

FY 2014



Contaminated Sites Program
Division of Spill Prevention and Response
Annual Report

Foreword

This report is primarily intended for use by Department of Environmental Conservation (DEC) Spill Prevention and Response Division management and staff. A working knowledge of the Contaminated Sites Program is assumed. More detailed information about the program and its mission can be found at <http://dec.alaska.gov/spar/csp/index.htm>.

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Acknowledgements

Two long-serving members of CSP retired from service to the State of Alaska at the end of April in 2014. The Program's Annual Meeting, held April 16-17, provided us with the perfect opportunity to say goodbye to these two tremendous colleagues and wonderful friends.

Steve Bainbridge – Contaminated Sites Program Manager

Steve was the leader of the Contaminated Sites Program since 2000, having worked with DEC since 1994, including six years with the Leaking Underground Storage Tanks



Program and then with the combined CS and LUST programs. He came to Alaska in April 1972, and began work with the U.S. Public Health Service building water and sewer systems in rural Alaska. He also worked as city engineer for the City of Nenana, and then as city administrator. When he was not running the Contaminated Sites Program, Steve kept busy running and directing marathons, to include running marathons in Paris and Dublin and directing the Equinox Marathon in Fairbanks. There is little doubt he

will continue his quest to run marathons in all 50 states, having competed in 20 states so far, including six Boston Marathons, and has added triathlons to his calendar of sporting events. Steve is looking forward to many more endurance sport adventures, and we will miss his steady leadership, advice and counsel in a Program where, as Steve would say, “the fun never ends.”

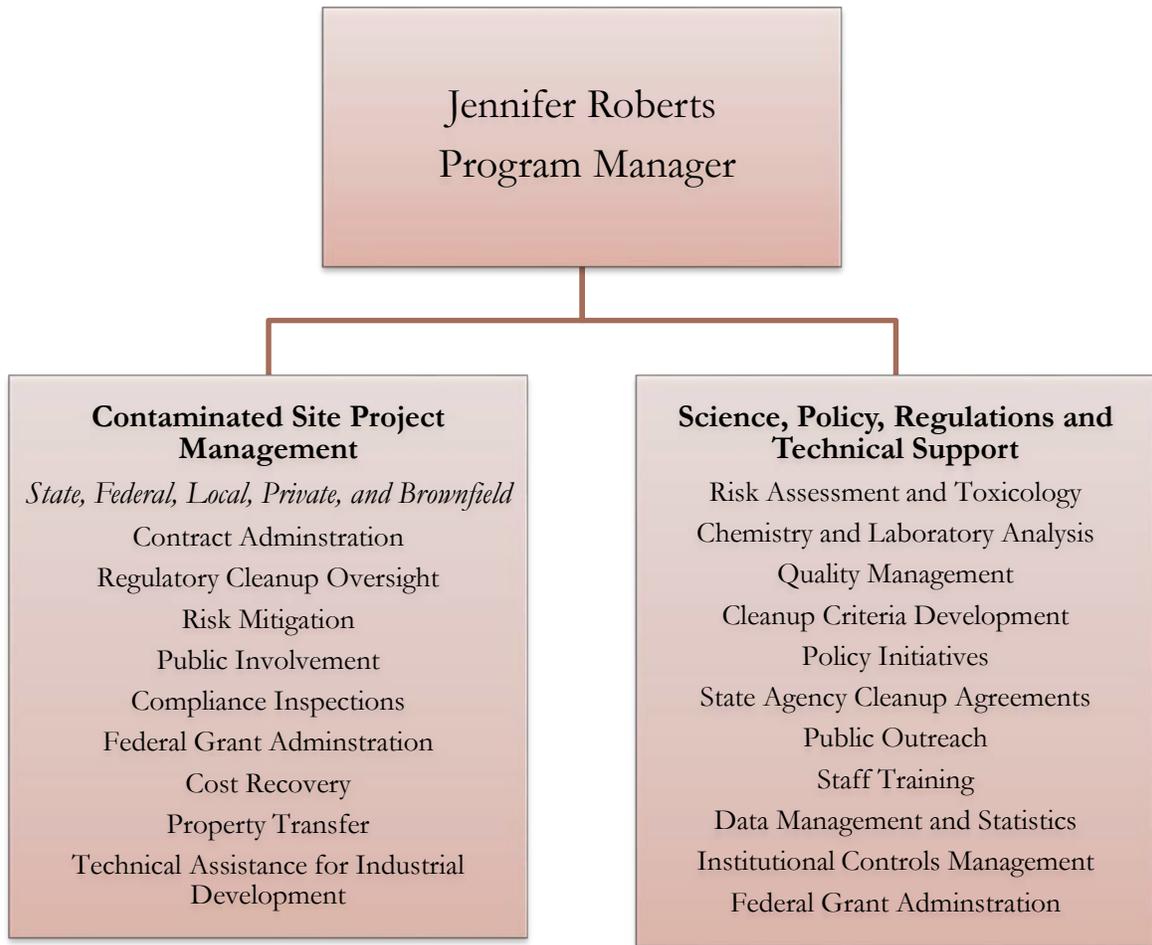
Bill Janes – State and Private Sites Program Manager

Bill began his career at DEC in 1989 in the former Division of Environmental Quality in the aftermath of the Exxon Valdez oil spill. After several years in DEC's Water program and the Southeast Regional Office, he joined the Contaminated Sites Program in 1994 as a project manager, eventually serving as the Development and Implementation Program Manager and finally as State and Private Sites Program Manager. Bill was by all accounts an energetic force in the program. He relished a good policy challenge more than anyone and loved to debate issues and brainstorm ways to better manage all



aspects of contaminated sites, from risk to cost recovery. To this end, he could discuss program policy over beers for hours. Nor was it unusual for Bill to burst into the office in the morning brimming with an idea that had come to him on his morning bicycle commute. A consummate professional, mentor and friend, we will miss Bill's positive and cheerful demeanor, whether around the office in Juneau or during manager meetings. We wish him well as he pursues, among others, his retirement dream of a sailboat cruise around Southeast Alaska and British Columbia. Fully expecting to enjoy retirement, Bill will have plenty of time to indulge his steady passions - his wife, dog, children, grandchildren, and multiple bikes and skis. Bill swore on all things holy that he would retire in September 2013 so he didn't miss that target date by much!

Contaminated Sites Program Structure



Program Authorities	
Statutes	AS 46.03, AS 46.04, AS 46.08, AS 46.09, AS 46.13
Regulations	18 AAC 75, 18 AAC 78

EXECUTIVE SUMMARY

Fiscal austerity and change were among the challenges for the Contaminated Sites Program (CSP) as it completed another successful year. During Fiscal Year 2014 the CSP staff performed in its usual exemplary manner and exceeded both of its performance measures while fulfilling its core service to “protect public health and the environment by identifying, overseeing and conducting the cleanup, redevelopment, and management of contaminated sites in Alaska.” For the majority of the year, the program remained organized to manage State/Private Sites (31 positions) and Federal Facilities (20 positions). Technical and administrative staff were embedded within both sub-programs to provide CSP-wide support, and by the middle of the fiscal year, every position was filled with a qualified professional.

