

# Alaska State & Tribal Response Program Brownfield Handbook



Alaska Department of  
Environmental Conservation  
Contaminated Sites Program  
Fourth Edition April 2016

# Alaska State & Tribal Response Program Brownfield Handbook

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Alaska Department of Environmental Conservation  
Contaminated Sites Program

Kevin Gardner  
Grant Administration

Amy Rodman  
Brownfield Specialist

Christy Howard  
Brownfield Outreach Specialist

Developed initially for:

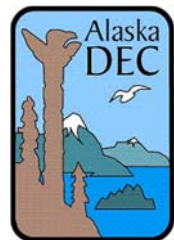
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# The Alaska State & Tribal Response Program Brownfield Handbook

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# **1. Introductory Information**

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## Introduction

### **What this handbook is:**

The purpose of this handbook is to provide a resource to assist new and veteran Tribal Response Program (TRP) grant managers in their roles as grant administrators and environmental program specialists. It is intended to help individuals better understand the world of brownfields, develop their programs, and coordinate with the Alaska Department of Environmental Conservation (DEC) and the U.S. Environmental Protection Agency (EPA), as well as each other. The State & Tribal Response Program (STRP) grant program covers a lot of ground, and it can be difficult to keep track of the many different tasks and requirements associated with this grant.

This handbook is a working document and resource. Individual grant managers are encouraged to update information as it becomes available and incorporate their own new chapters as necessary. Please share pertinent information that you come across with the brownfield community in Alaska. DEC's Contaminated Sites Program Reuse & Redevelopment element, intends to provide supplementary materials as they are developed and will notify and post the information for TRP managers as it becomes available.

### **What this handbook is not:**

This handbook is not meant to be a comprehensive guidance manual of everything you need to know as a TRP grant manager. Each program manager essentially controls how their program will operate and what their objectives and priorities are; our goal is to simply help you do that. We don't expect you to agree with everything we say or propose. We are simply striving to help maximize all of our capacity to efficiently use limited brownfield funding in Alaska. Any time we can spend helping you with questions or concerns, or helping you to do your job more efficiently or effectively is less time you have to spend reinventing the wheel.

We invite your ideas, updates, and inserts to this handbook. Please contact us with any information that you would like to share with other TRP grant managers and we can help you to do that. This is our community, and our community is what we make of it.

A special thanks to the following people for helping us put this handbook together over the years:

Sonja Benson – *Environmental Program Specialist*  
Will Boger – *Environmental Program Specialist, GIS*  
Tamara Cardona-Marek – *Environmental Program Specialist*  
Marti Early – *Community Involvement Specialist*  
Ann Farris – *Environmental Engineer Associate*  
Latrisha “Trish” Jennings – *Administrative Clerk*  
Mitzi Read – *Environmental Program Technician*  
Janice Wieggers – *Environmental Program Specialist*  
Deborah Williams – *Environmental Program Specialist*  
John Carnahan – *Environmental Program Specialist*  
Melinda Brunner – *Environmental Program Specialist*  
Keri DePalma - *Environmental Program Specialist*

Thank you,

Kevin Gardner  
*Grant Administration (2016)*

Amy Rodman  
*Environmental Program Specialist (2016)*

Christy Howard  
*Environmental Program Specialist (2016)*

## Brownfield Background and History

What do you think of when you hear the word “brownfield”? Do you envision old industrial sites, gas stations, vacant and stark land similar to many of the examples that you see in literature, rather than the types of brownfields found in rural Alaska? Is your community concerned about any property? Do you wonder if any site poses a danger to passersby? Is anything being done to better your understanding of these sites? How might these sites affect your ability to use the site, the adjacent land, or water around that site? Could there be impacts to groundwater or surface water that affect your subsistence activities? These are just some of the many questions and concerns that led to the existing brownfields legislation. Something *is* being done.

Think of brownfields as “land recycling.” Where we (as a society) once ignored or purposely neglected contaminated property and left it to ruin, we are now attempting to identify new and compatible uses for that property. Where we were once primarily focused with cleaning up contaminated property to the most stringent cleanup levels regardless of cost (which may be necessary at some sites when they are to be used for residential purposes), we are now able to better define *risk to receptors*. This allows us to focus cleanup on the most critical elements and establish the necessary controls to manage residual contamination and site activities on a property, thereby reducing costs and enabling remedial action and beneficial reuse sooner rather than later. Where we were once unconcerned with the effect of a contaminated property on adjacent properties, such as the lost usability of the property, decreased property value, and the societal problems that can be associated with abandoned and run-down facilities, we are now taking an active role in facilitating reasonable and sustainable redevelopment.

### **What are Brownfields?**

A brownfield site is generally defined by the U.S. Environmental Protection Agency (EPA) as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant..." This broad definition encompasses nearly any type of site, which is the intent. Bringing attention to the economic impact that brownfield sites have on society is important. Identifying those properties that are idle, underutilized, or turning to blight is the first step in managing the brownfield issue.

When it comes to financial assistance, there is a need to clarify the properties that are truly abandoned to ensure that the funding is directed to those sites most in need, with the greatest capacity to provide public benefit. Brownfield legislation was not created as a source of financial assistance to preclude a responsible party's obligations. The 'polluter pays' principle is still alive, and requires a financially viable party who is responsible for the contamination to pay cleanup costs. Further, brownfield legislation is not designed to interfere with active cleanup projects or those sites that are emergencies or require immediate action due to a potential ongoing exposure.

These site eligibility requirements lead to specific exclusions when it comes to identifying qualifying brownfield sites for federal funding. This ensures that the worst contaminated sites and those on the National Priority List, or currently managed under another program, are not diverted into this program unnecessarily. In fact, brownfield legislation focuses on those abandoned or underutilized sites for which there is truly no incentive to take action, and no responsible party to move a project forward. With no owner or party available to address cleanup, a brownfield property is likely that it will remain stagnant for a long time.

At one time, estimates stated that more than one-half million properties once used for industrial, manufacturing or commercial purposes were lying abandoned or underused because of the suspicion of hazardous substance contamination. People observed that these "brownfield" areas devalued surrounding properties and contributed greatly to blight, joblessness, crime, and overall neighborhood decay in their communities. The resulting economic and social downward spiral was not acceptable to community leaders and was devastating to individuals – and the majority of those affected had nothing to do with the contamination in the first place.

We have similar sites throughout Alaska cities – at our airports, in our industrial areas, and in our commercial business districts; however, you will also find brownfields in our rural areas. The number of underutilized Alaska properties fitting the brownfield description is probably in the thousands. The concern with these sites is compounded by Alaska's development history of placing industrial and commercial activities alongside residential developments. In rural Alaska, the logistics are costly and complicated, with

many communities off the road system and only accessible by air or water transportation.

It is frequently the unknown environmental liabilities that prevent communities, developers, and investors from restoring these properties to productive use. In rural Alaska people have been concerned with the health effects of environmental contamination on subsistence resources, sometimes even causing them to question the safety of using traditional hunting and gathering places.

Environmental cleanup is often perceived as a financial “black hole,” making the problem easier to ignore. Given the choice between action and no action, many responsible parties simply let the problem sit. Lacking financial resources to take on all cleanups, regulatory agencies and communities were at a standstill, suffering from the lack of action, yet financially powerless to remedy the situation. As such, the regulatory agencies have historically focused their attention on two primary types of site: those sites believed to be posing the greatest risk to human health and the environment; and, those for which a responsible party solicits a necessary action by the agency in order to further their own objectives. Communities that want to address contaminated sites were concerned over the liability and costs. For all practical purposes, many of the inactive or abandoned sites would have to take a backseat.

In the early 1990s, the federal government and the states began to focus their attention on the problems associated with brownfields.

### **Introduction of Brownfield Legislation**

In 1994, the U.S. Environmental Protection Agency (EPA) introduced an environmental protection approach based on local initiative, encouraging strong public-private partnering, and promoting innovative and creative ways to assess, clean up, and redevelop brownfield sites. This new approach empowers state, tribal, and local environmental and economic development organizations to coordinate and manage brownfield projects. EPA also has provided funding to create local environmental job-training programs to ensure that the economic benefits of brownfield revitalization remain in local neighborhoods. A strong focus of this new *brownfield* program was local control, local oversight, local contractors, and local solutions. EPA was helping the states implement their own solutions by providing a “brownfield tool box”

to work on brownfield problems. The key to brownfield revitalization is understanding that a viable and safe environmental remedy only works when it incorporates not only risk, but liability, land use, economics, and sustainability – something that has often been missing in environmental decision making.

### **The Federal Brownfields Law**

On January 11, 2002, the President signed into law *The Small Business Liability Relief and Brownfields Revitalization Act* (P.L. 107-118), the federal "Brownfields Law." The Brownfields Law expands potential federal assistance for brownfield revitalization, including grants for assessment, cleanup and job training.

The two major functions of this legislation are: (1) to provide funding to state and tribal governments to redevelop specific brownfield sites and to enhance their voluntary cleanup programs; and (2) to provide liability relief under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) for new purchasers, property owners, and others who conduct cleanups under voluntary cleanup programs, as well as for those owners of property that are affected by contamination migrating from adjacent sites. Legislation was later enacted to further define the term "brownfield site" to include a site that "is contaminated by a controlled substance...; is contaminated by petroleum or a petroleum product excluded from the definition of 'hazardous substance'...; is mine-scarred land." Since petroleum sites were initially excluded from the brownfield definition, this change was significant to the State of Alaska since the majority of sites are petroleum in nature. More funding was being made available for more sites, and the funding included training opportunities, grants, and revolving loan programs.

### **Liability Relief**

Possibly the most important provision of the brownfield legislation is the one that provides immunity from CERCLA liability for purchasers of contaminated property. Liability generally applies jointly and severally – meaning that if you are involved in the ownership history of a site, you *may* be considered liable for the entire site cleanup, regardless of whether you contributed to the contamination or not. The "innocent landowner" defense previously incorporated into CERCLA only protected an owner if they were unaware of the contamination on the site. New legislation allowed a party to verify the



presence of contamination and still buy the property without incurring specific liabilities. This legislation is important to facilitate purchases of some contaminated properties that otherwise would have been too risky. Associated with this limitation of liability are strict requirements for the purchaser, including (but not limited to):

- ◆ Fulfilling all appropriate inquiry requirements;
- ◆ Exercising appropriate care to limit and correct problems;
- ◆ Full cooperation with regulatory oversight agencies;
- ◆ Compliance with all land-use restrictions; and
- ◆ No corporate or family relationship to a potential responsible party.

Since sites posing the greatest risk are generally more difficult to remediate, they consequently take longer to clean up. With the large number of “priority” sites under remedial action, regulatory staff often spend more time on sites that are less likely to close over the short term, and less time on sites that could more easily and quickly reach closure.

Responsible parties for sites that regulators perceive as having *less* risk (i.e., no receptors in the immediate vicinity), may not be forced to conduct assessment or cleanup in the near term since they will prioritize low. Low priority sites are often left idle until without regulatory persuasion until an owner has an incentive to move forward with action, such as a property transaction. The result is a perpetuating dilemma of a large number of unevaluated, vacant, potentially less risky sites with a need for a reuse opportunity. Liability relief can be a critical tool for prospective purchasers and developers to increasing the potential viability of a redevelopment project on a contaminated property. Note: Although liability relief is available through CERCLA, the State of Alaska still has strict, joint and several liability requirements that are not affiliated with CERCLA authority. In order to relieve a potential purchaser from liability, purchasers must obtain liability clarification from the state through a *Prospective Purchaser Agreement (PPA)*. The State Attorney General is the only entity that can relieve any current or future potentially responsible party from liability.

### **Summary of Brownfield Law Provisions**

The following summarizes the significant elements of the brownfield legislation:

1. Liability protection from CERCLA for purchasers (and tenants) of property that meets certain requirements (**this is federal protection only, NOT state of Alaska protection**);
2. A bar against federal enforcement of CERCLA against any person – *including any party who owned or operated property at the time of a release* – who cleans up a property under a state voluntary cleanup program.
3. Protection from CERCLA liability for property owners who have been affected by adjacent contaminated sites. (**This is federal protection only, not state protection**)
4. Clarification of the “all appropriate inquiry” standard, which is currently under review for public comment.
5. Provision of federal grants every year to states and tribes to build and develop their oversight programs. (**This is the State and Tribal Response Program Funding**)
6. Provision of direct grants to local governments, regional authorities, and states for assessment and cleanup. (**These are the assessment, revolving loan fund, cleanup, and training grants**)

The intent of EPA was not to simply repackage all contaminated sites with its legislation – the goal was to focus on those underutilized, abandoned, or stagnant sites for which few remedies appeared available to restore *sustainable* economic viability. The legislation was also not intended as a means to provide emergency funding for critical situations. Thus, the definition of “brownfield” excludes sites subject to a corrective action or an enforcement order. Sites that are federally owned were also excluded since they most likely are meant to be addressed under another federal funding program.

DEC staff have been applying general brownfield principles into our cleanup oversight process for many sites. Although not all sites meet the federal definition of “brownfield,” nearly all private site cleanups are conducted voluntarily and often are initiated because of a property sale with pending development plans. When determining cleanup requirements we consider the risk of exposure, which incorporates both current and future land-use into the decision process. While we coordinate primarily with the property owner, the concerns of the purchaser may be very important when determining cleanup goals and objectives. We may also communicate with an interested bank to keep them informed of project progress. The desired result is from of partnership amongst the regulatory agency and the regulated community –

something to strive for and appropriate to any site and not only brownfield sites.

### **The Brownfield Community**

The interest in brownfields extends far beyond our agency here at DEC. We play an important part simply because many sites require cleanup, and the Contaminated Sites program at DEC oversees the rules under which cleanup is completed. However, brownfield legislation is driven as much by economics as by environmental concerns.

Why care about brownfield redevelopment? For many reasons, including the following:

- ◆ Many brownfield properties are in ideal locations, near city centers, transportation, industrial corridors, and waterfronts;
- ◆ Many have facilities and infrastructure that can be reused;
- ◆ Many cost less to purchase;
- ◆ Some could be eligible for benefits or incentives such as federal tax programs or state assistance (if developed);
- ◆ The rebound of adjacent property values could be significant;
- ◆ The synergistic net financial effect of increasing one neglected property value; and
- ◆ Creation of new jobs.

Since its inception in 1995, EPA's Brownfields Program has grown into a proven, results-oriented program that has changed the way contaminated property is perceived, addressed, and managed. Brownfield grants continue to serve as the foundation of EPA's Brownfields Program. These grants support revitalization efforts by funding environmental assessment, cleanup, and job training activities.

EPA's investment in the Brownfields Program has resulted in the following:

- More than 20,000 properties assessed;
- Nearly 900 sites cleaned up;
- More than 90,000 jobs leveraged;
- More than \$20 billion leveraged.

In Alaska alone, more than \$2 million has been allocated to Targeted Brownfield Assessments, and more than 30 properties assessed. The *DEC's Contaminated Sites Program Reuse & Redevelopment element* has spent more than \$1.4 million on assessments and looked more than 50 properties. Brownfield redevelopment results in overall improved quality of life and the preservation of green space. In Alaska, DEC's Contaminated Sites Program has established clear cleanup standards that must be met to ensure the safe reuse of brownfields and other contaminated sites. In some cases, state funding may be available to assist with assessment and sometimes remediation of brownfield sites. *DEC's Contaminated Sites Program Reuse & Redevelopment element* will continue to look to the future and work with EPA to expand the types of properties we address, form new partnerships, and create new initiatives to help revitalize communities throughout Alaska.

**References:**

EPA Brownfields website:

<http://www.epa.gov/brownfields/laws/2869sum.htm>

H.R.2869

**One Hundred Seventh Congress  
of the  
United States of America  
AT THE FIRST SESSION**

Begun and held at the City of Washington on Wednesday, the third day of January, two thousand and one

*An Act -- To provide certain relief for small businesses from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, and to amend such Act to promote the cleanup and reuse of brownfields, to provide financial assistance for brownfields revitalization, to enhance State response programs, and for other purposes.*

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the 'Small Business Liability Relief and Brownfields Revitalization Act'.

**TITLE I--SMALL BUSINESS LIABILITY PROTECTION**

**SEC. 101. SHORT TITLE.**

This title may be cited as the 'Small Business Liability Protection Act'.

**SEC. 102. SMALL BUSINESS LIABILITY RELIEF.**

(a) EXEMPTIONS- Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9607) is amended by adding at the end the following new subsections:

    (o) DE MICROMIS EXEMPTION-

        (1) IN GENERAL- Except as provided in paragraph (2), a person shall not be liable, with respect to response costs at a facility on the National Priorities List, under this Act if liability is based solely on paragraph (3) or (4) of subsection (a), and the person, except as provided in paragraph (4) of this subsection, can demonstrate that--

            (A) the total amount of the material containing hazardous substances that the person arranged for disposal or treatment of, arranged with a transporter for transport for disposal or treatment of, or accepted for transport for disposal or

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treatment, at the facility was less than 110 gallons of liquid materials or less than 200 pounds of solid materials (or such greater or lesser amounts as the Administrator may determine by regulation); and

ˆ (B) all or part of the disposal, treatment, or transport concerned occurred before April 1, 2001.

ˆ (2) EXCEPTIONS- Paragraph (1) shall not apply in a case in which--

ˆ (A) the President determines that--

ˆ (i) the materials containing hazardous substances referred to in paragraph (1) have contributed significantly or could contribute significantly, either individually or in the aggregate, to the cost of the response action or natural resource restoration with respect to the facility; or

ˆ (ii) the person has failed to comply with an information request or administrative subpoena issued by the President under this Act or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the facility; or

ˆ (B) a person has been convicted of a criminal violation for the conduct to which the exemption would apply, and that conviction has not been vitiated on appeal or otherwise.

ˆ (3) NO JUDICIAL REVIEW- A determination by the President under paragraph (2)(A) shall not be subject to judicial review.

ˆ (4) NONGOVERNMENTAL THIRD-PARTY CONTRIBUTION ACTIONS- In the case of a contribution action, with respect to response costs at a facility on the National Priorities List, brought by a party, other than a Federal, State, or local government, under this Act, the burden of proof shall be on the party bringing the action to demonstrate that the conditions described in paragraph (1)(A) and (B) of this subsection are not met.

ˆ (p) MUNICIPAL SOLID WASTE EXEMPTION-

ˆ (1) IN GENERAL- Except as provided in paragraph (2) of this subsection, a person shall not be liable, with respect to response costs at a facility on the National Priorities List, under paragraph (3) of subsection (a) for municipal solid waste disposed of at a facility if the person, except as provided in paragraph (5) of this subsection, can demonstrate that the person is--

ˆ (A) an owner, operator, or lessee of residential property from which all of the person's municipal solid waste was generated with respect to the facility;

ˆ (B) a business entity (including a parent, subsidiary, or affiliate of the entity) that, during its 3 taxable years preceding the date of transmittal of written notification from the President of its potential liability under this section, employed on average not more than 100 full-time individuals, or the equivalent thereof, and that is a small business concern (within the meaning of the Small Business Act (15 U.S.C. 631 et seq.)) from which was generated all of the municipal solid waste attributable to the entity with respect to the facility; or

ˆ (C) an organization described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from tax under section 501(a) of such Code that, during its taxable year preceding the date of transmittal of written notification from the President of its potential liability under this section, employed not more than 100 paid individuals at the location from which was generated all of the municipal solid waste attributable to the organization with respect to the facility.

For purposes of this subsection, the term 'affiliate' has the meaning of that term provided in the definition of 'small business concern' in regulations promulgated by the Small Business Administration in accordance with the Small Business Act (15 U.S.C. 631 et seq.).

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- ˆ (2) EXCEPTION- Paragraph (1) shall not apply in a case in which the President determines that--
- ˆ (A) the municipal solid waste referred to in paragraph (1) has contributed significantly or could contribute significantly, either individually or in the aggregate, to the cost of the response action or natural resource restoration with respect to the facility;
  - ˆ (B) the person has failed to comply with an information request or administrative subpoena issued by the President under this Act; or
  - ˆ (C) the person has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the facility.
- ˆ (3) NO JUDICIAL REVIEW- A determination by the President under paragraph (2) shall not be subject to judicial review.
- ˆ (4) DEFINITION OF MUNICIPAL SOLID WASTE-
- ˆ (A) IN GENERAL- For purposes of this subsection, the term `municipal solid waste' means waste material--
    - ˆ (i) generated by a household (including a single or multifamily residence); and
    - ˆ (ii) generated by a commercial, industrial, or institutional entity, to the extent that the waste material--
      - ˆ (I) is essentially the same as waste normally generated by a household;
      - ˆ (II) is collected and disposed of with other municipal solid waste as part of normal municipal solid waste collection services; and
      - ˆ (III) contains a relative quantity of hazardous substances no greater than the relative quantity of hazardous substances contained in waste material generated by a typical single-family household.
  - ˆ (B) EXAMPLES- Examples of municipal solid waste under subparagraph (A) include food and yard waste, paper, clothing, appliances, consumer product packaging, disposable diapers, office supplies, cosmetics, glass and metal food containers, elementary or secondary school science laboratory waste, and household hazardous waste.
  - ˆ (C) EXCLUSIONS- The term `municipal solid waste' does not include--
    - ˆ (i) combustion ash generated by resource recovery facilities or municipal incinerators; or
    - ˆ (ii) waste material from manufacturing or processing operations (including pollution control operations) that is not essentially the same as waste normally generated by households.
- ˆ (5) BURDEN OF PROOF- In the case of an action, with respect to response costs at a facility on the National Priorities List, brought under section 107 or 113 by--
- ˆ (A) a party, other than a Federal, State, or local government, with respect to municipal solid waste disposed of on or after April 1, 2001; or
  - ˆ (B) any party with respect to municipal solid waste disposed of before April 1, 2001, the burden of proof shall be on the party bringing the action to demonstrate that the conditions described in paragraphs (1) and (4) for exemption for entities and organizations described in paragraph (1)(B) and (C) are not met.
- ˆ (6) CERTAIN ACTIONS NOT PERMITTED- No contribution action may be brought by a party, other than a Federal, State, or local government, under this Act with respect to circumstances described in paragraph (1)(A).
- ˆ (7) COSTS AND FEES- A nongovernmental entity that commences, after the date of the enactment of this subsection, a contribution action under this Act shall be liable to the

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defendant for all reasonable costs of defending the action, including all reasonable attorney's fees and expert witness fees, if the defendant is not liable for contribution based on an exemption under this subsection or subsection (o).'

(b) EXPEDITED SETTLEMENT- Section 122(g) of such Act (42 U.S.C. 9622(g)) is amended by adding at the end the following new paragraphs:

ˆ (7) REDUCTION IN SETTLEMENT AMOUNT BASED ON LIMITED ABILITY TO PAY-

ˆ (A) IN GENERAL- The condition for settlement under this paragraph is that the potentially responsible party is a person who demonstrates to the President an inability or a limited ability to pay response costs.

ˆ (B) CONSIDERATIONS- In determining whether or not a demonstration is made under subparagraph (A) by a person, the President shall take into consideration the ability of the person to pay response costs and still maintain its basic business operations, including consideration of the overall financial condition of the person and demonstrable constraints on the ability of the person to raise revenues.

ˆ (C) INFORMATION- A person requesting settlement under this paragraph shall promptly provide the President with all relevant information needed to determine the ability of the person to pay response costs.

ˆ (D) ALTERNATIVE PAYMENT METHODS- If the President determines that a person is unable to pay its total settlement amount at the time of settlement, the President shall consider such alternative payment methods as may be necessary or appropriate.

ˆ (8) ADDITIONAL CONDITIONS FOR EXPEDITED SETTLEMENTS-

ˆ (A) WAIVER OF CLAIMS- The President shall require, as a condition for settlement under this subsection, that a potentially responsible party waive all of the claims (including a claim for contribution under this Act) that the party may have against other potentially responsible parties for response costs incurred with respect to the facility, unless the President determines that requiring a waiver would be unjust.

ˆ (B) FAILURE TO COMPLY- The President may decline to offer a settlement to a potentially responsible party under this subsection if the President determines that the potentially responsible party has failed to comply with any request for access or information or an administrative subpoena issued by the President under this Act or has impeded or is impeding, through action or inaction, the performance of a response action with respect to the facility.

ˆ (C) RESPONSIBILITY TO PROVIDE INFORMATION AND ACCESS- A potentially responsible party that enters into a settlement under this subsection shall not be relieved of the responsibility to provide any information or access requested in accordance with subsection (e)(3)(B) or section 104(e).

ˆ (9) BASIS OF DETERMINATION- If the President determines that a potentially responsible party is not eligible for settlement under this subsection, the President shall provide the reasons for the determination in writing to the potentially responsible party that requested a settlement under this subsection.

ˆ (10) NOTIFICATION- As soon as practicable after receipt of sufficient information to make a determination, the President shall notify any person that the President determines is eligible under paragraph (1) of the person's eligibility for an expedited settlement.

ˆ (11) NO JUDICIAL REVIEW- A determination by the President under paragraph (7), (8), (9), or (10) shall not be subject to judicial review.

ˆ (12) NOTICE OF SETTLEMENT- After a settlement under this subsection becomes final with respect to a facility, the President shall promptly notify potentially responsible parties at the facility that have not resolved their liability to the United States of the settlement.'



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**SEC. 103. EFFECT ON CONCLUDED ACTIONS.**

The amendments made by this title shall not apply to or in any way affect any settlement lodged in, or judgment issued by, a United States District Court, or any administrative settlement or order entered into or issued by the United States or any State, before the date of the enactment of this Act.

**TITLE II--BROWNFIELDS REVITALIZATION AND ENVIRONMENTAL RESTORATION**

**SEC. 201. SHORT TITLE.**

This title may be cited as the `Brownfields Revitalization and Environmental Restoration Act of 2001'.

**Subtitle A--Brownfields Revitalization Funding**

**SEC. 211. BROWNFIELDS REVITALIZATION FUNDING.**

(a) DEFINITION OF BROWNFIELD SITE- Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601) is amended by adding at the end the following:

- ` (39) BROWNFIELD SITE-
  - ` (A) IN GENERAL- The term `brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.
  - ` (B) EXCLUSIONS- The term `brownfield site' does not include--
    - ` (i) a facility that is the subject of a planned or ongoing removal action under this title;
    - ` (ii) a facility that is listed on the National Priorities List or is proposed for listing;
    - ` (iii) a facility that is the subject of a unilateral administrative order, a court order, an administrative order on consent or judicial consent decree that has been issued to or entered into by the parties under this Act;
    - ` (iv) a facility that is the subject of a unilateral administrative order, a court order, an administrative order on consent or judicial consent decree that has been issued to or entered into by the parties, or a facility to which a permit has been issued by the United States or an authorized State under the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. 1321), the Toxic Substances Control Act (15 U.S.C. 2601 et seq.), or the Safe Drinking Water Act (42 U.S.C. 300f et seq.);
    - ` (v) a facility that--
      - ` (I) is subject to corrective action under section 3004(u) or 3008(h) of the Solid Waste Disposal Act (42 U.S.C. 6924(u), 6928(h)); and

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- ` (II) to which a corrective action permit or order has been issued or modified to require the implementation of corrective measures;
  - ` (vi) a land disposal unit with respect to which--
    - ` (I) a closure notification under subtitle C of the Solid Waste Disposal Act (42 U.S.C. 6921 et seq.) has been submitted; and
    - ` (II) closure requirements have been specified in a closure plan or permit;
  - ` (vii) a facility that is subject to the jurisdiction, custody, or control of a department, agency, or instrumentality of the United States, except for land held in trust by the United States for an Indian tribe;
  - ` (viii) a portion of a facility--
    - ` (I) at which there has been a release of polychlorinated biphenyls; and
    - ` (II) that is subject to remediation under the Toxic Substances Control Act (15 U.S.C. 2601 et seq.); or
  - ` (ix) a portion of a facility, for which portion, assistance for response activity has been obtained under subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) from the Leaking Underground Storage Tank Trust Fund established under section 9508 of the Internal Revenue Code of 1986.
  - ` (C) SITE-BY-SITE DETERMINATIONS- Notwithstanding subparagraph (B) and on a site-by-site basis, the President may authorize financial assistance under section 104(k) to an eligible entity at a site included in clause (i), (iv), (v), (vi), (viii), or (ix) of subparagraph (B) if the President finds that financial assistance will protect human health and the environment, and either promote economic development or enable the creation of, preservation of, or addition to parks, greenways, undeveloped property, other recreational property, or other property used for nonprofit purposes.
  - ` (D) ADDITIONAL AREAS- For the purposes of section 104(k), the term ` brownfield site' includes a site that--
    - ` (i) meets the definition of ` brownfield site' under subparagraphs (A) through (C); and
    - ` (ii) (I) is contaminated by a controlled substance (as defined in section 102 of the Controlled Substances Act (21 U.S.C. 802));
      - ` (II)(aa) is contaminated by petroleum or a petroleum product excluded from the definition of ` hazardous substance' under section 101; and
      - ` (bb) is a site determined by the Administrator or the State, as appropriate, to be--
        - ` (AA) of relatively low risk, as compared with other petroleum-only sites in the State; and
        - ` (BB) a site for which there is no viable responsible party and which will be assessed, investigated, or cleaned up by a person that is not potentially liable for cleaning up the site; and
      - ` (cc) is not subject to any order issued under section 9003(h) of the Solid Waste Disposal Act (42 U.S.C. 6991b(h)); or
      - ` (III) is mine-scarred land.'
- (b) BROWNFIELDS REVITALIZATION FUNDING- Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9604) is amended by adding at the end the following:
- ` (k) BROWNFIELDS REVITALIZATION FUNDING-

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- ˆ (1) DEFINITION OF ELIGIBLE ENTITY- In this subsection, the term 'eligible entity' means--
- ˆ (A) a general purpose unit of local government;
  - ˆ (B) a land clearance authority or other quasi-governmental entity that operates under the supervision and control of or as an agent of a general purpose unit of local government;
  - ˆ (C) a government entity created by a State legislature;
  - ˆ (D) a regional council or group of general purpose units of local government;
  - ˆ (E) a redevelopment agency that is chartered or otherwise sanctioned by a State;
  - ˆ (F) a State;
  - ˆ (G) an Indian Tribe other than in Alaska; or
  - ˆ (H) an Alaska Native Regional Corporation and an Alaska Native Village Corporation as those terms are defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601 and following) and the Metlakatla Indian community.
- ˆ (2) BROWNFIELD SITE CHARACTERIZATION AND ASSESSMENT GRANT PROGRAM-
- ˆ (A) ESTABLISHMENT OF PROGRAM- The Administrator shall establish a program to--
    - ˆ (i) provide grants to inventory, characterize, assess, and conduct planning related to brownfield sites under subparagraph (B); and
    - ˆ (ii) perform targeted site assessments at brownfield sites.
  - ˆ (B) ASSISTANCE FOR SITE CHARACTERIZATION AND ASSESSMENT-
    - ˆ (i) IN GENERAL- On approval of an application made by an eligible entity, the Administrator may make a grant to the eligible entity to be used for programs to inventory, characterize, assess, and conduct planning related to one or more brownfield sites.
    - ˆ (ii) SITE CHARACTERIZATION AND ASSESSMENT- A site characterization and assessment carried out with the use of a grant under clause (i) shall be performed in accordance with section 101(35)(B).
- ˆ (3) GRANTS AND LOANS FOR BROWNFIELD REMEDIATION-
- ˆ (A) GRANTS PROVIDED BY THE PRESIDENT- Subject to paragraphs (4) and (5), the President shall establish a program to provide grants to--
    - ˆ (i) eligible entities, to be used for capitalization of revolving loan funds; and
    - ˆ (ii) eligible entities or nonprofit organizations, where warranted, as determined by the President based on considerations under subparagraph (C), to be used directly for remediation of one or more brownfield sites owned by the entity or organization that receives the grant and in amounts not to exceed \$200,000 for each site to be remediated.
  - ˆ (B) LOANS AND GRANTS PROVIDED BY ELIGIBLE ENTITIES- An eligible entity that receives a grant under subparagraph (A)(i) shall use the grant funds to provide assistance for the remediation of brownfield sites in the form of--
    - ˆ (i) one or more loans to an eligible entity, a site owner, a site developer, or another person; or
    - ˆ (ii) one or more grants to an eligible entity or other nonprofit organization, where warranted, as determined by the eligible entity that is providing the assistance, based on considerations under subparagraph (C), to remediate sites owned by the eligible entity or nonprofit organization that receives the grant.

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- ˆ (C) CONSIDERATIONS- In determining whether a grant under subparagraph (A)(ii) or (B)(ii) is warranted, the President or the eligible entity, as the case may be, shall take into consideration--
    - ˆ (i) the extent to which a grant will facilitate the creation of, preservation of, or addition to a park, a greenway, undeveloped property, recreational property, or other property used for nonprofit purposes;
    - ˆ (ii) the extent to which a grant will meet the needs of a community that has an inability to draw on other sources of funding for environmental remediation and subsequent redevelopment of the area in which a brownfield site is located because of the small population or low income of the community;
    - ˆ (iii) the extent to which a grant will facilitate the use or reuse of existing infrastructure;
    - ˆ (iv) the benefit of promoting the long-term availability of funds from a revolving loan fund for brownfield remediation; and
    - ˆ (v) such other similar factors as the Administrator considers appropriate to consider for the purposes of this subsection.
  - ˆ (D) TRANSITION- Revolving loan funds that have been established before the date of the enactment of this subsection may be used in accordance with this paragraph.
  - ˆ (4) GENERAL PROVISIONS-
    - ˆ (A) MAXIMUM GRANT AMOUNT-
      - ˆ (i) BROWNFIELD SITE CHARACTERIZATION AND ASSESSMENT-
        - ˆ (I) IN GENERAL- A grant under paragraph (2) may be awarded to an eligible entity on a community-wide or site-by-site basis, and shall not exceed, for any individual brownfield site covered by the grant, \$200,000.
        - ˆ (II) WAIVER- The Administrator may waive the \$200,000 limitation under subclause (I) to permit the brownfield site to receive a grant of not to exceed \$350,000, based on the anticipated level of contamination, size, or status of ownership of the site.
      - ˆ (ii) BROWNFIELD REMEDIATION- A grant under paragraph (3)(A)(i) may be awarded to an eligible entity on a community-wide or site-by-site basis, not to exceed \$1,000,000 per eligible entity. The Administrator may make an additional grant to an eligible entity described in the previous sentence for any year after the year for which the initial grant is made, taking into consideration--
        - ˆ (I) the number of sites and number of communities that are addressed by the revolving loan fund;
        - ˆ (II) the demand for funding by eligible entities that have not previously received a grant under this subsection;
        - ˆ (III) the demonstrated ability of the eligible entity to use the revolving loan fund to enhance remediation and provide funds on a continuing basis; and
        - ˆ (IV) such other similar factors as the Administrator considers appropriate to carry out this subsection.
    - ˆ (B) PROHIBITION-
      - ˆ (i) IN GENERAL- No part of a grant or loan under this subsection may be used for the payment of--
        - ˆ (I) a penalty or fine;

- ` (II) a Federal cost-share requirement;
- ` (III) an administrative cost;
- ` (IV) a response cost at a brownfield site for which the recipient of the grant or loan is potentially liable under section 107; or
- ` (V) a cost of compliance with any Federal law (including a Federal law specified in section 101(39)(B)), excluding the cost of compliance with laws applicable to the cleanup.
- ` (ii) EXCLUSIONS- For the purposes of clause (i)(III), the term 'administrative cost' does not include the cost of--
  - ` (I) investigation and identification of the extent of contamination;
  - ` (II) design and performance of a response action; or
  - ` (III) monitoring of a natural resource.
- ` (C) ASSISTANCE FOR DEVELOPMENT OF LOCAL GOVERNMENT SITE REMEDIATION PROGRAMS- A local government that receives a grant under this subsection may use not to exceed 10 percent of the grant funds to develop and implement a brownfields program that may include--
  - ` (i) monitoring the health of populations exposed to one or more hazardous substances from a brownfield site; and
  - ` (ii) monitoring and enforcement of any institutional control used to prevent human exposure to any hazardous substance from a brownfield site.
- ` (D) INSURANCE- A recipient of a grant or loan awarded under paragraph (2) or (3) that performs a characterization, assessment, or remediation of a brownfield site may use a portion of the grant or loan to purchase insurance for the characterization, assessment, or remediation of that site.
- ` (5) GRANT APPLICATIONS--
  - ` (A) SUBMISSION--
    - ` (i) IN GENERAL--
      - ` (I) APPLICATION- An eligible entity may submit to the Administrator, through a regional office of the Environmental Protection Agency and in such form as the Administrator may require, an application for a grant under this subsection for one or more brownfield sites (including information on the criteria used by the Administrator to rank applications under subparagraph (C), to the extent that the information is available).
      - ` (II) NCP REQUIREMENTS- The Administrator may include in any requirement for submission of an application under subclause (I) a requirement of the National Contingency Plan only to the extent that the requirement is relevant and appropriate to the program under this subsection.
    - ` (ii) COORDINATION- The Administrator shall coordinate with other Federal agencies to assist in making eligible entities aware of other available Federal resources.
    - ` (iii) GUIDANCE- The Administrator shall publish guidance to assist eligible entities in applying for grants under this subsection.
  - ` (B) APPROVAL- The Administrator shall--
    - ` (i) at least annually, complete a review of applications for grants that are received from eligible entities under this subsection; and
    - ` (ii) award grants under this subsection to eligible entities that the Administrator determines have the highest rankings under the ranking criteria established under subparagraph (C).

- ˘ (C) RANKING CRITERIA- The Administrator shall establish a system for ranking grant applications received under this paragraph that includes the following criteria:
  - ˘ (i) The extent to which a grant will stimulate the availability of other funds for environmental assessment or remediation, and subsequent reuse, of an area in which one or more brownfield sites are located.
  - ˘ (ii) The potential of the proposed project or the development plan for an area in which one or more brownfield sites are located to stimulate economic development of the area on completion of the cleanup.
  - ˘ (iii) The extent to which a grant would address or facilitate the identification and reduction of threats to human health and the environment, including threats in areas in which there is a greater-than-normal incidence of diseases or conditions (including cancer, asthma, or birth defects) that may be associated with exposure to hazardous substances, pollutants, or contaminants.
  - ˘ (iv) The extent to which a grant would facilitate the use or reuse of existing infrastructure.
  - ˘ (v) The extent to which a grant would facilitate the creation of, preservation of, or addition to a park, a greenway, undeveloped property, recreational property, or other property used for nonprofit purposes.
  - ˘ (vi) The extent to which a grant would meet the needs of a community that has an inability to draw on other sources of funding for environmental remediation and subsequent redevelopment of the area in which a brownfield site is located because of the small population or low income of the community.
  - ˘ (vii) The extent to which the applicant is eligible for funding from other sources.
  - ˘ (viii) The extent to which a grant will further the fair distribution of funding between urban and nonurban areas.
  - ˘ (ix) The extent to which the grant provides for involvement of the local community in the process of making decisions relating to cleanup and future use of a brownfield site.
  - ˘ (x) The extent to which a grant would address or facilitate the identification and reduction of threats to the health or welfare of children, pregnant women, minority or low-income communities, or other sensitive populations.
- ˘ (6) IMPLEMENTATION OF BROWNFIELDS PROGRAMS-
  - ˘ (A) ESTABLISHMENT OF PROGRAM- The Administrator may provide, or fund eligible entities or nonprofit organizations to provide, training, research, and technical assistance to individuals and organizations, as appropriate, to facilitate the inventory of brownfield sites, site assessments, remediation of brownfield sites, community involvement, or site preparation.
  - ˘ (B) FUNDING RESTRICTIONS- The total Federal funds to be expended by the Administrator under this paragraph shall not exceed 15 percent of the total amount appropriated to carry out this subsection in any fiscal year.
- ˘ (7) AUDITS-
  - ˘ (A) IN GENERAL- The Inspector General of the Environmental Protection Agency shall conduct such reviews or audits of grants and loans under this subsection as the Inspector General considers necessary to carry out this subsection.
  - ˘ (B) PROCEDURE- An audit under this subparagraph shall be conducted in accordance with the auditing procedures of the General Accounting Office, including chapter 75 of title 31, United States Code.

