSP's identification that many of the NPS issues were parallel to its sister bureaus with contaminated sites and stemmed from Department of the Interior (DOI) current practice and policy related to site cleanup. RRC advised that more progress with greater efficiency could be gained by working concomitantly at the NPS and DOI levels, and CSP began working to bring about a DOI CSI.



DOI CSI

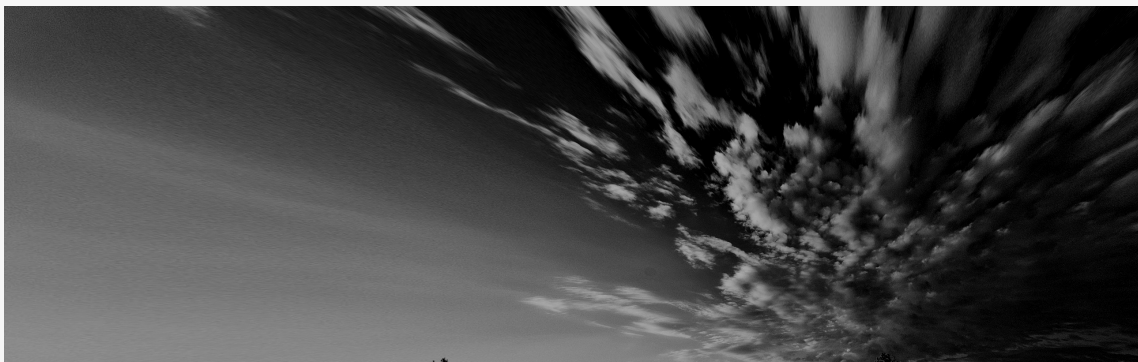
A department-level CSI was officially achieved in 2016. While the DOI initiative was coming together, CSP continued to advance work on the NPS CSI. NPS results served as models for what the six bureaus would jointly present to the Deputy Secretary, who, in January 2017, ratified the CSI Recommendations for improving DOI cleanup practices. One of the reasons for his sanction was the successful six-bureau collaboration. When the administration changed, the Transition Team approved continuation of the CSI.

From the initial CSP Strategic Plan, which has endured over five years, including a major administration change, CSP has made substantial progress on the plan's objectives, as well as continuing to pilot approaches to implement the DOI CSI Recommendations. This progress is described herein.

The total CSI effort has benefited from collaboration among a wide variety of teams in NPS and DOI, with outstanding achievements across the board.

HIGHLIGHTS

1. Increased visibility of Contaminated Sites/Issues within DOI and NPS; DOI-sanctioned CSI Recommendations collaboratively developed by six bureaus
2. NPS program elevated to a branch (CSP now CCB)
3. NPS Contaminated Sites Online Inventory launched & being validated (~500 sites at total cost projections of ~\$2.3B); DOI inventory in development
4. NPS Contaminated Sites strategic prioritization decisions aligned with annual funding decisions in a single model (using Decision Lens SaaS); DOI considering same
5. Increased NPS Cleanup Capacity (100s of practitioners oriented to CCB-established best practices, with more each quarter; CSWG attendance at an all-time high)
6. NPS intranet site (CSPortal) serves as online manual ("Cleanup 101") and repository for NPS best practice (tools), and provides templated collaborative workspaces for Contaminated Site Teams (CST); DOI uses CSPortal as model for a similar website soon to be launched
7. NPS internal cross-program collaboration advanced, including the development of draft Director's Order aligning restoration and response



A NEW SCOPE OF WORK



OVERVIEW

The 2013 Strategic Plan recognized that CSP would only be able to discontinue its role of directly managing site cleanup when NPS had achieved a cadre of cleanup practitioners equal to the demands of the inventory of sites. Given that, at the time, there was no explicit agency-wide cleanup discipline, with no discipline-specific positions, and little NPS governance, CSP understood this would be a major undertaking, requiring years to fully accomplish. However, the risk of not doing so was determined far more costly: for the agency, for the environment and for the American people.

The CSI, as outlined in the CSP Strategic Plan, meant that CSP's focus would have to take an about-face from doing the work on each site, dealing one-on-one with those involved, and writing each of hundreds of site-related documents.

DEVELOPMENT METHODOLOGY

COLLABORATION ADAPTATION DOCUMENTATION STRATEGIC COORDINATION

Key to the success of the CSI has been collaboration. As said above, since 2013, every aspect of CSP has been assessed and retooled to serve the strategic goal of building a capable and agile cohort of cleanup practitioners in NPS. It has been a process of reinvention.

This type of development work is best served by bringing a range of perspectives to bear on the subject matter and corralling the results into a new process or practice. A period of testing and evaluation follows to determine if the solution is viable (not only in itself but in relation to other activities, the culture and the larger vision), with needed adjustments made.

Concretizing results into clearly written products and crafting the messaging to manage expectations have also been critical to the process.

Many of the initiatives herein described have gone through the collaborative development process, and can now be considered

standard practice, requiring more of a maintenance approach than a development one.

Maintaining a thing is always far easier than developing something new that works. CCB is now well-poised to bring on NPS personnel and put them at the helm, managing those initiatives that have achieved maintenance status.

Also key to the success of CSP's transformational initiatives has been seeing them as parts of a larger whole and utilizing them in synchronicity with each other toward a common end. A challenge for CCB in bringing on new personnel to manage these and other activities will be the coordination across them to ensure consistency in driving the larger vision. A risk is any of them becoming a siloed activity with little reference to each other or to the vision, or worse, working unwittingly contrary to it.

For those areas still in development, strong CCB leadership oversight will likely be required.