A particularly noteworthy event for the organization involved a request from the Spill Prevention and Response (SPAR) Division Director for CSP staff input regarding ways to improve program operations, both internally and externally, as well as with other Division and Department programs and the public. This forward-looking exercise yielded extremely useful and thought-provoking results for management’s consideration for both near and far-term implementation. There were several areas that staff suggested for improvement that CSP could tackle immediately:

- improve CS program communications—CS began monthly statewide program calls,
- initiate alternative work weeks—worked with the SPAR director and offered the option to staff,
- challenges with program “stove piping”—worked with CS program management to make a plan for merging State/Private, Federal Facilities, and Brownfields across the program,
- need for improved coordination between CSP and Prevention and Emergency Response Program (PERP)—management initiated meetings between the programs to evaluate ways to improve coordination, and
- improve database and information technology support, including GIS functions—worked with department and division staff to expand GIS site location map and worked with SPAR-IT staff to improve CS webpage and update program guidance.

By implementing the short term recommendations the program is building a broader knowledge base for staff on how the program and division operate, creating an inclusive atmosphere for staff to ask questions and raise policy concerns, and build a more unified program with project managers being able to work on all types of sites that come into the program. Staff also raised broader topics for the program that will require further evaluation, research and consideration of program resources and policy before developing any actions. These include:

- need for a more effective strategy to work with remote villages and rural communities on contaminated sites issues,
- improve how the program manages institutional controls,
- development of a site discovery section,
- development of “orphan” and home heating tank policies, and
- policy to address large groundwater plumes that pose unique challenges.

In addition, a statewide Program Meeting was held in Anchorage during April and attended by every staff member from Anchorage, Fairbanks, Juneau and Soldotna. Along with a variety of important updates from the technical, project and administrative/financial management staff, there was a briefing by the SPAR Division Director. The event was also a farewell to two key senior CSP leaders as they retired from state service - Program Manager Steve Bainbridge and State/Private Sites program manager Bill Janes; and a welcome to incoming Program Manager, Jennifer Roberts, who had previously served as the Federal Facilities program manager. Both Jennifer Roberts' former position and the one vacated by Bill Janes were left unfilled. In addition, the program experienced the additional arrivals and departures of staff and closed the fiscal year with two vacant positions.

The CSP budget at the start of FY14 was approximately \$8.2M and comprised of funding sources to include federal dollars (over half) from various grants, funds allocated from the Oil and Hazardous Substance Spill and Prevention Account (Response Fund, or RF), and a \$3M Capital Improvement Project (CIP) appropriation from the state legislature. As the year progressed, closer scrutiny and monitoring of the program's budget execution resulted in some spending reductions over the final quarter of the FY in order to meet department and division objectives. This situation set the tone for the management team and staff to closely evaluate and implement more efficient and effective operations to manage our core service as the new fiscal year approached.

The technical staff and management team produced a variety of new and updated guidance documents, fact sheets and made progress on regulations packages during FY14. This work included drafting smaller, more manageable regulations packages for future implementation; publicly available information addressing TCE-related health risks; leaking underground storage tank cleanup process; additional vapor intrusion air sampling guidance; and contamination affecting utility right-of-way construction projects. Additionally, the triennial Quality Assurance audit by EPA Region 10 coincided with the start of revising the CSP Quality Management Plan.

Finally, actions by SPAR staff in the Response Fund Administration (RFA) as they established updated financial management processes immediately yielded informative, useful and transparent business information that greatly enhanced CSP management's FY15 budget deliberations and decision-making. This trend by RFA is expected to continue as CSP and the entire SPAR Division meet financial challenges that threaten to jeopardize our performance.

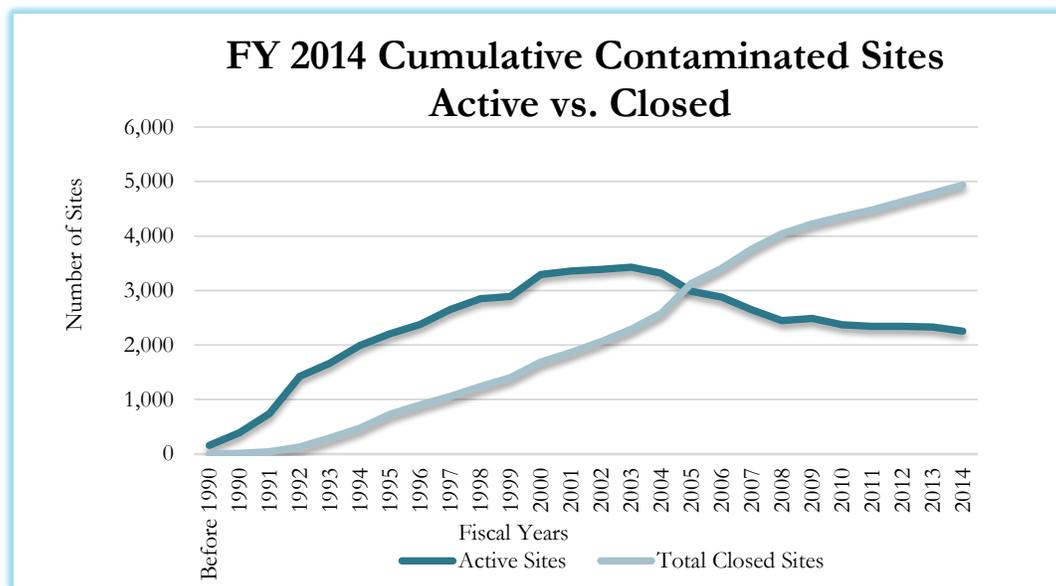
DATA REVIEW

More than 7,000 contaminated properties in Alaska have been documented since program inception. Of the total number of sites placed on the contaminated sites database over approximately 35 years, 70% have been closed.

As of June 30, 2014, there were 2,257 open sites listed on the contaminated sites database. Even though 1,756 sites were added to the contaminated sites database over the last 10 years, the overall number of active sites in our inventory has decreased from 3319 in 2004 by approximately 32%.¹

Chart 1 depicts the open and closed sites trend since 1990. The milestone year was 2005, when the number of closed sites initially exceeded the number of open sites. The gap has widened steadily since 2005, indicating measurable progress and improvement in methods for accomplishing risk reduction at the thousands of legacy contaminated properties in Alaska.

Chart 1: Cumulative Open and Closed Sites



By the close of FY 2014, the program had exceeded all performance measures, including total site closures, total risk reduction (closed exposure pathways) and total closures for leaking underground storage tanks (LUST) – a federal performance measure set annually at 10% of the total inventory of open LUST sites at the beginning of the fiscal year.