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- ˆ (C) VIOLATIONS- If the Administrator determines that a person that receives a grant or loan under this subsection has violated or is in violation of a condition of the grant, loan, or applicable Federal law, the Administrator may--
    - ˆ (i) terminate the grant or loan;
    - ˆ (ii) require the person to repay any funds received; and
    - ˆ (iii) seek any other legal remedies available to the Administrator.
  - ˆ (D) REPORT TO CONGRESS- Not later than 3 years after the date of the enactment of this subsection, the Inspector General of the Environmental Protection Agency shall submit to Congress a report that provides a description of the management of the program (including a description of the allocation of funds under this subsection).
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- ˆ (8) LEVERAGING- An eligible entity that receives a grant under this subsection may use the grant funds for a portion of a project at a brownfield site for which funding is received from other sources if the grant funds are used only for the purposes described in paragraph (2) or (3).
  - ˆ (9) AGREEMENTS- Each grant or loan made under this subsection shall--
    - ˆ (A) include a requirement of the National Contingency Plan only to the extent that the requirement is relevant and appropriate to the program under this subsection, as determined by the Administrator; and
    - ˆ (B) be subject to an agreement that--
      - ˆ (i) requires the recipient to--
        - ˆ (I) comply with all applicable Federal and State laws; and
        - ˆ (II) ensure that the cleanup protects human health and the environment;
      - ˆ (ii) requires that the recipient use the grant or loan exclusively for purposes specified in paragraph (2) or (3), as applicable;
      - ˆ (iii) in the case of an application by an eligible entity under paragraph (3)(A), requires the eligible entity to pay a matching share (which may be in the form of a contribution of labor, material, or services) of at least 20 percent, from non-Federal sources of funding, unless the Administrator determines that the matching share would place an undue hardship on the eligible entity; and
      - ˆ (iv) contains such other terms and conditions as the Administrator determines to be necessary to carry out this subsection.
  - ˆ (10) FACILITY OTHER THAN BROWNFIELD SITE- The fact that a facility may not be a brownfield site within the meaning of section 101(39)(A) has no effect on the eligibility of the facility for assistance under any other provision of Federal law.
  - ˆ (11) EFFECT ON FEDERAL LAWS- Nothing in this subsection affects any liability or response authority under any Federal law, including--
    - ˆ (A) this Act (including the last sentence of section 101(14));
    - ˆ (B) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.);
    - ˆ (C) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);
    - ˆ (D) the Toxic Substances Control Act (15 U.S.C. 2601 et seq.); and
    - ˆ (E) the Safe Drinking Water Act (42 U.S.C. 300f et seq.).
  - ˆ (12) FUNDING--
    - ˆ (A) AUTHORIZATION OF APPROPRIATIONS- There is authorized to be appropriated to carry out this subsection \$200,000,000 for each of fiscal years 2002 through 2006.
    - ˆ (B) USE OF CERTAIN FUNDS- Of the amount made available under subparagraph (A), \$50,000,000, or, if the amount made available is less than \$200,000,000, 25

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percent of the amount made available, shall be used for site characterization, assessment, and remediation of facilities described in section 101(39)(D)(ii)(II).’.

## **Subtitle B--Brownfields Liability Clarifications**

### **SEC. 221. CONTIGUOUS PROPERTIES.**

Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9607) is amended by adding at the end the following:

“(q) CONTIGUOUS PROPERTIES-

“(1) NOT CONSIDERED TO BE AN OWNER OR OPERATOR-

“(A) IN GENERAL- A person that owns real property that is contiguous to or otherwise similarly situated with respect to, and that is or may be contaminated by a release or threatened release of a hazardous substance from, real property that is not owned by that person shall not be considered to be an owner or operator of a vessel or facility under

paragraph (1) or (2) of subsection (a) solely by reason of the contamination if--

“(i) the person did not cause, contribute, or consent to the release or threatened release;

“(ii) the person is not--

“(I) potentially liable, or affiliated with any other person that is potentially liable, for response costs at a facility through any direct or indirect familial relationship or any contractual, corporate, or financial relationship (other than a contractual, corporate, or financial relationship that is created by a contract for the sale of goods or services); or  
“(II) the result of a reorganization of a business entity that was potentially liable;

“(iii) the person takes reasonable steps to--

“(I) stop any continuing release;

“(II) prevent any threatened future release; and

“(III) prevent or limit human, environmental, or natural resource exposure to any hazardous substance released on or from property owned by that person;

“(iv) the person provides full cooperation, assistance, and access to persons that are authorized to conduct response actions or natural resource restoration at the vessel or facility from which there has been a release or threatened release (including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response action or natural resource restoration at the vessel or facility);

“(v) the person--

“(I) is in compliance with any land use restrictions established or relied on in connection with the response action at the facility; and

“(II) does not impede the effectiveness or integrity of any institutional control employed in connection with a response action;



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- ` (vi) the person is in compliance with any request for information or administrative subpoena issued by the President under this Act;
  - ` (vii) the person provides all legally required notices with respect to the discovery or release of any hazardous substances at the facility; and
  - ` (viii) at the time at which the person acquired the property, the person--

- ` (I) conducted all appropriate inquiry within the meaning of section 101(35)(B) with respect to the property; and
  - ` (II) did not know or have reason to know that the property was or could be contaminated by a release or threatened release of one or more hazardous substances from other real property not owned or operated by the person.

` (B) DEMONSTRATION- To qualify as a person described in subparagraph (A), a person must establish by a preponderance of the evidence that the conditions in clauses (i) through (viii) of subparagraph (A) have been met.

` (C) BONA FIDE PROSPECTIVE PURCHASER- Any person that does not qualify as a person described in this paragraph because the person had, or had reason to have, knowledge specified in subparagraph (A)(viii) at the time of acquisition of the real property may qualify as a bona fide prospective purchaser under section 101(40) if the person is otherwise described in that section.

` (D) GROUND WATER- With respect to a hazardous substance from one or more sources that are not on the property of a person that is a contiguous

property owner that enters ground water beneath the property of the person solely as a result of subsurface migration in an aquifer, subparagraph (A)(iii) shall not require the person to conduct ground water investigations or to install ground water remediation systems, except in accordance with the policy of the Environmental Protection Agency concerning owners of property containing contaminated aquifers, dated May 24, 1995.

` (2) EFFECT OF LAW- With respect to a person described in this subsection, nothing in this subsection--

- ` (A) limits any defense to liability that may be available to the person under any other provision of law; or
  - ` (B) imposes liability on the person that is not otherwise imposed by subsection (a).

` (3) ASSURANCES- The Administrator may--

- ` (A) issue an assurance that no enforcement action under this Act will be initiated against a person described in paragraph (1); and
  - ` (B) grant a person described in paragraph (1) protection against a cost recovery or contribution action under section 113(f).'

## **SEC. 222. PROSPECTIVE PURCHASERS AND WINDFALL LIENS.**

(a) DEFINITION OF BONA FIDE PROSPECTIVE PURCHASER- Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601) (as amended by section 211(a) of this Act) is amended by adding at the end the following:

- ` (40) BONA FIDE PROSPECTIVE PURCHASER- The term `bona fide prospective purchaser' means a person (or a tenant of a person) that acquires ownership of a facility after the

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date of the enactment of this paragraph and that establishes each of the following by a preponderance of the evidence:

- ˆ (A) DISPOSAL PRIOR TO ACQUISITION- All disposal of hazardous substances at the facility occurred before the person acquired the facility.
- ˆ (B) INQUIRIES-
  - ˆ (i) IN GENERAL- The person made all appropriate inquiries into the previous ownership and uses of the facility in accordance with generally accepted good commercial and customary standards and practices in accordance with clauses (ii) and (iii).
  - ˆ (ii) STANDARDS AND PRACTICES- The standards and practices referred to in clauses (ii) and (iv) of paragraph (35)(B) shall be considered to satisfy the requirements of this subparagraph.
  - ˆ (iii) RESIDENTIAL USE- In the case of property in residential or other similar use at the time of purchase by a nongovernmental or noncommercial entity, a facility inspection and title search that reveal no basis for further investigation shall be considered to satisfy the requirements of this subparagraph.
- ˆ (C) NOTICES- The person provides all legally required notices with respect to the discovery or release of any hazardous substances at the facility.
- ˆ (D) CARE- The person exercises appropriate care with respect to hazardous substances found at the facility by taking reasonable steps to--
  - ˆ (i) stop any continuing release;
  - ˆ (ii) prevent any threatened future release; and
  - ˆ (iii) prevent or limit human, environmental, or natural resource exposure to any previously released hazardous substance.
- ˆ (E) COOPERATION, ASSISTANCE, AND ACCESS- The person provides full cooperation, assistance, and access to persons that are authorized to conduct response actions or natural resource restoration at a vessel or facility (including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response actions or natural resource restoration at the vessel or facility).
- ˆ (F) INSTITUTIONAL CONTROL- The person--
  - ˆ (i) is in compliance with any land use restrictions established or relied on in connection with the response action at a vessel or facility; and
  - ˆ (ii) does not impede the effectiveness or integrity of any institutional control employed at the vessel or facility in connection with a response action.
- ˆ (G) REQUESTS; SUBPOENAS- The person complies with any request for information or administrative subpoena issued by the President under this Act.
- ˆ (H) NO AFFILIATION- The person is not--
  - ˆ (i) potentially liable, or affiliated with any other person that is potentially liable, for response costs at a facility through--
    - ˆ (I) any direct or indirect familial relationship; or
    - ˆ (II) any contractual, corporate, or financial relationship (other than a contractual, corporate, or financial relationship that is created by the instruments by which title to the facility is conveyed or financed or by a contract for the sale of goods or services); or
  - ˆ (ii) the result of a reorganization of a business entity that was potentially liable.'

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(b) PROSPECTIVE PURCHASER AND WINDFALL LIEN- Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9607) (as amended by this Act) is further amended by adding at the end the following:

ˆ (r) PROSPECTIVE PURCHASER AND WINDFALL LIEN-

ˆ (1) LIMITATION ON LIABILITY- Notwithstanding subsection (a)(1), a bona fide prospective purchaser whose potential liability for a release or threatened release is based solely on the purchaser's being considered to be an owner or operator of a facility shall not be liable as long as the bona fide prospective purchaser does not impede the performance of a response action or natural resource restoration.

ˆ (2) LIEN- If there are unrecovered response costs incurred by the United States at a facility for which an owner of the facility is not liable by reason of paragraph (1), and if each of the conditions described in paragraph (3) is met, the United States shall have a lien on the facility, or may by agreement with the owner, obtain from the owner a lien on any other property or other assurance of payment satisfactory to the Administrator, for the unrecovered response costs.

ˆ (3) CONDITIONS- The conditions referred to in paragraph (2) are the following:

ˆ (A) RESPONSE ACTION- A response action for which there are unrecovered costs of the United States is carried out at the facility.

ˆ (B) FAIR MARKET VALUE- The response action increases the fair market value of the facility above the fair market value of the facility that existed before the response action was initiated.

ˆ (4) AMOUNT; DURATION- A lien under paragraph (2)--

ˆ (A) shall be in an amount not to exceed the increase in fair market value of the property attributable to the response action at the time of a sale or other disposition of the property;

ˆ (B) shall arise at the time at which costs are first incurred by the United States with respect to a response action at the facility;

ˆ (C) shall be subject to the requirements of subsection (l)(3); and

ˆ (D) shall continue until the earlier of--

ˆ (i) satisfaction of the lien by sale or other means; or

ˆ (ii) notwithstanding any statute of limitations under section 113, recovery of all response costs incurred at the facility.'

## SEC. 223. INNOCENT LANDOWNERS.

Section 101(35) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601(35)) is amended--

(1) in subparagraph (A)--

(A) in the first sentence, in the matter preceding clause (i), by striking ` deeds or' and inserting ` deeds, easements, leases, or'; and

(B) in the second sentence--

(i) by striking ` he' and inserting ` the defendant'; and

(ii) by striking the period at the end and inserting ` , provides full cooperation, assistance, and facility access to the persons that are authorized to conduct response actions at the facility (including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response action at the facility), is in compliance with any land use restrictions established or relied on in connection with the response action at a facility, and does not

---

impede the effectiveness or integrity of any institutional control employed at the facility in connection with a response action.'; and  
(2) by striking subparagraph (B) and inserting the following:

    ` (B) REASON TO KNOW-

        ` (i) ALL APPROPRIATE INQUIRIES- To establish that the defendant had no reason to know of the matter described in subparagraph (A)(i), the defendant must demonstrate to a court that--

            ` (I) on or before the date on which the defendant acquired the facility, the defendant carried out all appropriate inquiries, as provided in clauses (ii) and (iv), into the previous ownership and uses of the facility in accordance with generally accepted good commercial and customary standards and practices; and

            ` (II) the defendant took reasonable steps to--

    ` (aa) stop any continuing release;

    ` (bb) prevent any threatened future release; and

    ` (cc) prevent or limit any human, environmental, or natural resource exposure to any previously released hazardous substance.

        ` (ii) STANDARDS AND PRACTICES- Not later than 2 years after the date of the enactment of the Brownfields Revitalization and Environmental Restoration Act of 2001, the Administrator shall by regulation establish standards and practices for the purpose of satisfying the requirement to carry out all appropriate inquiries under clause (i).

        ` (iii) CRITERIA- In promulgating regulations that establish the standards and practices referred to in clause (ii), the Administrator shall include each of the following:

            ` (I) The results of an inquiry by an environmental professional.

            ` (II) Interviews with past and present owners, operators, and occupants of the facility for the purpose of gathering information regarding the potential for contamination at the facility.

            ` (III) Reviews of historical sources, such as chain of title documents, aerial photographs, building department records, and land use records, to determine previous uses and occupancies of the real property since the property was first developed.

            ` (IV) Searches for recorded environmental cleanup liens against the facility that are filed under Federal, State, or local law.

            ` (V) Reviews of Federal, State, and local government records, waste disposal records, underground storage tank records, and hazardous waste handling, generation, treatment, disposal, and spill records, concerning contamination at or near the facility.

            ` (VI) Visual inspections of the facility and of adjoining properties.

            ` (VII) Specialized knowledge or experience on the part of the defendant.

            ` (VIII) The relationship of the purchase price to the value of the property, if the property was not contaminated.

- 
- ˆ (IX) Commonly known or reasonably ascertainable information about the property.
  - ˆ (X) The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation.
  - ˆ (iv) INTERIM STANDARDS AND PRACTICES-
    - ˆ (I) PROPERTY PURCHASED BEFORE MAY 31, 1997- With respect to property purchased before May 31, 1997, in making a determination with respect to a defendant described in clause (i), a court shall take into account--
      - ˆ (aa) any specialized knowledge or experience on the part of the defendant;
      - ˆ (bb) the relationship of the purchase price to the value of the property, if the property was not contaminated;
      - ˆ (cc) commonly known or reasonably ascertainable information about the property;
      - ˆ (dd) the obviousness of the presence or likely presence of contamination at the property; and
      - ˆ (ee) the ability of the defendant to detect the contamination by appropriate inspection.
    - ˆ (II) PROPERTY PURCHASED ON OR AFTER MAY 31, 1997- With respect to property purchased on or after May 31, 1997, and until the Administrator promulgates the regulations described in clause (ii), the procedures of the American Society for Testing and Materials, including the document known as 'Standard E1527-97', entitled 'Standard Practice for Environmental Site Assessment: Phase 1 Environmental Site Assessment Process', shall satisfy the requirements in clause (i).
  - ˆ (v) SITE INSPECTION AND TITLE SEARCH- In the case of property for residential use or other similar use purchased by a nongovernmental or noncommercial entity, a facility inspection and title search that reveal no basis for further investigation shall be considered to satisfy the requirements of this subparagraph.'

## Subtitle C--State Response Programs

### SEC. 231. STATE RESPONSE PROGRAMS.

(a) DEFINITIONS- Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601) (as amended by this Act) is further amended by adding at the end the following:

- ˆ (41) ELIGIBLE RESPONSE SITE-
  - ˆ (A) IN GENERAL- The term 'eligible response site' means a site that meets the definition of a brownfield site in subparagraphs (A) and (B) of paragraph (39), as modified by subparagraphs (B) and (C) of this paragraph.

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^ (B) INCLUSIONS- The term `eligible response site' includes--

^ (i) notwithstanding paragraph (39)(B)(ix), a portion of a facility, for which portion assistance for response activity has been obtained under subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) from the Leaking Underground Storage Tank Trust Fund established under section 9508 of the Internal Revenue Code of 1986; or

^ (ii) a site for which, notwithstanding the exclusions provided in subparagraph (C) or paragraph (39)(B), the President determines, on a site-by-site basis and after consultation with the State, that limitations on enforcement under section 128 at sites specified in clause (iv), (v), (vi) or (viii) of paragraph (39)(B) would be appropriate and will--

^ (I) protect human health and the environment; and

^ (II) promote economic development or facilitate the creation of, preservation of, or addition to a park, a greenway, undeveloped property, recreational property, or other property used for nonprofit purposes.

^ (C) EXCLUSIONS- The term `eligible response site' does not include--

^ (i) a facility for which the President--

^ (I) conducts or has conducted a preliminary assessment or site inspection; and

^ (II) after consultation with the State, determines or has determined that the site obtains a preliminary score sufficient for possible listing on the National Priorities List, or that the site otherwise qualifies for listing on the National Priorities List; unless the President has made a determination that no further Federal action will be taken; or

^ (ii) facilities that the President determines warrant particular consideration as identified by regulation, such as sites posing a threat to a sole-source drinking water aquifer or a sensitive ecosystem.'

(b) STATE RESPONSE PROGRAMS- Title I of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.) is amended by adding at the end the following:

**^ SEC. 128. STATE RESPONSE PROGRAMS.**

^ (a) ASSISTANCE TO STATES-

^ (1) IN GENERAL-

^ (A) STATES- The Administrator may award a grant to a State or Indian tribe that--

^ (i) has a response program that includes each of the elements, or is taking reasonable steps to include each of the elements, listed in paragraph (2); or

^ (ii) is a party to a memorandum of agreement with the Administrator for voluntary response programs.

^ (B) USE OF GRANTS BY STATES-

^ (i) IN GENERAL- A State or Indian tribe may use a grant under this subsection to establish or enhance the response program of the State or Indian tribe.

^ (ii) ADDITIONAL USES- In addition to the uses under clause (i), a State or Indian tribe may use a grant under this subsection to--



action to recover response costs under section 107(a) against the person regarding the specific release that is addressed by the response action.

` (B) EXCEPTIONS- The President may bring an administrative or judicial enforcement action under this Act during or after completion of a response action described in subparagraph (A) with respect to a release or threatened release at an eligible response site described in that subparagraph if--

` (i) the State requests that the President provide assistance in the performance of a response action;

` (ii) the Administrator determines that contamination has migrated or will migrate across a State line, resulting in the need for further response action to protect human health or the environment, or the President determines that contamination has migrated or is likely to migrate onto property subject to the jurisdiction, custody, or control of a department, agency, or instrumentality of the United States and may impact the authorized purposes of the Federal property;

` (iii) after taking into consideration the response activities already taken, the Administrator determines that--

` (I) a release or threatened release may present an imminent and substantial endangerment to public health or welfare or the environment; and

` (II) additional response actions are likely to be necessary to address, prevent, limit, or mitigate the release or threatened release; or

` (iv) the Administrator, after consultation with the State, determines that information, that on the earlier of the date on which cleanup was approved or completed, was not known by the State, as recorded in documents prepared or relied on in selecting or conducting the cleanup, has been discovered regarding the contamination or conditions at a facility such that the contamination or conditions at the facility present a threat requiring further remediation to protect public health or welfare or the environment. Consultation with the State shall not limit the ability of the Administrator to make this determination.

` (C) PUBLIC RECORD- The limitations on the authority of the President under subparagraph (A) apply only at sites in States that maintain, update not less than annually, and make available to the public a record of sites, by name and location, at which response actions have been completed in the previous year and are planned to be addressed under the State program that specifically governs response actions for the protection of public health and the environment in the upcoming year. The public record shall identify whether or not the site, on completion of the response action, will be suitable for unrestricted use and, if not, shall identify the institutional controls relied on in the remedy. Each State and tribe receiving financial assistance under subsection (a) shall maintain and make available to the public a record of sites as provided in this paragraph.

` (D) EPA NOTIFICATION-

` (i) IN GENERAL- In the case of an eligible response site at which there is a release or threatened release of a hazardous substance, pollutant, or contaminant and for which the Administrator intends to carry out an action that may be barred under subparagraph (A), the Administrator shall--

` (I) notify the State of the action the Administrator intends to take; and



- 
- ` (II)(aa) wait 48 hours for a reply from the State under clause (ii); or
  - ` (bb) if the State fails to reply to the notification or if the Administrator makes a determination under clause (iii), take immediate action under that clause.
  - ` (ii) STATE REPLY- Not later than 48 hours after a State receives notice from the Administrator under clause (i), the State shall notify the Administrator if--
    - ` (I) the release at the eligible response site is or has been subject to a cleanup conducted under a State program; and
    - ` (II) the State is planning to abate the release or threatened release, any actions that are planned.
  - ` (iii) IMMEDIATE FEDERAL ACTION- The Administrator may take action immediately after giving notification under clause (i) without waiting for a State reply under clause (ii) if the Administrator determines that one or more exceptions under subparagraph (B) are met.
  - ` (E) REPORT TO CONGRESS- Not later than 90 days after the date of initiation of any enforcement action by the President under clause (ii), (iii), or (iv) of subparagraph (B), the President shall submit to Congress a report describing the basis for the enforcement action, including specific references to the facts demonstrating that enforcement action is permitted under subparagraph (B).
  - ` (2) SAVINGS PROVISION-
    - ` (A) COSTS INCURRED PRIOR TO LIMITATIONS- Nothing in paragraph (1) precludes the President from seeking to recover costs incurred prior to the date of the enactment of this section or during a period in which the limitations of paragraph (1)(A) were not applicable.
    - ` (B) EFFECT ON AGREEMENTS BETWEEN STATES AND EPA- Nothing in paragraph (1)--
      - ` (i) modifies or otherwise affects a memorandum of agreement, memorandum of understanding, or any similar agreement relating to this Act between a State agency or an Indian tribe and the Administrator that is in effect on or before the date of the enactment of this section (which agreement shall remain in effect, subject to the terms of the agreement); or
      - ` (ii) limits the discretionary authority of the President to enter into or modify an agreement with a State, an Indian tribe, or any other person relating to the implementation by the President of statutory authorities.
  - ` (3) EFFECTIVE DATE- This subsection applies only to response actions conducted after February 15, 2001.
  - ` (c) EFFECT ON FEDERAL LAWS- Nothing in this section affects any liability or response authority under any Federal law, including--
    - ` (1) this Act, except as provided in subsection (b);
    - ` (2) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.);
    - ` (3) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);
    - ` (4) the Toxic Substances Control Act (15 U.S.C. 2601 et seq.); and
    - ` (5) the Safe Drinking Water Act (42 U.S.C. 300f et seq.).'

## SEC. 232. ADDITIONS TO NATIONAL PRIORITIES LIST.

# Alaska State & Tribal Response Program – Brownfield Handbook

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Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9605) is amended by adding at the end the following:

“(h) NPL DEFERRAL-

- “(1) DEFERRAL TO STATE VOLUNTARY CLEANUPS- At the request of a State and subject to paragraphs (2) and (3), the President generally shall defer final listing of an eligible response site on the National Priorities List if the President determines that--
  - “(A) the State, or another party under an agreement with or order from the State, is conducting a response action at the eligible response site--
    - “(i) in compliance with a State program that specifically governs response actions for the protection of public health and the environment; and
    - “(ii) that will provide long-term protection of human health and the environment; or
  - “(B) the State is actively pursuing an agreement to perform a response action described in subparagraph (A) at the site with a person that the State has reason to believe is capable of conducting a response action that meets the requirements of subparagraph (A).
- “(2) PROGRESS TOWARD CLEANUP- If, after the last day of the 1-year period beginning on the date on which the President proposes to list an eligible response site on the National Priorities List, the President determines that the State or other party is not making reasonable progress toward completing a response action at the eligible response site, the President may list the eligible response site on the National Priorities List.
- “(3) CLEANUP AGREEMENTS- With respect to an eligible response site under paragraph (1)(B), if, after the last day of the 1-year period beginning on the date on which the President proposes to list the eligible response site on the National Priorities List, an agreement described in paragraph (1)(B) has not been reached, the President may defer the listing of the eligible response site on the National Priorities List for an additional period of not to exceed 180 days if the President determines deferring the listing would be appropriate based on--
  - “(A) the complexity of the site;
  - “(B) substantial progress made in negotiations; and
  - “(C) other appropriate factors, as determined by the President.
- “(4) EXCEPTIONS- The President may decline to defer, or elect to discontinue a deferral of, a listing of an eligible response site on the National Priorities List if the President determines that--
  - “(A) deferral would not be appropriate because the State, as an owner or operator or a significant contributor of hazardous substances to the facility, is a potentially responsible party;
  - “(B) the criteria under the National Contingency Plan for issuance of a health advisory have been met; or
  - “(C) the conditions in paragraphs (1) through (3), as applicable, are no longer being met.’.

Speaker of the House of Representatives. Vice President of the United States and President of the Senate.       *END*

## Abbreviations and Acronym List

| Abbreviations & Acronyms           | Terms   |
|------------------------------------|---|
| <b><i>Units of Measurement</i></b> |   |
| µg/kg                              | Micrograms Per Kilogram   |
| µg/L                               | Micrograms Per Liter  |
| BTU/lb                             | British Thermal Units Per Pound   |
| C                                  | Centigrade  |
| cy or yd <sup>3</sup> or CYD       | Cubic Yards   |
| F                                  | Fahrenheit  |
| ft/min                             | Feet Per Minute   |
| ft <sup>2</sup> /day               | Square Feet Per Day   |
| gpm                                | Gallons Per Minute  |
| kg                                 | Kilogram  |
| L/day                              | Liters Per Day  |
| L/m <sup>3</sup>                   | Liters Per Cubic Meter  |
| m <sup>3</sup> /day                | Cubic Meters Per Day  |
| mg/cm <sup>2</sup>                 | Milligrams Per Square Centimeter  |
| mg/kg                              | Milligrams Per Kilogram   |
| mg/kg/day                          | Milligrams Per Kilogram Per Day   |
| mg/L                               | Milligrams Per Liter  |
| ng/g                               | Nanograms Per Gram  |
| pg/g                               | Picograms Per Gram  |
| ppm                                | Parts Per Million   |
| µg/cm <sup>2</sup>                 | Micrograms Per Square Centimeter  |
| <b>General</b>                     |   |
| µg/kg                              | Micrograms Per Kilogram   |
| µg/L                               | Micrograms Per Liter  |
| 40 CFR                             | Title 40 Of The Code Of Federal Regulations deals with the protection of the environment.   |
| AAC                                | Alaska Administrative Code  |
| AAI                                | All Appropriate Inquiry refers to the requirements for assessing the environmental conditions of a property prior to its acquisition. |

## Abbreviations and Acronym List

| Abbreviations & Acronyms | Terms   |
|--------------------------|---|
| ABCA                     | Analysis Of Brownfield Cleanup Alternatives   |
| ABS                      | Absorption Factor   |
| ACAT                     | Alaska Community Action On Toxics   |
| ACL                      | Alternative Cleanup Level   |
| ACM                      | Asbestos-Containing Material  |
| ACRES                    | Assessment, Cleanup, & Redevelopment Exchange System is an on-line reporting tool. It has features to assist you with data entry, data submission, and tracking both new and historical data related to your grant or subject properties. |
| ADEC                     | Alaska Department Of Environmental Conservation   |
| ADI                      | Average Daily Intake  |
| ADOT&PF                  | Alaska Department Of Transportation And Public Facilities   |
| AF                       | Adherence Factor  |
| AIDEA                    | Alaska Industrial Development And Export Authority  |
| AOC                      | Administrative Order Of Consent   |
| AS                       | Air Sparging  |
| AST                      | Aboveground Storage Tank  |
| ASTM                     | American Society For Testing And Materials is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services                  |
| ASTSWMO                  | Association Of State And Territorial Solid Waste Management Officials   |
| ASVE                     | Air Sparging/Vapor Extraction   |
| AT                       | Averaging Time  |
| ATSDR                    | Agency For Toxic Substances Disease Registry  |
| BaP                      | Benzo(A)Pyrene  |
| BFPPs                    | Bona Fide Prospective Purchasers  |
| bgs                      | Below Ground Surface  |
| BLM                      | Bureau Of Land Management   |
| BRAC                     | Base Realignment & Closure Act  |
| BTEX                     | Benzene, Toluene, Ethylbenzene, And Xylenes   |

## Abbreviations and Acronym List

| Abbreviations & Acronyms     | Terms   |
|------------------------------|---|
| BTU                          | British Thermal Units   |
| BTU/lb                       | British Thermal Units Per Pound   |
| BW                           | Body Weight   |
| C                            | Centigrade  |
| CAP                          | Corrective Action Plan  |
| CERCLA                       | Comprehensive Environmental Response, Compensation And Liability Act, commonly known as superfund   |
| CERCLIS                      | Comprehensive Environmental Response Compensation And Liability Information System  |
| CF                           | Conversion Factor   |
| CFDA                         | Catalog Of Federal Domestic Assistance is a listing of all federal programs available to state and local governments (including the District of Columbia); federally -recognized Indian tribal governments; territories (and possessions) of the United States; domestic public, quasi-public, and private profit and nonprofit organizations and institutions; specialized groups; and individuals |
| CLOS                         | Closed (Site Clean-Up Completed)  |
| CLP                          | Contract Laboratory Program   |
| COBC                         | Compliance Order By Consent   |
| COC                          | Contaminant Of Concern  |
| COPC's                       | Contaminants/Chemicals Of Potential Concern   |
| Corps (COE)                  | United States Army Corps Of Engineers   |
| CSM                          | Conceptual Site Model   |
| CSP                          | Contaminated Sites Program  |
| Cw                           | Exposure Point Concentrations For Water ( $\mu\text{g/L}$ )   |
| cy or yd <sup>3</sup> or CYD | Cubic Yards   |
| DAF                          | Dilution Attenuation Factor   |
| DERP                         | Defense Environmental Restoration Program   |
| DEW Line                     | Distant Early Warning Line  |
| DLA                          | Defense Logistics Agency  |
| DNAPL                        | Dense, Non-Aqueous-Phase Liquid   |

## Abbreviations and Acronym List

| Abbreviations & Acronyms | Terms   |
|--------------------------|---|
| DoD                      | Department Of Defense   |
| DRMO                     | Defense Reutilization Marketing Office  |
| DRO                      | Diesel-Range Organics   |
| DUNS                     | Dun And Bradstreet (D&B) Data Universal Numbering System. A duns number is a unique nine-digit sequence recognized as the universal standard for identifying and keeping track of over 100 million businesses worldwide |
| ED                       | Exposure Duration   |
| EDB                      | Ethylene Dibromide  |
| EE/CA                    | Engineering Evaluation/Cost Analysis  |
| EE/CA                    | Engineering Evaluation/Cost Analysis  |
| EF                       | Exposure Frequency  |
| EOC                      | Extent Of Contamination   |
| EPA                      | Environmental Protection Agency   |
| EPC                      | Exposure Point Concentration  |
| ERNS                     | Emergency Response Notification System  |
| ESA                      | Endangered Species Act protects critically imperiled species from extinction as a consequence of economic growth and development untended by adequate concern and conservation.   |
| ESE                      | Equitable Servitude And Easement  |
| ETM                      | Exposure Tracking Model - developed by ADEC to help project managers track exposure pathways at sites.  |
| F                        | Fahrenheit  |
| FAA                      | Federal Aviation Administration   |
| FEMA                     | Federal Emergency Management Agency   |
| FF                       | Federal Facilities  |
| FFS                      | Focused Feasibility Study   |
| FNSB                     | Fairbanks North Star Borough  |
| FOIA                     | Freedom Of Information Act sets rules on access to information or records held by government bodies   |
| ft/min                   | Feet Per Minute   |

## Abbreviations and Acronym List

| Abbreviations & Acronyms | Terms  |
|--------------------------|--|
| ft <sup>2</sup> /day     | Square Feet Per Day  |
| FUDS                     | Formerly Used Defense Sites  |
| FWPCA                    | Federal Water Pollution Control Act Authorizes Federal Control Of Water Quality  |
| GC/MS                    | Gas Chromatograph/Mass Spectrometer  |
| GIS                      | Geographic Information System  |
| gpm                      | Gallons Per Minute   |
| GPRA                     | Government Performance And Results Act requires agencies to engage in project management tasks such as setting goals, measuring results, and reporting their progress. |
| GRO                      | Gasoline-Range Organics  |
| HAZMAT                   | Hazardous Materials  |
| HAZWOPER                 | Hazardous Waste Operations And Emergency Response  |
| HEAST                    | Health Effects Assessment Summary Tables   |
| HI                       | Hazard Index   |
| HMIRS                    | Hazardous Materials Information Reporting System   |
| HQ                       | Hazard Quotient  |
| HRBC                     | Human Health Risk-Based Concentration  |
| HVE                      | High Vacuum Extraction System  |
| HVO                      | Halogenated Volatile Organic Compounds   |
| IC                       | Institutional Control  |
| ICPES                    | Inductively Coupled Plasma Emission Spectroscopy   |
| IGAP                     | Indian General Assistance Program  |
| IRA                      | Indian Reorganization Act  |
| IRa                      | Inhalation Rate  |
| IRIS                     | Integrated Risk Information System   |
| IRP                      | Installation Restoration Program   |
| IRs                      | Soil Ingestion Rate (Mg/Day)   |
| IRw                      | Drinking Water Ingestion Rate  |
| kg                       | Kilogram   |
| L/day                    | Liters Per Day   |

## Abbreviations and Acronym List

| Abbreviations & Acronyms | Terms  |
|--------------------------|--|
| L/m <sup>3</sup>         | Liters Per Cubic Meter   |
| LCS                      | Laboratory Control Sample  |
| LCSD                     | Laboratory Control Sample Duplicate  |
| LIF                      | Laser Induced Fluorescence   |
| LNAPL                    | Light, Non-Aqueous-Phase Liquid  |
| LNG                      | Liquefied Natural Gas  |
| LRRS                     | Long Range Radar Site  |
| LUST                     | Leaking Underground Storage Tank   |
| LUST trust fund          | Leaking Underground Storage Tank Trust Fund provides money for overseeing and enforcing corrective action taken by the owner or operator of the leaking UST. The trust fund provides money for cleanups at UST sites where the owner or operator is unknown, unwilling, or unable to respond, or which require emergency action. |
| m <sup>3</sup> /day      | Cubic Meters Per Day   |
| MAC                      | Maximum Allowable Concentration  |
| MCL                      | Maximum Contaminant Level  |
| MEC                      | Munitions Explosives Of Concern  |
| mg/cm <sup>2</sup>       | Milligrams Per Square Centimeter   |
| mg/kg                    | Milligrams Per Kilogram  |
| mg/kg/day                | Milligrams Per Kilogram Per Day  |
| mg/L                     | Milligrams Per Liter   |
| MMRP                     | Military Munitions Response Plan   |
| MOA                      | Memorandum Of Agreement  |
| MOA                      | Memorandum Of Agreement  |
| MOA                      | Municipality Of Anchorage  |
| MRL                      | Method Reporting Limit   |
| MS/MSD                   | Matrix Spike/Matrix Spike Duplicate  |
| MSD                      | Minimum Separation Distance  |
| MSDS                     | Material Safety Data Sheet   |
| MTBE                     | Methyl-T-Butyl Ether   |
| MW                       | Monitor Well   |



## Abbreviations and Acronym List

| Abbreviations & Acronyms | Terms  |
|--------------------------|--|
| NA                       | Not Available Or Not Applicable  |
| NALEMP                   | North American Lands Environmental Mitigation Program  |
| NAPL                     | Non-Aqueous-Phase Liquid   |
| NCP                      | National Contingency Plan  |
| ND                       | Not Detected   |
| ng/g                     | Nanograms Per Gram   |
| NHPA                     | National Historic Preservation Act is legislation intended to preserve historical and archaeological sites in the US.        |
| NMFS                     | National Marine Fisheries Service  |
| NOAA                     | National Oceanic Atmospheric Administration  |
| NPDES                    | National Pollutant Discharge Elimination System regulates the discharge of pollutants into the waters of the US.             |
| NPL                      | National Priority List   |
| OBLR                     | Office Of Brownfields And Land Revitalization  |
| OMB                      | Office Of Management And Budget  |
| OPA                      | Oil Pollution Act was passed by the United States congress to prevent further oil spills from occurring in the United States |
| OSC                      | On-Scene Coordinator   |
| OVM                      | Organic Vapor Meter  |
| PA/SI                    | Preliminary Assessment/Site Inspection (CERCLA Term)   |
| PACAF                    | Pacific Air Command Air Force  |
| PAH                      | Polynuclear Aromatic Hydrocarbon Or Polycyclic Aromatic Hydrocarbon  |
| PCB                      | Polychlorinated Biphenyl   |
| PCE                      | Tetrachloroethene Or Tetrachloroethylene   |
| pg/g                     | Picograms Per Gram   |
| PID                      | Photoionization Detector   |
| POL                      | Petroleum Oil Lubricants   |
| POLREP                   | Pollution Report   |
| ppb                      | Parts Per Billion  |
| PPE                      | Personal Protective Equipment  |
| ppm                      | Parts Per Million  |

## Abbreviations and Acronym List

| Abbreviations & Acronyms | Terms   |
|--------------------------|---|
| PRG                      | Preliminary Remediation Goal  |
| PRPs                     | Potentially Responsible Parties   |
| PVC                      | Polyvinyl Chloride  |
| QA                       | Quality Assurance   |
| QAO                      | Quality Assurance Officer   |
| QAPP                     | Quality Assurance Project Plan  |
| QC                       | Quality Control   |
| R&R                      | Reuse And Redevelopment   |
| RAATS                    | RCRA Administrative Action Tracking System  |
| RAGS                     | Risk Assessment Guidance For Superfund  |
| RAO                      | Remedial Action Objectives  |
| RAPM                     | Risk Assessment Procedures Manual   |
| RBC                      | Risk-Based Concentration  |
| RBCA                     | Risk Based Corrective Action  |
| RBDM                     | Risk Based Decision Making  |
| RBSC                     | Risk-Based Screening Concentration  |
| RCRA                     | Resource Conservation And Recovery Act  |
| RfD                      | Reference Dose  |
| RI/FS                    | Remedial Investigation/Feasibility Study  |
| RLF                      | Revolving Loan Fund provides funding for a grant recipient to capitalize a revolving loan fund and to provide subgrants to carry out cleanup activities at brownfield sites |
| RME                      | Reasonable Maximum Exposure   |
| ROD                      | Record Of Decision  |
| ROST                     | Rapid Optical Screening Tool  |
| RP                       | Responsible Person Or Responsible Party   |
| RPD                      | Relative Percent Difference   |
| RRO                      | Residual Range Organics   |
| RRS                      | Radio Relay Station (Or Site)   |
| SA                       | Site Assessment   |

## Abbreviations and Acronym List

| Abbreviations & Acronyms  | Terms   |
|---------------------------|---|
| SAP                       | Sampling And Analysis Plan  |
| SCDM                      | Superfund Chemical Data Matrix  |
| SDWA                      | Safe Drinking Water Act is the principal federal law in the United States that ensures safe drinking water for the public |
| SF                        | Slope Factor  |
| SIM                       | Selective Ion Monitoring  |
| Sitrep                    | Situation Report  |
| SOC                       | Statement Of Cooperation  |
| SOW                       | Scope Of Work   |
| SPCC                      | Spill Prevention Containment And Countermeasure   |
| SQL                       | Sample Quantitation Limit   |
| SSL                       | Soil Screening Level  |
| SVE                       | Soil Vapor Extraction   |
| SVOC                      | Semi Volatile Organic Compound  |
| T&E species               | Threatened And Endangered Species   |
| TACAN                     | Tactical Air Command And Navigation   |
| TAG                       | Technical Assistance Grant (CERCLA)   |
| TAL                       | Target Analyte List   |
| TAT                       | Technical Assistance Team   |
| TCB                       | Trichlorobenzene  |
| TCDD                      | Tetrachlorodibenzodioxin  |
| TCE                       | Trichloroethylene   |
| TCL                       | Target Compound List  |
| TCLP                      | Toxicity Characteristic Leaching Procedure  |
| TOC                       | Total Organic Carbon  |
| TPH                       | Total Petroleum Hydrocarbon   |
| TRIS                      | Toxic Chemical Release Inventory System   |
| TSCA                      | Toxic Substance Control Act   |
| TSD                       | Treatment Storage And Disposal  |
| $\mu\text{g}/\text{cm}^2$ | Micrograms Per Square Centimeter  |

## Abbreviations and Acronym List

| <b>Abbreviations &amp; Acronyms</b> | <b>Terms</b>                       |
|-------------------------------------|------------------------------------|
| µg/kg                               | Micrograms Per Kilogram            |
| µg/L                                | Micrograms Per Liter               |
| UIC                                 | Underground Injection Control      |
| USC                                 | Unified Soil Classification        |
| USF&WS                              | U.S. Fish And Wildlife Service     |
| USFS                                | U.S. Forest Service                |
| USGS                                | U.S. Geological Survey             |
| UST                                 | Underground Storage Tank           |
| UXO                                 | Unexploded Ordinance               |
| VCP                                 | Voluntary Cleanup Program          |
| VES                                 | Vapor Extraction System            |
| VF                                  | Volatization Factor                |
| VOA                                 | Volatile Organic Analysis          |
| VOC                                 | Volatile Organic Compound          |
| VPC                                 | Volatile Petroleum Hydrocarbon     |
| WOU                                 | Waste Oil Underground Storage Tank |
| WW                                  | Water Well                         |

## ATSDR Glossary

The Agency for Toxic Substances and Disease Registry (ATSDR) is a federal public health agency with headquarters in Atlanta, Georgia, and 10 regional offices in the United States. ATSDR's mission is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances. ATSDR is not a regulatory agency, unlike the U.S. Environmental Protection Agency (EPA), which is the federal agency that develops and enforces environmental laws to protect the environment and human health.