INITIATIVES & WORK STREAMS

This section describes the core transformation initiatives, including context, current status, and information on work stream execution.

- 1. Define the Cleanup Practice**
- 2. 24/7 Access to Resources**
- 3. Develop Cleanup Practitioners**
- 4. Utilize IT Systems**
- 5. Assess & Design Governance**

INITIATIVE	STATUS
1. DEFINE THE CLEANUP PRACTICE STANDARD CONSTRUCTS & DEFINITIONS	MAINTENANCE

CONTEXT: While CSP, as a team of 3 NPS staff and 8 contractors in 2012, had pioneered internal methods for successful cleanup of complex contaminated sites involving cost recovery cases, the program (and NPS) lacked standardized constructs and language with which to efficiently characterize a site and the cleanup process, and to communicate about them. To address this, RRC suggested the development of 1) a cleanup framework that would describe site cleanup in standard phases with clear milestones, 2) a complexity hierarchy by which sites could be categorized in terms of their relative demands related to cleanup, and 3) a Site Profile that would identify a standard set of data about each site and be the basis for a NPS Contaminated Site Inventory. In addition to these products, standard definitions for “contaminated site” and “cleanup” were developed. All of this forms the foundation of CCB’s work on behalf of the agency and is communicated throughout CSPortal.

STATUS OF RELATED WORK STREAMS

CLEANUP FRAMEWORK

The framework, as originally conceived, utilized many CERCLA terms. As the cleanup practice has broadened from the two dozen CERCLA sites that CSP managed, there is recognition of the need to make clear that the framework, while rooted in CERCLA practice, applies to all NPS site cleanup. Some adjustments toward this end have been made to the framework since it was initially rolled out in 2014, but there has also been a keen interest in maintaining it as a stable fixture in the NPS cleanup discipline. In other words, the framework document is a foundational one, so ongoing maintenance of and revisions to it should be informed by the importance of its durability. As this point, the framework is the organizing principle for CSPortal, is explained and referenced throughout, and is increasingly utilized by CST practitioners (the growing number of those aware of and participating in CSWsGs, using CS Workspaces, and other CCB-provided forums), and served as the basis for the DOI version.

The development of a cross-walk document has been discussed that would address different legal contexts and programmatic perspectives within the Cleanup Framework. Some draft work product on this exists, but at present, the approach has been a note under each Phase on the portal with guidance to adapt the Framework to the particular cleanup context as indicated. However, if NPS does intend a universal framework for cleanup, applicable to CERCLA, RCRA, OPA, and to AML, NRDA, etc., more development work on the framework will be required.

COMPLEXITY CATEGORIZATION

CSP collaboratively developed the factors and an algorithm by which a site's complexity would be determined. Complexity correlates directly to the capacity that will be required for cleanup, including funding, personnel, and time. This is described on CSPortal and forms the basis of the valuation of the NPS Contaminated Site Inventory (see CSPortal section below). Like the Cleanup Framework, Complexity Categorization is a foundational construct in NPS, so ongoing maintenance of it should be informed by the importance of its durability. At present, Complexity Category is a key feature explained and referenced on CSPortal and is increasingly utilized by CST practitioners (the growing number of those aware of and participating in CSWsGs, using CS Workspaces, and other CCB-provided forums). As the basis of estimating total cost of a site's cleanup, it is currently being reviewed by the department for use in its inventory of contaminated sites.

SITE PROFILE

The idea that there is a common set of data by which to describe and understand each contaminated site is an obvious one. CSP set out to create such a set for NPS in 2013. What began as a MS Word document used by CSP to efficiently capture the defining characteristics of two dozen sites, is now the backbone of the NPS Site Inventory of ~500 sites. Specifically, the Site Profile is the user interface on CSPortal that feeds the inventory database. See the Inventory in the CSPortal section below for detail. Again, the Site Profile and the standard data it contains is another foundational construct of the NPS cleanup practice. Since it was initially rolled out, the Site Profile data fields (defined in the CSPortal Documentation maintained by the webmaster) have been minimally modified to comport with advances in NPS cleanup practice; again, modifications of it are informed by the importance of its durability.

CONTAMINATED SITE, CLEANUP AND OTHER DEFINITIONS

A critical body of work in the transformation effort has been the coining and defining of terms. Lexicon is the underpinning of all standardized disciplines, and the development and consistent use of a clear set of terms for NPS contaminated site cleanup will continue to be a critical element to ensuring NPS's cleanup discipline. CSPortal, as the living manual for NPS cleanup practice (see below) and CCB-sanctioned glossaries, as well as terms in templates, are the means by which CCB codifies the lexicon. Ensuring currency, consistency and clarity in cleanup terminology is a significant part of the ongoing maintenance workload.

INITIATIVE

STATUS

2. 24/7 ACCESS TO RESOURCES: CSPORTAL

INTERACTIVE WEB GUIDANCE, TOOLS, COLLABORATION, INVENTORY

MAINTENANCE

CONTEXT: One of the first major priorities of the CSP 2013 Strategic Plan was the development of an online platform to house and disseminate cleanup best practices to the field. Since every NPS region is engaged in site cleanup, CSP needed a way to reach across NPS and to do so quickly. Launched in 2014, CSPortal is now CCB's "face" to the NPS and DOI leadership and to their contaminated site practitioner communities and, as such, is a major asset to both the agency and to the branch. CSPortal serves several core agency and CCB functions:

- Orientation and ongoing training of cleanup practitioners
(Onboarding Material: "Start Here," "Cleanup 101," Training & Tool Repository)
- NPS Site Inventory (Map & Site lists by Region/Park)
(Leadership view & Site ID/Site Profile user interface)
- Collaborative platform for CSTs – providing access by CCB for site progress monitoring
- Core Messaging Platform for CCB
- EDL Reporting & Other DOI Interface