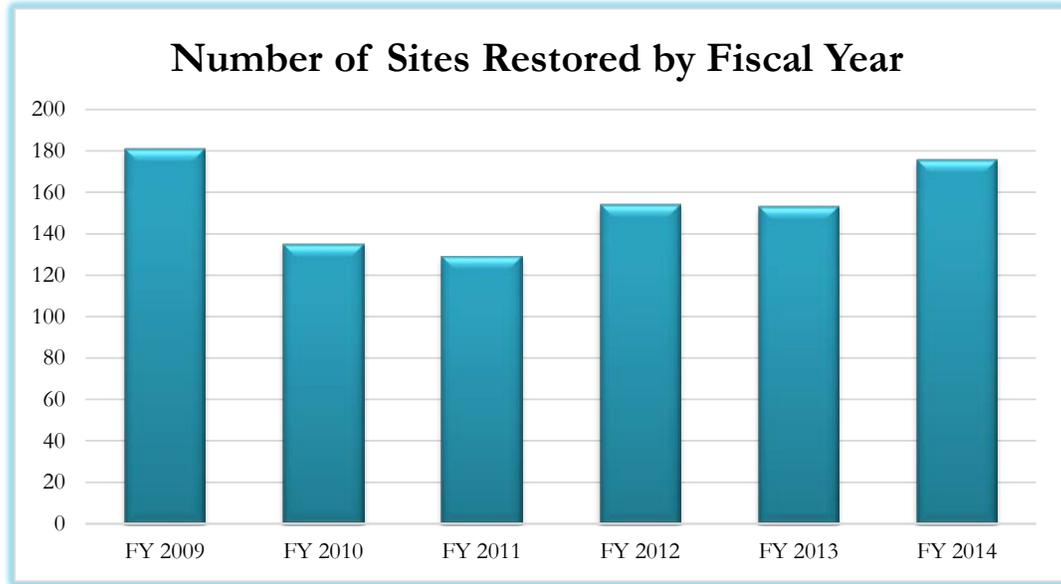
Performance Measure	Goal	Number Achieved in FY2014
Total Site Closures	150	176
Exposure Pathways Closed	700	719
LUST Closures	37	49

¹ Database Search: Action with Action Date where action = site added to database and date range = 7/1/13 – 6/30/14; export to Excel and subtract informational, non-qualifying, unconfirmed, site intake.

Just 34% of the closures were issued without institutional controls, down from 65% the previous year and 82% the year prior to that.² Of the 4,921 total closed sites as of June 30, 2014, about 77% are without any land use restrictions (no institutional controls).³ The decline in the number of unrestricted closures (sites closed without institutional controls) indicates greater use of institutional control tools to manage inaccessible or recalcitrant contamination at sites. This allows properties to return to safe and beneficial reuse, as well as to be sold and transferred, provided that property owners agree to ensure these controls are maintained over the long term. This approach helps support development goals and the economic health in Alaska’s communities.

Chart 2 depicts the site closure trend over the past six years. A concerted effort to meet or exceed the closure performance measure since FY2012 has since stabilized the declining closure trend. A key contributor to the improved rate of closures, is the program’s ongoing effort to bring stalled sites back into the cleanup process. This initiative began in earnest part way through FY2012 and has continued through this past fiscal year. Measures included assigning lower priority, languishing sites to new staff as a training opportunity which has revitalized action on these long stalled sites; issuing liens; encouraging large property managers to enforce environmental conditions with leaseholders; increasing our field presence and face-to-face interactions with responsible parties; rewarding action with the promise of a cleanup complete determination; and identifying funding sources for sites without viable responsible parties.

Chart 2: Annual Count of Sites Restored



Risk reduction is an important measure of progress because site closure may not occur for years. There are several reasons for this - the complexity of contaminant chemistry in soil, groundwater, surface water and/or sediments may involve cleanup processes that involve many steps or occur

² Run query for action with action date = “cleanup complete determination issued;” compute percentage of sites closed with ICs from total.

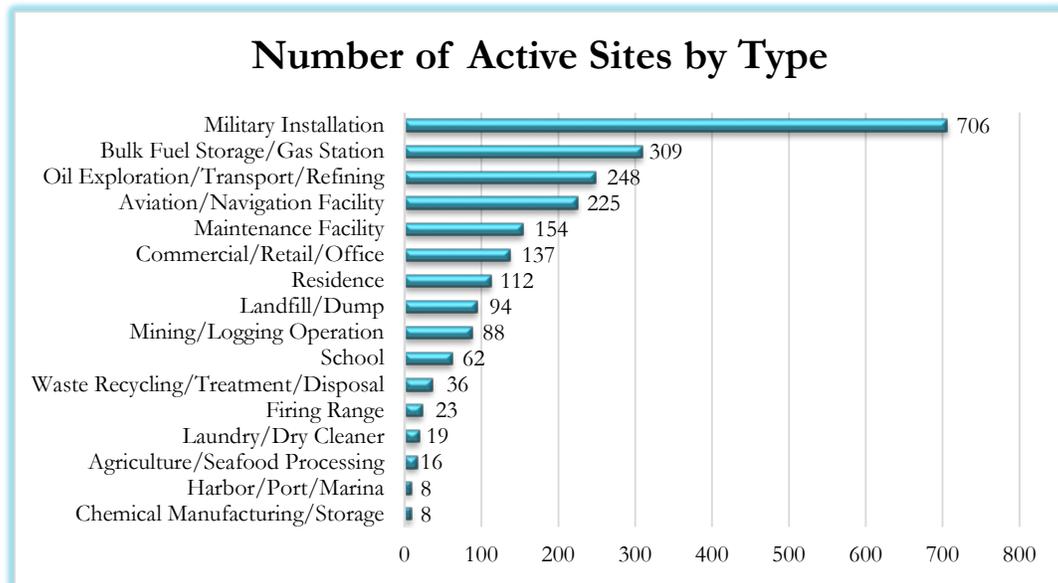
³ Run Closed Sites Report for all sites closed prior to end of the fiscal year and compute percentage of sites issued “Cleanup Complete” from the total.

slowly, especially in an arctic environment. Additionally, a site’s location and hydrogeology may present challenges gaining access to the contaminated media. Finally, there may well be fiscal constraints in terms of when and how many financial resources can be devoted to site investigation and cleanup. Risk reduction is measured using the program’s Exposure Tracking Model, designed to evaluate contaminant exposure across individual “exposure pathways.” Exposure pathways are how contaminants reach human or ecological receptors. A “closed” exposure pathway is a measure of risk reduction. Closing a pathway means response actions modified the relative risk of exposure – from current, high potential, low potential or future exposure – to either de-minimis contamination or residual contamination managed through the use of institutional controls. A pathway may also be closed if it is determined to be “incomplete,” meaning there is no possibility of the receptor being exposed any longer as a result of response actions. One example is drinking contaminated groundwater; the groundwater ingestion pathway would be shown as incomplete if concentrations are below regulatory cleanup levels.