This glossary defines words used by ATSDR in communications with the public. It is not a complete dictionary of environmental health terms. If you have questions or comments, call ATSDR's toll-free telephone number, **1-888-422-8737**.

### **Absorption**

The process of taking in. For a person or an animal, absorption is the process of a substance getting into the body through the eyes, skin, stomach, intestines, or lungs.

### **Acute**

Occurring over a short time [compare with [chronic](#)].

### **Acute exposure**

Contact with a substance that occurs once or for only a short time (up to 14 days) [compare with [intermediate duration exposure](#) and [chronic exposure](#)].

### **Additive effect**

A biologic response to exposure to multiple substances that equals the sum of responses of all the individual substances added together [compare with [antagonistic effect](#) and [synergistic effect](#)].

### **Adverse health effect**

A change in body function or cell structure that might lead to disease or health problems

### **Aerobic**

Requiring oxygen [compare with [anaerobic](#)].

**Ambient**

Surrounding (for example, *ambient* air).

**Anaerobic**

Requiring the absence of oxygen [compare with [aerobic](#)].

**Analyte**

A substance measured in the laboratory. A chemical for which a sample (such as water, air, or blood) is tested in a laboratory. For example, if the analyte is mercury, the laboratory test will determine the amount of mercury in the sample.

**Analytic epidemiologic study**

A study that evaluates the association between exposure to hazardous substances and disease by testing scientific hypotheses.

**Antagonistic effect**

A biologic response to exposure to multiple substances that is **less** than would be expected if the known effects of the individual substances were added together [compare with [additive effect](#) and [synergistic effect](#)].

**Background level**

An average or expected amount of a substance or radioactive material in a specific environment, or typical amounts of substances that occur naturally in an environment.

**Biodegradation**

Decomposition or breakdown of a substance through the action of microorganisms (such as bacteria or fungi) or other natural physical processes (such as sunlight).

**Biologic indicators of exposure study**

A study that uses (a) [biomedical testing](#) or (b) the measurement of a substance [an [analyte](#)], its [metabolite](#), or another marker of exposure in human body fluids or tissues to confirm human exposure to a hazardous substance [also see [exposure investigation](#)].

**Biologic monitoring**

Measuring hazardous substances in biologic materials (such as blood, hair,

urine, or breath) to determine whether exposure has occurred. A blood test for lead is an example of biologic monitoring.

**Biologic uptake**

The transfer of substances from the environment to plants, animals, and humans.

**Biomedical testing**

Testing of persons to find out whether a change in a body function might have occurred because of exposure to a hazardous substance.

**Biota**

Plants and animals in an environment. Some of these plants and animals might be sources of food, clothing, or medicines for people.

**Body burden**

The total amount of a substance in the body. Some substances build up in the body because they are stored in fat or bone or because they leave the body very slowly.

**CAP** [see [Community Assistance Panel](#).]

**Cancer**

Any one of a group of diseases that occur when cells in the body become abnormal and grow or multiply out of control.

**Cancer risk**

A theoretical risk for getting cancer if exposed to a substance every day for 70 years (a lifetime exposure). The true risk might be lower.

**Carcinogen**

A substance that causes cancer.

**Case study**

A medical or epidemiologic evaluation of one person or a small group of people to gather information about specific health conditions and past exposures.

**Case-control study**

A study that compares exposures of people who have a disease or condition (cases) with people who do not have the disease or condition (controls). Exposures that are more common among the cases may be considered as possible risk factors for the disease.

**CAS registry number**

A unique number assigned to a substance or mixture by the [American Chemical Society Abstracts Service](#) EXIT▶.

**Central nervous system**

The part of the nervous system that consists of the brain and the spinal cord.

**CERCLA** [see [Comprehensive Environmental Response, Compensation, and Liability Act of 1980](#)]

**Chronic**

Occurring over a long time [compare with [acute](#)].

**Chronic exposure**

Contact with a substance that occurs over a long time (more than 1 year) [compare with [acute exposure](#) and [intermediate duration exposure](#)]

**Cluster investigation**

A review of an unusual number, real or perceived, of health events (for example, reports of cancer) grouped together in time and location. Cluster investigations are designed to confirm case reports; determine whether they represent an unusual disease occurrence; and, if possible, explore possible causes and contributing environmental factors.

**Community Assistance Panel (CAP)**

A group of people from a community and from health and environmental agencies who work with ATSDR to resolve issues and problems related to hazardous substances in the community. CAP members work with ATSDR to gather and review community health concerns, provide information on how people might have been or might now be exposed to hazardous substances, and inform ATSDR on ways to involve the community in its activities.



**Comparison value (CV)**

Calculated concentration of a substance in air, water, food, or soil that is unlikely to cause harmful (adverse) health effects in exposed people. The CV is used as a screening level during the public health assessment process. Substances found in amounts greater than their CVs might be selected for further evaluation in the public health assessment process.

**Completed exposure pathway** [see [exposure pathway](#)].

**Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)**

CERCLA, also known as Superfund, is the federal law that concerns the removal or cleanup of hazardous substances in the environment and at hazardous waste sites. ATSDR, which was created by CERCLA, is responsible for assessing health issues and supporting public health activities related to hazardous waste sites or other environmental releases of hazardous substances. This law was later amended by the [Superfund Amendments and Reauthorization Act \(SARA\)](#).

**Concentration**

The amount of a substance present in a certain amount of soil, water, air, food, blood, hair, urine, breath, or any other media.

**Contaminant**

A substance that is either present in an environment where it does not belong or is present at levels that might cause harmful (adverse) health effects.

**Delayed health effect**

A disease or an injury that happens as a result of exposures that might have occurred in the past.

**Dermal**

Referring to the skin. For example, dermal absorption means passing through the skin.

**Dermal contact**

Contact with (touching) the skin [see [route of exposure](#)].

**Descriptive epidemiology**

The study of the amount and distribution of a disease in a specified population by person, place, and time.

**Detection limit**

The lowest concentration of a chemical that can reliably be distinguished from a zero concentration.

**Disease prevention**

Measures used to prevent a disease or reduce its severity.

**Disease registry**

A system of ongoing registration of all cases of a particular disease or health condition in a defined population.

**DOD**

United States Department of Defense.

**DOE**

United States Department of Energy.

**Dose (for chemicals that are not radioactive)**

The amount of a substance to which a person is exposed over some time period. Dose is a measurement of exposure. Dose is often expressed as milligram (amount) per kilogram (a measure of body weight) per day (a measure of time) when people eat or drink contaminated water, food, or soil. In general, the greater the dose, the greater the likelihood of an effect. An "exposure dose" is how much of a substance is encountered in the environment. An "absorbed dose" is the amount of a substance that actually got into the body through the eyes, skin, stomach, intestines, or lungs.

**Dose (for radioactive chemicals)**

The radiation dose is the amount of energy from radiation that is actually absorbed by the body. This is not the same as measurements of the amount of radiation in the environment.

**Dose-response relationship**

The relationship between the amount of exposure [[dose](#)] to a substance and the resulting changes in body function or health (response).

**Environmental media**

Soil, water, air, [biota](#) (plants and animals), or any other parts of the environment that can contain contaminants.

**Environmental media and transport mechanism**

Environmental media include water, air, soil, and biota (plants and animals). Transport mechanisms move contaminants from the source to points where human exposure can occur. The environmental media and transport mechanism is the second part of an [exposure pathway](#).

**EPA**

United States Environmental Protection Agency.

**Epidemiologic surveillance** [see [Public health surveillance](#)].

**Epidemiology**

The study of the distribution and determinants of disease or health status in a population; the study of the occurrence and causes of health effects in humans.

**Exposure**

Contact with a substance by swallowing, breathing, or touching the skin or eyes. Exposure may be short-term [[acute exposure](#)], of intermediate duration, or long-term [[chronic exposure](#)].

**Exposure assessment**

The process of finding out how people come into contact with a hazardous substance, how often and for how long they are in contact with the substance, and how much of the substance they are in contact with.

**Exposure-dose reconstruction**

A method of estimating the amount of people's past exposure to hazardous substances. Computer and approximation methods are used when past information is limited, not available, or missing.

**Exposure investigation**

The collection and analysis of site-specific information and biologic tests (when appropriate) to determine whether people have been exposed to hazardous substances.

### **Exposure pathway**

The route a substance takes from its source (where it began) to its end point (where it ends), and how people can come into contact with (or get exposed to) it. An exposure pathway has five parts: a source of contamination (such as an abandoned business); an [environmental media and transport mechanism](#) (such as movement through groundwater); a [point of exposure](#) (such as a private well); a [route of exposure](#) (eating, drinking, breathing, or touching), and a [receptor population](#) (people potentially or actually exposed). When all five parts are present, the exposure pathway is termed a completed exposure pathway.

### **Exposure registry**

A system of ongoing followup of people who have had documented environmental exposures.

### **Feasibility study**

A study by EPA to determine the best way to clean up environmental contamination. A number of factors are considered, including health risk, costs, and what methods will work well.

### **Geographic information system (GIS)**

A mapping system that uses computers to collect, store, manipulate, analyze, and display data. For example, GIS can show the concentration of a contaminant within a community in relation to points of reference such as streets and homes.

### **Grand rounds**

Training sessions for physicians and other health care providers about health topics.

### **Groundwater**

Water beneath the earth's surface in the spaces between soil particles and between rock surfaces [compare with [surface water](#)].

### **Half-life ( $t_{1/2}$ )**

The time it takes for half the original amount of a substance to disappear. In the environment, the half-life is the time it takes for half the original amount of a substance to disappear when it is changed to another chemical by

bacteria, fungi, sunlight, or other chemical processes. In the human body, the half-life is the time it takes for half the original amount of the substance to disappear, either by being changed to another substance or by leaving the body. In the case of radioactive material, the half-life is the amount of time necessary for one half the initial number of radioactive atoms to change or transform into another atom (that is normally not radioactive). After two half-lives, 25% of the original number of radioactive atoms remain.

**Hazard**

A source of potential harm from past, current, or future exposures.

**Hazardous Substance Release and Health Effects Database (HazDat)**

The scientific and administrative database system developed by ATSDR to manage data collection, retrieval, and analysis of site-specific information on hazardous substances, community health concerns, and public health activities.

**Hazardous waste**

Potentially harmful substances that have been released or discarded into the environment.

**Health consultation**

A review of available information or collection of new data to respond to a specific health question or request for information about a potential environmental hazard. Health consultations are focused on a specific exposure issue. Health consultations are therefore more limited than a public health assessment, which reviews the exposure potential of each pathway and chemical [compare with [public health assessment](#)].

**Health education**

Programs designed with a community to help it know about health risks and how to reduce these risks.

**Health investigation**

The collection and evaluation of information about the health of community residents. This information is used to describe or count the occurrence of a disease, symptom, or clinical measure and to evaluate the possible association between the occurrence and exposure to hazardous substances.

**Health promotion**

The process of enabling people to increase control over, and to improve, their health.

**Health statistics review**

The analysis of existing health information (i.e., from death certificates, birth defects registries, and cancer registries) to determine if there is excess disease in a specific population, geographic area, and time period. A health statistics review is a descriptive epidemiologic study.

**Indeterminate public health hazard**

The category used in ATSDR's public health assessment documents when a professional judgment about the level of health hazard cannot be made because information critical to such a decision is lacking.

**Incidence**

The number of new cases of disease in a defined population over a specific time period [contrast with [prevalence](#)].

**Ingestion**

The act of swallowing something through eating, drinking, or mouthing objects. A hazardous substance can enter the body this way [see [route of exposure](#)].

**Inhalation**

The act of breathing. A hazardous substance can enter the body this way [see [route of exposure](#)].

**Intermediate duration exposure**

Contact with a substance that occurs for more than 14 days and less than a year [compare with [acute exposure](#) and [chronic exposure](#)].

**In vitro**

In an artificial environment outside a living organism or body. For example, some toxicity testing is done on cell cultures or slices of tissue grown in the laboratory, rather than on a living animal [compare with [in vivo](#)].

**In vivo**

Within a living organism or body. For example, some toxicity testing is done on whole animals, such as rats or mice [compare with [in vitro](#)].

**Lowest-observed-adverse-effect level (LOAEL)**

The lowest tested dose of a substance that has been reported to cause harmful (adverse) health effects in people or animals.

**Medical monitoring**

A set of medical tests and physical exams specifically designed to evaluate whether an individual's exposure could negatively affect that person's health.

**Metabolism**

The conversion or breakdown of a substance from one form to another by a living organism.

**Metabolite**

Any product of [metabolism](#).

**mg/kg**

Milligram per kilogram.

**mg/cm<sup>2</sup>**

Milligram per square centimeter (of a surface).

**mg/m<sup>3</sup>**

Milligram per cubic meter; a measure of the concentration of a chemical in a known volume (a cubic meter) of air, soil, or water.

**Migration**

Moving from one location to another.

**Minimal risk level (MRL)**

An ATSDR estimate of daily human exposure to a hazardous substance at or below which that substance is unlikely to pose a measurable risk of harmful (adverse), noncancerous effects. MRLs are calculated for a route of exposure (inhalation or oral) over a specified time period (acute, intermediate, or

chronic). MRLs should not be used as predictors of harmful (adverse) health effects [see [reference dose](#)].

**Morbidity**

State of being ill or diseased. Morbidity is the occurrence of a disease or condition that alters health and quality of life.

**Mortality**

Death. Usually the cause (a specific disease, a condition, or an injury) is stated.

**Mutagen**

A substance that causes mutations (genetic damage).

**Mutation**

A change (damage) to the DNA, genes, or chromosomes of living organisms.

**National Priorities List for Uncontrolled Hazardous Waste Sites (National Priorities List or NPL)**

EPA's list of the most serious uncontrolled or abandoned hazardous waste sites in the United States. The NPL is updated on a regular basis.

**National Toxicology Program (NTP)**

Part of the Department of Health and Human Services. NTP develops and carries out tests to predict whether a chemical will cause harm to humans.

**No apparent public health hazard**

A category used in ATSDR's public health assessments for sites where human exposure to contaminated media might be occurring, might have occurred in the past, or might occur in the future, but where the exposure is not expected to cause any harmful health effects.

**No-observed-adverse-effect level (NOAEL)**

The highest tested dose of a substance that has been reported to have no harmful (adverse) health effects on people or animals.

**No public health hazard**

A category used in ATSDR's public health assessment documents for sites where people have never and will never come into contact with harmful amounts of site-related substances.



**NPL** [see [National Priorities List for Uncontrolled Hazardous Waste Sites](#)]

**Physiologically based pharmacokinetic model (PBPK model)**

A computer model that describes what happens to a chemical in the body. This model describes how the chemical gets into the body, where it goes in the body, how it is changed by the body, and how it leaves the body.

**Pica**

A craving to eat nonfood items, such as dirt, paint chips, and clay. Some children exhibit pica-related behavior.

**Plume**

A volume of a substance that moves from its source to places farther away from the source. Plumes can be described by the volume of air or water they occupy and the direction they move. For example, a plume can be a column of smoke from a chimney or a substance moving with groundwater.

**Point of exposure**

The place where someone can come into contact with a substance present in the environment [see [exposure pathway](#)].

**Population**

A group or number of people living within a specified area or sharing similar characteristics (such as occupation or age).

**Potentially responsible party (PRP)**

A company, government, or person legally responsible for cleaning up the pollution at a hazardous waste site under Superfund. There may be more than one PRP for a particular site.

**ppb**

Parts per billion.

**ppm**

Parts per million.

**Prevalence**

The number of existing disease cases in a defined population during a specific time period [contrast with [incidence](#)].

**Prevalence survey**

The measure of the current level of disease(s) or symptoms and exposures through a questionnaire that collects self-reported information from a defined population.

**Prevention**

Actions that reduce exposure or other risks, keep people from getting sick, or keep disease from getting worse.

**Public availability session**

An informal, drop-by meeting at which community members can meet one-on-one with ATSDR staff members to discuss health and site-related concerns.

**Public comment period**

An opportunity for the public to comment on agency findings or proposed activities contained in draft reports or documents. The public comment period is a limited time period during which comments will be accepted.

**Public health action**

A list of steps to protect public health.

**Public health advisory**

A statement made by ATSDR to EPA or a state regulatory agency that a release of hazardous substances poses an immediate threat to human health. The advisory includes recommended measures to reduce exposure and reduce the threat to human health.

**Public health assessment (PHA)**

An ATSDR document that examines hazardous substances, health outcomes, and community concerns at a hazardous waste site to determine whether people could be harmed from coming into contact with those substances. The PHA also lists actions that need to be taken to protect public health [compare with [health consultation](#)].

**Public health hazard**

A category used in ATSDR's public health assessments for sites that pose a public health hazard because of long-term exposures (greater than 1 year) to sufficiently high levels of hazardous substances or [radionuclides](#) that could result in harmful health effects.

### **Public health hazard categories**

Public health hazard categories are statements about whether people could be harmed by conditions present at the site in the past, present, or future. One or more hazard categories might be appropriate for each site. The five public health hazard categories are [no public health hazard](#), [no apparent public health hazard](#), [indeterminate public health hazard](#), [public health hazard](#), and [urgent public health hazard](#).

### **Public health statement**

The first chapter of an ATSDR toxicological profile. The public health statement is a summary written in words that are easy to understand. The public health statement explains how people might be exposed to a specific substance and describes the known health effects of that substance.

### **Public health surveillance**

The ongoing, systematic collection, analysis, and interpretation of health data.

This activity also involves timely dissemination of the data and use for public health programs.

### **Public meeting**

A public forum with community members for communication about a site.

### **Radioisotope**

An unstable or radioactive isotope (form) of an element that can change into another element by giving off radiation.

### **Radionuclide**

Any radioactive isotope (form) of any element.

**RCRA** [see [Resource Conservation and Recovery Act \(1976, 1984\)](#)]

### **Receptor population**

People who could come into contact with hazardous substances [see [exposure pathway](#)].

### **Reference dose (RfD)**

An EPA estimate, with uncertainty or safety factors built in, of the daily lifetime dose of a substance that is unlikely to cause harm in humans.

**Registry**

A systematic collection of information on persons exposed to a specific substance or having specific diseases [see [exposure registry](#) and [disease registry](#)].

**Remedial investigation**

The CERCLA process of determining the type and extent of hazardous material contamination at a site.

**Resource Conservation and Recovery Act (1976, 1984) (RCRA)**

This Act regulates management and disposal of hazardous wastes currently generated, treated, stored, disposed of, or distributed.

**RFA**

RCRA Facility Assessment. An assessment required by RCRA to identify potential and actual releases of hazardous chemicals.

**RfD** [see [reference dose](#)]

**Risk**

The probability that something will cause injury or harm.

**Risk reduction**

Actions that can decrease the likelihood that individuals, groups, or communities will experience disease or other health conditions.

**Risk communication**

The exchange of information to increase understanding of health risks.

**Route of exposure**

The way people come into contact with a hazardous substance. Three routes of exposure are breathing [[inhalation](#)], eating or drinking [[ingestion](#)], or contact with the skin [[dermal contact](#)].

**Safety factor** [see [uncertainty factor](#)]

**SARA** [see [Superfund Amendments and Reauthorization Act](#)]

**Sample**

A portion or piece of a whole. A selected subset of a population or subset of whatever is being studied. For example, in a study of people the sample is a number of people chosen from a larger population [see [population](#)]. An environmental sample (for example, a small amount of soil or water) might be collected to measure contamination in the environment at a specific location.

**Sample size**

The number of units chosen from a population or an environment.

**Solvent**

A liquid capable of dissolving or dispersing another substance (for example, acetone or mineral spirits).

**Source of contamination**

The place where a hazardous substance comes from, such as a landfill, waste pond, incinerator, storage tank, or drum. A source of contamination is the first part of an [exposure pathway](#).

**Special populations**

People who might be more sensitive or susceptible to exposure to hazardous substances because of factors such as age, occupation, sex, or behaviors (for example, cigarette smoking). Children, pregnant women, and older people are often considered special populations.

**Stakeholder**

A person, group, or community who has an interest in activities at a hazardous waste site.

**Statistics**

A branch of mathematics that deals with collecting, reviewing, summarizing, and interpreting data or information. Statistics are used to determine whether differences between study groups are meaningful.

**Substance**

A chemical.

**Substance-specific applied research**

A program of research designed to fill important data needs for specific

hazardous substances identified in ATSDR's [toxicological profiles](#). Filling these data needs would allow more accurate assessment of human risks from specific substances contaminating the environment. This research might include human studies or laboratory experiments to determine health effects resulting from exposure to a given hazardous substance.

**Superfund** [see [Comprehensive Environmental Response, Compensation, and Liability Act of 1980 \(CERCLA\)](#) and [Superfund Amendments and Reauthorization Act \(SARA\)](#)]

**Superfund Amendments and Reauthorization Act (SARA)**

In 1986, SARA amended the [Comprehensive Environmental Response, Compensation, and Liability Act of 1980 \(CERCLA\)](#) and expanded the health-

related responsibilities of ATSDR. CERCLA and SARA direct ATSDR to look into the health effects from substance exposures at hazardous waste sites and to perform activities including health education, health studies, surveillance, health consultations, and toxicological profiles.

**Surface water**

Water on the surface of the earth, such as in lakes, rivers, streams, ponds, and springs [compare with [groundwater](#)].

**Surveillance** [see [public health surveillance](#)]

**Survey**

A systematic collection of information or data. A survey can be conducted to collect information from a group of people or from the environment. Surveys of a group of people can be conducted by telephone, by mail, or in person. Some surveys are done by interviewing a group of people [see [prevalence survey](#)].

**Synergistic effect**

A biologic response to multiple substances where one substance worsens the effect of another substance. The combined effect of the substances acting together is greater than the sum of the effects of the substances acting by themselves [see [additive effect](#) and [antagonistic effect](#)].

**Teratogen**

A substance that causes defects in development between conception and birth. A teratogen is a substance that causes a structural or functional birth defect.

**Toxic agent**

Chemical or physical (for example, radiation, heat, cold, microwaves) agents that, under certain circumstances of exposure, can cause harmful effects to living organisms.

**Toxicological profile**

An ATSDR document that examines, summarizes, and interprets information about a hazardous substance to determine harmful levels of exposure and associated health effects. A toxicological profile also identifies significant gaps in knowledge on the substance and describes areas where further research is needed.

**Toxicology**

The study of the harmful effects of substances on humans or animals.

**Tumor**

An abnormal mass of tissue that results from excessive cell division that is uncontrolled and progressive. Tumors perform no useful body function. Tumors can be either benign (not cancer) or malignant (cancer).

**Uncertainty factor**

Mathematical adjustments for reasons of safety when knowledge is incomplete. For example, factors used in the calculation of doses that are not harmful (adverse) to people. These factors are applied to the [lowest-observed-adverse-effect-level \(LOAEL\)](#) or the [no-observed-adverse-effect-level \(NOAEL\)](#) to derive a [minimal risk level \(MRL\)](#). Uncertainty factors are used to account for variations in people's sensitivity, for differences between animals and humans, and for differences between a LOAEL and a NOAEL. Scientists use uncertainty factors when they have some, but not all, the information from animal or human studies to decide whether an exposure will cause harm to people [also sometimes called a safety factor].

**Urgent public health hazard**

A category used in ATSDR's public health assessments for sites where short-term exposures (less than 1 year) to hazardous substances or conditions could result in harmful health effects that require rapid intervention.

**Volatile organic compounds (VOCs)**

Organic compounds that evaporate readily into the air. VOCs include substances such as benzene, toluene, methylene chloride, and methyl chloroform.



## **2. State and Tribal Response Programs**

**2.1. Goals and Objectives of STRP funding**

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**2.4.3 FY15 STRP Funding Request PALs Worksheet**

## State and Tribal Response Programs

### Goals and Objectives of STRP Funding

Section 128(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, authorizes a *noncompetitive* \$50 million (approximately) grant program to establish and enhance State and Tribal Response Programs (STRP). The actual amount fluctuates but has decreased slightly since inception. Generally, these response programs address the assessment, cleanup, and redevelopment of brownfields sites and other sites with *actual or perceived* contamination. These Section 128(a) cooperative agreements are awarded and administered by the EPA regional offices; Alaska is part of EPA Region 10 (along with Washington, Oregon, and Idaho).

In 2015, the following organizations were awarded STRP grants in Alaska:

- Alaska Department of Environmental Conservation
- Alaska Native Tribal Health Consortium
- Bristol Bay Native Association
- Central Council Tlingit Haida Indian Tribes of Alaska
- Chuathbaluk Traditional Council
- Copper River Native Association
- Craig Tribal Association
- Douglas Indian Association
- Grayling, Anvik, Shageluk, and Holy Cross Consortium
- Hydaburg Cooperative Association
- Klawock Cooperative Association
- Kuskokwim River Watershed Council
- Maniilaq Association
- Metlaktla Indian Community
- Native Village of Eklutna
- Native Village of Eyak
- Native Village of Gakona
- Native Village of Saint Michael
- Native Village of Tazlina
- Native Village of Tununak – Nelson Island Consortium
- Organized Village of Kasaan
- Orutsararmiut Native Council
- Port Heiden Native Council

- Sitka Tribe of Alaska
- Tanana Chiefs Conference
- Yakutat Tlingit Tribe
- Yukon River Inter-Tribal Watershed Council

The Reuse & Redevelopment element enjoys working with all STRP grantees in the coming months and years. One of DEC's objectives is to help regional Tribal organizations understand how to successfully apply for and manage this funding in a manner that maximizes results and minimizes paperwork.

### Response Program Funding Options

Tribes can greatly enhance their environmental response programs using cooperative agreement funds. The specifics of funding use can be found in Section 128(a)1B of the CERCLA legislation. (See Section 1.3, pp. 16-17 of this handbook for this CERCLA legislation.)

Essentially, a Tribe may use this funding to develop or improve its environmental response program. This can include activities related to responses at brownfields sites with petroleum contamination – the type of site that is most prevalent across Alaska. Although most Tribes already have defined scopes of work for their programs, it is good to continually reevaluate the program, identify possible changes or additions to the scope, or drop some tasks altogether if they are found to be no longer necessary or ineffective.

What follows is a summary of some funding uses:

- Primary Purpose: *Establish or Enhance a Response Program*
  - The initial focus of response program funding is on the *four elements*, which are general described as: (1) a survey of brownfield sites; (2) developing oversight authority; (3) developing mechanisms for meaningful public participation; and (4) creating mechanisms for approval and verification of a cleanup plan. In addition, the Tribal response program must also develop and maintain a public record.

### STRP Main Points

#### STRP Main Points

- Matching funds not required
- Not pass/fail – negotiations are part of grant process
- Similar to IGAP – can create own list of goals and tasks
- Funds positions, equipment, supplies, services, training
- Can structure grant to allow overlap and cooperation between brownfields, solid waste, and environmental programs

(For more information on the four elements, see Section 2.3 of this handbook.)

- Tribes define and develop their “response program” and hire staff, manage the grant, and coordinate with EPA and DEC.
  - The grant allows a Tribe to develop program resources and expand knowledge of both state and federal regulatory requirements.
  - Allowable activities are broad and include the development of regulations and local ordinances (if necessary), planning, outreach, coordinating community involvement, and training; however, the State of Alaska has environmental regulation that encompass cleanup and closure within most lands of the State and this aspect of the grant, although potentially prominent on Indian Land, may not be a priority of Alaska TRPs.
  - The brownfield program can coordinate with other environmental programs in an organization to maximize efficiencies and decrease redundancies, such as a Tribe’s Indian General Assistance Program (IGAP).
  - The program must include reporting and documenting activities completed using grant resources and accurately track all expenses.
- Secondary use: Site-Specific Activities  
EPA will not provide STRP 128(a) capacity building grants solely for assessment or cleanup of specific brownfield sites. Assessment and cleanups are only “incidental” part of the overall grant, and will only be considered *after* a Tribe has established or enhanced the four elements. Some site-specific activities that may be included are:
    - Community planning designed to better coordinate economic development interests with environmental or brownfield projects.
    - Developing audits or surveys of contaminated sites in your community or region.
    - Conducting a Phase I Environmental Site Assessment at a property to provide the necessary information to seek further assessment funding.
    - Maintaining controls at a site to prevent exposure, such as *land-use or activity controls*.

- Development of site-specific quality assurance project plans.
- Limited cleanup activities at a site that will further the reuse of that site as part of a brownfield redevelopment.
- Overseeing a cleanup action or response action or conducting audits of cleanup actions.

Site-specific work always keeps in line with the “polluter pays” principle

- **Other Uses: Outside the Traditional Uses of Funding**

- Funding through this grant may be used to capitalize a *revolving loan fund* (RLF) for brownfields cleanup under CERCLA Section 104(k)(3). Although this is rarely, if ever, done using the STRP grant, it remains possible to establish this loan agreement.
- Funding can be used to purchase environmental insurance, or develop a risk-sharing pool, indemnity pool, or insurance mechanism to provide financing for response actions.

Each State and Tribe, or Tribal Consortium, needs to determine where best to focus its resources in order to use the limited funding to the degree that best serves the Tribe’s interest. While most of the funding initially goes toward paying personnel to establish the program, eventually it may include

conducting limited assessments, planning, outreach, or training. Several Alaska TRP grant recipients have used this funding in a variety of ways that directly serves their region. Some of the accomplishments by Alaska Tribes include:

- Developing inventories of sites in their region of interest or concern to their community.

### What is being funded

#### What is being funded elsewhere?

- **Staff positions:** brownfield coordinator, interns, grant assistance
- **Office equipment:** computers, copiers, printers, software
- **Field equipment:** GPS units, safety suits, goggles, gloves, even Freon extraction units
- **Program enhancements:** Native speakers translating public records and outreach materials, webmaster services, newsletters, promotional materials
- **Staff training:** open dump assessment, Phase I training, Freon removal, database management, time and task management

--from Region 8

Presentation on Rural and Small Communities Program

- Developing websites to improve communication with their members and the state.
- Developing mapping and focused GIS capabilities.
- Creating video to document their program development, Tribal conditions and brownfield needs in rural Alaska.
- Developing and implementing training programs.
- Conducting Phase I Environmental Site Assessments.
- Conducting limited site characterizations.
- Public outreach and interviewing individuals about historical environmental activities or site conditions.
- Educating employees on scientific and regulatory processes.
- Identifying other significant sources of funding.
- Engaging responsible parties to remedy historical contamination that has otherwise been ignored.
- Developing and mapping inventories of sites in a community or region.
- Expanding communication between DEC and the Tribes.

Annually, the DEC has facilitated the State & Tribal Response Program Brownfield Workshop. The Alaska STRP workshop is an open meeting to all 128(a) grant recipients and we invite all Tribes to participate. The objective of the workshop is to maintain an open dialogue about Alaska brownfield issues and concerns, and to help ensure that we work together in a unified approach to maximize the benefit of future funding, and to improve environmental conditions in our communities. It is hoped that Tribes will share information about their program development at this meeting such that others can learn from experiences, and focus on what works rather than what does not. For examples of the specific uses of this funding, please see the most recent **EPA Guidance for State and Tribal Response Programs** (the first page of the guidance is provided as hard copy in Section 2.4 of this handbook). The most current EPA guidance for State and Tribal Response Program funding is available online at –

[https://www.epa.gov/sites/production/files/2015-10/documents/fy16\\_128a\\_guidance\\_final\\_10.17.15\\_0.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/fy16_128a_guidance_final_10.17.15_0.pdf)

Remember to discuss any proposed changes to your workplans with your EPA Project Officer. **They are the only individuals authorized to enable changes to your grant!**



# Tribal Brownfields and Response Programs

Respecting Our Land, Revitalizing Our Communities





# Purpose

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This report highlights how tribes are using U.S. Environmental Protection Agency (EPA) Brownfields Program funding to address contaminated land in Indian country<sup>1</sup> and other tribal lands. It also highlights the challenges tribes face. It provides a historic overview of EPA's Brownfields Program, as it relates to tribes, and demonstrates EPA's commitment to the development of tribal capacity to deal effectively with contaminated lands in Indian country. The report includes examples of tribal successes to both highlight accomplishments and serve as a resource for ideas, information and reference.

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<sup>1</sup> Use of the terms "Indian country," "tribal lands," and "tribal areas within this document is not intended to provide legal guidance on the scope of any program being described, nor is their use intended to expand or restrict the scope of any such programs, or have any legal effect.

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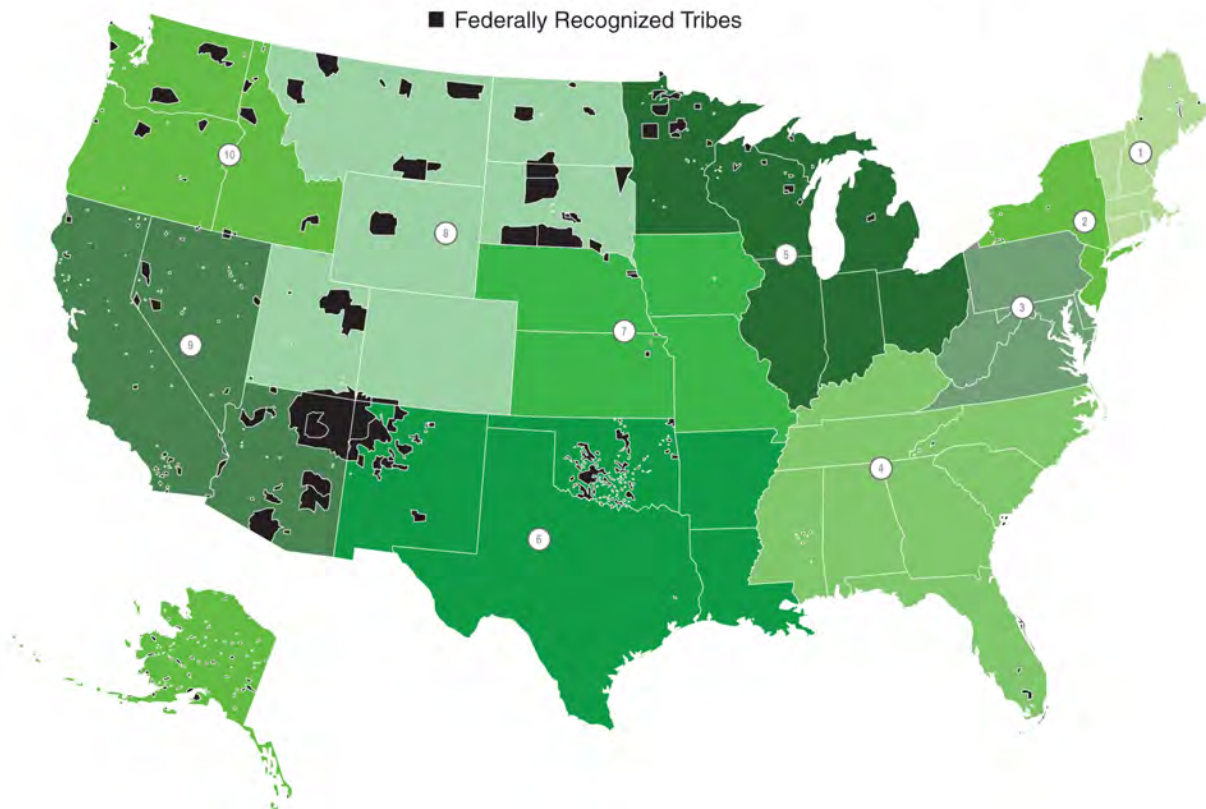
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## Overview

There are 566 federally recognized tribes within the United States. Each tribe is an independent, sovereign nation, responsible for setting standards, making environmental policy, and managing environmental programs for its people. While each tribe faces unique challenges, many share similar environmental legacies.