STATUS OF RELATED WORK STREAMS

FOUNDATIONAL CONTEXT FOR CLEANUP IN NPS

Soon after the 2013 Strategic Plan was complete, RRC worked with CSP leads to write material explaining the full context for site cleanup in NPS, answering the question, why is NPS cleanup different from other contexts? This material took various forms and went through many iterations between 2013 - 2015, as it was being shared and refined with a wide range of audiences inside NPS, in DOI (related to fomenting the CSI there) and with USDA, DOJ, and others. This material was critical in defining the broad context for cleanup in NPS formed under the Organic Act, informed by Park purpose, and recognizing that federal land managers are two decades and \$100s of millions behind EPA in establishing their cleanup disciplines.

This contextual material has been incorporated into all CCB written materials related to cleanup, including plans, briefings, annual reports, etc. It has also been strategically integrated throughout CSPortal, with its most prominent application the "Start Here" material. The "Start Here" material serves not only as an orientation to CSPortal for new users, it is also the basis of quarterly onboarding/orientation sessions. While this material is, for the most part, fully developed, an important part of CCB's maintenance efforts will be revisiting it to ensure the underlying logic, messages and language are still relevant.

"CLEANUP 101"

CSPortal's structure is the Cleanup Framework, with web pages for each framework phase and sub-phase that provide direction, guidance and tools to CSTs on each part of the framework. The text on these pages, and all the supporting material, including Core Activity Checklists and associated explanation, is referred to as "Cleanup 101," as it is intended to give NPS cleanup practitioners the basic and standard process for site cleanup. This material is NOT intended to teach practitioners cleanup science and strategy, but rather the NPS process for site cleanup.

These web pages were first written in 2014, and have been completely re-tooled in 2018 to provide broader and more in-depth guidance to practitioners. The initial version was sparse, written in highly technical language, and focused more on technical issues. The revised version is written in plain English, with emphasis on all of what CSTs need to attend to in each

sub-phase. The new version has benefited from ongoing interaction with practitioners in various forums (see below), and now more directly meets their needs. Major goals for the development of Cleanup 101 material is standardizing the NPS approach to site cleanup, providing a phase-specific resource for CSTs, particularly for those new to cleanup in NPS. This material serves as the CST orientation resource, following "Start Here."

NPS CONTAMINATED SITES INVENTORY

One of the major needs related to contaminated sites has been an inventory. This need was identified in a 2015 GAO Report, and CSP began including in its management briefings the recommendation for a comprehensive inventory of all contaminated sites, regardless of location, site type, or complexity. The development of such an inventory for DOI is one of the ratified Recommendations, and in 2017, CSP provided its work on Site Profile data sets as a model to the CSI working group.

As discussed above, in developing its "Site Profile" and its standard data fields, CSP initiated thinking on this important topic. CSP's Site Profile data fields were developed from a review of existing data inputs in DOI's EDL (which was the closest thing to a site inventory at that time), CHF Nomination tool, and Scoring Matrices, in NPS's PMIS application process and other sources. From the Site Profile standard data fields, a database and user interface were developed on CSPortal in 2015. (As is detailed in the IT section below, this work and the underlying definitions and sources of the data fields are maintained in CSPortal Documentation by the webmaster.) The intent of adding the Site Profile to CSPortal was largely to enable real-time updates by CSTs to the Site Profile, which could be monitored by CSP.

By early 2018, DOI progress on an inventory was still underway, and CSP decided to move forward with an NPS inventory, the basis of which would be the Site Profile database. This decision had been prolonged due to CSP concerns over creating another "siloeed" IT platform, adding more burden to the field. To address the latter, CSP input all known existing data (largely from EDL and including LOCs) into its database, and added a Site ID form to the portal to capture any new sites. Finally, the Complexity Category algorithm results were monetized into a projected total cost value for each site, and a map of NPS regions with a listing of all known sites was added. At this point, Fed Gov Leads and regional representatives are in the process of validating and completing site data, with a proposed December deadline.

The existence of a comprehensive inventory of NPS sites is a huge achievement and represents a major milestone for CCB. Also, the NPS total cost model has been presented to the DOI CSI working group at their request, to support DOI Site Inventory development. Future considerations for the Inventory, which are detailed in the IT section below, are the migration of site data to a more up-to-date platform (MS Sharepoint 2010 is an antiquated, and as such, temporary, solution), alignment and automated linkage with other systems collecting similar data, including EDL and the DOI Site Inventory, and possibly EPA's NPL and Federal Docket. A long-term goal here would be a US Contaminated Sites Inventory.

SITE WORKSPACES

A benefit of building CSPortal on MS Sharepoint was its capability with regard to online collaboration. From the outset, a fully integrated component of CSPortal was a templated "CS Workspace" where CSTs could track and communicate about their projects in a central location. Workspaces were piloted in 2014 and now are standard, with more coming online each quarter. Not only do they provide online collaboration for CSTs, workspaces also give real-time monitoring of site progress capability to WASO, and enable site-specific communications to be delivered in a manner consistent across all sites. Milestone documents, tasks, team composition and discussions, and site-related events are all visible on the workspaces, saving hours of time previously spent checking in via phone/emails. As more workspaces come online, a consideration will be the capacity of the CSPortal Sharepoint site, as well as appropriate governance and QC of workspace usage.