A total of 121 sites were added to the contaminated sites database in FY2014, including 33 sites transferred from PERP.⁴ Of the 121 new sites, 25 were closed during the fiscal year, and 21 were found to be either unconfirmed, non-qualifying (as defined by the CSP database inclusion criteria), or informational. Of all new sites, 75 remained in active status as of June 30, 2014.

Military installations, bulk fuel storage and gas stations, oil exploration and refining, aviation, and maintenance facilities, are the five most common types of open contaminated sites. Chart 3 shows active sites by type.⁵ Military installations are the largest category, comprising close to one-third of the 2257 open sites at the end of FY2014.

Chart 3: Number of Active Sites by Category



⁴ Database Search: Action with Action Date where action = site added to database and date range = 7/1/13 – 6/30/14; second search: Action with Action Date where action = site transferred from PERP and date range = same.

⁵ Database Search: Site Type = (select from drop down menu) and Status = Active. Several oil production site types are combined, as are bulk fuel storage and crude and non-crude terminals.

Chart 4 shows the age distribution of sites currently active in the CS inventory, by showing the timeframe during which the site was added.⁶

Chart 4: Age Distribution of Active Sites in Years

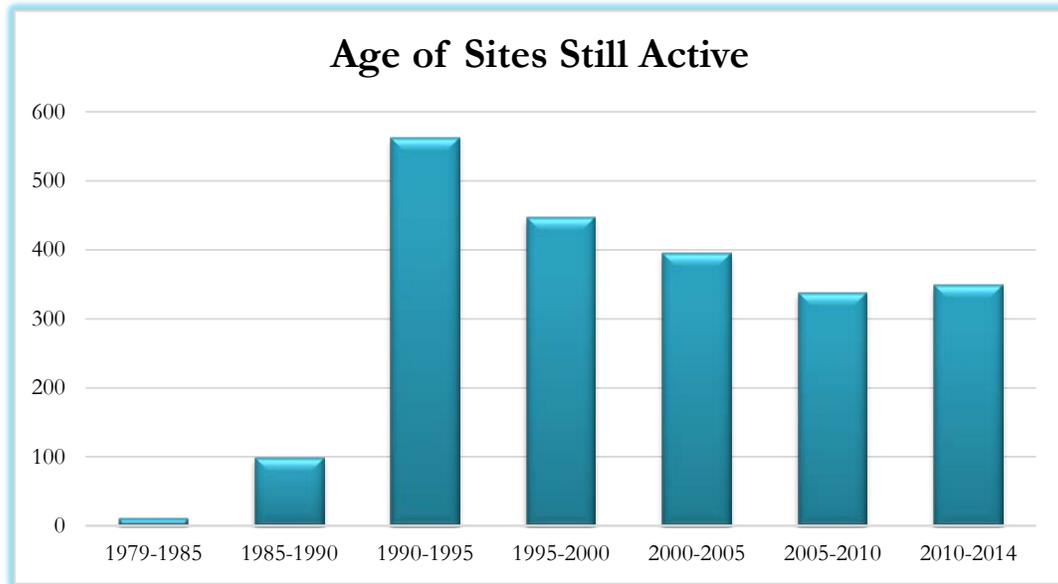
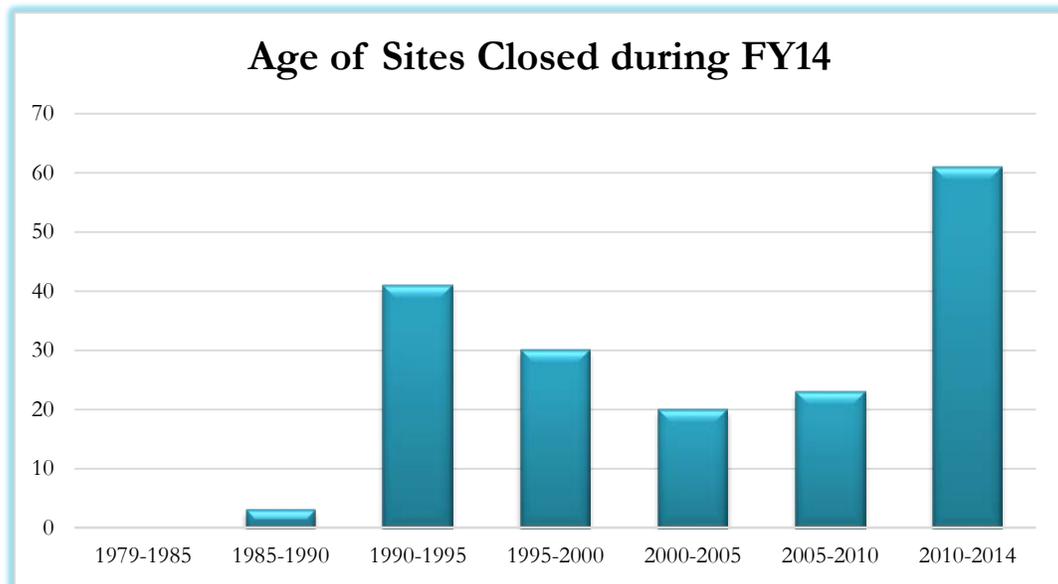


Chart 5 illustrates the age distribution of the sites that were closed during FY2014. Of significant note is that about 53% of the sites closed during the fiscal year were added to the database at least 14 years ago. This statistic is an indicator of the success of the program's stalled sites initiative.⁷

Chart 5: Age Distribution of Sites Closed in FY2014 in Years



⁶ This chart was developed by querying the database for sites added during each of the five-year increments shown.

⁷ This chart was developed by querying the database for sites closed during each of the five-year increments shown.

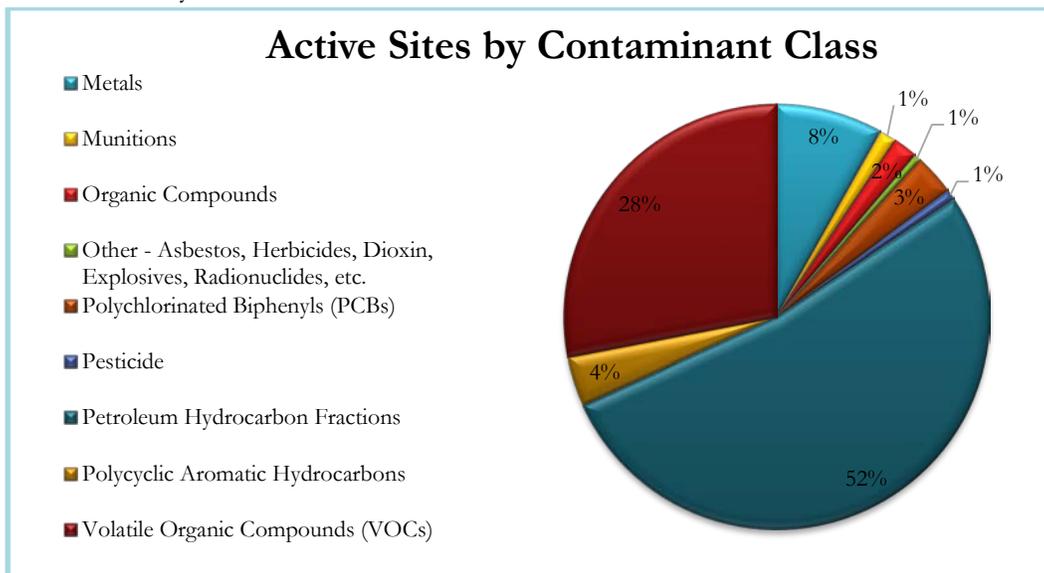
Federal military and federal civilian agencies are responsible for over half the remaining open sites as of the end of FY2014. About one-third of open sites are in private ownership, while state and local government combined are less than one-fifth. By area, slightly more than half the open sites are located in South Central Alaska; 40% in the Interior and North Slope; and less than 10% in Southeast.