### INDIAN COUNTRY WITHIN EPA REGIONS 1 THROUGH 10



Environmental issues in Indian country range from developing basic administrative infrastructure to passing sweeping new laws; from controlling illegal open dumping to developing wastewater and drinking water infrastructure; from controlling and removing leaking underground storage tanks to asbestos and lead abatement and removal; and from air pollution to the cleanup and reuse of contaminated land. The EPA’s Brownfields Response Program funding—referred to as “Section 128(a)” funding after the section of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) that it falls under—provides resources to assist tribes in addressing these issues across Indian country.

## Brownfields and Contaminated Land in Indian Country

Brownfields and other contaminated lands are found throughout the United States. Often legacies of an industrial past or bygone business, they dot the landscape of large and small communities. To address brownfields and environmental issues in Indian country, many tribes establish their own environmental protection and natural resource management offices, and create brownfields programs or “Tribal Response Programs.” However, tribal communities often lack funding to sustain environmental program capacity building and continue to need outside technical assistance and expertise. Additionally, many tribes seeking to address brownfields in their communities face problems that are found in many small or rural areas in the United States. Rural locations typically do not have the technical resources that many larger communities have, nor the economic drivers associated with more dense populations that might spur cleanup and reuse.

Despite the challenges, revitalization of contaminated lands is being addressed successfully across Indian country. With the assistance of grants and other resources available through EPA's Section 128(a) Tribal Response Program, tribes are making great strides in cleaning up and returning contaminated land back to productive use. By using the grants and tools available, tribes address their fundamental environmental and revitalization goals and enrich the health and welfare of their communities.

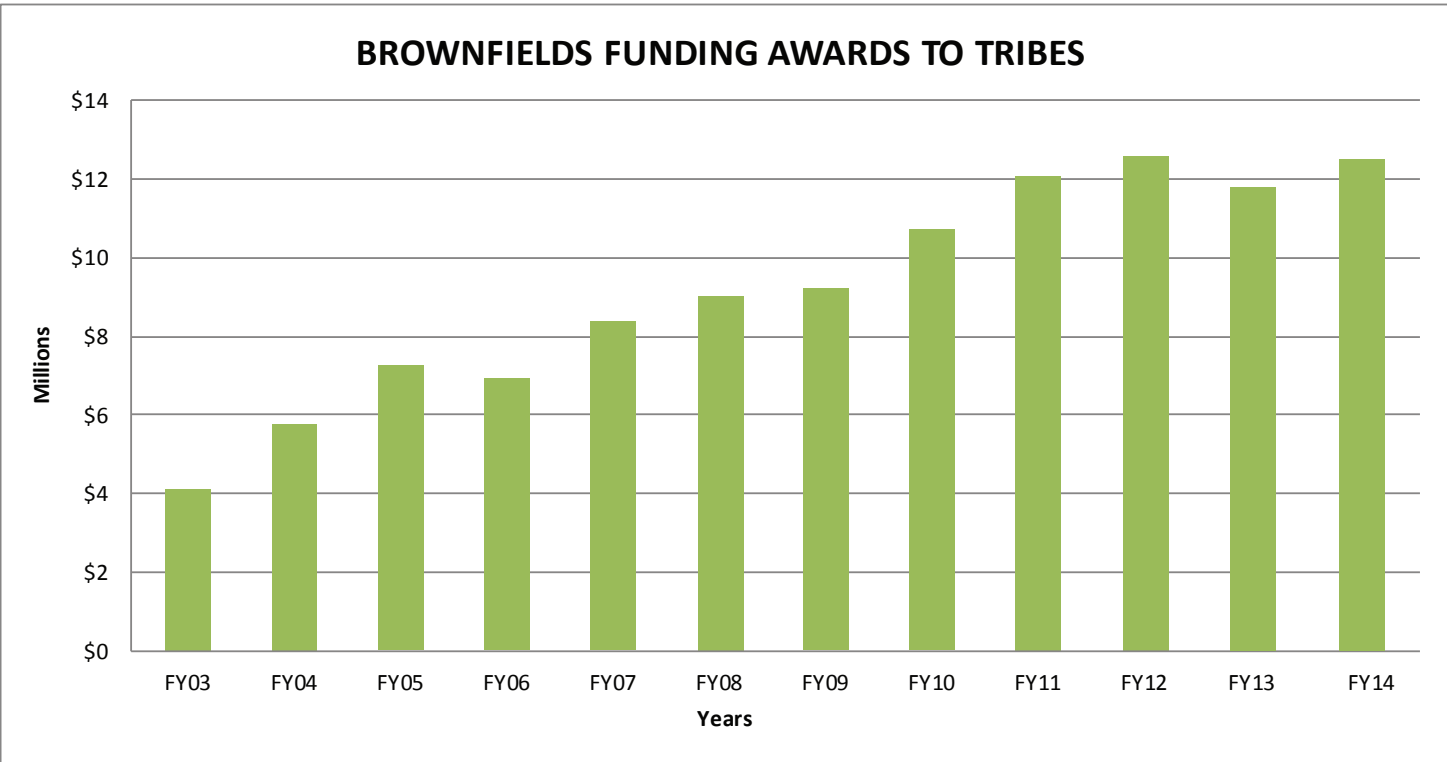
### Brownfields Section 128(a) Tribal Response Program Grants

The EPA Brownfields Program's goal is "to empower states, tribes, communities, and other stakeholders in economic development to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields." Section 128(a) Tribal Response Program funding can be used to create new or to enhance existing environmental response programs. Authorized at \$50 million per year and shared among states, tribes and territories, the funding is awarded on an annual basis.

The funding can also be used for limited site assessments or cleanups at brownfield sites; for other activities that increase the number of response actions conducted or overseen by a state or tribal response program; to capitalize revolving loan funds for cleanup; to purchase environmental insurance; or to develop other insurance mechanisms for brownfields cleanup activities.

**The primary goal of the funding is to ensure that response programs include, or are taking reasonable steps to include, the following four elements in their programs:**

1. Timely survey and inventory of brownfield sites
2. Oversight and enforcement authorities or other mechanisms and resources to ensure that a response action will protect human health and the environment
3. Mechanisms and resources to provide meaningful opportunities for public participation
4. Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete



# Brownfields Tribal Highlights and Results

## Developing and Enhancing Programs for Tribal Needs

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Tribes use Section 128(a) Tribal Response Program funding for a variety of activities. Tribal response programs conduct assessments and provide oversight at properties, create codes and ordinances, develop inventories of properties, and educate their communities about the value of protecting and restoring tribal natural resources and community health. This section highlights how Section 128(a) Tribal Response Program and other funding are applied in tribal environments, as well as the obstacles encountered and lessons learned. These highlights serve as a reference for tribes to learn from what other tribes have accomplished with EPA's Brownfields Program funding.



**EPA Region 10  
Brownfields Grantees**



# Alaska Native Tribal Health Consortium

## Brownfields Tribal Response Program

P.O. Box 1027  
3900 Ambassador Drive, 301  
Anchorage, AK 99508  
<http://www.anthc.org/cs/dehe/envhlth/>

Contact(s): Josh Liles, Brownfields Coordinator  
[jdililes@anthc.org](mailto:jdililes@anthc.org)  
907-729-3596

## Overview

- **Location:** Central Alaska
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.anthc.org/cs/dehe/envhlth/ehc/index.cfm>

## Program

The Alaska Native Tribal Health Consortium (ANTHC) TRP provides environmental health services for Alaska Native communities, advanced technical support and training for Alaska's regional tribal environmental health programs, and conducts environmental public health research of importance to Alaska Natives. ANTHC builds tribal capacity to identify and respond to brownfields through outreach and community education. The ANTHC tribal health partners have shown remarkable innovation, providing relevant outreach and program support with very limited resources.

## Program Highlights

The ANTHC TRP uses Section 128(a) TRP funding to foster public participation through outreach and education in tribal communities. ANTHC collaborates with communities to facilitate community meetings that focus on identifying, assessing and prioritizing potentially contaminated sites. One of these meetings was the catalyst that led to the Critical Removal Action at the Old Copper Valley School in October 2013. The 160-acre clean-up coordination was conducted in partnership with several agencies and organizations: The Native Village of Tazlina, Copper River Native Association, EPA, Alaska Department of Environmental Conservation and the Archdiocese of Anchorage. Future plans for the site include outdoor environmental education and subsistence activities.



The Old Copper Valley School property after the completion of cleanup activities



# Bristol Bay Native Association

## Natural Resources – Brownfields Program

P.O. Box 310  
Dillingham, AK 99576  
<http://www.bbna.com/website/Natural%20Brownsfield.html>

Contact(s): CaSandra Johnson, Brownfields Program Manager  
cjohnson@bbna.com  
907-842-6248

## Overview

- **Location:** Southwest Alaska
- **Population:** Tribal Consortium, made up of 31 tribes
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Bristol Bay Native Association (BBNA) Natural Resources (NR) department provides comprehensive natural resources management and environmental protection services to a Tribal Consortium of 31 tribes. The addition of Section 128(a) Tribal Response Program funding expanded NR's scope of work to include management and restoration of contaminated properties. Some of the accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a comprehensive inventory of properties
- Created and maintained a public record
- Developed a public outreach plan
- Fostered public participation through outreach and education

## Program Highlights

One of the BBNA's current projects is assisting the Village of Pilot Point as they transition from completing a Targeted Brownfields Assessment (TBA) that will further identify contamination issues to their application for an EPA Brownfields Cleanup grant. Brownfields staff flew to Pilot Point before the busy commercial fishing season to meet with tribal members. BBNA gave a presentation on the success of tri-councils in Bristol Bay that resulted in Pilot Point entities, Pilot Point Traditional Council, the City of Pilot Point, and Pilot Point Native Corporation entering into a Memorandum of Understanding to create their own tri-council. Tri-councils in Bristol Bay villages allow tribes to accomplish brownfields projects more efficiently and in much shorter times. In addition, Pilot Point tribal members completed a 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training course and a 40-hour Asbestos Abatement class.



Tri-Council meeting in Pilot Point

# Central Council of Tlingit & Haida Indian Tribes of Alaska

## Native Lands & Resources Department

9097 Glacier Highway

Juneau, AK 99801

<http://www.ccthita.org/services/community/environmental/index.html>

Contact(s): Desiree Duncan, Program Manager

[dduncan@ccthita.org](mailto:dduncan@ccthita.org)

907-463-7183

Ray Paddock, Environmental Coordinator

[rpaddock@ccthita.org](mailto:rpaddock@ccthita.org)

907-463-7141

## Overview

- **Location:** Southeast Alaska
- **Land Area:** 35,138 square miles
- **Population:** 72,954
- **EPA Grants:** Section 128(a) Tribal Response
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Central Council of Tlingit & Haida Indian Tribes of Alaska's (CCTHITA) Tribal Response Program is developing capacity and understanding of tribal responsibilities as they relate to the health and environmental conditions on lands with tribal interests. The addition of the Section 128(a) Tribal Response Program funding has allowed the tribe to identify sites and establish various collaborative efforts that are necessary when undertaking brownfields work in Alaska's unique geographical area. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Developed a property inventory
- Created a public record
- Developed awareness of brownfields
- Established a foundation for youth involvement in brownfields work

## Program Highlights

CCTHITA is using its Section 128(a) Tribal Response Program funding to develop a tribal response program. The tribe is focusing its funding on developing an inventory of properties and a public record, obtaining technical training for staff members, and conducting outreach and education to engage the community in environmental and brownfields awareness and issues. The tribe created and developed an Environmental Youth Leadership Team that focuses on gathering traditional customs, historical knowledge, and western science.

# Chuathbaluk Traditional Council

## Brownfields Tribal Response Program

1 Teen Center Road  
Chuathbaluk, AK 99557

Contacts: Robert Hairell, Brownfields Coordinator  
ctc.roberthairell@gmail.com  
907-467-4313

## Overview

- **Location:** Western Alaska
- **Population:** Approximately 145
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Chuathbaluk Traditional Council protects the environment, natural resources, and public health of the tribal land. The addition of Section 128(a) Tribal Response Program funding expands the tribe's scope of work to include management and restoration of contaminated properties within tribal lands.

## Program Highlights

The Chuathbaluk Traditional Council is using Section 128(a) Tribal Response Program funding to begin the process of developing an inventory of potential abandoned hazardous waste properties, and strengthen the tribe's capacity to respond to contaminated properties within tribal lands.

# Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians

## Department of Natural Resources – Environmental Division Brownfields Tribal Response Program

1245 Fulton Ave.  
Coos Bay, OR 97420  
<http://ctclusi.org/natural-resources/tribal-response-program>

Contact(s): Margaret Corvi, Director  
Department of Natural Resources  
[mcorvi@ctclusi.org](mailto:mcorvi@ctclusi.org)  
541-888-7511

## Overview

- **Location:** Western Oregon
- **Land Area:** 405 acres
- **Population:** Approximately 900
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** In Progress
- **IC/EC Tracking and Public Record Website:** <http://ctclusi.org/natural-resources/tribal-response-program>

## Program

The Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians are a federally recognized Indian Tribe on the central and south-central Oregon coast, with the tribal government headquarters located in Coos Bay. The Confederated Tribes' Department of Natural Resources (DNR) has used Section 128(a) Tribal Response Program funding to develop an inventory of known and suspected contaminated properties that are located on or near tribal lands. DNR staff maintains and updates the inventory regularly, and it serves as a list of properties from which assessments or cleanups can be selected as part of the tribes' site-specific activities. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a survey and inventory of known or suspected contaminated properties
- Updated and maintained data, assessments, and reports conducted on tribal lands
- Created and established a public record
- Developed outreach materials on the Tribal Response Program
- Participated in inter-governmental meetings to discuss tribal land cleanup efforts
- Drafted tribal ordinances to protect tribal lands

## Program Highlights

Since re-acquiring the former Naval Facility Coos Head in 2005, the Confederated Tribes have been working with the Air National Guard, Army Corps of Engineers, Navy, Bureau of Indian Affairs, and Oregon Department of Environmental Quality to investigate areas of known or suspected contamination and to remediate areas of concern. A presumptive remedy was implemented for munitions constituent sites, and an interim remedial action was completed for a transformer spill site. A Record of Decision is pending for the munitions constituent sites, a No Further Action determination is pending for the transformer spill site, and a Record of Decision is pending for four further action Comprehensive Environmental Response Compensation and Liability Act (CERCLA) sites and nine no further action CERCLA sites. Remedial action at the property was completed in 2013 and 2014.



Interim Remedial Action at AOC D  
(Transformer Spill Site)

# Confederated Tribes of Colville Reservation (CTCR)

**Natural Resources Department  
Office of Environmental Trust**  
PO Box 150  
Nespelem, WA 99155  
<http://www.colvilletribes.com/>

Contact(s): Don Hurst, Tribal Response Program Manager  
don.hurst@colvilletribes.com  
509-634-2421

## Overview

- **Location:** North Central Washington
- **Land Area:** 1.4 million acres
- **Population:** Approximately 9,000
- **EPA Grants:** 128(a) Tribal Response Grant, Area-Wide Planning Project Assessment Grant, 104(k) Cleanup Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **IC/EC Tracking and Public Record Website:** No

## Program

The Confederated Tribes of Colville Reservation (CTCR) Environmental Trust Department manages programs to enhance and protect the environment and health of the population within the Colville reservation. The addition of the Section 128(a) Tribal Response Program funding allows the tribe to address the management and restoration of contaminated properties within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed an inventory of properties on the Confederated Tribes of Colville Reservation (CTCR)
- Created a public record and property inventory which were published to the tribal website
- Developed and enforce provisions of the CTCR Hazardous Substances Control Act
- Established and maintain the public record of site-specific environmental conditions
- Oversee cleanup efforts and verify their completeness
- Publish the public record annually
- Increase the capacity of staff through training and professional registration
- Make applicable technical expertise available to other tribal departments
- Participate in regional planning that considers potential environmental effects on natural resources
- Collaborate with federal agencies on enforcement activities
- Fostered public participation through outreach and education

## Program Highlights

The Office of Environmental Trust is a subdivision of the CTCR's Natural Resources Department that exercises authority promulgated under the Tribal Code to investigate and clean up hazardous substances released to land, water and air. The tribes utilize Section 128(a) Tribal Response Program grants, Section 104(k) Cleanup grants, Area-Wide Planning grants and other funding sources to expand and enhance its response program as new properties enter the public record and existing properties become the focus of progressive response actions and remediation. In addition to environmental responsibilities pertaining to the Colville Indian Reservation as well as ceded and allotted lands, a significant strength of the Natural Resources Department staff is its capacity in cross-disciplinary regional and international matters of substantive interest to CTCR. Examples include technical review and consultation concerning the CTCR/Upper Columbia River CERCLA site; CCT and EPA are co-agencies with mutual agendas in several legacy cleanup and redevelopment projects on the Colville Reservation that are either ongoing or in the planning stages; planning and implementation of improvements to the tribes' reservation-wide solid waste system; participation on CTCR and county solid waste advisory committees; assessments of brownfields on the reservation acquired through CTCR's proactive land reacquisition program; and advisory committee involvement in developing Washington State freshwater sediment cleanup regulations.

# The Confederated Tribes and Bands of the Yakama Nation

## Tribal Response Program

Fisheries Resource Management Program

Yakama Nation Department of Natural Resources

P.O. Box 151

Toppenish, WA 98948

<http://yakamafish-nsn.gov/restore/projects/yakama-nation-brownfields-project>

Contact(s): McClure Tosch, Brownfields Coordinator  
tosm@yakamafish-nsn.gov  
509-865-5121

## Overview

- **Location:** South Central Washington
- **reservation:** 1.2 million acres
- **Population:** 10,268 enrolled members
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://yakamafish-nsn.gov/restore/projects/yakama-nation-brownfields-project>

## Program

The Yakama Nation has reserved lands and rights covering over 1.2 million acres throughout what are now the states of Washington and Oregon. The sacred relationship between the People, the Salmon and the Columbia River is the foundation of time-honored laws of the Yakama People: the laws that protect life and the cycles of nature and provide for human well being; the laws that govern longhouse traditions; and the laws that support tribal practices, which have sustained the Yakama people since time immemorial.

Through the Tribal Response Program (TRP), the Yakama Nation is expanding its capacity to engage in oversight related activities of contaminated sites throughout the Pacific Northwest. The initial priority of the TRP focused on evaluating and ranking hazardous waste sites impacting aquatic resources. The initial inventory of sites was developed during 2010 and 2011. Sites are prioritized based on screening criteria developed in 2010. Prioritization of sites in the Lower Columbia River from Bonneville Dam to the mouth is almost complete. Current activities within the TRP are prioritizing sites in the middle and upper Columbia River; determining involvement at high priority sites; providing education and outreach; and assessing brownfields for priority restoration or habitat enhancement projects. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a site inventory
- Created a public record
- Prioritized Lower Columbia River sites
- Redesigned and expanded website
- Created public outreach materials
- Developed a vision statement for Yakama Nation's TRP
- Hosted a workshop focused on developing a strategy for Columbia River Restoration

## Program Highlights

Since starting the TRP, the Yakama Nation has become involved in the oversight of cleanup activities at several sites along the Columbia River. These sites include but are not limited to the Astoria Marine Construction Company, Goldendale Aluminum, Former Reynolds Aluminum, ALCOA Vancouver, and Canyon Creek Dump. In order to achieve Yakama Nation's goal of a clean, productive Columbia River, the Yakama Nation will continue to address sites identified as high priority for restoring the Columbia River. Yakama Nation TRP staff members have been involved in multiple state and federal environmental issues that are of importance to the Yakama Nation including Fish Consumption Rates, Coal Export, Oil Spills on the Columbia, and many others.



# Copper River Native Association

## Brownfields Tribal Response Program

Mile 104 Richardson Hwy

Drawer H Copper Center, AK 99573

<http://crnative.org/departments/support-services/tribal-response/>

Contact(s): Ava GreyBear, Tribal Response Program Coordinator  
trpcoordinator@crnative.org  
907-882-5241

## Overview

- **Location:** Central Alaska
- **EPA Grants:** Section 128(a) Tribal Response
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://crnative.org/departments/support-services/tribal-response/trp-public-record/>

## Program

The Copper River Native Association (CRNA) provides accessible environmental health services for Alaska Native communities, while enhancing cultural awareness through educational opportunities. The addition of Section 128(a) Tribal Response Program funding expands the tribe's scope of work to include addressing brownfields in Native Alaska.

## Program Highlights

The CRNA Tribal Response Program (TRP) highlights include the following:

- The TRP provided a 24-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) course to tribal environmental workers from each of the villages within Copper River Valley. This training opportunity provided the environmental workers with knowledge that they will need to work safely with TRP over the next two seasons inventorying potential brownfield properties.
- The TRP worked with CRNA's Information Technology (IT) staff on the development of its Public Record. The TRP's Public Record is now housed on the CRNA website.
- The TRP Coordinator completed 40-hour HAZWOPER training. The training allows TRP staff to safely perform site investigation work in the Native Villages.
- The TRP worked to create public awareness and provide the knowledge and skills to make informed choices about brownfield properties within CRNA's service villages. The TRP helped to provide a Brownfields 101 training and a Vision to Action Planning workshop in the Copper River Valley. The program also held workshops in all five villages and at the Annual Youth Environmental Summit (Y.E.S.).
- The TRP participated in a 24-hour Oil Spill Response Training. This training was held in Cordova, Alaska and hosted by the Native Village of Eyak's Tribal Response Program. Training and certification was provided by Alaska Department of Environmental Conservation (DEC), Environmental Protection Agency, Institute for Tribal Environmental Professionals and private contractors.
- CRNA took part in the oil spill contingency plan for the Trans-Alaska Pipeline Service (T.A.P.S.). This review takes place every five years and is approved by the State of Alaska DEC. CRNA's TRP believes it is crucial for the Copper River people to have a voice in the spill contingency planning. The Trans-Alaska pipeline stretches the length of the region and is potentially the most dangerous environmental threat to the Copper River watershed.
- The TRP Coordinator visited an active Formerly Utilized Defense (FUD) site in the Native Village of Gulkana. This project is being managed at the Tribal level and being funded in part by the Native American Lands Environmental Mitigation Program (NALEMP). The TRP Coordinator continues to work directly with Tribal Environmental staff and the Wrangell St. Elias National Park Service to monitor the Superfund cleanup of old mining tailings.
- The Native Village of Tazlina's Copper Valley School site project has been a focal point of CRNA's Environmental Department efforts and will continue to be over the next year.

# Craig Tribal Association

## Brownfields Tribal Response Program

1330 Craig-Klawock Highway

PO Box 828

Craig Alaska, 99921

<http://www.craigtribe.org/Brownfields.php>

Contact(s): Buck Grasser, Brownfields Coordinator  
brownfields@craigtribe.org  
907-826-5125

## Overview

- **Location:** Prince Wales Island
- **Population:** Approx. 1,400
- **EPA Grants:** Section 128(a) Tribal Response
- **Environmental Ordinances that Cover 128(a) Work:** No (not yet developed)
- **IC/EC Tracking and Public Record Website:** <http://www.craigtribe.org/Brownfields.php>

## Program

The Craig Tribal Association Brownfields Program was established to identify and clean up potentially contaminated sites within the tribe's traditional territory. Fiscal Year 2011 was the first year of the program. Accomplishments using Section 128(a) Tribal Response Program funding include:

- Identified brownfield properties and developed a comprehensive inventory of properties in tribe's traditional territory
- Created and maintained a public record
- Fostered public participation through outreach and education
- Developed a public outreach plan
- Offered environmental training to staff

## Program Highlights

The Craig Tribal Association has used Section 128(a) Tribal Response Program funding to begin the process of developing an inventory of potential brownfield properties, and strengthening the tribe's capacity to respond to contaminated sites within tribal lands. Part of the inventory development included the creation of a public survey to educate the community about brownfields and to solicit information about potential brownfields properties in the community.



# Douglas Indian Association

## Brownfields Tribal Response Program

811 West 12th Street  
Juneau, AK 99801

Contact(s): Kamal Lindoff, Brownfields Coordinator  
klindoff@gci.net  
907-364-3567

## Overview

- **Location:** Central Alaska
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

Douglas lies within the City and Borough of Juneau, on the northeast coast of Douglas Island. Douglas Indian Association represents the Tlingits that have historically occupied the area. The addition of Section 128(a) Tribal Response Program funding allows the tribe to address brownfields issues in Native Alaska.

## Program Highlights

The Douglas Indian Association is using a portion of its Section 128(a) Tribal Response Program funding to incorporate brownfields into its inventory of hazardous waste properties impacting the Douglas Indian Association's aquatic resources. Currently, the inventory focuses on mining- impacted properties; however, the Douglas Indian Association will add brownfields in addition to National Priorities List (NPL) sites, federal facility sites, and Alaska Cleanup sites along the Douglas Harbor, and the Taku River and Inlet. Once brownfields are identified and evaluated, they will be proposed for future assessment and cleanup. The tribe identified ten properties during the initial phase of the brownfields inventory.

# Grayling, Anvik, Shageluk, and Holy Cross (GASH)

## Brownfields Tribal Response Program

P.O. Box 8  
Anvik, AK 99558  
<http://www.anviktribalcouncil.com/brownfields.html>

Contact(s): Carolynn Campbell-Burkett, Brownfields Coordinator  
ccampbellburkett@yahoo.com  
907-476-7258

## Overview

- **Location:** Western Alaska
- **Land Area:** 11.9 square miles
- **Population:** Approximately 600 within the GASH region
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **IC/EC Tracking and Public Record Website:** <http://anviktribalcouncil.com/brownfields.html>

## Program

Formerly the Anvik Tribal Brownfields Program, the project now encompasses three neighboring communities as well: Grayling, Shageluk and Holy Cross. The Grayling, Anvik, Shageluk, and Holy Cross (GASH) Brownfields Program provides natural resources management and environmental protection services for the tribe's 11.9 square miles of land. These villages face similar brownfields issues including tank farms, abandoned dump sites and contaminated properties. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completing a property inventory
- Creating a public record
- Conducting Phase I and II assessments on properties
- Developing a public outreach plan
- Fostering public participation through outreach and education

## Program Highlights

The GASH Brownfields Response Program used Section 128(a) Tribal Response Program funding to develop a Public Involvement Plan to build upon the cooperative relationship between tribal councils, local corporations, and the local government to plan and organize community meetings focused on land reuse and development. The plan also focuses on educating the public about brownfields and encouraging community participation. GASH also used funding to complete a Phase I Assessment at a former Grayling Native Store former tank farm. The data collected will be used to document the extent of contamination at the site. The GASH Brownfields Program also worked with the Yukon River Inter-Tribal Watershed to update its Quality Assurance Project Plan (QAPP) to conduct additional sampling at properties in each community.

# Hydaburg Cooperative Association

## Brownfields Tribal Response Program

P.O. Box 349

Hydaburg, AK 99922

<http://www.hcabrownfields.com/index.html>

Contact(s): Dorinda Sanderson, Brownfields Coordinator  
dorinda.s@hotmail.com  
907-285-3666

## Overview

- **Location:** Southeastern Alaska
- **Land Area:** 189 acres
- **Population:** Approximately 350
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.hcabrownfields.com/blank.html>

## Program

The Hydaburg Cooperative Association's (HCA) mission is to honor, strengthen and preserve the Haida culture and language by fostering healthy children and families who have pride and dignity in the community and culture; and by creating economic development opportunities for all of its people. The addition of Section 128(a) Tribal Response Program funding expands the Association's scope of work to include addressing brownfields in Native Alaska.

## Program Highlights

HCA is using Section 128(a) Tribal Response Program funding to identify, inventory and clean up potential brownfield properties. In addition, HCA is committed to maintaining an accurate inventory list and public record of these properties in order to educate and notify the community of its efforts in regaining use of tribal lands.

# Jamestown S’Klallam Tribe

## Natural Resources Department Brownfields Tribal Property Response Program

1033 Old Blyn Highway  
Sequim, WA 98382

[http://www.jamestowntribe.org/programs/nrs/nrs\\_browns.htm](http://www.jamestowntribe.org/programs/nrs/nrs_browns.htm)

Contact(s): Pam Edens, Brownfields Coordinator  
pedens@jamestowntribe.org  
360-681-4658

## Overview

- **Location:** Northwest Washington
- **Land Area:** 280 acres
- **Population:** Approximately 600
- **EPA Grants:** Cleanup Grant and Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Tribal Environmental Policy Act, July 2009
- **IC/EC Tracking and Public Record Website:** No

## Program

The Natural Resources Department protects treaty rights of the natural resources of the Point No Point Treaty area for the benefit of Jamestown S’Klallam Tribal members and future descendants. In this capacity, the Department is charged with ensuring the orderly harvest of fish, shellfish, and wildlife resources; providing opportunities for tribal members to derive subsistence and/or livelihood from the harvest of these resources; increasing opportunity through restoration, enhancement, and scientific study; reversing the decline of these resources resulting from environmental degradation; and management and restoration of contaminated brownfields within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completing an inventory of all Jamestown S’Klallam Tribal property
- Creating and updating a public record of all Response Program actions
- Conducting Phase I and II assessments on properties on tribal lands
- Conducting cleanup activities on properties on tribal lands

## Program Highlights

The Jamestown S’Klallam Tribe used Section 128(a) Tribal Response Program (TRP) funding to develop a Brownfields Inventory that is edited and updated at least twice a year. Currently there are 47 properties on the Tribe’s Brownfields Inventory. Since establishing the Tribe’s Response Program in 2006, the Tribe has completed 20 Phase I Environmental Site Assessments, six Phase II Environmental Site Assessments, eight cleanups, and a two-year monitoring plan on the Tribe’s golf course wells. The Tribe works with the Washington Department of Ecology’s Voluntary Cleanup Program to insure that properties are cleaned up to Washington State’s Model Toxic Control Act (MTCA) standards.

In FY2013, TRP staff performed preliminary site inspections on eight Tribal properties and recommended lead and asbestos testing of older buildings on two of those properties. When the results came back positive for asbestos, institutional controls were put into place on one of the buildings and the other building was demolished and hauled to a facility that accepts asbestos. These two properties will be re-developed for Tribal housing. During one of the preliminary site inspections, an empty 500-gallon above-ground storage tank (AST) was discovered. The Tribe hired an environmental contractor to perform a Phase II Environmental Site Assessment. When the soil in the area of the AST was sampled, high levels of heavy oil and semi-volatile organic compounds (SVOCs), which exceeded MTCA Method A and Method B cleanup levels, were found. The area was sampled for the lateral and vertical extend of the contamination. Approximately 20 cubic yards of contaminated soil was removed from the subsurface and placed in two berms and treated onsite for three months using land farming techniques. When the soil was re-tested it was found to be free of contamination. The property on which this cleanup was performed is slated to be re-developed as the site of the Tribe’s Membrane Bioreactor plant.



Onsite land farming treatment of heavy oil/SVOC contaminated soil.

# Kuskokwim River Watershed Council (KRWC)

## Brownfields Tribal Response Program Main Office

Office Location: 460 Ridgecrest Dr., BNC Complex, Suite 119  
P.O. Box 2986 | Bethel, AK 99559-2986  
Office: 907-543-1426 | Fax: 907-543.1427  
Toll Free: 1-855-543-1427  
<http://www.kuskokwimcouncil.org/brownfield.html>  
<http://www.facebook.com/kuskokwimcouncil>

Contact(s): Adrian Boelens, Executive Director  
[director@kuskokwimcouncil.org](mailto:director@kuskokwimcouncil.org)  
907-543-1426

Lucille Kalistook, Brownfields Coordinator  
[brownfields@kuskokwimcouncil.org](mailto:brownfields@kuskokwimcouncil.org)  
907-543-1426

## Overview

- **Location:** Western Alaska
- **Watershed:** 48,000 square miles (124,319 km<sup>2</sup>)
- **Population:** Approximately 15,000; 39 Member / Tribal Organizations
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Hub Community Demonstration Efforts Underway
- **Public Record Website:** <http://www.kuskokwimcouncil.org/brownfield.html>
- **Comprehensive GIS Database:** Under Development

## Program

The focus of the Kuskokwim River Watershed Council's (KRWC) Brownfields Program is to collaborate and support the environmental efforts of the 39 'member' village communities throughout the Kuskokwim River Watershed. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed property inventories
- Created a public record and developed a geographic information system (GIS) database
- Fostered public participation through outreach and education
- Offered environmental training to staff and/or tribal members

## Program Highlights

KRWC Brownfields Tribal Response Program (TRP) assisted with the coordination of the Watershed's first Oil Spill Response Training for Kuskokwim River villages. The 24-Hour Oil Spill Response Training took place in the mid-river village of Kalskag, June 25-27, 2012, where 17 24-hour Oil Spill Response certificates, 12 16-hour Awareness certificates, and 14 of 32 participants also received their 8-hour HAZWOPER refresher certification. The successful training was supported through the efforts of the KRWC TRP; the Institute for Tribal Environmental Professionals (ITEP) at Northern Arizona University; the Native Village of Kalskag; Alaska Department of Environmental Conservation; EPA; Ecology and Environment, Inc.; and the Alaska Municipal League Joint Insurance Association.



**Left to right:** Back Row: Eric Lindeman, Mark Sielaff, George Morgan, Father Nick Isaac, Julie Ratliff, Nick Alexie, Johnathon Gregory, Kenny Morgan, Paul Evan, Andrew Maud, Henry Aloysius, Annie Lou Williams, Gina Mckindy. Middle Row: Cathy Wasuli, Billy Jean Stewart, Sharay Alexie, Vivian Changsak, Rose Alexie, Nicholai Napoka, Lucy Evan Jordan, Michael Alexie, Seraphim Evan. Front Row: Nick Wise, Middy Peter, Nicholai Alexie, Carlton Evan, Eric Alexie, Margaret Andrew, Bob Whittier, Carl Overpeck

# Makah Indian Nation

## Brownfields Tribal Response Program

PO Box 115  
Neah Bay, WA 98357  
<http://www.makah.com/>

Contact(s): Chad Bowechop, Brownfields Coordinator  
bowechop.chad@centurytel.net  
360-645-3015

## Program

The Makah Indian Nation environmental programs provide comprehensive natural resources management and environmental protection services for the tribe's 47 square miles of land and treaty protected marine and ocean areas. The addition of the Section 128(a) Tribal Response Program funding expanded the tribe's scope of work to include management and restoration of contaminated sites within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a comprehensive inventory of properties on the reservation
- Created and maintained a public record
- Developed a public outreach plan
- Fostered public participation through outreach and education
- Offered environmental training to staff and/or tribal members

## Overview

- **Location:** Northwest Olympic Peninsula, Washington
- **Land Area:** Approximately 47 square miles
- **Population:** Approximately 1,400
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program Highlights

The Strait of Juan de Fuca accommodates one of the busiest waterways in the United States and is the primary shipping lane for commercial vessels bound to port facilities in Washington State and British Columbia. Because of the Tribe's risk of exposure to oil spills, the Makah Tribal Council (MTC) has been involved in oil spill policy and response program capacity development since the early 1970s. Along those lines, MTC recognized that it needed to define a formal working relationship with the federal agencies that maintain oversight and authority over oil spill pollution. Over the past few years, the Tribe has made significant strides in working towards oil spill mitigation and prevention, supported in large part through Section 128(a) Response Program funding. The Makah Nation has served as a voting member on the Executive Committee of the Northwest Regional Response Team and was the first tribe to serve in this role nationally. They also worked closely with the U.S. Coast Guard to develop a Memorandum of Understanding to enhance consultation, leverage resources, and improve oil spill response coordination. On April 12, 2013, an MOA was entered into between the Tribe and the U.S. Coast Guard. To commemorate this partnership in protecting the waters of the Puget Sound off the coast of Washington State, the Commanding Officer of the Coast Guard District 13 invited the MTC to name a conference room in the Seattle Federal Building. This event was attended by the Governor of Washington State, Jay Inslee, and by representatives from Senator Maria Cantwell's office.



# Maniilaq Association

## Tribal Response Program

Tribal Government Services

Maniilaq Association

P.O. Box 256

Kotzebue, AK 99752

<http://www.maniilaq.org/environmental.html>

Contact(s): Stanley Tomaszewski, Recycling Tech/Brownfield Coordinator  
[stanley.tomaszewski@maniilaq.org](mailto:stanley.tomaszewski@maniilaq.org)  
907-442-7639

## Overview

- **Location:** Northwest Alaska
- **Service Area:** 39,000 sq. mi.
- **Population:** Approximately 8,500
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.maniilaq.org/environmental.html>

## Program

The Maniilaq Association, a nonprofit organization and consortium of 12 federally recognized tribes headquartered in Kotzebue, Alaska, provides health, social, elder and tribal government services for approximately 8,500 residents within its Northwest Alaska service area. The 12-member tribes include the Native Villages of: Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Kotzebue, Noatak, Noorvik, Selawik, Shungnak, and Point Hope. The Association established its Tribal Environmental Protection (TEP) program in 1997 with funding from EPA. The program provides tribal governments and municipalities with technical assistance to identify, assess and monitor environmental issues. TEP also works extensively to educate and promote ownership, responsibility and prevention to community members; foster environmental stewardship practices; and develop regional training sessions in the villages. The Maniilaq Association committed the TEP to establish comprehensive backhaul-recycling, Climate Change Adaptation, and Tribal Response Brownfield Restoration/Prevention programs in the region, benefiting the health and the environment of current and future generations of inhabitants of the northwest arctic. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Established a public record of response actions
- Created and maintain a Brownfields Response Program website to inform the communities
- Completed an inventory of potentially contaminated sites in eight communities
- Guided four sites in two communities in applying for Alaska DEC Brownfield Assessment (DBA) assistance

## Program Highlights

The Maniilaq is using Section 128(a) Tribal Response Program funding to enhance and build capacity of the established Tribal Response Program within Maniilaq TEP. The Tribal Response Program's directive is to provide technical assistance to the 12 Native villages that Maniilaq Association serves and to educate the general public about the number and type of brownfield sites within this area. The Maniilaq TEP's vision is also to develop partnerships with local governments to reduce the risk of exposure to contaminants found in the brownfield sites to the public; and to assist in fully reclaiming sites for the public's use such as community development, subsistence harvesting, habitat restoration, and community gardening. The TEP has implemented a recycling program as well as a regional backhaul program to assist communities within the service area with staging and transporting recyclable materials via Kotzebue to Anchorage and/or Seattle. The project is a partnership between Maniilaq Association and its member tribes, the City of Kotzebue, Northwest Arctic Borough/Municipalities, and regional transportation providers. Two years since the program's inception, the program has backhauled for recycling over 70,000 pounds of electronic waste, two tons of fluorescent lights, 16 tons of lead-acid batteries, and over three tons of 'white goods' (e.g., washers, dryers, refrigerators, freezers). The Maniilaq Association Back Haul Recycling Program demonstrated the ability to divert substantial amounts of undesirable materials from entering the solid waste stream and the environment; however, the full measure of accomplishment will be preventing the accumulation of certain refuse items by establishing permanent outlets that systematically prevent future backlog.