3. DEVELOP CLEANUP PRACTITIONERS

CONVENING, TRAINING, MENTORING

MAINTENANCE

CONTEXT: The 2013 Strategic Plan recognized that CSP would only be able to discontinue its role of direct management of site cleanup when NPS had achieved a cadre of cleanup practitioners equal to the demands of the inventory of sites. CSP was faced with identifying the individuals across the agency currently involved in site cleanup and creating a strategy by which to develop them into an effective group of cleanup practitioners.

Developing and implementing the strategy for creating this cadre of practitioners has involved encouraging a community of practice for the advancement of contaminated site cleanup; consistent convening of a growing list of NPS personnel and contractors involved in site cleanup; developing and presenting customized trainings and workshops on core subject matter; giving emphasis to specialized groups of practitioners by CST role and by topic; developing onboarding/orientation materials for new practitioners and related parties; and providing individual and CST mentoring and advising as needed.

STATUS OF RELATED WORK STREAMS**CONTAMINATED SITES WORK GROUP (CSWG)**

Cleanup practitioners were first convened in 2014, and CSP began developing and presenting training modules through this forum. Initially, CSWG (then called the Project Management Work Group or PMWG) met monthly; after a year or so, the schedule changed to every other month. There was also a face-to-face meeting held in August 2014 that included a site visit to the landmark Krejci site in Cuyahoga Valley National Park.

Major goals for the CSWG initiative were: consistent attendance and participation by individuals identified as involved with cleanup in NPS; the achievement of a common baseline of knowledge and terminology related to cleanup in NPS; development of a congenial cohort of mutually supportive practitioners; and the sharing of knowledge and approaches to cleanup among them. Since that time, CSWG attendance has doubled, with increasing interaction among this diverse group. Further, CSWG members use CCB-provided standard terminology (Cleanup Framework, Complexity Category, CST roles, etc.), reach out to each other with questions, share resources, and are generally supportive. By all measures, the CSWG is an effective means toward building a cohort of seasoned cleanup practitioners.

The CSWG has become the means for disseminating NPS direction and cleanup best practices (webinars 6x/year). While supported by the Portal (see below), the CSWG provides the forum for all CST members to engage a topic. The fact that WASO CCB convenes it, signals the source of the direction and aids the agency in cultivating a standard cleanup discipline. It took several years for the CSWG to realize its major objective of an interactive forum; 2018 sessions have seen a major upswing in both attendance and participation. Part of this is due to the design of the sessions themselves, but also the the time required for people to adhere in a virtual setting. Maintaining a schedule of engaging, relevant and well-presented sessions is paramount to the effectiveness of the CSWG. Involving CST leads in presenting with CCB members has proved successful. Topics CCB may want to consider:

- Cleanup 101: a two-part series to review the new information as presented on CSPortal to ensure that CSTs understand it and will use it as an ongoing reference for new CST members.
- Background Follow Up: Once CCB has finalized guidance on Background culminating from the Roundtable and CSWG sessions in spring 2018, a CSWG session to review it. Note: there is the opportunity to make the connection between Background and Clean Fill issues.

CST ROLES & RESPONSIBILITIES

Soon after the launch of the CSWG, it became clear that CSP needed to provide an overarching document to describe and explain the role of a Contaminated Site Team, its necessary qualifications, its relationship to other NPS entities (CSP, the Parks and Regions), to set the context for managing site cleanup in a consistent manner across NPS. From this was born the first iteration of what was initially called the "Project Management Team Roles & Responsibilities document or "PMT R&R".

Shortly thereafter, CSP began actively seeking contractors with cleanup experience to add to the meager number of NPS personnel actively engaged in cleanup and the CSWG. As CSP worked with existing NPS personnel and interviewed potential contractors, it became clear that management of the inherently governmental aspects of a site and the requisite cleanup experience simply did not yet exist in a single individual. With this realization, a major revision of the R&R document was undertaken that split the "PM" role in two: a Federal Government Lead and a Cleanup Lead. Of all the structure, process and lexicon that CSP delivered to the agency, this clarification in roles and the accompanying nomenclature was adopted immediately by practitioners. It simply made sense.

With this clarification in the two major leads required, the document title was changed to the "Contaminated Site Team Roles & Responsibilities" or the "CST R&R." It should be noted that the CST R&R also describes a third CST lead: the Legal Lead. This role is filled by a DOI ECRB or Regional solicitor. CCB is not responsible for the training of solicitors, but does address their vital role in the CST R&R, includes them in all CSWGs, and meets weekly with the ECRB lead attorney to ensure consistency in practice and appropriate resourcing of NPS CSTs.

The CST R&R document is both seminal and foundational to the NPS Cleanup discipline. It was last updated in 2016. RRC began a review of the document in early 2018, with the intent of updating terminology, but found it to be in need of a thorough review and revision to ensure it keeps pace with the continued development of the NPS cleanup discipline, underlying governance, and lexicon. When this document was first conceived, it described a panoply of issues related to management of site cleanup. At this point, RRC suggests that such a document may no longer be necessary, and its parts can be incorporated into CSPortal, into existing and emerging governance documents (Regional Directives, Director's Orders), and into classified position descriptions specific to site cleanup. Such a review and re-fashioning of the important information the CST R&R document contains will be a major undertaking, but is likely worth the investment in order to maintain clarity and consistency into the future.

Note: the CST R&R is a major governance document that defines the practitioner aspect of NPS cleanup, and as such, could have been addressed in the above section or in the section on governance below. RRC includes it here because the document has been so influential on how CSP proceeded in relation to the development of the practitioners themselves.