Figure 1: Map of all active contaminated sites in the State of Alaska.



Chart 6 displays the breakdown of active sites by the class of contaminant. The majority of active sites are from releases of petroleum products. Some of these sites have additional contaminants, including volatile and semi-volatile compounds and other contaminants.⁹

Chart 6: Active Sites by Contaminant Class

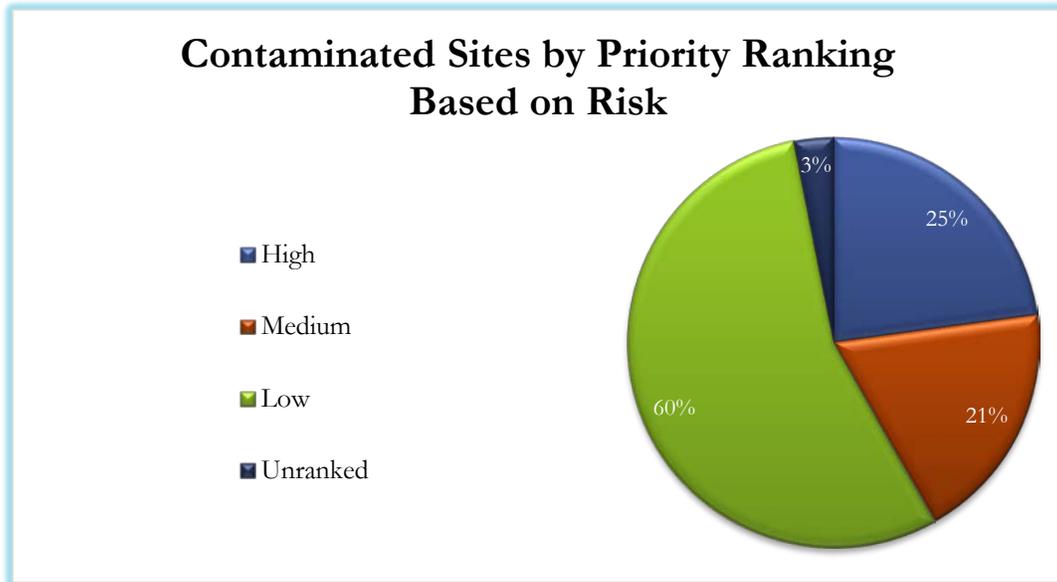


⁸ Image generated by GIS guru, Will Boger, of the Contaminated Sites Program, by creating a custom layer of all active sites in ArcGIS.

⁹ Data generated by a SPAR-IT query that requested a list of all Active sites by Class of COC (Contaminant of Concern). Similar COC classes are consolidated for this visual (i.e. Metals and Inorganics were combined).

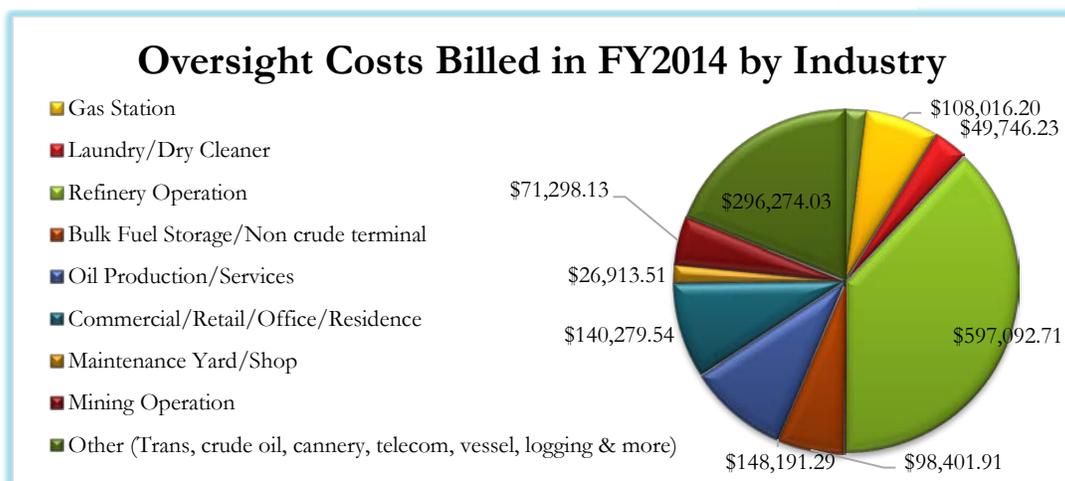
Chart 7 summarizes how active contaminated sites have been prioritized following the site's assessment using the Exposure Tracking Model (ETM). The result provides an evaluation of primary human health and/or ecological pathways present, current human health exposure and the likelihood or potential for future exposure¹¹.

Chart 7: Active Sites by Risk Priority



In fiscal year 2014, new cost recovery procedures were implemented which improved the tracking and recovery of oversight costs. Chart 8 summarizes percentages of costs recovered by general industry category. This information is for sites that are directly billed to a responsible party and does not include federal agencies that utilize other funding agreements to pay their oversight costs. For FY14 U.S. Department of Defense, U.S. Coast Guard, Bureau of Land Management and Federal Aviation Administration paid over \$2.5 Million in contaminated sites oversight costs that are not reflected in Chart 8.¹⁰

Chart 8: Oversight Costs Billed to Contaminated Sites According to Industry Type



¹⁰ Data generated by RFA and DAS-IT through a query of cost recovery data from Bill Quick and linking to Site Type in the CS database.