# Metlakatla Indian Community

## Brownfields Tribal Response Program

Metlakatla, AK 99926

<http://www.metlakatla.com/>

Contact(s): Jeff Benson, Brownfields Coordinator  
PO Box 8  
Metlakatla, Alaska 99926  
907-886-4200

Wendy Ridley, Assistant Brownfields Coordinator  
907-886-4200

## Overview

- **Location:** Southeastern Alaska
- **Land Area:** 132,332 acres
- **Population:** Approximately 1,499
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **IC/EC Tracking and Public Record Website:** No

## Program

The Metlakatla Indian Community (MIC) is a natural resource dependent community seeking to diversify its economy through brownfields redevelopment. MIC's goal is to promote sustainable economic development through remediation and redevelopment of brownfields on the Metlakatla Peninsula for industrial, commercial, recreational and cultural uses. MIC also seeks to restore and protect the community's natural resources that have traditionally sustained the Metlakatla people. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a comprehensive inventory of properties on the reservation
- Created and maintained a public record
- Developed tribal ordinances and codes
- Conducted Phase I and II assessments on properties on the reservation
- Conducted cleanup activities on properties on the reservation
- Developed a public outreach plan
- Fostered public participation through outreach and education
- Offered environmental training to staff and tribal members

## Program Highlights

The MIC's Brownfields Program enables the community to leverage a wide range of services and funding from other sources to address multiple environmental concerns that face the community. As a federal participant in the MIC Brownfields Program, the National Oceanic and Atmospheric Administration (NOAA) worked with MIC to develop the study plan and collect species for the Annette Islands Seafood Study. Using community outreach, MIC presented the Annette Islands Seafood Study results to the community through fact sheets and public meetings. To date, most of the properties on the Metlakatla Peninsula have been investigated, and potential hazards and sources of contamination have been identified. Many of these properties have been cleaned up, and sources of contamination have been removed at several properties. Through these efforts, the Brownfields Program has strengthened the tribe's capacity to respond to contaminated sites within tribal lands.



# Native Village of Eklutna

## Brownfields Tribal Response Program

26339 Eklutna Village Road  
Chugiak, Alaska 99567  
<http://www.eklutna-nsn.gov/LandEnviron.htm>

Contacts: Marc Lamoreaux, Brownfields Coordinator  
nve.ledirector@cklutna-nsn.gov  
907-688-6020

## Overview

- **Location:** Southern Alaska
- **Land Area:** 1,819 acres
- **Population:** Approximately 75
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Native Village of Eklutna protects and manages the traditional lands and environment for the benefit of Eklutna people and the way of life of the village. The addition of Section 128(a) Tribal Response Program funding expands the tribe's scope of work to include management and restoration of contaminated properties within tribal lands.

## Program Highlights

The Native Village of Eklutna is using Section 128(a) Tribal Response Program funding to begin the process of developing an inventory of potential abandoned hazardous waste properties, and strengthen the tribe's capacity to respond to contaminated properties within tribal lands.

# Native Village of Eyak

## Brownfields Tribal Response Program

P.O. Box 1388  
110 Nicholoff Way  
Cordova, AK 99574  
<http://nveyak.com/environmental-and-natural-resources/strp-state-tribal-response-plan/>

Contact(s): Ivy Patton, Brownfields Coordinator  
ivy@eyak-nsn.gov  
907-424-7738

## Overview

- **Location:** South Central Alaska
- **Land Area:** Approximately 48,640 acres
- **Population:** Approximately 2,240
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Native Village of Eyak's (NVE) Brownfields Tribal Response Program (TRP) was created to identify harmful, contaminated sites and to promote sustainable land use practices throughout the greater Cordova region. The tribe's goal is to increase tribal capacity for oil spill response by having a trained and prepared response team. NVE offers training and is a local resource to report and address hazardous spills. The TRP has completed the following activities:

- Published a brownfields inventory on the tribe's website (the inventory is also available in the Brownfields Coordinator's office)
- Created and maintained a public record
- Fostered public participation through outreach and education
- Offered environmental training to staff, tribal, and community members

## Program Highlights

NVE is using Section 128(a) Tribal Response Program funding to continue the process of developing an inventory of potential brownfields, and strengthen the tribe's capacity to identify and respond to contaminated sites within tribal lands. To date, the TRP identified over 20 potentially contaminated properties for its inventory and continues to solicit more properties. To increase its capacity for oil spill response, NVE held a 24-hour Spill Response course and a 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) refresher course in October 2011 and will hold another in October 2014. In addition, NVE strives to reduce spills in our environment. In May 2012, NVE held a Home Heating Oil Tank Safety training event to increase its capacity to prevent spills and offers home heating tank inspections.



Sunset over Old Harbor in the Native Village of Eyak

# Native Village of Port Heiden

## Tribal Environmental Department Brownfields Tribal Response Program

P.O. Box 49007

Port Heiden, AK 99549

<http://www.nativevillageofportheiden.com/brownfields.html>

Contact(s): Jaclyn Christensen, Brownfields Coordinator  
[jaclync@portheidenalaska.com](mailto:jaclync@portheidenalaska.com)  
907-837-2296

## Overview

- **Location:** Western Alaska
- **Population:** Approximately 105
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.nativevillageofportheiden.com/public-record.html>

## Program

The Native Village of Port Heiden's Tribal Environmental Department provides comprehensive natural resources management and environmental protection services for the Tribe. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completing a property inventory
- Creating a public record

## Program Highlights

Over the last several years, the Native Village of Port Heiden used Section 128(a) Tribal Response Program (TRP) funding to initiate the development of a tribal response program. They focused their funding on developing an inventory of properties and a public record, obtaining technical training for staff members, and conducting outreach and education to engage the community in environmental and brownfields issues. The Village of Port Heiden TRP attended the Alaska Forum on the Environment in Anchorage. The forum provided an opportunity for state, local, military, private, and Native leaders and professionals to come together and discuss the latest projects, processes, and issues that affect Alaska. In addition, the TRP attended the Alaska State and Tribal Response Program (STRP) Workshop in Fairbanks. This workshop helped the TRP map its priority list and network with other tribes and native villages. The TRP also investigated the project proposed to work on cleaning up a few buildings in the old village of Meshik. Based on a previous Brownfield assessment Phase I and II reports on the Old Meshik Town Project these two properties needed further investigation. Although the TRP conducted additional investigations, the projects were halted because several storms caused massive erosion to the coastlines and the buildings on the properties collapsed onto the beach. The Village of Port Heiden removed the two buildings that were destroyed.



Aerial View of the Native Village of Port Heiden.

# Native Village of Saint Michael

## Brownfields Tribal Response Program

P.O. Box 59050

St. Michael, Alaska 99659

<http://www.kawerak.org/communities/stmichael.html>

Contact(s): Jeff Long, Brownfields Coordinator

[jlong5096@yahoo.com](mailto:jlong5096@yahoo.com)

907-923-2304

## Overview

- **Location:** Western Alaska
- **Land Area:** 13,952 acres
- **Population:** Approximately 400
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Native Village of Saint Michael (NVSM) provides comprehensive natural resource management and environmental protection services for the tribe's 13,952 acres of land. The addition of Section 128(a) Tribal Response Program funding expanded the tribe's scope of work to include management and restoration of contaminated sites within tribal lands.

Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a property inventory
- Created a public record
- Coordinated with the Department of Defense to conduct Phase I assessments

## Program Highlights

NVSM is using Section 128(a) Tribal Response Program funding to enhance the development of a tribal response program. The tribe continues to focus its funding on developing an inventory of properties and maintaining a public record, and conducting outreach to engage the community in environmental and brownfields issues. In addition, the tribe conducted site-specific sampling at a subsistence area potentially impacted by tar residues.

# Native Village of Tazlina

## Brownfields Tribal Response Program

Mile 110.5 Richardson Hwy  
Glennallen, AK 99588  
<http://www.tazlina.org/tribal-response-program.html>

Contact(s): Tana Mae Pete, TRP Coordinator  
[trp.tazlina@cvinternet.net](mailto:trp.tazlina@cvinternet.net)  
907-822-4375

## Overview

- **Location:** Eastern Alaska
- **Land Area:** 300,000 acres (ANSCA)
- **Population:** Approximately 300
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.tazlina.org/tribal-response-program.html>

## Program

The Native Village of Tazlina protects and preserves the land, ecosystems and traditional natural resources to ensure the health of the village for generations to come. The addition of Section 128(a) Tribal Response Program (TRP) funding expands the tribe's scope of work to include management and restoration of contaminated sites within tribal lands.

## Program Highlights

Below is a list of program highlights the Native Village of Tazlina's TRP conducted since 2012:

- Targeted brownfield assessment (TBA) completed on the Copper Valley School site.
- Completion of a seven-week cleanup of the Copper Valley School property.
- Collaborating with Native American Lands Environmental Mitigation Program (NALEMP) to clean up the Dry Creek Military Dump site.
- NALEMP conducted an assessment at the Dry Creek site.
- Developed the Native Village of Tazlina website at [www.tazlina.org](http://www.tazlina.org).
- Developed a Public Record of properties and posted it on the Native Village of Tazlina's website.
- Collaborated with EPA's Unmet Needs grant to strategize a plan to put all of Dry Creek sites on the inventory.
- Developed a procedure manual for the TRP that details all of the tasks under the program that changes each year.
- Attended 40-hour HAZWOP, 8-hour Refresher, and Oil Spill Response Training.
- Held a 40-hour HAZWOP training for village members.
- Tribal Administrator and TRP Coordinator attended ASTM Phase I/II Environmental Assessment training.
- Tribal Administrator and TRP Coordinator attended the State Tribal Response Program workshop.

# Native Village of Tununak (Nelson Island Consortium)

## Brownfields Response Program

P.O. Box 77  
Tununak, AK 99681  
<http://www.nelsonislandconsortium.org>

Contact(s): Peter Pitka, Brownfields Coordinator  
[tnkbrp@nelsonislandconsortium.org](mailto:tnkbrp@nelsonislandconsortium.org)  
907-652-6537

## Overview

- **Location:** Western Alaska
- **Land Area:** 60.5 square miles
- **Population:** Approximately 385
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Native Village of Tununak initiated its Brownfield Program in the fall of 2006. The program provides comprehensive natural resources management and environmental protection services for its six member tribes: Chefornak, Kipnuk, Newtok, Nightmute, Toksook and Umkumiut. The addition of the Section 128(a) Tribal Response Program funding allowed the tribes to address the management and restoration of contaminated sites within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a property inventory
- Published the inventory on the tribes' website
- Created and maintained a public record
- Developed tribal ordinances and codes
- Conducted Phase I and II assessments on properties in the native villages of the Nelson Island Consortium
- Conducted cleanup activities on properties in the native villages of the Nelson Island Consortium
- Developed a public outreach plan
- Fostered public participation through outreach and education
- Offered environmental training to staff and/or tribal members

## Program Highlights

The Native Village of Tununak is using Section 128(a) Tribal Response Program funding to continue the development of its tribal response program. The tribes focus their funding on developing an inventory of properties and a public record, obtaining technical training for staff members, and conducting outreach and education to the public. In addition, the tribes are conducting Phase I and II assessments on properties from the brownfields inventory and developing a public outreach plan to engage the community in environmental and brownfields issues.



# Nez Perce Tribe of Idaho

## Department of Natural Resources Water Resources Division – Ground water Program

P.O. Box 365  
Lapwai, Idaho 83540  
<http://www.nptwaterresources.org>

Contact(s): Kevin Brackney, Brownfields Coordinator  
kevinb@nezperce.org  
208-843-7368

## Program

The Nez Perce Tribe vision is “to manage, protect, develop, and restore the Nez Perce Tribe’s surface and ground water resources and watershed environments in the treaty-reserved homelands for the benefit, health, culture, and welfare of the tribal public.” Section 128(a) Tribal Response Program contributions towards this vision include:

- Participated in HAZMAT Response and subsequent cleanup oversight of three petroleum spills affecting the Wild and Scenic Clearwater River.
- Developed a new website for the Tribal Water Resources Division.
- Leveraged additional funding including: EPA Leaking Underground Storage Tank (LUST) Prevention, LUST Assessment, Hazardous Materials Emergency Planning Grant, and tribal funded Hazardous Emergency Response Team.
- Continued developing and enhancing a Geo Database titled “Inventory of Regulated Properties,” which contains diverse records on 388 reservation properties, with each given a relevant contaminant ranking from 1 (unlikely contamination) to 5 (known contamination). Project files are maintained and updated on each property for future use, but are not published to maintain owner confidentiality. Individual records are available on request for interested parties.
- Assisted EPA in conducting on-reservation inspections under the Underground Injection Control program.
- Provides an important service to reservation communities in processing environmental complaints regarding potential or actual contamination of soil and ground water.
- Under the direction of a Registered Professional Geologist, the Groundwater Program Conducts Phase I and II Environmental Site Assessments including writing Quality Assurance Documents. Investigation techniques include soil vapor sampling, geophysics, Tubex Air Rotary and Sonic monitor well drilling, soil, groundwater, and surface water sampling.

## Overview

- **Location:** North Central Idaho
- **Land Area:** 770,470 acres
- **Population:** 9,554 including 1,998 enrolled tribal members
- **EPA Grants:** Section 128(a) Tribal Response
- **Environmental Ordinances that Cover 128(a) Work:** No. Ordinances have been drafted, but not yet approved by Council.
- **IC/EC Tracking and Public Record Website:** <http://www.nptwaterresources.org>

## Program Highlights

The Nez Perce Tribe Water Resources Division responds to tanker truck accidents along U.S. Highway 12, which parallels the Wild and Scenic Lochsa/Clearwater River over the Bitterroot Mountains from Missoula, MT to Lewiston, ID. Response Program funding is used to train emergency responders, but not for emergency response. The Hazardous Emergency Response Team (HERT) Response actions are complementary to other responsibilities of the Groundwater Program, including LUST Prevention, LUST Assessment and Cleanup, and Brownfield Tribal Response Program. Under the program, the Nez Perce Tribe Water Resources Division is actively participating in four Phase II environmental site assessments, including the McCoy LUST site where the soil caught fire during road construction; Hunt Oil Seep where gasoline contaminated groundwater from an above ground storage tank that intermittently discharged gasoline into the Clearwater River; Lapwai School District UIC well which contaminated soil and shallow groundwater with chlorinated solvents approximately 100 ft from a municipal well; and a 37-acre brownfield site at Tribal Unit-45.



Groundwater Program installing soil vapor sampler.

# Organized Village of Kasaan

## Department of Natural Resources Brownfields Program

P.O. Box 26  
Kasaan, Ketchikan, AK 99950-0340  
[http://www.kasaan.org/brownfields\\_home.html](http://www.kasaan.org/brownfields_home.html)

Contact(s): Fred Olsen, Jr., Brownfields Coordinator  
[fred@kasaan.org](mailto:fred@kasaan.org)  
907-542-2230

## Overview

- **Location:** Southeast Alaska – Prince of Wales Island
- **Population:** Approximately 50
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.kasaan.org/brownfields.html>

## Program

The Organized Village of Kasaan's Brownfields Program was established to identify and clean up potentially contaminated sites in the Kasaan Bay Watershed. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a property inventory
- Created a public record
- Fostered public participation through outreach and education

## Program Highlights

Located on the third largest island in North America, Prince of Wales Island, the Organized Village of Kasaan is using Section 128(a) Tribal Response Program funding to inventory sites within its traditional territory. This land is of mixed ownership, including the U.S. Forest Service, Alaska Mental Health Trust Authority, Sealaska Corporation, Kavalico Incorporated, and several different private landowners. For years, hard rock mineral mining was an important activity on the island. Past mining activity left the natural lands the Haida people use for subsistence littered with contaminated sites that pollute the natural ecosystem. To date, the tribe has inventoried 35 sites, and is leveraging partnerships to clean up and restore former mine sites to their natural environment and allow the tribe to maintain its way of life. The Salt Chuck Mine site, a former palladium mine, was inventoried by the tribe and identified for further evaluation. Visual surveys revealed the

presence of mine tailings in the water that were contaminating nearby clam populations. In 2011, the Forest Service conducted cleanup activity at the Salt Chuck Mine property, including the removal of 8,400 tons of contaminated soil and debris. The rail carts, a grader, and mine materials including engines were left on the property to preserve the site's mining history. In addition, EPA initiated a Remedial Investigation to investigate how much contamination remains in the upland portion of the property and the extent of the contamination in the tideland portion. Still in progress, the Remedial Investigation will include sampling water, plants, soil, and bivalves to determine the extent of contamination.

In April 2013, the Village held its annual POW Island-wide Mining Symposium. The event included representatives from the offices of Governor Parnell, Senator Mark Begich, Senator Lisa Murkowski, the Niblack Project, Ucore Rare Metals, Inc., SEALASKA Corporation, U.S. Department of Agriculture-U.S. Forest Service, Alaska Power and Telephone, State of Alaska Department of Natural Resources, and several tribes discuss mines on POW. The event updated residents on activities and concerns with mining occurring on the island, garnished local support, promoted the development of a local work force, and served as a forum for natural resource education.



Dilapidated structures at the Salt Chuck Mine site as seen from across Ellen Creek



# Orutsararmiut Native Council

## Brownfields Tribal Response Program

P.O. BOX 927

Bethel, Alaska 99559

<http://nativecouncil.org/natrec/brownsfield-program>

Contact(s): Curtis Mann, Brownfields Coordinator

[cmann@nativecouncil.org](mailto:cmann@nativecouncil.org)

907-543-2608

## Overview

- **Location:** Western Alaska
- **Land Area:** 48,900 acres
- **Population:** Approximately 6,080
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://nativecouncil.org/natrec/brownsfields-inventory/>

## Program

The mission of the Orutsararmiut Native Council (ONC) is “to promote the general welfare, enhance independence, encourage self-sufficiency/self-motivation, enhance quality of life, and preserve cultural and traditional values of the Tribe and to exercise Tribal authority over resources through education/economic and social development opportunities.” The addition of Section 128(a) Tribal Response Program funding expands ONC’s scope of work to include management and restoration of contaminated properties within ONC’s tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Created and maintained a public record on contaminated sites
- Developed and published an inventory on ONC’s website
- Developed outreach and education to the public
- Offered environmental training to staff and/or tribal members

## Program Highlights

The Orutsararmiut Native Council is using its Section 128(a) Tribal Response Program funding to develop an inventory of properties and a Public Record and will be conducting outreach and education to involve the community in environmental and brownfields issues. One of the highlights of ONC’s Tribal Response Program was a visit from EPA Region 10’s Alaska Brownfields Project Manager, Mary Goolie, and Alaska’s Department of Environmental Conservation’s, Reuse & Redevelopment Program, Sonja Benson, for a three-day workshop. The workshop also included the Kuskokwim River Watershed Council (KRWC) and the Native Village of Tununak-Nelson Island Consortium (NIC). KRWC and ONC are based in Bethel and the NIC program is based in Tununak on Nelson Island. All three programs overlap within the communities; they are working together to strengthen a partnership to better serve the tribes within our region.

# Port Gamble S’Klallam Tribe

## Natural Resource Department Brownfields Tribal Response Program

31912 Little Boston Road NE  
Kingston, WA 98346

<http://www.pgst.nsn.us/tribal-government/natural-resources/brownfields-tribal-response-program>

Contact(s): Roma Call, Brownfields Coordinator  
romac@pgst.nsn.us  
360-297-6293

## Overview

- **Location:** Kingston, Washington
- **Land Area:** 1,800 acres
- **Population:** Approximately 1,192
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** <http://www.pgst.nsn.us/tribal-government/natural-resources/brownfields-tribal-response-program>

## Program

The Port Gamble S’Klallam Tribe’s Natural Resources Administration oversees environmental protection and manages various programs designed to protect and enhance the natural treaty resources available to tribal members, and to promote self-governance, self-determination and self-sufficiency. The addition of Section 128(a) Tribal Response Program funding expanded the tribe’s scope of work to include management and restoration of contaminated properties within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a property inventory
- Created a new public record
- Conducted Phase I and II assessments on properties on the reservation
- Completed analysis of cleanup alternatives for the Point Julia site
- Fostered public participation through outreach and education
- Conducted cleanup activities on properties on the reservation

## Program Highlights

The first goal of the Port Gamble S’Klallam Tribe’s Brownfields Program was to create a list of potential brownfields properties through research and interviewing both technical professionals and community members. Two EPA Assessment grants were used to investigate properties of the greatest concern. The Port Gamble S’Klallam Tribe is interested in cleaning up properties and returning them to culturally beneficial uses, like shellfish harvesting. In addition, the Tribe developed a public record that is accessible to the community and contains a list of potential brownfields and related information, along with additional documents and reports on cleanup related activities in the area. Recently, supplemental shellfish tissue sampling was conducted on Point Julia after the initial Phase II assessment found contaminants in the soil. A report on the sampling results has been completed and shows that ingestion of shellfish has been identified as an exposure pathway for Port Gamble Bay. This data is being used to support an intergovernmental public health consultation requested by the Tribe that will be conducted by the Agency for Toxic Substances and Disease Registry (ATSDR) and the Washington Department of Health (WDOH). The Tribe is coordinating closely with these agencies to ensure that the health consultation adequately addressed their needs.

It is the Tribe’s hope that other top sites listed in the public record will be assessed with EPA funding, to allow the Tribe to purchase these properties.

# Shoshone-Bannock Tribes

## Environmental Waste Management Program (EWMP) Brownfields Tribal Response Program

Building #52  
P.O. Box 306  
Fort Hall, ID 83203  
<http://www.sbtribes-ewmp.com/>

Contact(s): Kelly Wright, Program Manager  
kwright@shoshonebannocktribes.com  
208.478.3903

## Overview

- **Location:** Southeast Idaho
- **Land Area:** 520,960 acres
- **Population:** Approximately 5,762
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **IC/EC Tracking and Public Record Website:** <http://www.sbtribes-ewmp.com/>

## Program

The Shoshone-Bannock Tribes' Tribal Brownfields Response Program provides identification, assessment, cleanup, oversight, and monitoring of properties within the reservation that contain contaminants, pollutants or other materials with the potential to adversely affect human health and the environment. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a comprehensive inventory of properties on the reservation
- Created and maintained a public record
- Developed tribal ordinances and codes
- Conducted Phase I and II assessments on properties on the reservation
- Conducted cleanup activities on properties on the reservation
- Fostered public participation through outreach and education

## Program Highlights

The Shoshone-Bannock Tribes announced a favorable decision in the Tribal Court of Appeals on April 15, 2014. The Court ruled that the Tribes have civil jurisdiction over the Food Machinery and Chemical (FMC) Corporation for waste that remains within the Fort Hall Reservation. The waste stored on the FMC property includes millions of tons of phosphorous slag, at least 16,000 tons of elemental reactive and ignitable elemental phosphorus, almost a million tons of contaminated soil, and many other hazardous wastes (<http://sbtribes-ewmp.com/>). The Tribes' Environmental Waste Management Program (EWMP) has used Section 128(a) Response Program funding since 2005 to establish and enhance their statutes, regulations, and environmental response resources. In addition to building an effective Brownfields outreach and site assessment program, the EWMP developed the Tribes' hazardous waste management and cleanup laws that help them to exercise jurisdiction to protect for Tribal Lands in and around the Fort Hall Reservation. The Tribal Courts affirmed the rights of the Shoshone-Bannock Tribes to protect the land and people from the environmental threats from the FMC property due to the many years of work that went into enhancing the EWMP and preparing the legal groundwork.

# Swinomish Indian Tribal Community

## Brownfields Tribal Response Program Environmental Compliance Manager

11430 Moorage Way  
LaConner, WA 98257

<http://www.swinomish-nsn.gov/Resources/environmental-protection/environmental-management/brownfields.aspx>

Contact(s): Scott Andrews, Environmental  
Management Specialist  
sandrews@swinomish.nsn.us  
360-466-2631

## Program

The Swinomish Indian Tribal Community's Environmental Compliance Manager protects the environment and human health on the Swinomish Reservation. Accomplishments achieved using Section 128(a) Tribal Response Program (TRP) funding include:

- Created and annually update a brownfields property inventory of the reservation
- Created and maintain a public record
- Administered an Assessment grant and coordinated the completion of a Targeted Brownfields Assessment
- Coordinated the cleanup or partial cleanup of four properties
- Provided coordination and proposal development and oversight for the cleanup of a property under a EPA Cleanup grant
- Participated in oil spill response exercises with local pipeline companies and refineries
- Developed an Oil Spill Preparedness Program, recruiting and training local volunteers
- Provided environmental training to staff
- Conducted public outreach

## Program Highlights

The Swinomish Reservation is located in northern Puget Sound, on a peninsula surrounded by ecologically rich and diverse tidelands, estuaries, and marine waters. These areas provide a valuable subsistence and commercial fishing resource for the Swinomish people, as well as important economic development opportunities for the Tribe. Section 128(a) TRP funding, along with additional Brownfields grants, are allowing the Tribe to inventory and assess potential brownfields on these lands, and to develop cleanup strategies to return contaminated and neglected areas into productive use. The Swinomish Lime Storage Site is located on the Swinomish Channel within the Tribe's primary economic development zone. The site was assessed using a Brownfields Assessment grant and found to be contaminated with heavy metals, dioxins, and creosote treated wood debris. The upland cleanup of this site is now complete, and the intertidal areas are to be completed within the next year. Oil Spill Preparedness has been receiving increasing attention from the Tribe, primarily due to two major petroleum refineries that are located adjacent to the Swinomish Reservation. Reservation waters are vulnerable to spills of crude oil transported by oil tankers, by railroad and by pipeline, as well as fuel spilled by commercial and recreational vessels operating in local waters. Capacity building within the TRP has allowed participation in local oil spill response exercises and facilitated the development of a volunteer - based oil spill preparedness program. In this program, volunteers are organized and trained to respond to oil spills and mitigate or prevent contamination of Swinomish natural resources.

## Overview

- **Location:** Northwestern Washington
- **Land Area:** 7,450 acres of uplands and 2,900 acres of tidelands
- **Population:** Approximately 900 enrolled tribal members
- **EPA Grants:** Assessment Grant, Cleanup Grant, Targeted Brownfields Assessment Grant, and Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Developed but not yet approved by Tribal Senate
- **IC/EC Tracking and Public Record Website:** <http://www.swinomish.org/resources/environmental-protection/environmental-management/brownfields.aspx>



Oil Spill Response Training

# Tanana Chiefs Conference

## Brownfields Tribal Response Program

122 1st Avenue  
Fairbanks, Alaska 99701  
<http://www.tananachiefs.org/>

Contacts: Katie Bante, Brownfields Coordinator  
katie.bante@tanachiefs.org  
800-770-8241 ext.3432

## Program

The Tanana Chiefs Conference advances Tribal self-determination and enhancing regional Native unity through proper management, leadership, and cooperation. The addition of Section 128(a) Tribal Response Program funding expands the organization's scope of work to include management and restoration of contaminated properties.

## Program Highlights

The Tanana Chiefs Conference is using Section 128(a) Tribal Response Program funding to begin the process of developing an inventory of potential abandoned hazardous waste properties, and strengthen the tribe's capacity to respond to contaminated properties within tribal lands.

## Overview

- **Location:** Central Alaska
- **Land Area:** 1 million acres
- **Population:** Traditional Tribal Consortium of 42 Village of Interior Alaska
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

# Yakutat Tlingit Tribe

## Brownfields Tribal Response Program

716 Ocean Cape Road

Yakutat, AK 99689

<http://www.yakutattingittribe.com/>

Contact(s): Alexander James, Brownfields Coordinator

[ajames@ytttribe.org](mailto:ajames@ytttribe.org)

907-784-3238

## Overview

- **Location:** Southern Alaska
- **Land Area:** 9,460 square miles
- **Population:** Approximately 650
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

## Program

The Yakutat Tlingit Tribe provides comprehensive natural resources management and environmental protection services for the tribe's land. The addition of the Section 128(a) Tribal Response Program funding has allowed the tribe to address the management and restoration of contaminated sites within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Developing a site inventory
- Updating the public record
- Conducting an investigation of dioxin contamination in the Ankau Saltchucks, an area used for subsistence fishing
- Reviewing investigations and cleanup work conducted by others
- Developing environmental regulation policy

## Program Highlights

The Yakutat Tlingit Tribe is using Section 128(a) Tribal Response Program funding to expand and enhance its tribal response program. The tribe's initial focus for its funding was developing an inventory of properties. Information gathered for the site inventory is used to identify priority sites and determine Department of Defense Formerly Utilized Defense Sites where impacts are still of concern to the tribe. The tribe also focuses on obtaining technical training for staff and keeping its Public Record up to date. Conducting outreach and education to engage the community in environmental and brownfields issues is a top priority for the program. Discussions with tribal members helped to identify six properties that will be added to the inventory.

# Yukon River Inter-Tribal Watershed Council (YRITWC)

**Sustainable Lands Department  
Brownfields Tribal Response Program**  
323 Second Street, Unit A  
Fairbanks, AK 99701  
<http://www.yritwc.org/Departments/Sustainable-Lands.aspx>

Contact(s): Dan Goodman, Director  
dgoodman@yritwc.org  
907-227-8202

## Overview

- **Location:** Central Alaska and Northwestern Canada
- **Land Area:** 1.1 million acres
- **Population:** Consists of 70 First Nations and Tribes
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **IC/EC Tracking and Public Record Website:** [http://www.yritwc.org/Departments/Sustainable\\_Lands.aspx](http://www.yritwc.org/Departments/Sustainable_Lands.aspx)

## Program

The Yukon River Inter-Tribal Watershed Council (YRITWC) Sustainable Lands Department was created in 2007. The vision of the department is to promote sustainable land use practices throughout the watershed by building local capacity and addressing contaminated site issues. The department has worked with 40 tribes and has identified over 250 contaminated sites. The Sustainable Lands Department focuses on three major areas: the Brownfields Tribal Response Program, community emergency response and planning, and data warehousing and mapping. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a comprehensive inventory of properties
- Created and maintained a public record
- Conducted Phase I and II assessments on properties
- Developed a public outreach plan
- Fostered public participation through outreach and education
- Offered environmental training to staff and/or tribal members
- Currently conducting first cleanup project in a Yukon River Watershed community

## Program Highlights

With Section 128(a) Tribal Response Program funding, YRITWC conducted Phase I environmental assessments in two communities. The first assessment, at Hooper Bay, focused on nine plywood sewage disposal containers and the second, at Pilot Station, focused on a well pump station to determine whether a release had occurred. In addition, YRITWC worked with the Anvik Brownfields Program to conduct a Phase II assessment at the old Alaska Village Electric Cooperative (AVEC) tank farm and former generator building. The Community of Anvik plans to clean up the property and develop it into a multi-use facility and boat storage. The YRITWC Brownfields Team submitted the environmental assessment findings to EPA, the Alaska Department of Environmental Control, and each of the three villages with recommended action plans. The environmental assessments helped characterize the extent of contamination and outlined clear cleanup plans that will lead to reuse and redevelopment.







## State & Tribal Response Programs (STRP)

### The Four Elements at a Glance

A State or Tribe must demonstrate that their response program includes, or is taking reasonable steps to include, the following *four elements* of a response program. This is a requirement of the EPA grant that both states and tribes must attain.

1. Timely survey and inventory of brownfields sites in the state or tribal lands:  
EPA's goal in funding activities under this element is to enable the State or Tribe to establish or enhance a system or process that will provide a reasonable estimate of the number, likely locations, and the general characteristics of brownfields on their State or Tribal lands. EPA recognizes the varied scope of State and Tribal programs and may not necessarily require a Tribe to develop a "list" of brownfields. Many STRP grant recipients conduct inventories of brownfields sites in their areas. Some additionally develop a prioritization listing of those sites that are of greatest concern to the community. Concern may stem from the potential risk posed at a site, or from the fact that the site limits the community's use of the property and subsequent adjacent property around it. EPA encourages grant recipients to work with the information that they have available. A significant resource to Tribes is the State of Alaska Contaminated Sites Database, which is available to the public online.
2. Oversight and enforcement authorities, or other mechanisms and resources:  
EPA's goal in funding activities under this element is to have response programs include oversight and enforcement authorities that help to ensure that cleanup actions will protect human health and the environment, and that they are completed in accordance with federal and state (in Alaska) law. It is also important that the State or Tribe is able to take the necessary actions in the event that a cleanup is not appropriate. On Tribal Lands throughout the Lower 48 states, environmental oversight and enforcement capacity often rests with the Tribes. In Alaska, with the exception of Metlakatla, the enforcement capacity rests with the State of Alaska and the Department of Environmental Conservation (DEC). An important component in meeting this element is increasing understanding

of DEC environmental regulations. The capacity to understand and explain the role of responsible parties and landowners, and how they fit into the regulatory process, can be very important for Tribal Response Programs. Some Alaska communities have reportedly developed environmental ordinances for pollution prevention, such as fines for illegal dumping.

3. Mechanisms and resources to provide meaningful opportunities for public participation:

The intent of this element is to ensure that the public has access to any documents and related materials affiliated with assessment or cleanup decisions made by the State or Tribe. There must also be a mechanism by which an individual can request a site assessment if they believe that they may be affected by contamination at a brownfield site. The appropriate State or Tribal official must respond to these requests. In Alaska, DEC has an established process for the public to report spills or environmental concerns, and a process to request an assessment at potential brownfield sites. Additionally, other Alaska Tribes have developed the capacity to respond to requests for assessments from the communities they serve. DEC encourages Tribes to communicate their environmental concerns to the department so that a proper and coordinated response can be initiated.

4. Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete:

EPA intends that States and Tribes be able to provide legitimate approval of cleanup plans and verify that response actions are adequate and completed by appropriate individuals or companies. In Alaska, DEC has the statutory authority to make these determinations at this time. DEC has an established process for assessment and cleanup work and plan review is identified in regulation. It also reviews and approves assessment and cleanup plans, and provides a written determination when cleanup is complete. Many Tribes in the Lower 48 have this authority on their lands and do not coordinate with the State. DEC also identifies whether a site, on completion of the response action, will be suitable for unrestricted use. If not, the closure requirements may identify land-use or activity controls that must be met.

It is important for all participating Tribes to understand where they should best devote their efforts to ensure that they are not diverted to tasks for which DEC already has statutory authority. To maximize their effectiveness, Tribal response programs may choose to focus on inventories, community outreach, documenting site conditions, reviewing existing data, identifying need, or sponsoring training, rather than working on enforcement. These are topics worth discussing with your EPA project officer.

It is also necessary that States and Tribes develop a public record system that documents specific information that will aid in public involvement. The requirements state that the State or Tribe must:

1. Maintain and update annually at a minimum, a record that includes the name and locations of sites for which there was a response action in the past year. For the most part, if there was a response action under the DEC's cleanup rules, the action will be documented in the DEC's Contaminated Sites Database.
2. Maintain and update annually at a minimum, a record that identifies those sites for which response actions are planned in the next year. This can be difficult to do and relies heavily on available funding. DEC identifies a list of projects for which it would like to use STRP funding to conduct assessments and/or cleanups, but the work that is actually completed depends on that funding which comes through.
3. Lastly, there needs to be a record of the type of site use that is possible once a response action has been completed. The DEC's database tracks on this information for every site that receives a Cleanup Complete determination. If restrictions are required that limit the use of the property (because contamination remains at the site), then it is documented in the CS Database. As such, it is the State's opinion that Tribes do not need to reproduce this information. If there are questions about this requirement, please coordinate with your EPA Project Officer.



## Funding Guidance for State and Tribal Response Programs Fiscal Year 2016

Section 128(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, authorizes a noncompetitive \$50 million grant program to establish and enhance state<sup>1</sup> and tribal<sup>2</sup> response programs. CERCLA section 128(a) response program grants are funded with categorical<sup>3</sup> State and Tribal Assistance Grant (STAG) appropriations. Section 128(a) cooperative agreements are awarded and administered by the U.S. Environmental Protection Agency (EPA) regional offices. Generally, these response programs address the assessment, cleanup, and redevelopment of brownfields sites and other sites with actual or perceived contamination. This document provides guidance that will enable states and tribes to apply for and use Fiscal Year 2016 section 128(a) funds<sup>4</sup>.

The Catalogue of Federal Domestic Assistance entry for the section 128(a) State and Tribal Response Program cooperative agreements is 66.817. This grant program is eligible to be included in state and tribal Performance Partnership Grants under 40 CFR Part 35 Subparts A and B, with the exception of funds used to capitalize a revolving loan fund for brownfield remediation under section 104(k)(3); or purchase insurance or develop a risk sharing pool, an indemnity pool, or insurance mechanism to provide financing for response actions under a State or Tribal response program.

Requests for funding will be accepted from December 1, 2015 – January 31, 2016. Requests EPA receives after January 31, 2016, will not be considered for FY2016 funding. Information that must be submitted with the funding request is listed in Section VIII of this guidance. States or tribes that do not submit the request in the appropriate manner may forfeit their ability to receive funds. First time requestors are strongly encouraged to contact their Regional EPA Brownfields contacts, listed on the last page of this guidance, prior to submitting their funding request. EPA will consider funding requests up to a maximum of \$1.0 million per state or tribe for FY2016.

Requests submitted by the January 31, 2016, request deadline are preliminary; final cooperative agreement work plans and budgets will be negotiated with the regional offices once final funding allocation determinations are made. As in previous years, EPA will place special emphasis on reviewing a cooperative agreement recipient's use of prior section 128(a) funding in making allocation decisions, and unexpended balances are subject to 40 CFR 35.118 and 40 CFR 35.518 to the extent consistent with this guidance. Also, EPA will prioritize funding for recipients establishing their response programs.

States and tribes requesting funds are required to provide a Dun and Bradstreet Data Universal Numbering System (DUNS) number with their cooperative agreement's final package. For more information, please go to [www.grants.gov](http://www.grants.gov).

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<sup>1</sup>The term "state" is defined in this document as defined in CERCLA section 101(27)

<sup>2</sup>The term "Indian tribe" is defined in this document as it is defined in CERCLA section 101(36). Intertribal consortia, as defined in the Federal Register Notice at 67 FR 67181, Nov. 4, 2002, are also eligible for funding under CERCLA section 128(a).

<sup>3</sup>Categorical grants are issued by the U.S. Congress to fund state and local governments for narrowly defined purposes.

<sup>4</sup> The Agency may waive any provision of this guidance that is not required by statute, regulation, Executive Order or overriding Agency policies.