ONBOARDING/ORIENTATIONS (QUARTERLY)

CSP began bringing in contractors to work on CSTs and needed a way to orient them to ensure that new CST members were additive not corrosive to the burgeoning cleanup practice. At first, CSP tried relying on the contracting houses to orient their people, but it was quickly evident that CSP would need to conduct these sessions itself. The first of these sessions were held onsite at CSP in 2015, and geared toward the cleanup contractor audience. These sessions proved successful in their intended purpose, were well-received, and provided CSP the opportunity to refine its orientation material and how it was presented.

Today, sessions are held quarterly, are conducted via webinar to reach across NPS, utilize easily-accessible online material ("Start Here" on CSPortal), and attendees include all members of CSTs, plus Park and Region personnel and management, DOI solicitors and other interested parties. Future application of this material includes a recorded webinar accessible on CSPortal and, ultimately, a required course on DOI Learn.

CLEANUP LEAD CALLS

As the CSWG began to take hold and the new CST R&R document split the PM role into Fed Gov Leads and Cleanup Leads, it became clear that more specialized focus on sub-groups of the CSWG would serve to deepen the "bench." An obvious first choice was convening the Cleanup Leads since, as seasoned cleanup contractors advising Fed Gov Leads, they shared the need for direction about how cleanup is different in NPS from other places they knew, and also about how the Cleanup Lead role differs from the more traditional "technical contractor" role.

Cleanup Leads were convened monthly via video calls beginning in 2016. To help CSP identify topics for the calls that would benefit call contractors, RRC developed and hosted online a monthly status report that contractor Cleanup Leads submitted for each of their sites. After the first year, major strides were made in inculcating these contractors and CST functioning as well as site progress improved. Calls are now held every other month, opposite the CSWG schedule.

Cleanup Lead calls are hugely beneficial in maintaining relationships and ensuring contractors are aware of and follow NPS established practice, not to mention that these individuals are valuable resources to CCB in developing tools and SOP. What CCB will want to consider for the future is what route to take with regard to the Monthly Status Reports. Building a version of the form and database on CSPortal has been contemplated, as has joint submittal by the Cleanup and Fed Gov Leads.

FEDERAL GOVERNMENT LEAD CALLS

The Federal Government Lead emphasis came about in an interesting manner, signaling the first non-CSP initiated effort toward the advancement of the practitioners. News of CSP's work with Cleanup Leads spread to Fed Gov Leads, and as these individuals are, by definition, NPS personnel, there was some consternation expressed as to why they were not involved. Further, Fed Gov Leads felt the need for a specialized venue to workshop issues germane to their role, such as contracting, clarity as to Cleanup Framework core activities and milestones, review of core site documents, NPS management relations, etc. In 2017, this enterprising group initiated their own calls and designated one of the more seasoned Fed Gov Leads to facilitate them. CSP learned of this and immediately reached out to the facilitator, inviting her to take on this role officially under the auspices of CSP. The new role of Federal Government Lead Coordinator was outlined and the Fed Gov Lead calls were incorporated as part of the CSWG sub-group emphasis.

Fed Gov Lead calls take place opposite the CSWG sessions, and CCB staff meet every other week with the Fed Gov Lead coordinator to establish call topics, gather feedback from Fed Gov Leads to aid in CSWG session development and support Cleanup Lead calls. This process has been in affect since late 2017 and is successful in achieving more in depth-support of Fed Gov Leads, while gaining their valuable input on WASO development activities. CCB may want to consider convening additional specialized groups under the CSWG, such as on Site Types (e.g., AML or Firing Range workgroups), on key sub-phases in the Cleanup Framework (e.g., 1c, 2a, etc.) or on complexity category (e.g., cat 1 & 2 versus cat 3 & 4).

Note: It is not advisable that these CSWG sub-set groups supplant the CSWG, but rather should augment it. The CSWG is the forum for addressing broad issues facing all CSTs and for ensuring all-practitioner understanding of new WASO guidance, tools, SOP and deadlines. The sub-sets are for drilling down to greater depth, based on the specific emphasis.

MENTORING | ADVISING

One of the most time consuming aspects of CSP's work has been mentoring and advising on site cleanup. While this is a vital role for CCB cleanup experts, an aim of the transformation has been to maximize efficiency in this area. This is being achieved through the portal initiatives explained here. As practitioner capacity continues to increase, CCB personnel can be utilized in advising on the truly unique and exceptional.

4. UTILIZE IT SYSTEMS

ACCESS, SHARING, COLLABORATION, AUTOMATION

DEVELOPMENT

CONTEXT: A major goal of the federal government is a paperless work environment. The CSP transformation effort went beyond this and has utilized IT to achieve additional value and efficiency in a range of areas. The explicit use and development of IT systems in innovative ways has been integral to the advancement of the cleanup discipline, the practitioners and WASO operations. Progress with IT, in particular, has proved challenging, often requiring more time than anticipated due to the complexity of IT governance, the changing nature of IT in the federal government context, and shifting personnel in this area (both in NPS and DOI).

However, despite these challenges, IT systems support a wide range of NPS and CCB functions in the Cleanup discipline, including, online resource delivery, team collaboration, centralized document management, aligned decision-making processes, inventory, reporting and progress monitoring, and more. This initiative area is classed in "development" because there are still several major areas in which the IT solution is only temporary, pilot, partial or will require upgrading in the near future. And by some measures, IT is always in development.