¹¹ Data generated by running the Workload Prioritization Report in the database for contaminated and LUST sites with a priority of High, Delayed, Medium, Accelerated, Low, Evaluate for Closure, or None

PROGRAM ACCOMPLISHMENTS IN FY2014

Site Management

- Eight of 11 submitted project applications were approved for FY15 DEC Brownfield Cleanup and Assessment Funding.
- Cleanup progress achieved at seven state-lead and 19 state-owned sites.
- Project Management Staff reviewed nearly 1,200 work plans and reports submitted by responsible parties.
- Staff conducted 163 site inspections (annual goal is to exceed 150).
- Long-term monitoring was completed at five sites.
- Compliance reviews verifying status of institutional controls were completed for 135 sites.
- Removed institutional controls at 76 sites.
- CS Staff continued efforts with the Bureau of Land Management (BLM) and the Alaska Oil and Gas Conservation Commission to plan cleanup work at 134 historic oil wells in the National Petroleum Reserve, Alaska (NPR). Resolution of a long-term dispute involving DEC's cooperative agreement with BLM cleared the way for site-specific work to commence in FY15.
- A project to clarify Bureau of Indian Affairs (BIA) responsibility for contaminated site cleanup at 18 former school and hospital sites in Alaska was initiated during FY14 and will continue through FY15. Although BIA is currently participating in cleanup work at the school site in Kotzebue, they have not been participating at other sites, many of which still have significant contamination left in place.

Cost Recovery Practices

Improved measures and practices supporting cost recovery including standardizing the issuance of hazardous substance liability notifications to potentially responsible parties; increasing the use of liens for sites with outstanding bills; enhancing quality and accuracy in how staff document billable oversight time; ensuring that project work is consistently charged to site-specific codes; and developing more detailed account codes to charge a variety of program work in order to quantify types of work that are currently non-cost recoverable. This will ultimately reduce the amount of time the Response Fund Administration and Department of Law staff must spend addressing billing disputes.

Intra-Divisional Coordination

PERP Site Transfers – Several teleconferences and a joint meeting of program management staff from the CS and PERP programs was convened in February of 2014 to discuss cross-program issues related to site transfers, petroleum cleanup criteria, participation in spill drills; long-term stockpiles, home heating oil tanks and how to define historic sites, particularly on the North Slope.

Statewide Program Meeting

In April of 2014, the program convened for a two-day meeting in Anchorage, attended by all program and project managers from Anchorage, Fairbanks, Juneau, Haines, and Soldotna. The program agenda included discussions on the budget, cost recovery, and legal issues, as well as

presentations on projects, policy and regulations, and technical and science topics related to contaminated sites.

Regulations

Multiple briefings at the director and commissioner level were held throughout the year on a series of proposed amendments to various articles in 18 AAC 75 and 78. Due to the length and complexity of the changes, however, the proposed amendments were separated into smaller revision projects and a general schedule for the packages was established, beginning with a project to propose new definitions for persons who may conduct a variety of environmental work associated with leaking underground storage tanks and contaminated sites.

Training

- All statewide CS staff honed their communicative skills by attending “Collaborative Negotiations/Conflict Resolution” training in Anchorage.
- Several staff members from Fairbanks, Anchorage, and Juneau attended “Fundamentals of Contaminant Chemistry and Applications in Subsurface Contaminant Transport and Remediation” training in Juneau.
- Numerous staff from statewide CS locations participated in “Basic and Advanced Ecological Risk Assessment.”
- Ten managers and staff members attended the DEC’s “Basic Inspector Course” during two separate training events held during FY14.
- During September 2013 over a dozen members of our staff attended EPA’s “Chemistry for Environmental Professionals” held at the University of Alaska, Anchorage campus.
- Dr. Fred Dolislager and Leslie Galloway from Oak Ridge National Laboratory provided two full days of training to CSP’s senior management and staff on the EPA Regional Screening Levels Calculator and the Risk Assessment Information System.

Computer Applications

In FY14, the program established a Memorandum of Understanding with the University of Tennessee, Knoxville (UTK) for the development, maintenance, and hosting of two online tools for calculating cumulative risk and compound-specific cleanup criteria. The tools will incorporate updated equations adopted by EPA and current toxicological data. These tools will be rolled out to the public once promulgated cleanup criteria are updated in regulation.

Initiatives, Policies and Guidance

- **TCE Exposure Risks** – Finalized and published a fact sheet providing information on exposure risks from trichloroethylene (TCE) and potential adverse health effects posed for women of child-bearing age resulting from groundwater consumption and indoor air/vapor intrusion.
- **Site Discovery Initiative** – Executed a site discovery pilot project to evaluate several abandoned mine sites in Southeast Alaska. In companion with this effort, applied for and received EPA grant funding for FY15 to conduct Preliminary Assessments at a broader number of sites and expand the program’s site discovery efforts, including developing a program framework for identifying, prioritizing and evaluating all types of sites.

- **Home Heating Oil Tanks** – Together with PERP, IPP, and the Director’s Office, CS formed a cross-program work group to investigate an array of potential solutions to this sector of sites including: private insurance mechanisms; legislation to require insurance; implementing a tank replacement/upgrade program through AHFC; establishing a state-run liability insurance program, adopting regulatory standards for installation of buried and aboveground tanks; streamlining inability to pay criteria; and other options. Insurance and government entities across the country were consulted, and legislative opportunities were investigated.
- **Utility and Right-of-Way Projects with Contaminated Media** – A technical guidance on managing contamination during utility and road construction projects was published for use by the regulated community.
- **Contaminated Sites Quality Management Plan** – In February 2014, EPA Region 10 conducted a quality systems review of ADEC’s programs that have an inter-agency assistance agreement with EPA. The objectives of the assessment were to address conformance of ADEC quality systems to the approved programs Quality Management Plans, Quality Assurance Project Plans and other Quality Assurance documents. In addition, EPA evaluated the program’s suitability and effectiveness in implementing Quality Management Plans and Quality Assurance Project Plans. The Contaminated Sites Program assisted EPA during the quality systems review, provided quality assurance documents, and participated in interviews with EPA. In March 2014, EPA released their quality systems report and their only finding for the Contaminated Sites Program was the need to update the Quality Management Plan.
- **Petroleum Working Group** – Technical Services Staff formed a work group to investigate options for revising and updating petroleum criteria in regulation. The work included evaluating the latest toxicity information available on petroleum, running calculations with new and old equations, new and old toxicity information, new and old exposure factors, and investigating a variety of approaches in other states, including Washington, Connecticut, and Massachusetts.

LOOKING AHEAD

Key Challenges for the Contaminated Sites Program

- Despite the program’s strong efforts in recent years in achieving closure at sites that had languished in the CSP inventory for many years, hundreds of sites remain where, absent financial resources on the part of responsible parties, the state will see little or no cleanup in the near future to address risks. Municipal and village sites such as tank farms, leaking underground storage tanks and blighted properties pose real impacts to both human and economic health in these communities, but in an era of declining budgets, local government has few resources to restore these properties. Likewise, forward progress is unlikely on orphan sites such as abandoned mines, canneries, and dumpsites where no viable responsible party exists, but ecological, recreational, and subsistence impacts are present. For hundreds of homeowners across the state, heating oil spills have damaged property values, but cleanup costs are so high that most homeowners cannot afford to address them without the threat of

bankruptcy. Other sites with complex and recalcitrant contamination issues drive up cleanup costs and require years or even decades to achieve cleanup levels. During FY2015, the CSP will continue to move stalled sites through the cleanup process in order to achieve our closure target, but will also aggressively explore new options for addressing risk at our most challenging sites.