***(Insert Agency Name)***  
**Funding Request**  
**for Section 128(a) State & Tribal Response Program**  
**Federal Fiscal Year Funding 2016**  
***(Period of Performance)***

**Date last revised/submitted:** **(please update each time you make any changes and re-submit to your EPA Project Officer)**

**Point of Contact:** (provide the name and contact information for the designee working on this document)

**Total Amount Requested:**

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**1. The Agency's Strategic Plan supports the State and Tribal Response Program through Goal 3: Cleaning up Communities and Advancing Sustainable Development and Objective 3.1 Promote Sustainable and Livable Communities.**

**Program Objective:**

The Small Business Liability Relief and Brownfields Revitalization Act (SBLRBRA) was signed into law on January 11, 2002. The Act amends the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, by adding Section 128(a). Section 128(a) authorizes a grant program awarded and administered by the United States Environmental Protection Agency (USEPA) to establish and enhance state response programs that address the assessment, cleanup and redevelopment of brownfields sites and other contaminated sites as defined by the law. The primary goal of this funding is to ensure that state and tribal response programs include or are taking reasonable steps to include certain elements and establish a public record. The secondary goal of the funding as defined by the guidance is, "to provide funding for other activities that increase the number of response actions conducted or overseen by a state or tribal response program. This funding is not intended to supplant current state or tribal funding for their response programs. Instead, it is to supplement their funding to increase their response program capacity."

On November 25, 2003, the USEPA published in the Federal Register, Document number EPA 500-F-04-002, the Notice of Grants Funding Guidance for State and Tribal Response Programs. To be eligible for funding under Section 128(a) and as described in the guidance, a state or tribe must demonstrate that their response program includes, or is taking reasonable steps to include, the following four elements of a response program:

1. Timely survey and inventory of brownfield sites in state or tribal land;
2. Oversight and enforcement authorities or other mechanisms and resources;
3. Mechanisms and resources to provide meaningful opportunities for public participation;
4. Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete.
5. Establish and maintain a public record system

## FY16 STRP Fund Request Example Instructions

**The FY16 STRP Fund Request Example** is a **template** for requesting funds \* under the State and Tribal Response Program due January 31<sup>st</sup>, 2016. The document is a tool for those submitting funding requests and can be revised to serve as a work plan draft once you have received notification of your allocation amount \*\* in the Spring (April-June). It is to your advantage to use the template and provide as much detail as possible at the request for funding stage because only a few weeks are available to prepare final work plans once you receive email notification of the funding decisions \*\*\*. The amount of funding allocated for your program is determined through a national allocation process and considers a number of factors including: the amount of funding available and the amount of funding requested nationally; your program's ability to make reasonable steps in establishing/enhance a program that addresses contaminated sites, and your ability to demonstrate clear activities and outputs in your request document. While this document is a tool for you to use, it is ultimately the Tribe or State's responsibility to provide enough level of detail on the proposed activities, agency goals, needs, and past accomplishments to justify the requested amount. **Please refer to the national program guidance issued each year for the official requirements and objectives of the State and Tribal Response Program.**

**\*The amount of funding requested should be based on the details provided in the national guidance. The amount requested should be for a one year project period, e.g. October – September.**

**\*\*Allocation amounts** are the funding amounts EPA offers your agency at the time you are asked to submit the official application for federal assistance funding package.

**\*\*\*At the time your Agency receives the notice of an allocation amount, you will be informed of the timeframe for negotiating a work plan to be approved by an EPA project officer along with the requirements to submit to a final application packet (federal forms). **No funding is committed until a final application packet has been submitted, processed, and notification is received from the Agency's Award Official.****

For example, you submit a request for funding of \$120,000 to establish your first year of the response program, but nationally all the requests exceed the amount available. You could then be allocated \$100,000 and offered to submit a final workplan and application packet (federal forms) for the \$100,000.

### **Additional Items to Keep in Mind:**

- EPA tracks progress based on the usage of a particular federal fiscal year of the funding. For example, the current solicitation is to use up fiscal year funding from 2015, but many of you will be implementing the work from October 2016 to September 2017.
- Parts of the document will remain as a stand-alone background piece, such as the “Goal 3”. In this particular case, having you submit a request/work plan with the Goal language indicates you are aware of how this program ties to our strategic plan and protection of the environment.
- Established Baseline for Measurement is the reference point that EPA looks at to see the enhancement. Be as specific as possible. Add dates where applicable, such as dates for progress reports.
- Refer to the current guidance for details on the application timeframe and process, and always feel free to contact us with questions.

**Final work plans will be negotiated and approved with a designated EPA Project Officer, prior to submittal of an application to the Grants Office (likely no later than June). Please be prepared to submit the finalized application this spring.**

**Failure to contact EPA and submit the requested documents by the key dates outlined in the notification of funding email sent out later this spring may result in no funding for the year.**

## State or Tribal Response Program Activity Levels Reporting

Originally developed by the State, Tribal, and EPA Phase II Joint Working Group

The Office of Brownfields and Land Revitalization is requesting the information below to capture impacts from the funding received under the 128(a) State and Tribal Response Program. Responses should include properties (or sites) that are supported under any hazardous and solid waste programs. Consider programs impacted by either broader capacity building activities (regulation development, database tracking enhancements, or staff training) and/or site-specific activities (brownfields assessment, cleanup oversight, or public participation). Submit completed forms to your project officers and regional response program coordinators on or before the due date of January 31, 2016. Responses to the questions below should reflect activities for the period covering the last federal fiscal year, FY15 (October 1, 2014 to September 30, 2015).

**Organization Name:** \_\_\_\_\_

| <b>Cleanup/Response Program Responsibilities</b>  |          |
|---|----------|
| <i>Underlined items in chart are defined below.</i>   |          |
| 1. Environmental programs where CERCLA 128(a) funds are used to support capacity building (general program support, non-site-specific work). Indicate as appropriate from the following:<br><input type="checkbox"/> Brownfields<br><input type="checkbox"/> Underground Storage Tanks/Leaking Underground Storage Tanks<br><input type="checkbox"/> Federal Facilities<br><input type="checkbox"/> Solid Waste<br><input type="checkbox"/> Superfund<br><input type="checkbox"/> Hazardous Waste Facilities<br><input type="checkbox"/> VCP (Voluntary Cleanup Program, Independent Cleanup Program, etc.) Other |          |
| Activity  | Response |
| 2. Number of <u>properties</u> (or sites) <u>enrolled*</u> in a <u>response program</u> during FY15.  |          |
| 3. Number of properties (or sites) where documentation indicates that cleanup work is complete AND all <u>required institutional controls (IC's)</u> are in place, or not required.   |          |
| 4. Total number of acres associated with properties (or sites) in the previous question (Question #3).  |          |
| 5. OPTIONAL: Number of properties (or sites) where <u>assistance</u> was provided, but the property was not enrolled in a response program.   |          |
| 6. Date of the last update to the Public Record.  |          |
| 7. Estimated total number of properties (or sites) in your brownfields inventory.   |          |
| 8. Please provide a brief narrative explaining how you ensure that cleanup remedies (including engineering controls and institutional controls) are still protective in the future?   |          |



|   |  |
|---|--|
| <p>9. Did you develop or revise legislation, regulations, codes, guidance documents or policies related to establishing or enhancing your Voluntary Cleanup Program/Response Program during FY15? If yes, please indicate the type and whether it was new or revised?</p> |  |
|---|--|

\*Please refer to the definition and note that it should include both traditional enrollment programs and programs that track properties under other oversight activities.

**DEFINITIONS**

**Properties:** As defined in the Brownfields Program’s Property Profile Form (PPF) it is a “contiguous piece of land under unitary ownership.” A “site” for some programs may include more than one property. When information is available provide the number of properties for a site as part your total property count.

**Enrolled:** Enrolled for the purposes of this program activity level sheet, properties (or site) activities may include oversight, enforcement, assessment, cleanup, cleanup planning, implementation of institutional or engineering controls, and monitoring. For some programs there may be an official entrance procedure (registration and acceptance, i.e. VCPs, Response Programs) whereas, for other programs it may include properties identified for action(s) by Response Program officials. Properties where other technical assistance is provided should not be included, but instead captured under #5.

*For example, if 128(a) program funding contributes to several programs under your response program (i.e., VCP, Brownfields, and UST/LUST) and these programs oversaw cleanup plans, IC tracking, etc. for 100 properties (or sites) then this number of 100 would be included in response to #2.*

**Response Program:** Any state or tribal land program benefiting from CERCLA 128(a) funding may include a response program that focuses on hazardous and/or solid waste contamination. A response program may include both broader capacity building activities (e.g., regulation development, database tracking enhancements; or staff training) and site-specific activities (e.g., brownfield assessment or cleanup, cleanup oversight, or public participation for cleanup planning).

**Required institutional controls (or land use controls):** As required by state/tribal/local law, regulation, or ordinance as necessary to protect the environment and/or public health. In place institutional controls (as defined in the Brownfield Program’s PPF) generally fall under four general categories

- proprietary controls (e.g., easements, covenants);
- governmental controls (e.g., ordinances, zoning, building codes, drilling permit requirements);
- informational devices (e.g., state registries, deed notices, advisories), and
- enforcement/permit tools (e.g., order, permits, consent decrees).

**Assistance:** Examples of assistance include: working with potential purchasers for properties not being addressed under the response program; supporting a brownfield grantee to identify next steps for a particular property where they have a concern for contamination; technical review of site assessment documents, quality assurance plans, CERCLA 104(k) grantee applications, etc. This section would not be for those reviews/technical assistance provided to properties (or sites) listed under #2.<sup>1</sup>

**Brownfields Inventory:** EPA recognizes the varied scope of state and tribal response programs and will not require states and tribes to develop a “list” of brownfields sites. However, at a minimum, the state or tribe should provide a reasonable estimate of the total number of brownfield sites in their jurisdiction.<sup>1</sup>

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<sup>1</sup> For more information about the Brownfields Inventory, please review “Timely survey and inventory of brownfields sites in state or tribal land” on page 4 of the Funding Guidance for State and Tribal Response Programs Fiscal Year 2016, available here: <http://www.epa.gov/brownfields/pdfs/FY15%20128a%20Guidance%20FINAL.pdf>  
Revised XXXX 2015

### **3. Alaska State Response Program**

- 3.1. R&R Initiative: Goals and Objectives**
- 3.2. DEC Brownfields Fact Sheet**
- 3.3. Alaska Regional Framework**
- 3.4. Example Alaska Projects (Site Summaries—RESERVED)**



## Alaska's Reuse and Redevelopment (R&R) Initiative Goals and Objectives

In an effort to better support the revitalization of contaminated sites in Alaskan communities, the Alaska Department of Environmental Conservation (DEC) established the “*Reuse and Redevelopment Initiative*” (R&R) in 2004. Through R&R, DEC realizes its mission of protecting human health and the environment while also prioritizing project oversight that fosters necessary economic growth and development. This initiative was expanded to the Reuse & Redevelopment (R&R) element, whereby the DEC's Contaminated Sites Program focuses efforts of this program on the mission of safely revitalizing brownfield properties in our communities.

The primary goal of the R&R element is to coordinate with community interests that include economic development priorities, to identify, assess, and ensure adequate cleanup at contaminated sites so that those properties may once again realize their full economic potential. The R&R element also coordinates within DEC to enhance understanding of extraneous factors that may affect a cleanup project that not otherwise considered in the cleanup decision.

The R&R element generally addresses sites referred to as “brownfields,” where real or perceived environmental hindrances directly and adversely affect their redevelopment or reuse. In urban areas, economic factors (as opposed to risk factors) often drive the initial concern over cleanup actions at these sites, although sites posing a high risk can be managed as brownfields. In rural areas, the concern over the unknown environmental impacts often cause a community to ignore a site altogether. Either way, without financial resources, knowledge about the site, a clear reuse or redevelopment vision, and appropriate liability protections, the incentives to revitalize brownfield sites are often insufficient.

*The economic impact of lost development opportunities caused by brownfield blight can be significant to our local communities, governments, private interests, and the state.*

DEC's R&R coordination with interested parties includes identifying unknowns, scheduling site work, assisting with exploring financing options, and, with the involvement of the state attorney's general office, liability protections.

The key reasons for an R&R Program and assistance are:

- ✓ Contaminated properties affect private property owners, neighborhoods, and entire communities by increasing the public's risk of exposure to hazardous substances, decreasing property values, reducing the local tax base, causing blight, increasing crime, and are an ongoing source of contamination that can affect other important infrastructure or resources.
- ✓ Environmental hindrances and regulatory determinations can strongly influence the success or failure of a proposed development project associated with a brownfield site.
- ✓ The economic impact of lost development opportunities caused by brownfield blight can be significant.

In order to facilitate the reuse and redevelopment of contaminated properties, or properties suspected of having environmental impediments, DEC has focused on the following objectives:

1. Establishing a program (R&R element) and points of contact (Brownfield Specialist and supporting program staff) for brownfield assessment and redevelopment projects to ensure proper coordination with local governments, other state agencies, federal agencies, and the public, and to provide education and assistance in seeking brownfield grants and other assistance.
2. Establishing the *DEC Brownfield Assessment & Cleanup (DBAC) Program*, providing Phase I & II Environmental Site Assessment services and limited cleanups at eligible brownfield sites.
3. Focusing State *capital improvement project (CIP)* funding toward R&R-priority projects as a means to initiate assessments and cleanups on state-owned properties that are not realizing their economic potential, and for which a strong reuse interest exists on the part of the state, a local government, nonprofit entity, or the public.
4. Ensuring that site assessment and cleanup requirements for an environmental project under the authority of DEC are commensurate with the complexity and potential risk associated with the site.

5. Allowing flexibility (rather than rigidity) in setting site-specific requirements throughout the cleanup process, while still ensuring that protective cleanup levels are safely achieved.
6. Providing timely review and project coordination by DEC technical staff for brownfield projects that have properly requested oversight.
7. Applying appropriate land-use controls to manage potential environmental exposure and other concerns during and following the cleanup and redevelopment process.
8. Supporting the provision of clarifying a purchaser's future liability to the state resulting from the purchase of contaminated properties with pre-established environmental conditions through a *Prospective Purchaser Agreement* (PPA).

The achievement of these eight objectives will lead directly to more successful and sustainable redevelopment projects at brownfield sites, with definable environmental and economic benefits that might otherwise not be realized. The net result is more contamination identified, investigated, and cleaned up, and an overall increase in protection of human health and the environment.

In addition to the above efforts, the R&R element is focused on the expansion of brownfield interests through communication and coordination beyond DEC agency boundaries, which may include:

- ✓ Promoting the need for financial incentives to increase the viability of brownfield projects.
- ✓ Promoting the need for a *State of Alaska* brownfield financial assistance program, to include low-interest loans (and possibly grants) for assessment and cleanup to foster sustainable brownfield redevelopment.
- ✓ Coordinating and leveraging financial resources that would increase the brownfield redevelopment opportunities in Alaska.

With these objectives in mind, the R&R Program supports continue actions by state agency representatives, local government, economic development organizations, and the private sector, that support the brownfield agenda. It will be necessary for all parties to define the brownfield problem, as perceived across Alaska, summarizing the known hindrances to brownfield redevelopment and the possible benefit of proposed incentives, and coordinating financial support such as leveraging various federal grant

opportunities across agency lines. R&R will continue to refine the State's role in supporting brownfield redevelopment opportunities.



# FREQUENTLY ASKED QUESTIONS ABOUT BROWNFIELDS

December 2015

## **Q: What is a brownfield?**

**A:** A brownfield is defined as: “A piece of industrial or commercial property that is abandoned or underused and often environmentally contaminated, especially one considered as a potential site for redevelopment.” \*

For purposes of obtaining financial assistance from the federal government, the U.S. Environmental Protection Agency (EPA) has developed a definition of “brownfield” as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contamination.” \*\* EPA goes on to identify sites that are excluded from this definition, to ensure that brownfield assistance goes only to those sites for which it is intended.

Although Alaska does not have its own definition for the term “brownfield,” the EPA definition is generally accepted by the Alaska Department of Environmental Conservation (DEC): Brownfields are abandoned, unused, or underused properties that are hindered from desired reuse or redevelopment by real or perceived environmental contamination. A brownfield can be anything from a 200-acre industrial property, to an old lumber mill, or a small abandoned corner gas station.

## **Q: Why is brownfield reuse and redevelopment important and how can it benefit my community?**

**A:** Brownfield redevelopment is important in many ways: to preserve open space that would otherwise be gobbled up by urban sprawl; to reuse valuable existing infrastructure in city-planning projects; to revitalize stressed and depressed neighborhoods; to increase economic growth, employment opportunities, property values, and tax revenue; and to protect public health and the environment by reducing environmental threats.

It is important to remember that brownfields are not only an urban problem, and reuse doesn't have to mean new construction projects. Brownfields do exist in rural Alaska, and often take up valuable space within the community and are harmful to subsistence resources and other traditional pursuits. The recycling of brownfields is important both environmentally and economically.

## **Q: What is DEC's involvement in Alaska's brownfields?**

**A:** DEC's Contaminated Sites Program (CSP) strongly supports and promotes the reuse of brownfields through its Brownfield Assessment and Cleanup Services. DEC understands the importance of brownfield revitalization as a means to correct environmental problems. DEC's brownfield program assists Alaskans by providing assessment services and identifying funding

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\* Definition according to the American Heritage® Dictionary of the English Language, Fourth Edition, Houghton Mifflin Company, 2004.

\*\* Public Law 107-118 (H.R. 2869), the “Small Business Liability Relief and Brownfields Revitalization Act,” signed into law on January 11, 2002.



opportunities for assessment, cleanup, and training. Brownfield staff members also educate the public about brownfields, and are working to continually broaden brownfield awareness and redevelopment throughout Alaska.

**Q: Who do I contact with questions about brownfields?**

**A:** We invite you to contact us with any questions or concerns about brownfields. Both Amy Rodman (465-5368) and Christy Howard (465-5206) are available to help answer your questions about contaminated sites and potential brownfields, workshops and training, and funding opportunities. Please consider us your first stop for information.

**Q: What brownfield concerns are particular to Alaska?**

**A:** Alaska's urban areas have many of the same brownfield concerns as large urban centers in the rest of the country: former industrial sites, petroleum and chemical storage areas, abandoned commercial businesses, old gas stations, railroad yards, and many others. However, Alaskan rural communities have brownfields that are unique to their remote locations. Some of these sites include: old canneries and fish processing facilities; old fuel-storage tank farms; abandoned, inactive dump sites; logging camps; old civilian federal facilities such as schools and hospitals; and formerly used defense sites. Very often, these brownfields may directly affect a subsistence resource or recreational area.

**Q: If I assess a brownfield property, do I become liable for the contamination that is found?**

**A:** Liability for contamination on a property is defined in Alaska Statute (AS) 46.03.822, which outlines those who are liable for the release of a hazardous substance. The general liability categories include: (1) those with an ownership interest in the property; (2) those in control of the substance at the time of the release; or (3) those who arrange for disposal or transport of the substance. If you are not the owner of the property on which an assessment is completed, and you did not cause or contribute to the problem, conducting a non-invasive assessment (such as a historical search or walk-through) would not cause you to be considered liable.

**Q: What types of Brownfield funding or services are available to Alaskans?**

**A:** EPA's Brownfields Program provides grants and services for eligible applicants. DEC also provides brownfield assessment and cleanup services (DBAC) to eligible applicants. Alaska has been awarded a State and Tribal Response Program Grant from EPA to fund brownfields-related work. Application periods for DEC's DBAC services are typically from August to January. EPA accepts applications for Targeted Brownfield Assessments year-round, but only for a limited period for competitive assessments and cleanup grants.

*For more information, please call Amy Rodman (465-5368) or Christy Howard (465-5206)*

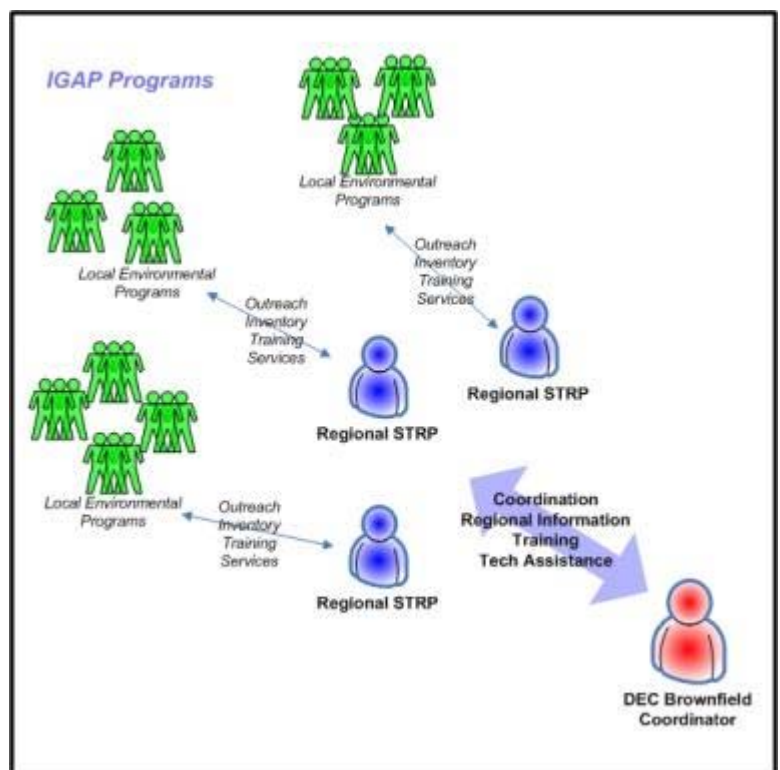
*Visit our website: <http://www.dec.state.ak.us/spar/csp/brownfields.htm>*

## Alaska Regional Framework

The Alaska Department of Environmental Conservation (DEC) Contaminated Sites Program encourages tribes to consider working together with their neighbors to establish sub-regional consortia when seeking State & Tribal Response Program (STRP) funding. STRP grants are available to individual states, tribes, and tribal consortia as capacity-building grants to help establish brownfield programs. More Alaska communities will be able to reap the benefits of these grants when working together to identify sites, educate their residents, review their reuse and redevelopment goals, and provide training through this unique funding opportunity. Our hope is that STRP grant managers are able to coordinate with the recipients of the Indian General Assistance Program (IGAP) grants, which are also capacity building grants for environmental programs.

A well-designed, regional brownfield grant can complement tribal environmental programs and assist communities otherwise unable to apply for and manage this funding.

Brownfield funding allows communities to focus on specific revitalization efforts, whereas the EPA IGAP funding does not. IGAP provides a strong foundation for environmental improvements and increased awareness in more than 150 Alaskan villages. With a strong IGAP program in place, and supplementary brownfield services and training through regional brownfield programs, tribes will be better situated to independently manage spill prevention and environmental assessment, cleanup, and redevelopment projects.

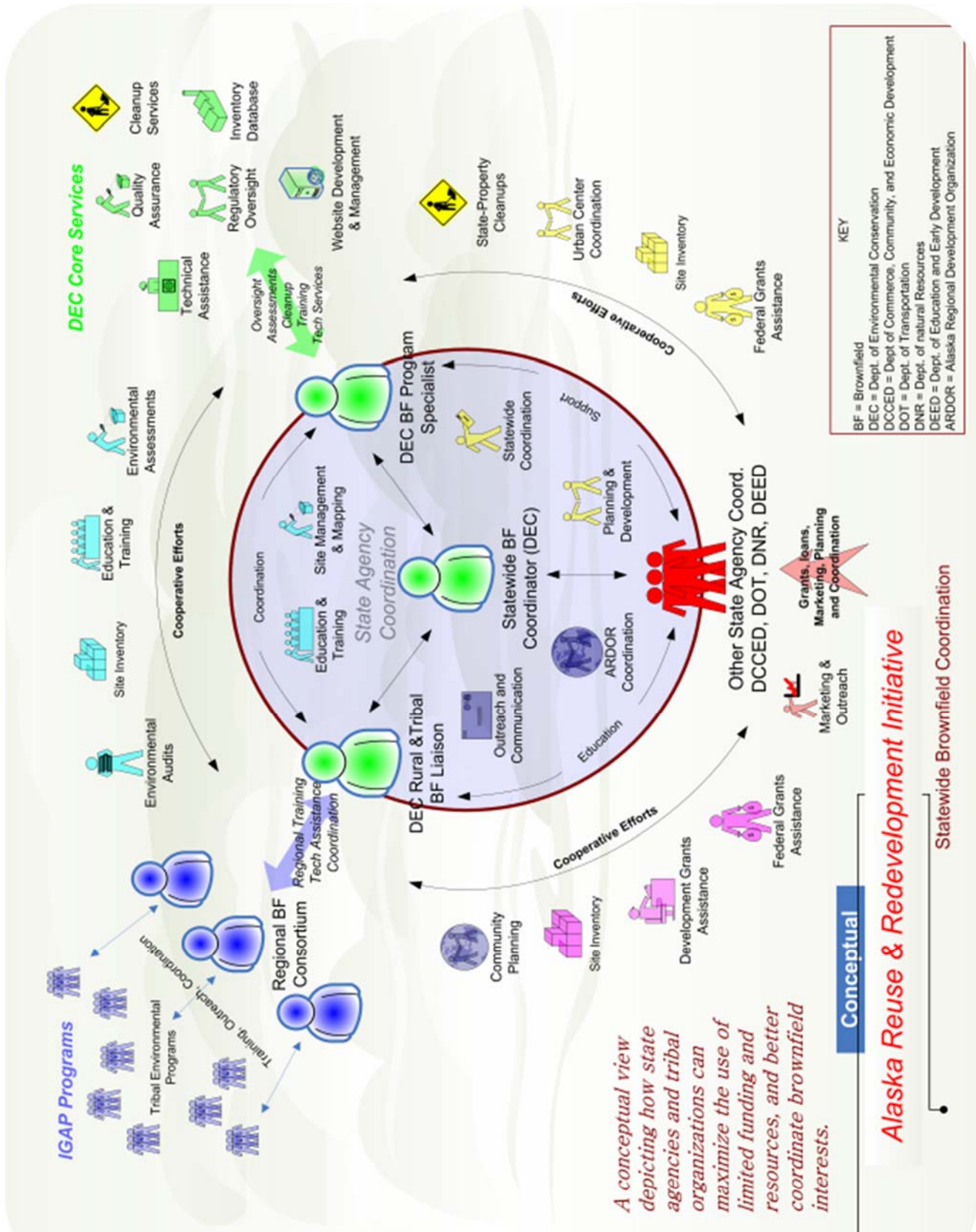


DEC would like to see a strong, tribally-led, coordinated brownfield program that can clarify rural village needs across Alaska. We encourage tribes to

capitalize on existing consortia or other regional relationships to develop response programs that encompass multiple communities.

As an example, the Yukon River Inter-Tribal Watershed Council (YRITWC) has used its grant to survey environmental conditions in many watershed communities; YRITWC has identified and mapped more than 230 potential brownfield sites. Training is also a focus of the YRITWC grant, and they have brought together representatives from more than 30 villages, in multiple separate training workshops, to discuss the brownfield program, how to identify and document sites, and how to work together on establishing a brownfield inventory. YRITWC ([www.yritwc.org](http://www.yritwc.org)) has used their brownfield funding to complement their own backhaul and water-quality programs, and the watershed communities' IGAP grants, extending services to areas that otherwise may not have brownfield funding.

We invite you to coordinate your interests and ask questions of both DEC and other STRP recipients, who may be facing similar questions and obstacles. Additionally, other EPA Region 10 states (includes Washington, Oregon, and Idaho) have many tribes that have received STRP grants. These STRP grantees are often a very helpful and informative resource. More information on STRP recipients and their programs is available through the internet or your EPA project officer.



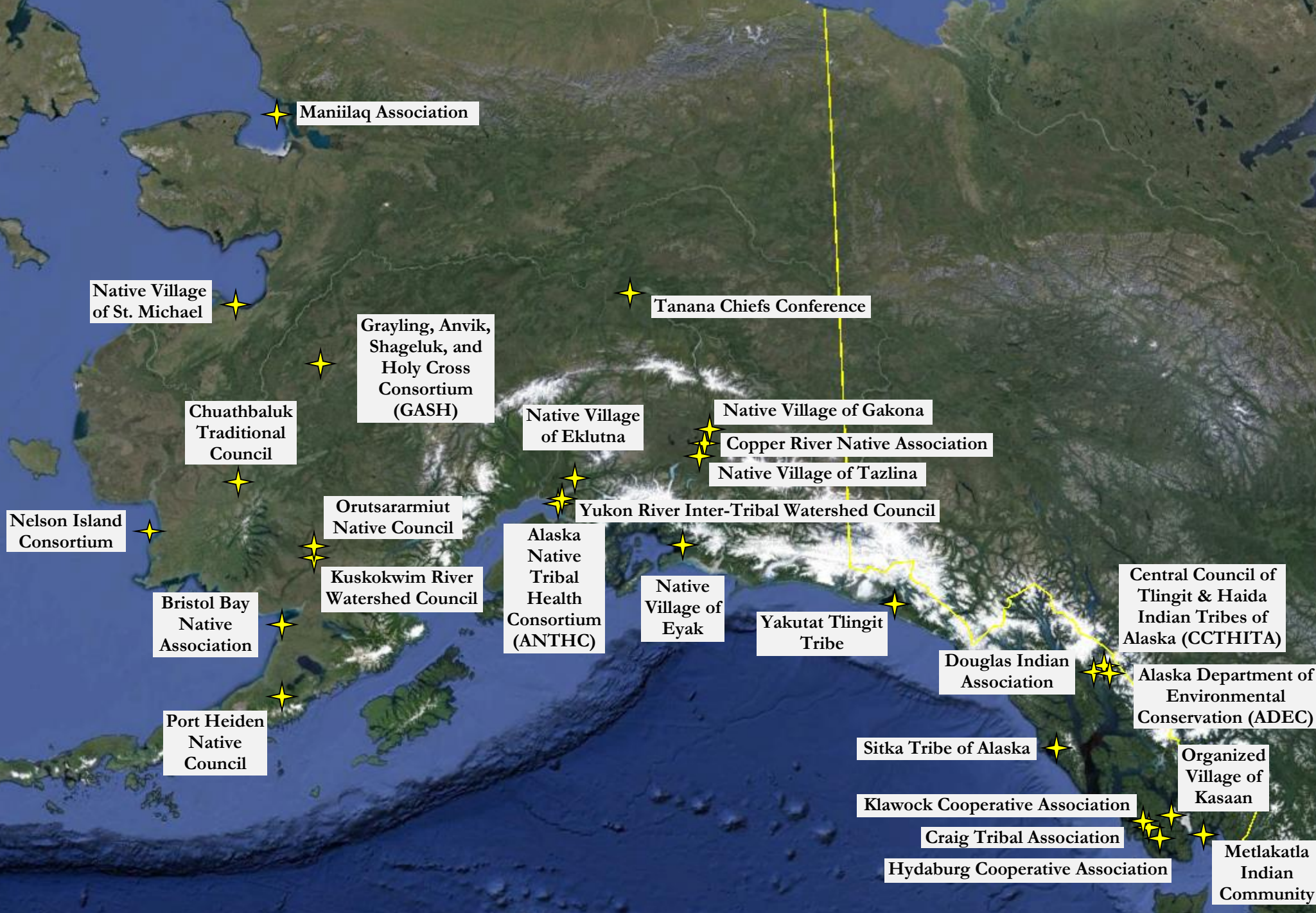
## **4. Alaska Tribal Response Programs**

- 4.1. Alaska Native Tribal Health Consortium**
- 4.2. Bristol Bay Native Association**
- 4.3. Central Council of Tlingit Haida Indian Tribes of Alaska**
- 4.4. Chuathbaluk Traditional Council**
- 4.5. Copper River Native Association**
- 4.6. Craig Tribal Association**
- 4.7. Douglas Indian Association**
- 4.8. Eklutna, Native Village of**
- 4.9. Eyak, Native Village of**
- 4.10. Gakona, Native Village of**
- 4.11. Grayling, Anvik, Shageluk and Holy Cross Consortium**
- 4.12. Hydaburg Cooperative Association**
- 4.13. Kasaan, Organized Village of**
- 4.14. Klawock Cooperative Association**
- 4.15. Kuskokwim River Watershed Council**
- 4.16. Maniilaq Association**
- 4.17. Metlakatla Indian Community**
- 4.18. Nelson Island Consortium – Native Village of Tununak**
- 4.19. Orutsararmiut Native Council**
- 4.20. Port Heiden, Native Village of**
- 4.21. Saint Michael, Native Village of**
- 4.22. Sitka Tribe of Alaska**
- 4.23. Tazlina, Native Village of**
- 4.24. Tanana Chiefs Conference**
- 4.25. Yakutat Tlingit Tribe**
- 4.26. Yukon River Inter-Tribal Watershed Council**



# ALASKA STATE & TRIBAL RESPONSE PROGRAMS

## Primary Office Locations



## Alaska Native Tribal Health Consortium

### Brownfields Tribal Response Program

4500 Diplomacy Drive, Ste. 301

Anchorage, AK 99508

<http://anthc.org/what-we-do/community-environment-and-health/contaminated-sites/>

**Contact(s):** Joy D. Britt, *Program Manager*  
[jdbritt@anthc.org](mailto:jdbritt@anthc.org)  
907-729-5630

### Overview

- **Location:** Central Alaska
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
  - **IC/EC Tracking and Public Record**  
**Website:** <http://anthc.org/what-we-do/community-environment-and-health/contaminated-sites/>

### Program

The Alaska Native Tribal Health Consortium (ANTHC) Tribal Response Program provides environmental health services for Alaska Native communities, advanced technical support and training for Alaska's regional tribal environmental health programs, and conducts environmental public health research of importance to Alaska Natives. ANTHC builds tribal capacity to identify and respond to brownfields through outreach and community education. The ANTHC tribal health partners have shown remarkable innovation, providing relevant outreach and program support with very limited resources.

### Program Highlights

The ANTHC Tribal Response Program uses Section 128(a) Response Program funding to foster public participation through outreach and education in our communities. The TRP role includes raising awareness about brownfields to the 40 Anchorage Service Unit communities and supporting other TRPs through mentorship and technical support. Further, ANTHC's TRP role has expanded to provide technical assistance to requesting communities outside of the service unit. The ANTHC TRP also hosts a brownfields specific track at the annual Alaska Tribal Conference on Environmental Management (ATCEM). This track boast speakers from all over the country to discuss brownfields related topics in Alaska. To find out more information on ATCEM, please visit: <http://www.atcemak.com/>.

## **Bristol Bay Native Association**

Natural Resource Department  
1500 Kanakanak Road  
Dillingham, AK 99576

**Contacts:** CaSander Johnson, Brownfield Coordinator  
[cjohnson@bbna.com](mailto:cjohnson@bbna.com)  
907-842-5257 ext. 348

### **About BBNA:**

The Bristol Bay Native Association (BBNA) is an Alaska Native regional non-profit corporation and a tribal consortium which serves 31 federally recognized Tribes in the Bristol Bay Region of Southwest Alaska. BBNA's mission is to maintain and promote a strong regional organization supported by the Tribes of Bristol Bay to serve as a unified voice to provide social, economic, cultural, educational opportunities and initiatives to benefit the Tribes and the Native people of Bristol Bay. To accomplish this mission, BBNA offers a broad variety of services ranging from social, welfare, and educational services, Native land management services, and providing state-funded law enforcement services within the region.

### **BBNA's Brownfield Program:**

The goal of BBNA's Brownfield Program is to promote capacity building and economic opportunities created by remediation and redevelopment of contaminated sites in Bristol Bay. The Brownfield Program is provided to those Tribes/communities that choose to authorize BBNA to deliver services per BBNA's policies. As of now, BBNA has been authorized by nineteen (19) tribes and by the end of the fiscal year 2015 the Brownfield Program will be adding two more tribes to the list.

Through the history of the program, many activities have been completed by the brownfield staff to move tribes closer to remediation and redevelopment. Such activities are

- establishing and enhancing inventory and public record
- conducting site visits and presentations to communities
- assisting tribes, DEC, and EPA with site-specific brownfield assessments
- providing outreach to communities about funding opportunities for environmental assessments and redevelopment projects
- delivering trainings to increase regional capacity to address Brownfield sites within the Bristol Bay region



## Central Council of Tlingit & Haida Indian Tribes of Alaska

Native Lands & Resources Department  
9097 Glacier Highway  
Juneau, AK 99801

General Tribal Website: <http://www.ccthita.org/>

**Contact(s):** Desiree Duncan, *Program Manager*  
[dduncan@ccthita.org](mailto:dduncan@ccthita.org)  
907-463-7183

Raymond Paddock, Environmental Coordinator  
[rpaddock@ccthita.org](mailto:rpaddock@ccthita.org)  
907-463-7184

Cer Scott, Environmental Specialist  
[cscott@ccthita.org](mailto:cscott@ccthita.org)  
907-463-7182

### Overview

- **Location:** Southeast Alaska
- **Land Area:** 35,138 sq. miles
- **Population:** 72,954
- **EPA Grants:** Section 128(a) Tribal Response Grant

### Program

The Central Council of Tlingit & Haida Indian Tribes of Alaska's (CCTHITA) State & Tribal Response Program is developing capacity and understanding of tribal responsibilities as they relate to the health and environmental conditions on lands with tribal interests. The addition of the Section 128(a) Tribal Response Program funding has allowed the tribe to identify sites and establish various collaborative efforts that make Alaska Brownfields work unique and dependent to situational and geographical area. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Developed a property inventory
- Created a Public Record
- Developed awareness of Brownfields

### Program Highlight

CCTHITA is using Section 128(a) Tribal Response Program funding for a tribal response program. The tribe is focusing its funding on developing an inventory of properties and a Public Record, obtaining technical training for staff members, and conducting outreach and education to engage the community in environmental and Brownfields awareness and issues.

## Chuathbaluk Traditional Council Brownfield Tribal Response Program

### What is a Brownfield?

Brownfields are properties with known or suspected contamination that could be targeted for assessment, cleanup and reuse. They can range from a single lot to a multi acre postindustrial site. Examples in Chuathbaluk include:

- Old dumps
- Abandoned Electric Generators with hazardous materials
- Petroleum spills and old fuel storage areas

### What is the Tribal Response Program (TRP)?

Funded by the Environmental Protection Agency, the Chuathbaluk Traditional Council TRP was created to identify harmful, contaminated sites and to promote sustainable land use practices throughout the greater Chuathbaluk region. Our goal of this program is to inventory, assess, plan, and ultimately, to facilitate the cleanup of prioritized/pertinent Brownfields sites in a streamlined and cost-effective manner, thus reducing associated health issues.

### What can you do?

You can share your knowledge!

- Help build our Contaminated Sites Public Database by reporting any lands or buildings that may have real or perceived contamination
- Report any hazardous spills and petroleum spills for response action
- Please see our webpage for more information on how you can help!

### **Contact Information:**

Patricia Yaska, Brownfield Coordinator

[ctc.patriciayaska@gmail.com](mailto:ctc.patriciayaska@gmail.com)

Chuathbaluk Traditional Council

1 Teen Center Trail

Chuathbaluk, AK 99557

(907) 467-4313 phone / (907) 467-4113 fax

<http://chuathbaluktc.wix.com/chuathbaluk>

## Copper River Native Association

The Copper River Native Association (commonly known as “CRNA”) is a nonprofit service organization that serves the people of the Ahtna Region. This region, encompassing 18.5 million acres, is the homeland of the Ahtna Indians, a subgroup of the great Athabascan Indian family. The Ahtna region includes the Copper River Basin and six predominately Native villages within its boundaries. They are: Gulkana, Gakona, Chistochina, Chitina, Kluti-Kaah (Copper Center) and Tazlina.

The Ahtna region extends beyond the Copper River Basin. The village of Mentasta (located in the mountains on the road to Canada) and the village of Cantwell (just south of the Denali National Park on the Parks Highway) are included in the CRNA service area.