STATUS OF RELATED WORK STREAMS**CSPORTAL**

As described above, CSPortal serves a wide variety of functions in support of the NPS Cleanup discipline. Its value to the agency, CCB and even to DOI is substantial, and its current state is the result of many people's work over the past four years. What is of import in this section is the IT aspect of the portal. It was originally developed in 2013-2014, using the MS Sharepoint 2010 platform, as directed by NPS IT personnel. CSP hired various contractors to design and build the site on Sharepoint, and it resides on the DOI Connect server so that non-PIV carded contractors may be given access to it. All of this is explained both on CSPortal and in the webmaster-maintained CSPortal Documentation. There are a number of concerns that CCB will face in the near future:

- MS Sharepoint 2010 soon to be obsolete (no longer serviced by MS)
- DOI Connect has limited storage capacity, and CCB has been denied additional capacity to date. This is not to say additional capacity cannot be granted, but if and how are the issue. As the portal continues to be developed, particularly the addition of new site workspaces, server space will need to be addressed.
- DOI Connect itself may be migrating. Any migration will have an impact on CSPortal (a recent server migration caused unexpected CSPortal dysfunction and offline periods over several months), including the possibility of requiring a new hosting location.
- The combination of MS Sharepoint 2010 and DOI Connect, both antiquated platforms, cause the need for constant work-arounds, which means CCB needs to remain vigilant and agile with regard to portal maintenance. Also, these demands require a full-time webmaster, who spends significant time on basic functionality and work-arounds, when time could be utilized in more proactive ways for CSPortal improvement.
- These platforms are also inadequate to several of the key functions CCB would like to offer, including Site File repository (insufficient storage), linkage between NPS Site Inventory and existing DOI and NPS databases, basic mapping capabilities, dashboards and other contemporary website features.

DECISION ALIGNMENT & SUPPORT

As CSP made progress in validating the scope of the contaminated site problem facing NPS (~500 sites with billions of dollars in cleanup costs), the need was identified for more strategic decision-making that was both transparent and inclusive, and that could achieve a direct line to annual funding and other site resource allocation (particularly the initial decision to activate a site for cleanup). The governance and decision model requirements and development are addressed in the Governance section below. Here the use of a decision support tool is discussed,

The nature of the decision-making with regard to site cleanup (affecting all levels of decision-makers in NPS and into DOI), the number and variety of sites being considered, and the funding levels involved all signaled that a decision-support tool would prove beneficial. RRC suggested that CSP consider Decision Lens, a software-as-a-service (SaaS) product developed for complex decision spaces, currently being used by a wide range of Federal Government entities. Due diligence, a DOI Cloud Waiver, and permission to acquire a provisional license took two years, and CSP gained access to the software in summer 2017. Of note, this acquisition was the first of its kind in NPS, piloting new SOP for the agency in IT.

Over the past year, RRC led the development of a multi-tiered model that has been piloted with 2018 data. During this time, prototype models have been shared with DOI and other bureaus to validate the approach and also to inform them of its development for possible use at the DOI level. At the same time, NPS IT personnel have been conducting the security Assessment & Authorization (A&A), with the final ATO forthcoming. In the meantime, the model is ready for use in reviewing 2019 site funding decisions. Decision Lens support is available and a second year license procurement is underway.

CST SITE FILE REPOSITORY & DOC MANAGEMENT

An ongoing need for efficient CST operations is a central online repository for all Site Files; for some sites, this can mean hundreds of thousands of documents of every type, with NPS personnel, DOI solicitors and contractors requiring access. Given the current DOI/NPS IT capacity, identifying an optimal solution has proved particularly challenging.

Initially, it was assumed that the Sharepoint software being used to build CSPortal would be adequate to serve this function. However, when site file documents were first uploaded in 2014, it became apparent that there was insufficient storage and bandwidth to handle the volume. In 2015, a DOI-provided solution using ERDMS was identified, and CSP began its due diligence and SLA development process. By 2016, requirements documentation was underway and a pilot model was developed. Later that year however, DOI personnel changed, and the ERDMS solution was no longer available,

Back to the drawing board, several other solutions were considered, one of which was Sharepoint Online, Sharepoint Online is approved for use at the DOI level and may be a viable solution for the future, with expandable cloud capacity and built-in authentication. However, it is not yet available within NPS and may not be for a time. (A downside to any version of Sharepoint is the dependency on a software developer, as Sharepoint is a complex product; other products such as Drupal may be more user-friendly from the developer standpoint, and thus, better for CCB.)

With pressing needs from CSTs related to pending Administrative Record (AR) update deadlines, it was decided in 2017 that CSP would utilize its own server, housed and managed by NPS, to pilot one Site File. Draft governance and IT requirements for a complete online solution were developed for the pilot, which has been underway for several months. Next steps for CCB are to debrief with the Fed Gov Lead from the pilot, adjusting governance as needed, and then to determine if additional Site Files should be launched in the same manner. Obviously, those sites with ARs pending are the optimal next candidates. CCB will need to

monitor server capacity if it continues to roll out additional site files. There is more server capacity available through NPS IT, but this will require some stand-up effort and migration, which CCB will need to initiate. While the CCB server may be an adequate temporary solution, aiding in the compilation of ARs, it is not an optimal long-term solution. The server has minimal document management capability, and breaks down under long file names, requiring a cumbersome naming convention be observed.

Optimally, DOI and NPS will develop accessible solutions for centralized document storage and agile document management capability in the near future.

CONTAMINATED SITE CLEANUP TRAINING

A major body of work in the transformation effort has been the identification and development of a wide variety of trainings to meet the diverse needs of a growing number of cleanup practitioners. Trainings, for the most part, have come in the form of recorded webinars from CSWG sessions, supported by a PPT, which are available on CSPortal. There have been few followup assessments to test learning comprehension, largely due to capacity limitations.