- Heating fuel releases from home heating oil tanks and small businesses pose potential health risks to residents and occupants of buildings at such sites, through indoor air exposure from vapor intrusion and groundwater consumption. In many cases the owners responsible for the releases lack the financial resources to characterize and clean up the site. Currently there is no financial assistance program to help home and small business owners respond to heating oil releases; many such releases are not reported and/or characterized and cleaned up.
- Capital Improvement Program (CIP) funds typically appropriated on an annual basis at a rate of \$2-4 million to conduct contaminated site investigation and cleanup activities at both orphan and state-owned sites have not been replenished by the legislature in recent years, nor is forecast to be appropriated in upcoming years. There are currently 25 DEC-lead orphan sites and 116 state-owned contaminated sites identified where DEC has either used CIP funds, or seeks to expend CIP funds in the future. Total available funds remaining from prior-year appropriations were about \$250,000 at the close of FY 2014. The lack of additional appropriations will result in a severe curtailing of investigation and cleanup work at orphan and state-owned contaminated properties, therefore limiting the program's capacity to address both risks to human health and the environment as well as liability risks to the state at these sites.
- With these attendant budget challenges also come opportunities to initiate new approaches to program management. In FY15 these will include a "flattening" of the work conducted in the program, such that different types of work previously sequestered in separate units -- including Federal Facilities, State/Private Sites, and Brownfields -- will be more broadly distributed across the program. These changes are based on input solicited mid-year in FY14 from program staff on ways to improve the work done in the Contaminated Sites Program.

FY 2015 Program Priorities

1. Regulations – Issue 18 AAC 75/78 Qualified Persons package for public comment and finalize for adoption. Issue a second package adopting a 2015 version of the Risk Assessment Procedures Manual and making additional miscellaneous changes for public comment.
2. Petroleum Working Group – Conduct research and develop multiple alternatives for revising petroleum cleanup criteria for Methods One and Two for internal program consideration.

3. Implement monthly statewide CSP staff teleconferences as opportunities to provide updated Program, Division, and Department information and periodic technical and administrative staff training, in response to CS staff feedback requesting better communication from management and cross-program.
4. Training – Seek out and host at least one EPA-sponsored training in a topic relevant to project management staff and their work.
5. Site Discovery – Develop a Site Discovery Program Framework for identifying, prioritizing and assessing risks at new sites and sites not documented in the CS inventory.
6. Home Heating Oil Tanks – Continued work on this initiative will focus on the following areas: investigating options to engage fuel handlers to report releases from heating oil tanks; investigating additional market-based insurance mechanisms such as risk pools; implementing a policy to apply institutional controls at new heating oil tank sites to manage and track contamination where the property owner may not currently have the ability to clean up; and seeking legislative solutions.
7. Brownfields Integration – Beginning FY15, program work conducted under the 128(a) federal brownfield funding agreement will be broadly distributed across the CS Program in order to engage more staff and build their capacity and understanding of the nuances of brownfields work as well as to align the grant work plan tasks more closely with the program’s mission and objectives. This falls in line with other program organizational changes that aim to build staff capacity on all types of sites, and changes the structure from three sub-programs (state/private sites, federal facilities, reuse and redevelopment) to a single unit of staff doing a mixture of site project management.
8. CS Program Public Web Pages – Seek public feedback and make improvements to the internet-based public search portal for the Contaminated Sites database and CS web map, and upgrade the CS technical guidance pages to increase transparency about our work and accessibility to our information and resources.
9. Expand use of the CS Listserv to conduct outreach to the regulated community about our work, recommend best practices for contaminated site environmental work, and solicit feedback.
10. PRP Identification – Develop a PRP Research Guidance for project management staff that provides resources and strategies for locating and identifying potentially responsible parties.
11. Convene a CS staff work group to update and finalize the 2009 Draft Field Sampling Guidance.

12. Publish internal and external guidance documents and fact sheets regarding emerging contaminants such as 1,4-Dioxane and perfluorinated compounds (PFOS and PFOA).
13. Capital Improvement Projects (CIP) – Develop a plan to overhaul the current management and oversight of state-owned and state-lead contaminated sites, including developing formal agreements with other state agencies to address state-owned sites that define roles and procedures for prioritizing sites, securing funding, implementing site characterization and cleanup, and long-term site management.
14. SharePoint – Successfully transition from an outdated version of SharePoint as part of the department-wide migration to SharePoint 2013 and gradually integrate it into CSP operations as a collaborative tool.
15. Active (Deferred Sites) Strategy – Develop a formal strategy for addressing and categorizing languishing low-priority sites that manages risks for the long term but reduces workload impact on project management staff.

CONTAMINATED SITE PROJECT MANAGEMENT

Contaminated Site Project management at sites owned and/or operated by private parties, local government, state agencies, and federal civilian and military entities comprises the core of the program's work and mission. Project management includes regulatory oversight on sites where cleanup efforts are led by a responsible party; contract management at state-owned sites and CSP-lead sites where no viable or willing party can be found; and collaborative approaches with villages, municipalities and developers seeking to reuse and redevelop brownfield sites; and complex negotiations at major federal military facilities. In FY2014, CSP project management staff documented substantive work (any work that moves a project forward in the cleanup process and not strictly administrative in nature) at 1,112 sites.¹¹ This is 49% of the program's open sites work load as of the beginning of FY2014.

The selected project summaries presented below provide a cross-section of the variety of work CSP project managers were involved with over the course of the fiscal year.

Capital Improvement Projects

This category includes sites which, for a variety of reasons, the state has chosen to lead the necessary cleanup work (DEC-Lead), and sites owned by other State of Alaska agencies (State-Owned). DEC funding for this site work was provided by the legislature in the Capital Improvement Project appropriation.

DEC-Lead

Former Sand Lake Cleaners



The former Sand Lake Cleaners site. Photograph courtesy of Robert Weimer.

CSP reached a settlement with a responsible party for the Sand Lake Cleaners site in Anchorage. This site was operated as a drycleaner from 1969 to 1999. CSP spent CIP funds to assess the potential risk of the remaining chlorinated solvent contamination at the site after the responsible party refused to conduct the investigation requested by CSP. The settlement provides for reimbursement of State expenditures. CSP is in early discussions with the Municipality of Anchorage, who has foreclosed on the property, about ways to fund the future cleanup and monitoring of this site.

¹¹ Site Actions Report: Assigned staff = All; ActionStaffID = All; date range = 7/1/13 – 6/30/14; Status = All. Qualitative review of database actions by individual site.

Alaska Real Estate Parking Lot

EPA Region 10 and CSP collaborated on field work efforts at the Alaska Real Estate Parking Lot site located at 4th Avenue and Gambell in Anchorage. The site is contaminated with tetrachloroethylene (PCE) exceeding cleanup levels in groundwater and soil, as well as screening levels for the vapor intrusion pathway. EPA's Removal Program funded the installation of Vapor Intrusion mitigation systems to mitigate the vapor intrusion risk on the four properties adjacent to the Alaska Real Estate Parking Lot property. CSP was then able to prioritize capital improvement project (CIP) funding to monitor and further characterize groundwater, and complete a focused feasibility study to aid in future decisions for the site.