CRNA was established in 1964, when local members of the Alaska Native Brotherhood and Sisterhood voted to form a group called “Ahtna”, “T’aena Nene” or “Copper River Indians”. The purpose of the group was “...to provide better education for children, solve water, land, and subsistence problems, find jobs, and secure human rights”.

CRNA was formally incorporated as a non-profit organization in 1972. In 1973, there were only four programs: senior citizen transportation, the Johnson/ O’Malley bicultural / bilingual program, alcohol treatment and education, and an early childhood development program. Today CRNA has up to 18 programs such as village health clinics, a dental clinic, substance abuse counseling, vocational / technical education; and clean water, safe housing, environmental health and Tribal Response programs.

**Purpose:** To provide high quality, accessible health care to our tribal members while enhancing cultural awareness through educational opportunities.

**Core Values:** Our commitment reflects our venerable history, culminating in a vision for the future of our communities. We have defined the values to guide our activities in the years to come.

Copper River Native Association (CRNA) started its cooperative agreement with the Environmental Protection Agency (EPA) to develop and maintain a Tribal Response Program (TRP) on October 1st 2011.

The Copper River Native Association Tribal Response Program works closely with regional agencies including:

Department of Environmental Conservation (DEC), Alaska Native Tribal Health Consortium (ANTHC), Native American Lands Environmental Mitigation Program (NALEMP), and Environmental Protection Agency (EPA). Including Federal agency's such as the Wrangell – St. Elias National Park (NPS) and the Bureau of Land Management (BLM).

These partnerships were made possible by support for Brownfield projects through CRNA's EPA Tribal Response Program. Special thanks to Region 10 EPA project officers.

TRP Coordinator has managed a grant in accordance with CRNA's cooperative agreement with EPA. Mary Goolie, CRNA's project officer has approved the adjustment CRNA has made in its work plan towards allocating funds for their Brownfield Prevention Program.

The TRP program has been providing a new service to the community known as our "Brownfield Prevention Program." This program has been providing a convenient and free delivery for community members to dispose of larger household materials to the local permitted landfill. We have notified the community via mail and website. The program runs through the months of May to September 2013. The Brownfields program will start back up in May of 2014.

The program has approximately 2 sites enrolled, 1 documented cleanup site. We are currently in the process of assisting local villages Gakona, Tazlina, and Kluti-Kaah.

AvaMarie GreyBear was hired in March of 2013 as CRNA's Tribal Response Program Coordinator. She is Alaskan Native (Athabascan)/American Indian (Sioux). A shareholder of Ahtna and Tribal Member of Ft. Peck Tribes. AvaMarie can be reached at (907) 822-8826 and by email at [trpcoordinator@crnative.org](mailto:trpcoordinator@crnative.org).

# CRAIG TRIBAL ASSOCIATION

## BROWNFIELDS PROGRAM



The Craig Tribal Association (CTA) is a federally recognized tribe located on Prince of Wales Island in Southeast Alaska. Prince of Wales is the third largest island in North America.



The CTA has an Environmental Program funded by the U.S. Environmental Protection Agency, Indian General Assistance Program (IGAP) since 1998. The CTA also has a program through the Tribal Response Program, that is in its fourth year of funding through the U.S. Environmental Protection Agency. The CTA Brownfields Program has been conducting surveys and inventory of Brownfields sites in and around the community of Craig.

The CTA Brownfields program has also been establishing a public record for the identified sites, which include a GIS mapping component, and tracking possible contaminated sites separately due to the confidentiality of property owners.

The CTA Brownfields Program has been instrumental in coordinating Freon Removal Training in our community. The CTA is able to safely remove Freon as a service to tribal members, and provided a potential business enterprise to economically disadvantaged tribal members in our community who participated in this training.



In addition to Freon removal, the Craig Tribe provided HAZWOPER Training and is coordinating with the CTA Emergency Service Planner and the Local Emergency Response Committee to organize an Oil



Spill/Hazardous Waste Response Team. Many members of the community and tribal environmental staff have been trained through funding provided by EPA, but the Response Team still needs organization to be ready.

The Tribal Response Program will ensure the protection of the Tribe's natural resources by monitoring customary and traditional use areas for sites that may be contaminated.

### Contact Information

**Craig Tribal Association**  
1330 Craig– Klawock Highway  
P.O. Box 828  
Craig, AK 99921-0828

Phone: 907-826-2426  
Fax: 907-826-2427  
E-mail:  
[brownfield@craigtribe.org](mailto:brownfield@craigtribe.org)

Photos from top to bottom: A contaminated site in Craig, AK, Tribal members learning how to remove Freon, a map of Craig, AK, (with known brownfields sites marked) which are in the process of being or have been successfully cleaned up.



## Douglas Indian Association

### Brownfields Tribal Response Program

811 W. 12<sup>th</sup> Street

Juneau, AK 99801

<https://www.facebook.com/Douglas-Indian-Association-135273063217300/>

**Contact(s):** Kamal Lindoff, *Environmental Planner*  
[Klindoff-dia@gci.net](mailto:Klindoff-dia@gci.net)  
Bernadine DeAsis, *Environmental Technician*  
[Bdeasis-dia@gci.net](mailto:Bdeasis-dia@gci.net)  
907-364-2916

### Overview

- **Location:** Southeast Alaska
- **Land Area:** 3,255 square miles
- **Population:** 32,406
- **EPA Grants:** Section 128(a) Tribal Response Grant and IGAP

### Program

The Douglas Indian Association (DIA), is a federally recognized Tribe of the Tlingit people, governed by the Douglas Indian Association Council. The Tribe's Traditional Territory includes all lands and waters customarily and traditionally used by our ancestors of the T'aaku Kwa'an, Aak'W Kwaan and S'awdaan Kwa'an clans, generally in the vicinity of Douglas Island, Stephens Passage, Taku River, and Auke Bay north to Lynn Canal including Berners Bay and St. James Bay.

DIA relies upon subsistence food harvests, the traditional mainstay of village life. DIA actively works to preserve, protect, and restore cultural and natural resources throughout the Tribe's customary fishing and gathering areas. Under Superfund law, Congress recognizes the tribe's inherent authority as a natural resource trustee and its authority to oversee response actions in areas that affect tribal rights and interests. Developing the DIA's capacity to assess Brownfields sites and to engage in response actions for restoration activities is very critical to ensure that natural resources are protected and restored.

- Expand and enhance capacity
- Developed a property inventory
- Created and established a Public Record
- Developed awareness on Tribal Response Program
- Conducted limited environmental monitoring in our area

### Program Highlights

The DIA Tribal Response Program uses Section 128(a) Response Program funding to expand on and enhance DIA's capacity to actively engage in Brownfields investigations and CERCLA-related activities. DIA continues to evaluate and rank hazardous waste sites impacting DIA's aquatic resources. The inventory of sites consists of NPL sites, federal facility sites, Alaska Cleanup sites, and Brownfields sites near Douglas Harbor, the Taku River and within the Taku Inlet. The inventory of sites also considers international sites impacting DIA's subsistence resources, such as the Tulsequah Chief Mine in British Columbia. Non-listed sites or other sites of concern are being identified and will be proposed for future assessment. The initial phase of this program was accomplished by reviewing existing data and technical reports prepared by others. The information was inventoried,



*Taking sediment samples from Sandy Beach*

categorized, and prioritized. DIA uses this information to determine our involvement at cleanup sites to ensure that response actions with restoration activities are protective of the DIA's cultural and subsistence resources. Brownfield sites will be assessed for priority restoration and habitat enhancement projects. Other activities funded under this grant will include program enhancement activities related to development of a Public Record and public outreach activities.

DIA has documented and is aware that private mining companies released and continue to release toxic waste into the traditional waters of the Taku River and into Gastineau Channel near Juneau, Alaska. A record has been compiled of impacts from the Tulsequah Chief Mine on the Taku watershed that may potentially affect the environment and cause damage to the health of the aquatic riparian habitat, terrestrial biodiversity, wildlife habitat, all of which are of great importance to the Tribal culture and heritage of the region. In addition, DIA has conducted limited environmental monitoring throughout their area of focus for several years. This research has led DIA to identify imminent threats to human health and the environment that are result of both recent mining and past activities. New mining proposals have further elevated DIA's level of concern. As a result of this work, DIA is in compliance with USEPA response program requirements to establish the Public Record and develop the Site Inventories.

## **Native Village of Eklutna Brownfields and Contaminated Sites Program**

Native Village of Eklutna (NVE) is a Dena'ina Athabascan village located at the top of Knik Arm of Cook Inlet, about 25 miles northeast of Anchorage City. Traditional lands roughly describe an oval from Talkeetna to Moose Pass, overlapping with related Tribes, and now occupied by the largest industrialized populations in Alaska, including the Municipality of Anchorage and the Matanuska – Susitna Borough. This area contains about 687 active contaminated sites listed in the ADEC database.

### **Eklutna Area Contaminated Sites**

NVE is working on our second year Tribal Response Program (TRP) Cooperative Agreement with EPA. To date we have investigated contaminated sites within 15 miles of Eklutna Village, drawing from community, ADEC, and other sources of information. NVE Traditional Tribal Council prioritized 9 of these sites and we are most concerned with about 20. NVE TRP will monitor, pursue and encourage site assessment, remediation and beneficial disposition of these sites with agencies, stakeholders like landowners and responsible parties, and concerned community.

Documentation and maps of these sites of priority and concern to NVE and other ADEC listed open contaminated sites can be accessed from the “Library” on the NVE website Contaminated Sites Program page at:

<http://eklutna-nsn.gov/departments/land-and-environment/contaminated-sites/>

We identified the Old Matanuska Townsite, among NVE prioritized contaminated sites, as the best EPA and ADEC Brownfield candidate. A private party, now insolvent stockpiled large amounts of contaminants, including military surplus petroleum products, PCBs, antifreeze, junk vehicles, glycol and other hazardous substances in a partial wetland. Eklutna, Inc. commissioned a Chilkat Environmental Phase 1 Environmental Site assessment leading to several agencies, including ADEC, EPA and Matanuska-Susitna Borough removing much of the source contaminants and some contaminated soil. Up to 10 nearby properties may be impacted secondarily, and ADEC plans further assessment in 2016. NVE TRP intends to evaluate impacted landowners and agencies interest in designation of affected site area as a brownfield with potential as a compensatory wetlands restoration and conservation mitigation area.

### **Program Highlight - Eklutna Army Site**

Since 2005 NVE Native American Formerly Used Defense Sites Program (NALEMP) has been remediating the Eklutna Army Site, occupied from 1957 to 1971, in the woods behind Eklutna Village. We removed 900,000 pounds of debris for disposal. We closed a drum dump, excavating and disposing of 117 drums, with contents including lead based paint, varnish, tar, tar gas, and solvents, including trichloroethylene (TCE). These drums were rusted and some banged up and leaking. We removed and disposed of 206 tons of contaminated soil.



NVE TRP is coordinating with the Formerly Used Defense Sites Program (FUDS) investigating the extent of a widespread area of TCE contaminated soils and groundwater at the Eklutna Army Site. FUDS found a number of buried metal debris concentrations. Some of these could be more leaking drums. NVE is drafting a new NALEMP Cooperative Agreement to excavate and dispose of these metal debris. We are thankful that DoD has taken responsibility for impacts to this site. Still, NVE can consider it as a tribal Brownfield site. It is important for Eklutna subsistence activities, and was formerly used by NVE for the Eklutna Powwow and environmental education camps. This site is owned by Eklutna, Inc. Proposal reuses include an environmental education center, organic garden with commercial composting facility, and an orphan moose rearing facility.

### Eklutna Army Site drum dump contained 117 buried drums



Drum Dump Site, before extraction. Drums contained lead based paint, roofing compounds, and solvents like TCE.



Some drums were banged up. Contents were assessed and condensed for containment.



Barrels with free product contained in overpacks for shipping and disposal.



206 tons of contaminated soil were removed for disposal.

#### Contact Information

Marc Lamoreaux  
Land and Environment Director  
907-688-8522

Angeleen Waskey  
Land and Environment Coordinator  
907-688-8522

nve.ledirector@eklutna-nsn.gov

nve.lecoordinator@eklutna-nsn.gov

## Native Village of Eyak

### Brownfields Tribal Response Program

P.O. Box 1388

110 Nicholoff Way

Cordova, AK 99574

<http://nveyak.com/environmental-and-natural-resources/>

**Contact(s):** Ivy Patton, *Environmental Coordinator*  
[ivy@eyak-nsn.gov](mailto:ivy@eyak-nsn.gov)  
907-424-7738

### Overview

- **Location:** South Central Alaska
- **Land Area:** Approximately 48,640 acres
- **Population:** Approximately 2,240
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** No
- **IC/EC Tracking and Public Record Website:** No

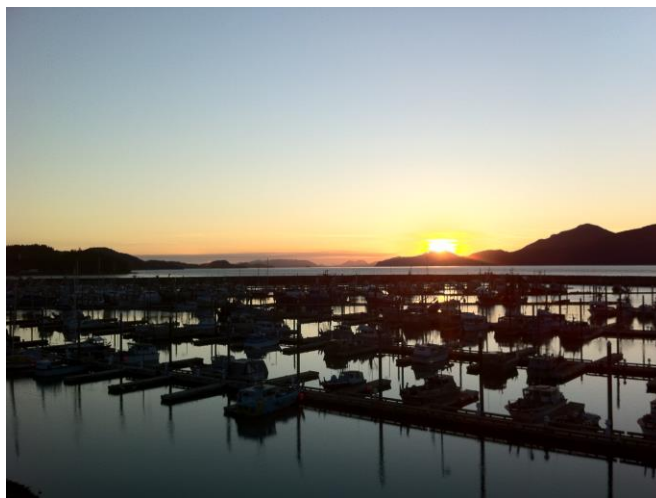
### Program

The Native Village of Eyak's (NVE) Brownfields Tribal Response Program (TRP) was created to identify harmful, contaminated sites and to promote sustainable land use practices throughout the greater Cordova region. Their goal is to increase tribal capacity for oil spill response by having a trained and prepared response team. NVE offers training and is a local resource to report and address hazardous spills. The TRP has completed the following activities:

- Published a brownfields inventory on the Tribe's website (the inventory is also available in the Environmental Coordinator's office)
- Created and maintained a public record
- Fostered public participation through outreach and education
- Offered environmental training to staff, tribal, and community members

### Program Highlights

NVE is using Section 128(a) Tribal Response Program funding to continue the process of developing an inventory of potential brownfields, and strengthen the tribe's capacity to identify and respond to contaminated sites within tribal lands. To date, the TRP identified over twenty potentially contaminated properties for its inventory and continues to solicit more properties. To increase its capacity for oil spill response, NVE held a 24-hour Spill Response course and a 40-hour HAZWOPER refresher course in October 2011 and will hold another in October 2014. In addition, NVE strives to reduce spills in our environment. In May 2012, NVE held a Home Heating Oil Tank Safety training event to increase its capacity to prevent spills and offers home heating tank inspections.



*Sunset over Old Harbor in the Native Village of Eyak.*

**Native Village of Gakona**  
**Gakona, Alaska**  
**Brownfields Tribal Response Program**  
P.O. Box 102  
Gakona, AK 99586  
<http://www.ngvgakona.com>

**Contact(s):** Shawnee Frank, Environmental Coordinator  
[gakonaec@gmail.com](mailto:gakonaec@gmail.com)  
907-822-5777

**Overview**

- **Location:** Copper River Region
- **Land Area:**
- **Population:** Approximately 200
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **Tribal / Public Record Website:** [www.nvgakona.com](http://www.nvgakona.com)

**Program**

Native Village of Gakona Program is in its first year of funding and looks to create a Brownfield program that benefits tribal communities from the beginning of the Tok Cut Off of Gakona Village to the Native Village of Mentasta. Development of the program will be working towards a regional site inventory and summarize the concerns of the northern part of the Copper River Region as well as building relationships with other local Tribal Response Program. Accomplishments that Gakona Village wants to achieve using Section 128(a) Tribal Response Program funding include:

- Create a Public Record
- Create a Brown fields program
- Conduct initial site inspections
- Develop Regional Partners
- Create public participation through outreach and education





*View of the Abandoned Heinz dumpsite on tribal Lands*

### **Program Highlight**

The Native Village of Gakona Tribal Response Program will establish and inventory future sites and to grasp the idea of how many contaminants is abandoned in our communities. A prevention program will be outlined, along with outreach to community members to collect data that needs to be removed or disposed of in a safe environmentally friendly manner. Program will use Section 128(a) Tribal Response Program funding to complete a phase I Assessment at a community.

**Grayling, Anvik, Shageluk, and Holy Cross (GASH) Consortium**

**Brownfields Tribal Response Program**

P.O. Box 8  
Anvik, AK 99558  
<http://www.anviktribalcouncil.com/brownfields.html>

**Contact(s):** Nathan Elswick, Environmental Director  
[atc.environmental@gmail.com](mailto:atc.environmental@gmail.com)  
907-663-6323

Carolynn Burkett, Program Coordinator  
[ccampbellburkett@yahoo.com](mailto:ccampbellburkett@yahoo.com)  
907-476-7258

**Overview**

- **Location:** Western Alaska
- **Land Area:**
- **Population:** Approximately 600 within the GASH region
- **EPA Grants:** Section 128(a) Tribal Response Grant
- **Environmental Ordinances that Cover 128(a) Work:** Yes
- **IC/EC Tracking and Public Record Website:** Yes  
<http://anviktribalcouncil.com/brownfields.html>

**Program**

Formerly the Anvik Tribal Brownfields Program, the project now encompasses three neighboring communities: Grayling, Shageluk and Holy Cross. The Grayling, Anvik, Shageluk, and Holy Cross (GASH) Brownfields Program provides natural resources management and environmental protection services for the tribe's 11.9 square miles of land. These villages face similar brownfields issues including tank farms, abandoned dump sites and contaminated properties. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Complete a property inventory
- Create a Public Record
- Conduct Phase I/II assessments on properties
- Develop a public outreach plan
- Foster public participation through outreach and education

**Program Highlight**

The GASH Brownfields Response Program used Section 128(a) Tribal Response Program funding to complete a phase I Assessment at a The Grayling Native Store former tank farm, also we were able to complete two phase I ESA's in Shageluk & Anvik this past year. The data collected will be used to begin the process of documenting the extent of the contamination working with the Yukon River Inter-Tribal Water more sampling can be conducted at more sites in each community.



*View of the Abandoned AVEC Property*

Update on the Big Lake Project in Holy Cross

We were awarded services for a TBA on the Big Lake located in Holy Cross Alaska. The results from the testing were as follows, the 2015 testing of the lake showed no contamination. There is however manmade debris throughout the lake, which is in need of removal. If any tanks or drums are found they will be assessed and disposed of properly.

## Hydaburg Cooperative Association

### *Contact information:*

Anthony Christianson  
Environmental Planner  
907-285-3666 Work  
907-617-7220 Mobile  
[Lil\\_hagoo@yahoo.com](mailto:Lil_hagoo@yahoo.com)  
<http://www.hydaburgtribe.org/>

Dorinda Sanderson  
Brownfields Coordinator  
907-285-3666 Work  
907-209-0718 Mobile  
[bfcoordinator@hydaburgtribe.org](mailto:bfcoordinator@hydaburgtribe.org)

### **Brownfields Program Summary:**

#### **Timely Survey and Inventory of Brownfields Sites:**

The Hydaburg Cooperative Association Brownfields Program maintains an updated Inventory List of sites in and around the Hydaburg area. This inventory list and public record are updated on a quarterly basis or sooner if needed.

#### **Oversight and enforcement authorities or other mechanisms and resources:**

We work to engage all the proper agencies within the brownfields program in a meaningful dialogue and work with them to gather as much relevant information to assist in the development of our brownfields program. The coordinator networks with the agencies as the program grows, and when needed, consults with appropriate agencies on what is needed to fulfill our obligation to form a public record of each site we encounter.

#### **Mechanisms and resources to provide meaning full opportunities for public participation?**

Hydaburg Cooperative Association has established a public record process for our area. If one exists, our organization that follows the procedures for listing any potential sites to meet the public record requirement. The brownfields coordinator has developed a process that maximizes community involvement, which includes newsletters and brochures. HCA Brownfields Program also has developed a Facebook page as well as a website. There is a page on the main HCA website on the brownfields program and it also provides a link to the brownfields site itself.



**Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete:**

Our program will ultimately be working towards cleanup projects. Trainings and workshops are attended by staff to ensure proper knowledge and training are received in order to fulfill the goals of the program.

**General Information and Organization Goals:**

The Hydaburg Cooperative Association is a federally recognized Tribe. The HCA provides tribal services to a tribal enrollment of 450 members. Services include an Environmental Department that includes the IGAP program, The Brownfields Program, Subsistence Monitoring program and a Stream mapping and monitoring project, Human Service Department, Education Department, Housing Assistance, roads inventory, resource monitoring, and Drug and Alcohol Awareness program. The Hydaburg Cooperative Association is located in an area with a rich resource extraction history. Old mine sites litter the landscape, old dumpsites are a common thing, and areas that were once utilized for industry are left abandoned. Our Tribe will identify these areas that have potential to be cleaned up. It is in the best interest of our future generations that we start the process to develop a program that can address these issues and sites. We have a heavy reliance on the natural resources for food and shelter, so protecting the environment is a top Tribal Priority.

Frederick Otilius Olsen, Jr.  
Tribal Vice President  
Brownfields Coordinator  
Organized Village of Kasaan  
Cell: (907) 617-9941

Department of Natural Resources  
Brownfields Program  
P.O. Box 26  
KXA Kasaan  
Ketchikan, AK 99950-0340

[http://www.kasaan.org/brownfields\\_home.html](http://www.kasaan.org/brownfields_home.html)

### **Contact(s):**

Frederick Olsen, Jr. Brownfields Coordinator  
[fred@kasaan.org](mailto:fred@kasaan.org) (907) 617-9941

Carol Fletcher, Brownfields Technician  
[carol@kasaan.org](mailto:carol@kasaan.org) (907) 542-2230

### **Program**

The Organized Village of Kasaan's Brownfields Program was established to identify and clean up potentially contaminated sites in the Kasaan Bay Watershed. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Completed a property inventory
- Created a Public Record
- Annual Mining Symposium fosters public participation through outreach and education
- United Tribal Transboundary Mining Work Group formed

### **Program Highlights**

Located on Prince of Wales Island, the Organized Village of Kasaan (OVK) uses Section 128(a) Tribal Response Program funding to inventory sites within its traditional territory. Now our land has mixed ownership, including the U.S. Forest Service, Alaska Mental Health Trust Authority, Sealaska Corporation, Kavalco Incorporated, and several different private land owners.

We are concerned about the continued use of our land and watersheds for our Haida Way of Life. For decades, hard rock mineral mining was an important activity all over Prince of Wales Island. Past mining activity left the natural lands and watersheds our Haida people use for hunting, gathering, and gardening littered with contaminated mining sites that pollute the natural ecosystem.

To date, the OVK has inventoried 35 sites. We leverage partnerships to clean up and restore former mine sites to their natural environment and allow the Tribe to maintain its Way of Life. For example, the Salt Chuck Mine site, a former palladium mine, was inventoried by the Tribe and identified for further evaluation. Visual surveys revealed the presence of mine tailings in the water, causing contamination to nearby clam populations. In 2009, the U.S. Forest Service received \$1.4 million in federal stimulus funding to begin cleanup activity on the upland areas of the Salt Chuck mine site. The cleanup removed contaminated soil and dilapidated structures on the U.S. Forest Service-owned portion of the site. <http://1.usa.gov/1QpVfHz>

OVK's annual Prince of Wales Island-Wide Mining Symposium consists of sessions with presentations by mining representatives, governing agencies, interested groups, and residents of Prince of Wales Island. The two-day event includes discussion of current mining projects and mining issues that may be of concern to the people of our island and Southeast Alaska. [http://kasaan.org/miningsymposium\\_home.html](http://kasaan.org/miningsymposium_home.html)

The symposium provides a unique forum for information exchange and issue discussion among stakeholders, landowners, and the indigenous people of Southeast Alaska. Participants will include Tribes, mining companies, power entities, regulatory entities, government officials, educational institutions, and many other concerned community members.

In 2015, technical presentations included Mineral Resources of Prince of Wales Island and Water Quality and Water Management. Regulatory presentations included the Alaska Department of Natural Resources Coordinated Permitting Involvement in Canadian Mine Reviews, Mining Reclamation, and the U.S. Department of Agriculture (USDA) Forest Service's Comprehensive Environmental Response Liability Act (CERCLA) Program. Tribal participants were provided valuable information from environmental and mining attorneys about effectively engaging with the regulatory agencies.

In 2014, OVK held a Transboundary Conference to put a focus on the issue of Canadian mines in British Columbia that could negatively impact Alaskan rivers, watersheds, and other waterways flowing across international borders. During a breakout session of the conference, the United Tribal Transboundary Mining Work Group was created. In its two years, the UTTMWG has become an important part of the Transboundary mining discussion in the SE Alaska region. Currently, the group consists of 14 federally-recognized SE Alaska Tribes and the Kasaan representative serves as the Chairman.

## Klawock Cooperative Association Brownfields Tribal Response Program

The Klawock Cooperative Association (KCA) is a federally recognized Tribe located on Prince of Wales Island in Southeast Alaska. Prince of Wales Island is the third largest island in North America.

The Tribe has an environmental program that has been funded by the Environmental Protection Agency (EPA) Indian General Assistance Program (IGAP) since 1999 and is in its first year of their Tribal Response Program (TRP). The Tribe plans to survey and inventory Brownfields sites in and around the community of Klawock. Within the response plan, The Tribe will establish a public record for these sites, which will include a GIS mapping component.

The TRP will ensure the protection of the Tribe's natural resources by monitoring their customary and traditional use areas for sites that may be contaminated with hazardous substances. These materials may have the probability to contaminate the natural resources of the Tribe, and may cause severe health risks to the public. These sites may include but are not limited to, abandoned warehouses, abandoned industrial buildings, old buildings, gas stations, logging sort yard, landfills, illegal dumps (particularly those involving hazardous wastes like gas, oil, pesticides, paints, etc), methamphetamine labs, above ground and underground fuel storage tanks that are abandoned or suspected to be leaking. The goals of KCA's Tribal Response Program is to inventory all brownfields sites in our traditional territory and develop a public record.

Alaska State & Tribal Response Program - Brownfield Handbook record that is maintained by the State of Alaska and Tribes that include information on all potentially contaminated sites. The public record will be accessible on KCAs website, and will contain information on the sites and status of work in the current year, and the planned site work for the following year. The inventory of sites will be an on-going process that involves identifying all potentially contaminated sites, determining if the sites meet the definition of brownfields, prioritizing the qualified sites for action and then potentially conducting needed site-specific work. KCA, with assistance from an advisory group will develop a protocol for conducting an inventory at eligible brownfields sites. If a site is in close proximity to a culturally sensitive site, KCA will engage the EPA in a

government to government meeting to determine how to best protect the site. The KCA and EPA will have a signed Tribal Environmental Agreement that will help facilitate this process. The long-term vision for KCA’s Tribal Response Program is to assure that there are no environmental health risks to our people or degradation to the land in our traditional territory. To accomplish this, KCA would continue to implement a Tribal Response Plan until all contaminated sites are properly assessed and cleaned-up. To do this, KCA will continue to build their relationship with responsible parties for potential site clean-up.

An initial survey and inventory of all potential Brownfields sites has been established and is updated as new information becomes available. The Tribe works together with the appropriate representatives of the Environmental Protection Agency, Alaska Department of Environmental Conservation, and local agencies to develop mechanisms for approval of cleanup plans.

**Contact Information:**

Ann Marie Wyatt Environmental Coordinator  
[annwyatt@klawocktribe.org](mailto:annwyatt@klawocktribe.org)  
Klawock Cooperative Association  
P.O. Box 430  
310 Bayview Blvd.  
Klawock, AK 99925  
(907) 755-2265 phone, (907) 755-8800 fax

Brian Holter Jr. Brownfields Coordinator  
[brownfields@klawocktribe.org](mailto:brownfields@klawocktribe.org)  
Klawock Cooperative Association  
P.O. Box 430  
310 Bayview Blvd.  
Klawock, AK 99925  
(907) 755-2265



835 Ridgecrest Drive; PO Box 2986, Bethel, AK 99559-2986 | Toll Free: 1-855-543-1427 |  
PH (907)543-1426 | FX (907)543-1427 [www.kuskokwimcouncil.org](http://www.kuskokwimcouncil.org)

**EPA Region 10 Annual Meeting  
September 9-10, 2009  
Grantee Information Sheet  
[Submitted by KRWC and updated by DEC March 2015]**

**Agency Name:** Kuskokwim River Watershed Council

**Agency Jurisdiction**

The Kuskokwim River Watershed, with its 58,000 square miles, represents more than 10 percent of the Alaskan territory. Situated south of the Yukon watershed, the Kuskokwim is the longest free-flowing river of the USA. (See <http://www.kuskokwimwatershed.org>) KRWC services an area that includes 39 villages, of which 22 are formal members of the Council.

**Brief description of what programs your Response Program covers.**

The focus of the program is to collaborate with communities in the Kuskokwim River watershed to:

- inventory potential brownfield sites
- foster public participation in clean up and reuse of contaminated sites
- provide relevant training
- maintain a watershed-wide record of contaminated sites for the public to access
- assist with an environmental assessment of sites

**Year Funding from EPA:** 2009/2010 first year

**General description of sites?** Most of the sites that will be inventories include: fuel tank farms, illegal dumpsites, abandoned mines, old BIA schools, and old military sites.

**Resources you have used, partnerships leveraged?** Before starting our program we have initiated working relationships with the Alaska Department of Environmental Conservation, the Association of Village Council Presidents, and the Bureau of Land Management.

**Contact Information:**

Adrian Boelens, Executive Director  
334 River Road  
P.O. Box 334  
Aniak, AK 99557  
(907) 675-4705 phone  
(907) 675-4706 fax  
[aboelens@kuskokwimcouncil.org](mailto:aboelens@kuskokwimcouncil.org)

Roxanne Evan, Brownfield Coordinator  
334 River Road  
P.O. Box 334  
Aniak, AK 99557  
(907) 675-4705 phone  
(907) 675-4706 fax  
[Revan@kuskokwimcouncil.org](mailto:Revan@kuskokwimcouncil.org)

## EPA TRP Profile: Maniilaq Association

### Tribal Environmental Program

### EPA-Indian General Assistance Program

### Tribal Response Section (128A) Program

P.O. Box 256

Kotzebue, AK 99752

<http://www.maniilaq.org/tribal-government-services>

### Overview

- **Location:** Northwest Alaska
- **Service Area:** 39,000 sq. mi.
- **Population:** Approximately 8,500
- **EPA Grants:** Section 128(a) Tribal Response Grant/EPA-IGAP

**Contact:** Stanley Tomaszewski, *Brownfield Coordinator/Backhaul-Recycling Tech.*

[stanley.tomaszewski@maniilaq.org](mailto:stanley.tomaszewski@maniilaq.org)

907-442-7639



**The Maniilaq Association**, a 501(c) (3) non-profit organization and consortium of twelve federally recognized tribes, headquartered in Kotzebue, AK provides; health, social, elder, and tribal government services for approximately 8,500 residents within its Northwest Alaska service area (87% of whom are of Alaskan Native or Inupiat heritage). Additionally, the Association coordinates tribal and traditional assistance programs, subsistence and environmental protection services for member tribes. The twelve service area federally recognized tribes: Ambler (*Ivisaappaat*), Buckland (*Nunatchiaq*), Deering (*Ipnachiaq*), Kiana (*Katyaak*), Kivalina (*Kivaliniq*), Kobuk (*Laugviik*), Kotzebue (*Kikiktagruk*), Noatak (*Nautaaq*), Noorvik (*Nuurvik*), Selawik (*Akuligaq*), Shungnak (*Issingnak*), Point Hope (*Tikigaq*) are rural, isolated, remote native villages distributed over 39,000 square miles of Northwest Alaska (35,898.3 sq. miles of land and 4,863.7 sq. miles of water) - an area roughly the size of Kentucky. For additional information about Maniilaq Association, links to individual service area villages in Northwest Alaska including history, culture, climate, etc., please visit the following: <http://www.maniilaq.org/companyInfo.html> <http://www.maniilaq.org/aboutNWAAlaska.html>

**The Maniilaq Service Area**, effectively the **Northwest Arctic Borough** (NWAB), includes *nearby* native village of Pt.Hope (North Slope Borough). The NWAB geographic area is second *only to neighboring* North Slope Borough, *largest* in Alaska with 89,000 sq. mi. coverage area. The Borough population is primarily Inupiat Eskimo and subsistence activities are *integral* to way of living. Caribou, reindeer, beluga whale, walrus, seal, fish, and various fowl are important subsistence foods. The Northwest Arctic Borough is comprised of the Kotzebue Sound and communities along the Wullik, Noatak, Kobuk, Selawik, Buckland and Krugruk Rivers and lesser known tributaries in Northwest Alaska. There is no road system in the NWAB. Travel in and out of communities is primarily by air and seasonally, summer/winter, by boat or dog sled/snow machine. Daily passenger jet and air cargo service is only transportation available between Kotzebue, the hub port for the region and Anchorage, 550 air mi. distant to southeast, and, commuter airlines provide daily transportation to area villages and Fairbanks. The shipping season lasts approximately 100 days, July thru September, when the Kotzebue Sound is ice-free. All deep draft vessels must standoff at 15 miles, then cargo, including regional bulk fuel supplies are lightered by shallow draft barge to port docking facility. NWAB office is located in the Kotzebue Recording District roughly 66°53'50"N, approximately 33 miles above the Arctic Circle (66°33'44"N). Temperatures range from -52°F (-47°C) to 85°F (29°C) and snowfall averages 47" (1.19 m) with 9" (0.23 m) of total precipitation per year.

For additional Maniilaq service area and related NWAB information: <http://www.nwabor.org/aboutus.html>



## Tribal Environmental Protection

Established in 1997 with funding from the U.S. Environmental Protection Agency (EPA), the program has provided tribal governments and municipalities' with technical assistance to identify, assess, and monitor environmental issues through its backhaul recycling and TRP Brownfield activities. Tribal Environmental Protection also works extensively to educate and promote ownership, responsibility, and prevention to community members; environmental stewardship practices, and have developed regional training sessions in the villages.



## Tribal Environmental Program

Maniilaq Association has committed the “Tribal Environmental Program” (TEP) to establish comprehensive backhaul-recycling, Climate Change Adaptation and Tribal Response Section 128 (a) Brownfield Restoration/Prevention programs in the region benefiting the health and the environment of current and future generations of inhabitants of the northwest arctic.

The TEP has implemented such a **recycling program** in Kotzebue as well as a regional backhaul program to assist communities within our service area stage and transport recyclable materials via Kotzebue to Anchorage and/or Seattle. The project is a partnership between Maniilaq Association and its member tribes, City of Kotzebue, Northwest Arctic Borough/Municipalities, and regional transportation providers. Since inception in 2008, program has backhauled for recycling; over 240,000 lbs. e waste, 140,000 lbs. lead-acid batteries, over four tons of Fluorescent lights and four tons of ‘white goods’ (washers/dryers and refrigerator/freezers), other stuff! For more TEP information <http://www.maniilaq.org/tribal-government-services>

**Summary:** The Maniilaq Assoc. Back Haul Recycling Program has demonstrated the ability to divert substantial amounts undesirable materials from entering the solid waste stream and /or the environment; however the full measure of accomplishment will be the stoppage of accumulation certain refuse items by establishing permanent outlets that systematically prevent future backlog. This accumulation continues to be a huge problem singularly affecting all aspects quality of life, one requiring a corresponding magnitude of commitment to ensure “the full measure”.

**Maniilaq Section 128 (a) program** funding has been used to enhance and build capacity to the established Tribal Response Program within Maniilaq Tribal Environmental Program (TEP). The Tribal Response Programs' directive is to provide technical assistance to the eleven Native villages that Maniilaq Association serves and to provide education to the general public about the number and type of Brownfield sites within this area. Maniilaq TEP vision is also to develop partnership with the local governments to reduce the risk of exposure of contaminants found in the Brownfield sites to the public, and assists to fully reclaim the sites to the public for their use such as community development, subsistence harvesting, habitat restoration, community gardening, etc. Our land and natural resources are considered to be sacred for cultural and traditional use and is vital to the communities' health and well-being. Therefore, land restoration and preservation in each community will provide a mechanism to implement the desired outcome of the surveys and assessments done in the previous year's including the following.

- Established Public Record of Response Actions <http://www.maniilaq.org/tribal-government-services>
- Completed Inventory of Potentially Contaminated Sites in eight Communities
- Four sites in two communities selected for DEC Brownfield Assessment (DBA) assistance. Site assessment conducted fall 2010. Property Assessment and Cleanup Plan (PACP) report pending completion by DEC contractor.



Alaska

Yukon

Anchorage

Bering  
Sea

Gulf of  
Alaska

British  
Columbia

### 4.13 METLAKATLA INDIAN COMMUNITY

## **Nelson Island Consortium**

### Native Village of Tununak

The Native Village of Tununak is located in a small bay on the northwest coast of Nelson Island, 115 miles northwest of Bethel, Alaska, and 519 miles northwest of Anchorage, Alaska. The area encompasses 60.5 square miles of land and 0.2 square miles of water. Like all the consortium villages, Tununak relies heavily on air transportation for passengers, mail and cargo services. A State-owned 2,010 foot long by 40 foot wide gravel airstrip is no longer used. A new airstrip has been completed in the fall of 2015 and now it is being used. Barges deliver goods two to three times each summer, and goods are lightered to shore. Boats, snow machines and ATVs are used extensively for local travel. Tununak's Environmental Program, the IGAP, includes one full-time coordinator, one part-time assistant, and one part-time landfill operator with one on-call assistant, and one part-time Nelson Island Consortium representative. We also have a support staff of an administrative assistant, and an accountant/bookkeeper, who are well-trained in QuickBooks and EPA grant financial procedures.

Tununak is one of the seven tribes in the CANINERMIUT/QALUYAAT-LLU NUNAMTA MENUITENGAQLERKAANUN NUNAM CALIARAT, known in English as the Nelson Island Consortium. It is an inter-tribal Consortium that has shared traditional subsistence grounds on Qaliyaat (Nelson Island) for thousands of years. The villages on Nelson Island have retained the subsistence lifestyle and knowledge – more so than any other part of Alaska. It is the dedicated desire to retain the subsistence lifestyle that formed the Consortium. The member tribes include Cevva`arnek (Chefornak), Qipnek (Kipnuk), Niugtaq (Newtok), Negtemiut (Nightmute), Tuqsuk (Toksook Bay), Tununeq (Tununak), and Umkumiut. Villages of Chefornak and Kipnuk are located in the adjacent Caninermiut area, near the Kuskokwim river mouth.