However, initial discussions have taken place regarding integrating cleanup training into NPS online learning environments, with the ultimate goal of including CCB trainings on DOI Learn. DOI Learn (which is also currently undergoing a transformation, with a new platform anticipated next year) is the go-to platform for NPS personnel taking required trainings, and where their results are tracked. This is a long-term goal for the NPS cleanup discipline: that practitioners be required to take a specified curriculum and score at a certain level as a prerequisite for fulfilling a CST lead role.

Should CCB desire to include cleanup training on DOI Learn, next steps are to continue work with NPS PPFL Common Learning Portal personnel toward development of online trainings that meet DOI Learn standards (e.g., assessment questions and ratings, and 508 Compliance). Otherwise, training in the cleanup discipline will likely continue to be perceived as optional by CST members, resulting in inconsistent and even sub-par cleanups.



5. ASSESS & DESIGN OPTIMAL GOVERNANCE

CSP/CCB, NPS, DOI

DEVELOPMENT

CONTEXT: As in all large-scale transformation efforts, governance is a core underpinning for everything else. The tricky thing is that governance is so fundamental, it often operates outside people's awareness and as such, is simply taken as "the way it is." A core RRC principle is that governance should be built to serve the situation, not the other way round. And large-scale change usually means the situation has in some way outgrown the governance.

Therefore, the first step in governance work is to take a step back and see what currently exists. RRC worked with CSP leads to understand and assess existing governance structure and process, which required research, discussions with a wide range of people, and a careful evaluation of what changes in governance could be beneficial and, more importantly, possible to bring about in a reasonable time-frame. Given the breadth of the CSP endeavor related to bringing about a cleanup discipline for NPS, it became clear that governance work would need to take place and be synchronized at three levels: DOI, NPS and within CSP itself.

Under the transformation effort, major governance strides have been achieved. The CSP charter and way of doing business has changed from site management to facilitating it across the agency, serving a growing body of cleanup practitioners. Cleanup methodology pioneered by CSP and firmly grounded in the existing legal framework, is now largely concretized in standard practice (CSPortal) that is the foundation of an NPS cleanup discipline. This WASO role has been elevated in the NPS governance structure to the branch level, and CCB will be appropriately staffed with NPS personnel under the direction of a branch chief in the coming months.

At the DOI level, the official sanction of the CSI Recommendations and their adoption as a major priority within the Office of Environmental Policy and Compliance under the new administration has ensured that transformation efforts will continue at the department level. Specifically, one of the CSI Recommendations calls for a Center of Excellence to oversee the development of a DOI cleanup discipline. While the realization of such an entity is still a vision, in 2013 when CSP began its strategic planning, it seemed an impossibility.

There is more to be accomplished in the governance related to contaminated site cleanup, such as the establishment of the DOI Center of Excellence and a NPS Director-level order explicitly addressing contaminated site cleanup as a comprehensive discipline. However, major governance shifts such as these often result from groundswell, and with increasing numbers of NPS practitioners using CSPortal material to gain positive results, coupled by continued collaboration across six DOI bureaus on the CSI Recommendations, the necessary momentum is within clear sight.

Governance work under the transformation effort has covered the full range of activities, from garnering Deputy Secretary sanction of the CSI to developing official check lists of CST activities under each Cleanup Framework sub-phase. In the interests of brevity, the work stream information that follows focuses on major aspects of governance still in development or in transition as a result of the new branch.

STATUS OF RELATED WORK STREAMS

CSP: LT CHARTER, CSP CHARTER, CSPORTAL ROLES & RESPONSIBILITIES

Given that the CSP business model was to change from direct management of contaminated site cleanup to a WASO role, the first priority in 2013 was transitioning CSP staff and their routine operations. This included the chartering of a Leadership Team (LT) that would work collaboratively and oversee all aspects of the CSI. RRC worked with the individuals with the requisite subject matter expertise in cleanup and cost recovery to develop a collaborative leadership structure, process and norms that would meet the demands of the transformation effort. The LT then assessed and re-aligned CSP team members (contractors) to support advancement of the Strategic Plan objectives. The LT has undertaken the transformation effort since its inception, collaboratively deciding on all strategy and associated implementation. With the establishment of the branch, the branch chief position, and the resulting completion of RRC's work, the LT as a collaborative leadership body has been disbanded.

At the same time the LT charter was drafted, a new CSP charter was developed. This document, in tandem with the Strategic Plan, articulated the new role envisioned for a WASO with responsibility for development and oversight of a NPS cleanup discipline. RRC supported CSP personnel in their transition to this new role. Additionally, various iterations of staffing role descriptions have been developed, both to guide CSP team members in their activities and also as a road map for the future. That future is now here and CCB has a wealth of material to utilize in formulating its new governance documents: CCB charter, strategic and staffing plans.

It is important to also mention here the role of governance in relation to CSPortal. Given the multitude of purposes the portal fulfills and the growing number of users (100s across NPS and DOI), developing its governance has been an ongoing work stream for CSP and will continue to be so for CCB. Careful attention has been paid to the creation, approval, dissemination and archiving of the CSPortal governing documents with the intent of ensuring efficient use of this valuable asset. Webmaster role description, Workspace roles & responsibilities (for both CSTs and CCB work spaces), permissions access SOP, etc. are all available on CSPortal.

NPS: CLEANUP SOP (CSPORTAL), CROSS-PROGRAM AGREEMENTS, REGIONAL DIRECTIVE, DIRECTOR'S ORDER

In addition to building a group of NPS and contractor cleanup practitioners to manage site cleanups, a priority of CSP from the outset has been the development of agency policy and SOP to guide these individuals and to support their identification and qualification. As discussed above, CSP addressed this need early on by developing CSPortal and the best practices it describes, as well as some 100+ tools, guidance documents, and other resource material to identify, qualify and support cleanup practitioners in their work. In the absence of clear NPS governance addressing the totality of a comprehensive cleanup discipline, CSP sought to create product that would ease the burden on the field, thereby fostering a consistent and effective cleanup practice. That goal has been powerfully realized, as evidenced by growing CSWG attendance, CSPortal use statistics, onboarding participation, and by improvements in CST management of site cleanups. This will be an ongoing body of work for CCB.