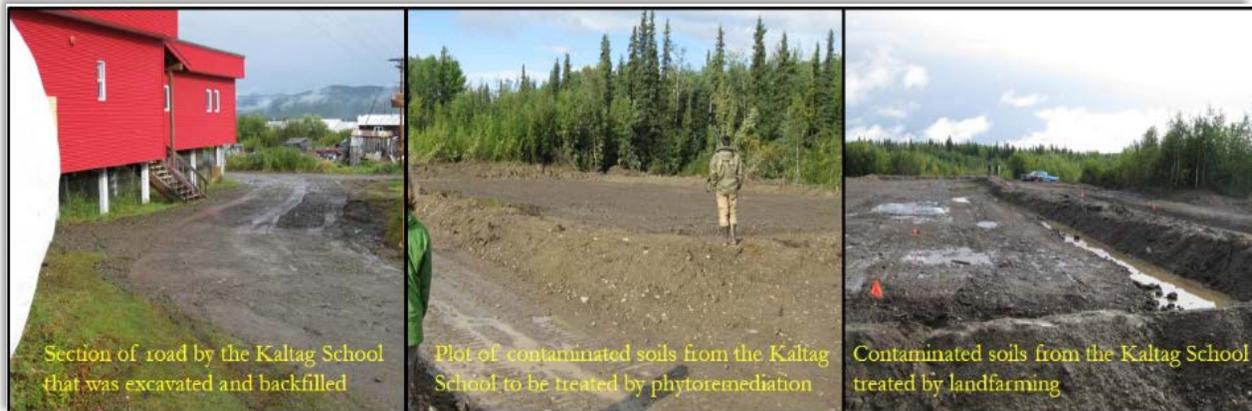


Liner installation at properties adjacent to the Alaska Real Estate Parking Lot property. Photograph courtesy of Grant Lidren.

State-Owned

Kaltag Elementary School

Using CIP funds, CSP and its contractor coordinated with the City of Kaltag, the Yukon Kuskokwim School District, the native Village of Kaltag, the Kaltag Tribal Council, Doyon Limited, the Yukon River Intertribal Watershed Council, and GanaA'Yoo Village Corporation on a cleanup project at the Kaltag Elementary School. Heating and fuel oil contamination was present in soils in



Kaltag Elementary School cleanup project. Photograph courtesy of James Fish.

numerous areas around the school and surrounding buildings, and was seeping to the surface and causing sheen during certain times of the year. The project included the excavation of 1,700 cubic yards contaminated soil which are being remediated via landfarming and phytoremediation techniques, with assistance from the University of Alaska-Fairbanks.

Private and Local Government

The contaminated sites that comprise this portion of the CS Program's workload represent a diverse collection of private businesses, local government (city, borough, or village-owned operations) and private residences. Sites include large industrial facilities, mid-sized drycleaners or gas stations, and private residences with home heating oil tank releases.

Flint Hills North Pole Refinery

Significant progress was made on Flint Hills North Pole Refinery sulfolane contamination issues in the following areas:

1) safe potable water continued to be provided to

the potentially impacted residences; 2) water discharge methods were developed and evaluated for allowing excavation dewatering within areas impacted by sulfolane; 3) initiated detailed negotiations for on-site cleanup of contaminated soil and groundwater at the North Pole Refinery property including operation of on-site groundwater treatment to address offsite migration of contaminants; and 4) CSP contracted with Toxicology Excellence for Risk Assessment (TERA) to initiate a detailed scientific review of reference dose parameters for sulfolane.



Flint Hills North Pole Refinery. Photograph courtesy of Bill O'Connell.

Skagway Harbor



Skagway Harbor. Photograph courtesy of Bruce Wanstall.

In April 2014, DEC approved a Skagway Harbor Gateway Pre-Engineering Assessment Report. The Report documents benthic core sampling and laboratory analysis in 2013 to characterize sediments in the Skagway Harbor for contamination from legacy and contemporary sources. The cores were advanced deeper below the surface than previous investigations. The spatial distribution of selected metals and polyaromatic hydrocarbons (PAHs),

combined with the relatively consistent depth to refusal (clean sand at ~1.0 to 1.5 meters below surface) for each sediment core illustrates that the base layer of the affected sediment zone in the Skagway Ore Terminal harbor represents the highest degree of contamination. The levels of

contamination are highest in proximity to the ore dock, especially near and to the southwest of the loader, and sediment contamination falls rapidly off at the sand boundary layer.

DEC has requested the Municipality of Skagway perform an ecological risk assessment of contaminated sediment impacts to the marine environment if the planned sediment dredge removal action cleanup remedy is not implemented in the near future. Replacement of the dock pilings and shore-to-ship loader to access, remove, and consolidate sediment contamination is critical to achieve a cleanup complete determination by the DEC and to return the benthic environment and waters of Skagway Harbor to a natural condition.

Reuse and Redevelopment

This broad category includes sites undergoing consideration, or deemed eligible for funding provided under EPA's Brownfield Program. This includes State and Tribal Response Program Grants, Targeted Brownfield Assessments, assessment grants, or cleanup grants.

Cook Inlet Housing Authority & Alaska Housing Finance Authority

CSP worked with Cook Inlet Housing Authority (CIHA), Alaska Housing Finance Authority, and a consortium of private developers on an approach to investigate and manage existing contamination at a site in Mountain View that would allow for site development in a timely manner. The site is a former machine shop with solvent contamination in soil and groundwater. CIHA and their partners will be developing a low income and senior housing development on the property.

Federal Facilities

The largest collection of contaminated sites can be found on the facilities belonging to the federal agencies operating on federal lands with the state. This includes all Department of Defense agencies as well as eighteen civilian federal agencies.

Camp Lonely



Camp Lonely. Photograph courtesy of SLR.

DEC facilitated successful removal of an eroding dumpsite at Camp Lonely, a former drilling operations base in the National Petroleum Reserve-Alaska (NPR-A). The removal followed several years of negotiation and site investigation work, which led to a settlement agreement between the United States, Husky Oil, FELEC Services and Cook Inlet Regional Corporation. Approximately 2,000 tons of solid waste (including 5 tons of hazardous waste) and 30,000 cubic

yards of contaminated soil were removed. On-site treatment of petroleum contaminated soil, off-site recycling and disposal of solid waste, and monitoring continued in FY15.

Eielson AFB

CSP finalized the State-Eielson AFB Petroleum Site Restoration Agreement. This agreement sets forth the process and schedule for conducting contaminated site characterization and cleanup activities at Eielson Air Force Base that are not addressed in the Eielson Federal Facilities Agreement between the Air Force, EPA and DEC.



Work on Eielson AFB. Photograph courtesy of Eric Breitenberger.