A significant recent (2018) undertaking to finalize the SOP related to the Cleanup Framework is establishing methods and protocols for Milestone document review and ratification. A prerequisite for this has been sufficient CST capability in developing these documents that ratification does not turn into re-writing. Achieving this has taken some time, but with the newly revised portal sub-phase-specific guidance, several new Milestone document templates, and results from Fed Gov Lead calls over the past year, CCB is now poised to implement a true ratification process. Recently delivered work product outlining both process and review criteria, as well as desired signatories, and Milestone document delivery requirements for CSTs should

enable CCB's roll-out of its review and ratification process prior to calendar year-end.

Additionally, CSP has worked to build relationships with many of the different programs across NPS that are affected by or involved in cleanup work, and is collaborating on the development of cross-program guidance and agreements to further promote a consistency of practice.

An opportune governance development occurred in 2017 when PWR, the NPS region with the greatest number of documented contaminated sites, approached CSP about drafting a regional directive "to provide policy and guidance to Contaminated Site Teams (CSTs) and personnel involved in site cleanup activities." CSP worked closely with the region in developing the directive's language, including specific reference to CSPortal as the reference guide for site cleanup implementation. PWR officially delivered the directive on May 19, 2017. This governance document serves as a model for other regions, and for an NPS Director's Order.

The need persists for a clear, agency-wide directive with regard to a comprehensive cleanup discipline. Lacking such a governance document, the risks are inconsistently applied methods that jeopardize cost recovery cases, inefficient use of limited resources, and unintentionally adding to the environmental challenges associated with contaminated sites. CSP reviewed existing NPS governance, including the 2006 Management Policies and Director's Orders (DO) for opportunities for the agency to explicitly address contaminated sites in their totality. There are indeed opportunities to develop the desired agency-wide directives, and CCB has valuable work product outlining them to utilize as it moves forward in this area.

DOI

As CSP made progress in validating the scope of the contaminated site problem facing NPS (~500 sites with billions of dollars in cleanup costs), the need was identified for more strategic decision-making that was both transparent and inclusive, and that could achieve a direct line to annual funding and other site resource allocation (particularly the initial decision to activate a site for cleanup).

A review of the existing governance pertaining to site activation and resource allocation showed that most decisions were made at the Park and Region levels, without benefit of an agency-wide view. Nor were these decisions being considered in terms of potential strategic gains available through clustering of like sites in a given time period. But NPS was not alone in this; the other five DOI bureaus' decision-making also lacked explicit strategic context, and given that the majority of site cleanup funds emanate from DOI, the governance effort related to realizing strategic prioritization based on senior leadership criteria is addressed here.

The nature of the decision-making with regard to site cleanup (affecting all levels of decision-makers in NPS and across DOI), the number, variety and total cost of cleanup of sites being considered, and existing funding levels all combine to make for a complex decision-space. These types of decision-spaces require the development of multi-tiered governance process to ensure that annual funding decisions are explicitly driven by strategic considerations.

This type of governance is not easily developed, and requires both rigor and flexibility to achieve. A major milestone in this effort was the inclusion in the DOI CSI Recommendations of executive level strategic prioritization of sites across the DOI inventory (Objective 1, Recommendation A). CSI work groups continue to explore the best way to implement this recommendation, and the NPS-developed multi-tiered decision model (see IT section above) is helping pave the way. Once an efficient methodology is approved, appropriate governance process and documentation can follow.

ACRONYMS



AML - Abandoned Mine/Mineral Lands
AR - Administrative Record
ATO - Authorization to Operate
CCB - Contaminants Cleanup Branch
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CSI - Contaminated Sites Initiative
CSP - Contaminated Sites Program
CST - Contaminated Site Team
CSWG - Contaminated Sites Work Group
DOI - Department of the Interior
DOJ - Department of Justice
EDL - Environmental and Disposal Liabilities
ERDMS - Electronic Records & Document Management System
GAO - Government Accounting Office
IT - Information Technology
LOC - Location of Concern
LT - Leadership Team
NPL - National Priorities List
NPS - National Park Service
NRDA - Natural Resource Damage Assessment
OPA - Oil Pollution Act

PRPs - Potentially Responsible Parties
PWR - Pacific West Region, NPS
RCRA - Resource Conservation and Recovery Act
RRC - Rebecca Reynolds Consulting
QC - Quality Control
SaaS - Software-as-a-Service
SOL ECRB - Office of the Solicitor, Environmental Compliance and Response Branch
WASO - Washington Office

Note:

RRC prepared this report for use by the Contaminants Cleanup Branch, and assumes the reader's basic familiarity with terms and acronyms used. The acronym list here is for others who may be less familiar.

This report refers to both CSP and CCB, using "CSP" when referring to activity prior to its elevation to branch in April 2018.

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MANY INDIVIDUALS HAVE CONTRIBUTED TO THE TRANSFORMATION EFFORT OVER THE PAST FIVE YEARS. THE LIST INCLUDED HERE IS LIMITED TO CONTACTS RELATED TO ONGOING DEVELOPMENT ACTIVITIES, EXTERNAL TO CCB. CCB HAS CONTACT INFORMATION ON EACH.

RRC

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