The villages share a common subsistence lifestyle and similar Yup`ik culture, with Newtok and Tununak having the same Yup`ik dialect, and Chefornak, Kipnuk, Nightmute, and Toksook Bay with a little different Yup`ik language dialect. English language is used mostly in the interactions with the outside world and in school. We all live a subsistence lifestyle and depend on traditional foods on average of more than about 80% of the diet intake. Most of the communities in the Nelson Island Consortium Villages have business stores that are operated by a village corporation (under Calista Corporation), Alaska Native Incorporated Cooperative Association, and privately owned businesses. The population on the seven village tribes on Nelson Island range in size from 232 to 650 people. The total population served by the grant is about 2,500 people, over 97% being Alaska Native. The Umkumiut tribe mostly has its permanent homes and tribal office located in the village of Nightmute. During the spring, summer and fall, they use the village for fishing and hunting. More information can be found at: <http://commerce.alaska.gov/dnn/dcra/communityinformation.aspx>

## **Brownfield Grant Goals for 2015-2016**

The goal of the program is to assist in conducting of the assessment and cleanup of sites of concern to the Nelson Island Area communities and facilitate their reuse and/or redevelopment. The goal is to develop a working model for other Alaska Native Villages in cooperating for a Brownfield's Tribal Response Program, using traditional communities and relationships to build partnerships and assist the cleanup of shared subsistence sites.

We now have a full-time TRP Coordinator and a part-time Bookkeeper in the Native Village of Tununak/Nelson Island Consortium. We are continuing to attend training and conferences to learn new western-oriented concepts and Brownfield terms that are essential for us to carry out a program on our own, and protect our communities and subsistence resource sites.

The development process was necessary for our program as our communities are all Yup'iks, and Yup'ik is the first language in the Nelson island area. Much of our population including our leaders, the elderly people in our communities, do not speak or understand English at a level that would allow public participation or awareness of our program. In instituting a successful cleanup and redevelopment/revitalization program, we will only be as successful as the extend of community involvement and consent, such that the sites that are of greatest priority to cleanup for reuse are focused on, and concerns relating to the cleanup that may impact that reuse/redevelopment are fully communicated. Thus, understanding and translating that program to Yup'ik concepts was paramount for program success in preparing for site cleanup and reuse with meaningful public participation.

We will concentrate on Brownfield skills training and coordination with State and Tribal Response Programs, do initial investigation and completing inventory, and preparing for a site assessment and assist in cleanup. We will continue to present our plan to the Nelson Island Consortium community meetings, to educate our community members of hazardous and contaminated sites, be it from the past up to the present day, and how we contribute to the contamination that enters to our communities. The program has developed a power point presentation that points out to major concern in most of the Nelson Island Consortium Villages, and from that we have learned how to properly record and address the issue using the modern day technology and regulations.

The following is the website link to the Nelson Island Consortium's Brownfields Tribal Response Program page: <http://www.nelsonislandconsortium.org>.



The goal of ONC's Brownfields Tribal Response Program is to continue conducting inventory and surveying of contaminated sites in Bethel, Alaska which include continued education and outreach to the community. We continue to involve the community of our inventory process in identifying potential Brownfield sites. Educating our community on prevention and awareness is important, especially when it comes to our younger generation. We plan to continue enhancing our program by accomplishments which will provide future activities. The funding received will be used to cover the costs of activities at or in direct support of our sites that need to be assessed. Activities will include 1) (non-site specific tasks related to the program planning and management, 2) program enhancement activities to meet the four elements of an acceptable state/tribal response program, including development and periodic update of the Public Record and the inventory of potential Brownfields sites, and 3) public outreach meetings, classroom presentations, and preparation of outreach material. The Four Elements are to be utilized for our Program to help our community. We are in continued coordination and collaboration with our fellow TRP programs in the region. The Kuskokwim River Watershed Council is extremely helpful to our program.

The Orutsararmiut Native Council is in Southwestern part of Alaska, located 50 miles inland along the Kuskokwim River. Orutsararmiut Native Council (ONC) is a federally recognized Tribe of Bethel, Alaska. Orutsararmiut has throughout its history served as a regional center and gathering place for the 56 villages in the region. In the late 1880's the Moravian Church established a mission at Orutsararmiut and named their new mission site Bethel. With the establishment of the church and growing trade, Orutsararmiut (Bethel) developed into the region's major trade, air and barge transportation, communication and government service center. During WW II, and the Cold-War years until the mid-1960's, Bethel also served as a regional military site complete with an airfield and a White Alice Missile Radar facility. A regional IHS hospital was located in Bethel and now serves the 20,000 + Yupik residents living in the Yukon Kuskokwim Delta

Region. Transportation, communication, and governmental services for the region expanded; regional offices and a variety of facilities to support these services were constructed or expanded throughout the community. Large fuel tank farms were also built in several areas of the growing town. Major fish processing facilities to service the 600 plus commercial fishermen of the Kuskokwim River villages have also been installed in recent years. A growing number of vehicles utilize the 50 miles of roads in town, including 150 miles of ice road on the Kuskokwim River. The current economy is dominated by government services, followed by a service industry and seasonal commercial salmon fisheries. From its early years when 41 people lived in Bethel, its population has grown to approximately 6,000 permanent residents according to the 2000 census today. Close to 2,000 housing units, public and private facilities, and several new subdivision developments are supported by a combination of municipal piped water and sewer, water truck and sewage evacuation truck services. A municipal dump and sewage lagoon is sited near the community property on high ground overlooking half the town. With the community of Bethel being the biggest hub in the region there are many abandoned buildings, lead pollution has been found to be double in Alaskans than in urban Alaskans, due to old paint in the houses, but also from lead leaching in old drums these areas are also known to be located near fish camps that are located within the community.

The local governments including the state and federal agencies have a strong physical presence which includes oversight of environmental impact issues within the community. Education institutions, a tribal consortia and AVCP Regional Housing Authority which serves 56 tribes with low income housing for the 59 Tribes, Association of Village Council Presidents (AVCP) provides governmental service and assistance to 59 member tribes in the Yukon-Kuskokwim Delta Region, the Yukon-Kuskokwim Health Corporation (YKHC) which serves 59 villages and the local native village corporation (Bethel Native Corporation), 3 major retail outlets, and about 10 restaurants, all bear some responsibility and impact upon environmental issues and concerns that face the community of Bethel. ONC has taken its first steps and is establishing its presence as an environmental organization with some credibility with EPA's help over the years through the Indian General Assistance Program grant and the Tribal Response Program under ONC.

During our years of funding we identified high priority sites. For example: The old BIA site and White Alice Radar site which are highly contaminated with asbestos and other contaminants. Although it has not been 100% remediated,



efforts were taken in the late 90's to clean the site. The US Fish and Wildlife Program is now the owner and efforts for more remediation have seemed to stop due to lack of communication and effort on their end. The location of this site is valuable real estate and we will put an effort to go forth with clean up and eventual reuse. An important project involves remediating the Old Bethel Airport site across the Kuskokwim River due to subsistence and community access. A preliminary Brownfields Inventory form has been completed in October 10, 2013. During our GIS surveys this fall, we discovered over 156 fifty-five gallon steel drums at this site. There has been response activities by Army Corps of Engineers in Oct 1996 in which drums of asphalt were recovered which had been staged on the old airfield. Apparently, due to the heavy plant overgrowth and inaccessibility issues, the new finding may have been overlooked. Since we now know about this new site, ONC has shared findings with ADEC Emergency Response Program- Bob Carlson soon after doing the inventory form.

The goal of the brownfields program is to develop and implement the tools that will ensure the inventory, assessment, and clean-up of contaminated sites, redeveloping these sites for community and subsistence resources use. In order to do so, ONC will continue to work with the community of Bethel and other agencies and organizations, to make increased awareness of brownfields issues, and ways to address these. By addressing the concerns to the public this will help educate them on the locations and maybe help avoid future contamination.

We will continue concentrating on training our Brownfield staff and coordination with State and other Tribal Brownfields program, completing our inventory, and preparing for site assessment and cleanup. We will continue to develop our inventory and update our website to summarize our program. Our Public Record site summaries are posted on

<http://nativecouncil.org/natrec/brownfields-inventory/>.

We also have a Facebook page at **Orutsararmiut Native Council Environmental Program** where we keep our tribal members and community updated in our project including the region.



ONC TRP Contact Information:



Alissa Joseph – Orutsararmiut Native Council Brownfields TRP Coordinator

[ajoseph@nativecouncil.org](mailto:ajoseph@nativecouncil.org)

Alissa Joseph  
P.O. Box 927  
Bethel, Alaska 99559

Work: 907-543-2608  
Work Cell: 907-306-4345  
Fax: 907-543-2639  
Toll Free-Statewide: 1-800-478-2654  
<http://nativecouncil.org/natrec/brownsfield-program/>

Our offices are located at: 117 Alex Hatley Drive in Bethel, Alaska.

Don't forget to check out our Facebook page at Orutsararmiut Native Council Environmental Program.

## **Port Heiden Tribal Response Program**

*Submitted by the Port Heiden TRP, edited by DEC for April 2016 STRP Workshop*

Here are the contacts for Port Heiden:

1. Jaclyn Christensen, *Brownfield Coordinator*  
[jaclync@portheidenalaska.com](mailto:jaclync@portheidenalaska.com) phone: (907) 837-2296 x108, fax: 837-2297
2. Maranda Shade, *Brownfield Assistant*  
[mshade@portheidenalaska.com](mailto:mshade@portheidenalaska.com) phone: (907) 837-2296, fax: 837-2297

Port Heiden Native Council

P.O. Box 49007

Port Heiden, AK 99549

<http://www.nativevillageofportheiden.com/brownfields.html>

The main number for the Native Council of Port Heiden is (907) 837-2296.

Contacts are:

Gerda Kosbruk, Tribal Administrator, x106

John Christensen, Jr., Tribal President, x104

Miranda Shangin, Accounting & Finance, x101

### **Summary of Work Plan**

- The program is currently in the tenth year of funding and continues to seek other mechanisms and resources to help address contaminated sites within Port Heiden.
- Program staff has identified and utilized resources to address contaminated sites. Some of the resources have been the U.S. Coast Guard, U.S. Army Corps of Engineers, IGAP, Brownfield, U.S. Air Force, and The Marine Conservation Alliance Foundation & Alaska Department of Environmental Conservation.
- A GIS-based site inventory of known and potential contaminated sites was created (this software/program is at the IGAP office).
- A public record of sites that are being addressed or will be addressed in the next year was created and continually updated to keep the public informed. The public record meets the requirements of CERCLA section 128 (b)(1)(c).

- Program staff conducts (2) public meetings annually to inform the community on the progress of the TRP and utilizes the meetings to update prioritization of the site inventory.
- Program staff produces (2) newsletters annually.
- The Native Village of Port Heiden, with the use of 128(a) funding, hired a contractor to do a phase I environmental site assessment at the Old Meshik Town Site on 11 properties. Phase I was completed May 30, 2008.
- The NVPH Environmental Department has conducted soil sampling training at the Old Meshik Town Site.
- Received Phase I with a limited phase II DEC Brownfields Assessment (DBA) on former Above Ground Bulk Tank Farm. The assessment came back clean and the City of Port Heiden plans for redeveloping the tanks into a shop/storage facility were cleared to proceed.
- Staff worked with the City of Port Heiden and ADEC on a community Spill Response Agreement. The agreement was finalized April 15, 2010.
- Staff worked with Weston Solutions Inc., Iliaska LLC, ADEC, U.S. Air Force, and Aniakchak LLC on issues involved in the Port Heiden Radio Relay Site Soil Remediation Project.
- Program staff attended conferences and workshops such as, National Brownfields Conferences, Alaska Forum on the Environment, EPA Region 10 workshops and Alaska STRP Workshop. These workshops and conferences have helped in the understanding of Brownfield and environmental issues within Alaska and the United States.
- All reporting, closeout, and pre-cooperative agreements have been completed and successfully turned into EPA in a timely manner.
- Previous Coordinator worked with the Midwest Assistance Program as one of the ten pilot tribes selected to serve in their train-the-trainer program but this program is no longer followed.
- Program staff worked with IGAP staff to help build tribal capacity for emergency responses.
- A Spill Response trailer was purchased and is maintained with 128(a) funds to enhance response capabilities.
- Program staff will continue to work with IGAP staff and the community to develop and refine an Emergency Operations Plan.
- Program staff will coordinate and provide outreach to other STRP grantee recipients in Alaska.
- Program staff has done property profiles on 16 individual sites in the Old Meshik Town Site, including research and history on each property and

entered them into the public record. All 16 sites are known contaminated sites on the ADEC Contaminated Sites Program public database.

### **Port Heiden History**

The Village of Port Heiden is located in southwest Alaska, on the north side of the Alaska Peninsula. We are approximately 424 miles southwest of Anchorage. Our village sits at the mouth of the Meshik River on the shores of the Bering Sea. We have a year-round population of just over 80 residents.

The influenza epidemic of 1918-1919 forced the residents of the original village site, known as Meshik, to move to other villages. During World War II, an Army air base called Fort Morrow was built just north of the village. The War Department applied for over a million acres but only 8,000 acres were actually used for the air base and buildings. The base had as many as 6,000 military personnel, a heavy bomber and fighter support squadron stationed there. Around 1948, Fort Morrow was closed. In the late 1950s, a DEW line station was built by the U.S. Air Force and was operated until 1979.

After the territory the local residents in the early 1950's, many of the dislocated families returned and resettled at Meshik, the community that was to become Port Heiden, put school in place. Other families also moved in from neighboring villages to be near the school. In the early 1980's the community started relocating inland, closer to the airbase, because of the erosion at the village of Meshik. The last resident moved up from the old village in 2008.

In Port Heiden we fish, hunt, and gather berries and tundra plants to put food on our tables. We also buy processed foods at our village store or from Anchorage, but those foods are expensive due to airfreight costs. In recent years our commercial fishermen have suffered from low salmon returns and many of us are more reliant than ever on a subsistence diet. It is increasingly important that our subsistence foods be healthy and free of environmental contaminants.

### **Statutory Authority**

The Port Heiden Village Council is the federally recognized tribal government for the Alaska Native residents of Port Heiden. Our tribal council consists of seven elected members. The community also incorporated as a second-class city in 1972. The seven-member city council is elected to terms of office.

The City of Port Heiden is the primary provider of basic services such as electric utilities, landfill and road maintenance, sewer and septic, and fuel purchases and sales at our bulk fuel tank farm. The Village Council and City

Council work closely and have sponsored joint projects to the benefit of our community.

In 2000 the Native Council of Port Heiden applied for and received a grant through IGAP to start an environmental department. Scott Anderson was hired as the Environmental Director. NCPTH then started to work on acquiring a 128A STRP grant and were approved for FY 2006.

### **Environmental Issues**

The residue left by the Army and Air Force has been the source of concern for our community and consequently the majority of the environmental offices' workload. The local population has been plagued by higher than normal cancer rates, dermatological problems, and other health problems that have been presumed to be from contamination left by the military. Our mission has been to find the "smoking gun". Common sense tells us that there must be a link to the contaminants, but proving it has been difficult.

For years we have watched as the bay has slowly taken back our original village site and in late 2003 erosion exposed part of our old cemetery, old military barrels and other suspicious objects. The abandoned homes and buildings have been falling into the bay. When the army closed the air base they just walked away from everything and consequently the local villagers used the abandoned materials to build homes, meat caches, smoke houses, and storage sheds. Reports by the U.S. Department of Defense tell of chemical shells stored at Fort Morrow and were used in training exercises. Unused ordinances (UXO) were buried or dumped in the bay. UXO's, including anti-aircraft shells, small arms and machine gun ammunition, have been found over the years. Through research, local knowledge, and documentation by the military we are finding that there are sites that the army had buried equipment and supplies in the area that the village had relocated to.

The contaminants present in these materials and ammunition along with the chemicals left by the Air Force are a major concern for us. A Phase I assessment of the old village of Meshik showed a variety of contaminants. We have been working with the military and other organizations to clean up the contamination and that has been fairly successful. The military, after years of red tape and lack of funding, is making a good faith effort to help us in our efforts.

In a 2001, household survey of the main concern was contamination in the drinking water. Erosion in front of the village has exposed thousands of fuel drums that were buried by the Army during the war. Previous cleanups had picked up 24,000 drums and the leakage from the Air Forces' two 250,000 gallon

tanks situated right in the middle of town led many to believe that fuel had leached in the drinking water. The Air Force had also stored drums of antifreeze, isopropyl alcohol, carbon tetrachloride, ammonia, and other chemicals next to the fuel tanks. Water testing was done on all the wells in Port Heiden in 2003 but only one well in the old town site of Meshik was tested due to the relocation of the village and there was only one resident left in the old village. The Environmental office is working with Ric Robinson and Charles Grosse of the Agency for Toxic Substances and Disease Registry to determine the sources of the health problems. Some of the main contaminants that have been identified in past assessments, cleanups and testing were PCB's, benzene, asbestos, lead and mold.

Our Office has been helping to coordinate emergency responses by state and federal authorities. Many times the need is immediate but the response is not. We want our office to be able to focus more effort on this issue immediately so that opportunities to avoid pollution are not lost. We have an emergency response team made up of this office and several of the local residents that are properly trained. The Environmental office also has a response trailer supplied with materials for quick action in case of a spill or release. We are currently working on an agreement between ADEC and the City of Port Heiden / the Native Council of Port Heiden. Our Public Record has 16 listed sites

To date, 20 community members and three from neighboring villages, have successfully completed the 40 hour HAZWOPER training in accordance with OSHA 29 CFR 1910.120. An annual 8-hour HAZWOPER refresher class is also held to keep trained individuals up-to-date. While working with the local HAZWOPER team, the environmental staff has successfully removed hazards from in and around the city limits of Port Heiden. A previous cleanup in the old village and beach front area included the removal of abandoned vehicles and draining all of the fluids from them, i.e. engine oil, transmission oil, gear oil, etc. The HAZWOPER team has also built a storage area for the purpose of storing old used lead acid batteries. The first backhaul of batteries removed over 22,000 lbs. from the community. The second backhaul of batteries consisted in the removal of over 2,000 lbs. A used oil burner has also been installed in the City of Port Heiden shop building, which burns the city and state's used oil for heating the shop.

Our community has welcomed the education and capacity-building we have achieved so far. They have come to understand the environmental issues and priorities. At the same time they become very anxious to see more tangible activity taking place. We now have local people trained in handling hazardous

materials and we are putting this training to use. There are many areas identified that we want to take action on and to use our skills where we can.

**Native Village of Saint Michael  
Brownfields Tribal Response Program**

P.O. Box 59050

St. Michael, Alaska 99659

Website - <http://www.kawerak.org/communities/stmichael.html>

**Contact Information:**

Jeff Long, *Brownfields Tribal Response Program Coordinator*

[jlong5096@yahoo.com](mailto:jlong5096@yahoo.com)

(907) 923-2304

**Program**

The Native Village of Saint Michael (NVSM) provides comprehensive natural resources management and environmental protection services for the tribe's 13,952 acres of land. The addition of the Section 128(a) Tribal Response Program funding expanded the tribe's scope of work to include management and restoration of contaminated sites within tribal lands. Accomplishments achieved using Section 128(a) Tribal Response Program funding include:

- Complete a property inventory
- Create a Public Record
- Coordinated with the U.S. Department of Defense to conduct Phase I assessments

**Program Highlight**

The Native Village of St. Michael is using Section 128(a) Tribal Response Program (TRP) funding to assist the Native American Land Environmental Mitigation Program (NALEMP) in oversight for the project at Dredge Point (site 22). The TRP is helping the NALEMP to be a success to the tribe. Also, we have used the funding to attend meetings in Seattle, WA, and the Alaska Tribal Conference on Environmental Management in Anchorage, AK. TRP funding will also be used to attend the workshop in Fairbanks, AK. So far the TRP has been a success to the tribe.



### **Sitka Tribe of Alaska**

Resource Protection Department  
456 Katlian St.  
Sitka, AK 99835  
<http://www.sitkatribes.org/>



### **Contact**

Kyle Rosendale  
Natural Resource Specialist  
907-747-7241  
[kyle.rosendale@sitkatribes-nns.gov](mailto:kyle.rosendale@sitkatribes-nns.gov)

### **Program**

The Sitka Tribe of Alaska (STA) received Section 128(a) funding to develop a Tribal Response Program (TRP) in October 2015. STA's TRP is focused on protecting and restoring subsistence resource habitat. STA will conduct site visits and collect data to better characterize and prioritize contaminated sites. The Sitka Tribe hopes to collaborate with other Tribes, EPA, DEC, USCG, and the general public to make the Sitka area a better place for everyone.

Our current priorities are:

- Building an inventory and public record of potentially contaminated sites
- Public outreach of what constitutes a brownfield
- Investigating potential cleanup projects at Klag Bay, Rust Lake, and Starrigavan
- Developing oil spill response capabilities with the US Coast Guard



*Klag Bay: Tailings pile, abandoned mine infrastructure, distressed vegetation, and contaminated shellfish and sediment*



# BROWNFIELD ASSESSMENTS AND CLEANUPS FACT SHEET

**What is a DEC Brownfield Project?** The **Contaminated Sites Program** of the Alaska Department of Environmental Conservation (DEC) assists Alaskan communities in conducting environmental site assessments and cleanups at brownfield sites. A brownfield is a property where real, or perceived, environmental conditions prevent or restrict the reuse or redevelopment of the site. The intent of a DEC Brownfield Assessment or Cleanup (DBAC) is to help identify and reduce the environmental uncertainties or actual conditions so that a brownfield can be put back into productive use. The DBAC is a service provided by DEC; it is not a grant program. Project work is completed by DEC and its contractors.

The objectives of a DBAC are to:

- Help determine whether an environmental problem at a site is limiting its desired reuse;
- Help identify the nature and extent of contamination;
- Make recommendations and estimate costs for additional assessment, if needed;
- Identify cleanup options and provide an estimate of cleanup costs, if indicated; and
- When funding permits, conduct cleanup activities designed to enable reuse of a site.



**How are projects selected?** We use a set of brownfield-specific criteria to rank and prioritize proposed projects. To be considered for a DBAC, the site must adhere to the following criteria:

1. The property is blighted, abandoned, or underutilized, and the revitalization of the property is hindered by its actual or perceived environmental conditions.
2. The site is publicly owned or has no viable responsible party.
3. Reuse or redevelopment plans are in place, with strong, documented community support.
4. The planned reuse has a clear and sustainable economic or public benefit.
5. The estimated cost of the assessment or cleanup is within our funding capacity.
6. The DBAC will help the applicant achieve their reuse objectives.

**Who is eligible to apply?** Public, quasi-public, and non-profit entities, such as state agencies, cities, boroughs, tribes, and community development organizations are eligible applicants. The applicant does not have to own the site to request an assessment, but access to the site must be assured. The applicant must own the site to request a cleanup. The applicant must have a reuse or redevelopment plan in place.

**What sites are eligible?** Any brownfield site that is NOT a federally owned property is eligible for a DBAC. A brownfield site that is privately held may be considered, but only if the owner is not a viable responsible party and the project can be shown to offer significant public benefit.

**How do I apply?** Fill out and submit a *DEC Brownfield Assessment & Cleanup Request Form*. Annual request periods and deadlines for submittal will be posted on DEC's brownfield website, and

announced through our list serve. Email your DBAC request form to Amy Rodman at amy.rodman@alaska.gov, or fax it to (907) 465-1-5218.

**If my project is accepted, when will work occur?** Work on qualifying projects submitted during the current application period will be carried out after July 1, 2015 and completed by June 30, 2016.

**Additional information:** When applying for a DEC Brownfield Assessment or Cleanup, it must be clear to all parties associated that the work requested of DEC is designed to clarify, and in some cases clean up, environmental hindrances that currently impede the safe continued use, proposed use, redevelopment, or sale of a property. Work conducted by DEC may result in the identification of a property as a *contaminated site*, and require the site be listed on DEC's *Contaminated Sites Database* at [http://dec.alaska.gov/spar/csp/db\\_search.htm](http://dec.alaska.gov/spar/csp/db_search.htm). With listing comes the requirement of potentially responsible and liable parties (typically the property owner) to address cleanup of contamination in accordance with regulatory requirements. The selection of a site for a DBAC in no way implies that DEC is accepting liability for any contamination that may be found at the site or that may be addressed through its cleanup actions.

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For questions about this program or the application process, please call Amy Rodman at (907) 465-5368 (amy.rodman@alaska.gov) or Christy Howard at (907) 465-5206 (christy.howard@alaska.gov). Please see our website for additional information:

*<http://www.dec.state.ak.us/spar/csp/brownfields.htm>*

**Native Village of Tazlina  
Brownfields Tribal Response Program**

P.O. Box 87 Glennallen, AK 99588

Telephone: (907) 822-4375

Fax: (907) 822-5865

<http://www.tazlina.org/environmental-department.html>

**Contact(s):** Rick Young, Tribal Administrator

Email: [prog.mang.tazlina@cvinternet.net](mailto:prog.mang.tazlina@cvinternet.net)

Willard E. Hand (Bill), Tribal Response Program Coordinator/  
NALEMP Manager

Email: [trp.tazlina@cvinternet.net](mailto:trp.tazlina@cvinternet.net)

**Program**

The Native Village of Tazlina (NVT) Environmental Department has seen great success in the cleanup of the Copper Valley School site. The Copper Valley School site was a boarding school built in 1954 by the Catholic Archdiocese of Anchorage. The school burned down in 1976 leaving rubble and several contaminants in its wake. In the years following the fire, rain and snow produced a friable contamination to the site, asbestos. Friable asbestos is dangerous to human health. It enters the lung cavities and does not cause health complications for many years and then can prove itself fatal. One of asbestos' major health hazards is a lung cancer called mesothelioma.

The NVT was proactive in the advocating for cleanup of the Copper Valley School site for many years. NVT Environmental staff performed outreach and gave presentations at different environmental conferences voicing concern. Staff spoke with elected officials, coordinated with the Alaska Department of Environmental Conservation, brought in the Alaska Native Tribal Health Consortium to explore what the community would want to do with the site when cleaned up. Tribal representation also met with the Archdiocese, and applied for assessment services from the U.S. Environmental Protection Agency. The U.S. EPA conducted a Targeted Brownfields Assessment in the summer of 2012.

Upon completion of the TBA in 2012, the cleanup issue began gaining momentum. It was a constant topic of discussion when NVT became eligible for

program funding through the Tribal Response Program. Through the Tribal Response Program, NVT was better able to inform and engage the public about this site. The Tribal Response Program focuses on tribal lands that may be contaminated so that cleanup can begin on those lands. In August 2013, the Archdiocese's contractors started cleanup at the site with EPA oversight. It took Alaska Demolition and Alaska Abatement seven weeks to clean up not only the asbestos and rubble but also 150 acres of the land where dumps had begun to form, where the officials of the school left old furnaces, industrial washers, and other debris.

This clean-up success story has improved the health and safety of the Native Village of Tazlina. It has also show our Community that through hard work, dedication and relentless determination NVT can overcome enormous obstacles. The Native Village of Tazlina Environmental Department has entered into a Cooperative Agreement with the Native American Land Environmental Mitigation Program (NALEMP), to clean up several large sections of Formerly Utilized Deference Sites. Named the Dry Creek Project, this is a Traditional Ahtna Village that was moved and structures destroyed as the military moved into the area during early stages of WW2. The Dry Creek Ahtna families were displaced and eventually relocated throughout the Copper River Valley. The Environmental Department at NVT will work together in partnership with State of Alaska, Army Coop of Engineers, Ahtna Inc., Bureau of Indian Affairs, private land owners and others to ensure this clean-up is successful. The Dry Creek Project is divided into three separate Impact Areas. The first section to be addressed will be the Aboveground Storage Tank (AST) Impact Area. There has been phase 1, phase 2 and a Step III Site Assessment Report published by the Office of the Deputy under Secretary of Defense and prepared by Keres Consulting, Inc. The Environmental Department at Native Village of Tazlina will be starting clean-up of first section in the summer of 2016.

## Tanana Chiefs Conference

### Office of Environmental Health Brownfields Tribal Response Program

201 1<sup>st</sup> Ave., Suite 300  
Fairbanks, AK 99709

TRP Webpages: <https://www.tananachiefs.org/environmental-health/brownfields/>

**Contact(s):** Katie Bante, TRP Coordinator  
[katie.bante@tananachiefs.org](mailto:katie.bante@tananachiefs.org)  
907-452-8251, ext. 3432

#### Overview

- **Location:** Interior Alaska
- **Land Area:** 235,000 sq. miles
  - 6 sub regions
  - 42 Tribes within 39 villages
- **EPA Grants:** Section 128(a) Tribal Response Cooperative Agreement; and IGAP Grant

## Program

The Tanana Chiefs Conference (TCC) Office of Environmental Health (OEH) provides both routine and project-related services to identify and respond to environmental public health issues in TCC villages. TCC-OEH works closely with each village to identify their priorities.

The Brownfields Tribal Response Program (TRP) is managed through the OEH. TCC's vision for "Healthy, Strong, Unified Tribes" is what drives our program to become a sustainable resource for advancing brownfields work in the TCC region. The TRP is open to all member Tribes within TCC's service region. The TRP is available to help Tribes begin the process of addressing brownfields in their community or to help move developed projects along. Services include:

- Brownfield 101: providing education on EPA brownfields programs and the basics
- Creating an inventory of brownfield sites in each village
- Researching opportunities for site assessments and clean up
- Planning for site reuse
- Collaboration between Tribal, state, and federal partners for brownfields management
- Brownfields prevention initiatives
- Maintaining a Public Record of Tribal lands' site work for the TCC region

## Program Highlight

The TCC Tribal Response Program wants to support communities in preventing future brownfields, as well as identifying resources to address existing brownfields. Ongoing outreach will continue to be implemented to meet these needs. To date, we've created a *TRP Manual* as a reference for future staff and other TRPs to maintain their program objectives through transitional periods. The TCC TRP has also assisted two communities with preparing assessment service requests from EPA and the DEC.



## YAKUTAT TLINGIT TRIBE

P.O. Box 418, Yakutat, Alaska 99689  
Phone 907-784-3539, Fax 907-784-3595



The Yakutat Tlingit Tribe and the U.S. Department of Defense (DoD) have entered into Cooperative Agreements that allow the Tribe to mitigate impacts from former military sites. This DoD program is known as the Native American Lands Environmental Mitigation Program (NALEMP).

This program enables the Tribe to conduct environmental investigations; prepare work plans; remove buildings, structures, and debris; and clean up contaminated sites that potentially impact the land, water, and subsistence resources of the Yakutat Tlingit Tribe.

Military sites that are eligible for mitigation under NALEMP are sites located on Native-owned and **traditional and customary** use lands, those that impact Tribal resources in and around Yakutat.

## Cooperative Agreements ?

The Department of Defense American Indian & Alaska Native Policy was developed as a direct result of the Executive Memorandum of April 29, 1994 Titled “**Government to Government** relations with Native American Tribal Governments,” signed by President Clinton

Cooperative Agreements is a tool used by local Tribal governments and the Department of Defense for activity or cleanup that has potentially affected tribal rights, or resources, Indian or customary & traditional use Land. This is not a contract, but an Agreement Between Governments, a *Cooperative Agreement*.

## 2006 Cooperative Agreement - Work Completed

Developed **Strategic Project Implementation Plan (SPIP)**.

- SPIP identifies four main areas of concern that include over 70 sites.
- Identifies suspected environmental impacts and status of each site.
- The SPIP is used by DoD for identifying future NALEMP eligible tasks.
- ❖ Criteria used by YTT to prioritize site were:
  - ✓ Former DoD sites that impact tribal resources
  - ✓ Impact is not currently addressed by other DoD program (FUDS)

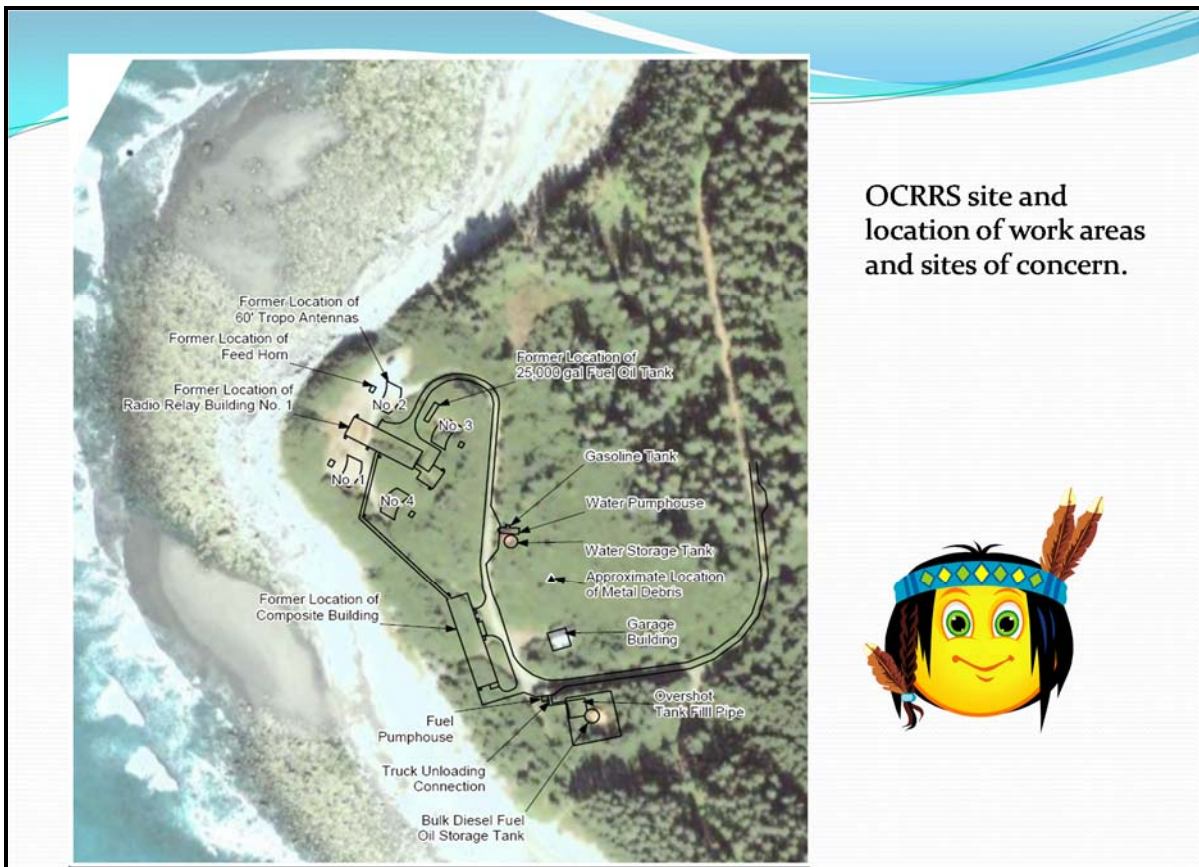
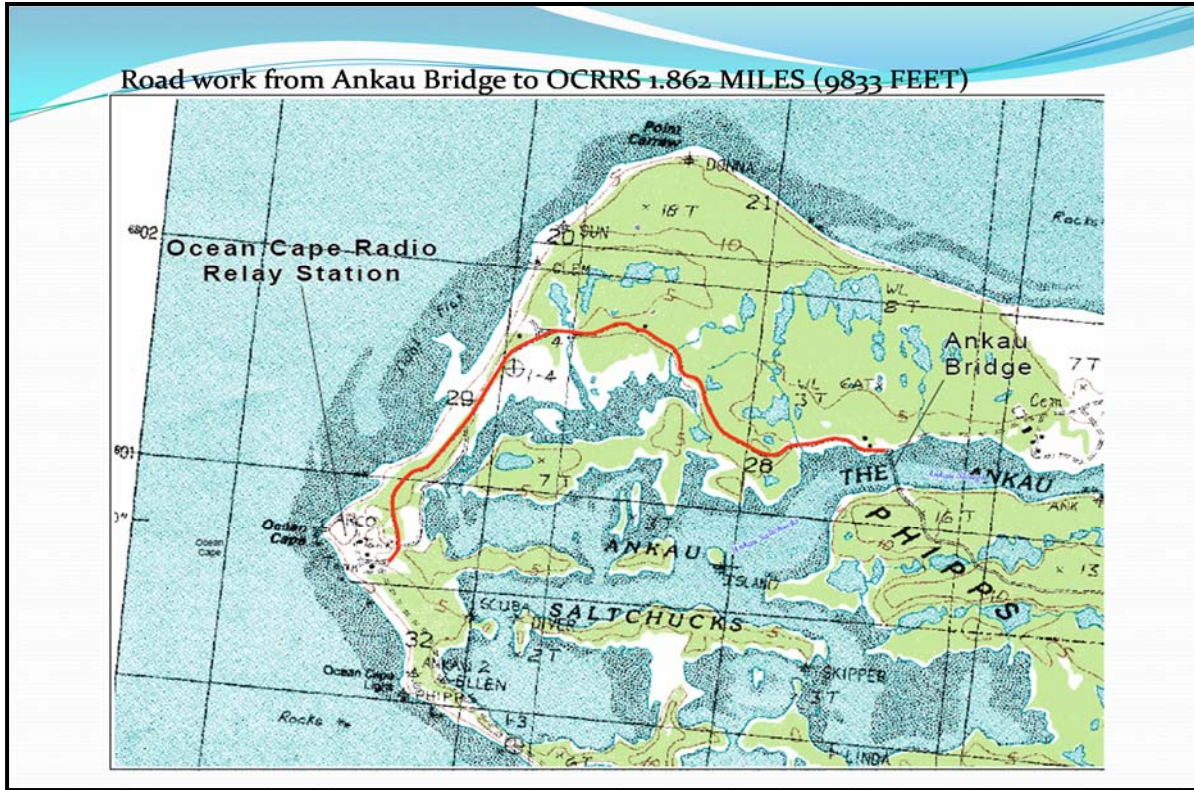


## Conducted site investigation at Ocean Cape Radio Relay Station (OCRRS). Under FY06 Cooperative Agreement

- Conducted Asbestos & lead-paint inspections of structures
  - Lead paint on all structures
  - Asbestos in the Garage Building exterior siding
- Sampled soils surrounding 130,000-gallon above ground storage tank (AST)
- Diesel-contaminated soil surrounds the AST
- Sampled fuel/water product in the AST
  - Over 5,500 gallons of diesel-water mix
- Sampled drains in the Garage Building
  - Drains contaminated with PCBs and heavy metals
- Sampled soils surrounding gasoline UST by Water Pumphouse
- Gasoline contamination appears to be limited to the UST cradle

## 2007 Cooperative Agreement – Work in Progress

- ❖ First phase of removals at OCRRS
  - Upgrade the access road to the OCRRS, from the Ankau Bridge to the OCRRS
  - Empty and dispose of the diesel-water mix
  - Prepare the 130,000-gallon fuel AST for removal
  - Budget accepted under original scope of work



OCRRS site and location of work areas and sites of concern.



### **Timely survey and inventory of brownfields sites:**

This task involves developing an inventory of hazardous waste sites within the usual and accustom lands of the Yakutat Tlingit Tribe. The inventory will build on the list of sites identified as impacted by former federal military activities. The types of sites in the inventory will include dump locations, old hunting or logging camps, fuel storage areas, and any site where there is real or perceived contamination. Public outreach is an essential part of developing the inventory. Input from the public will be requested to compile the list of potential locations. Information on each site will be collected including site location, use history, potential contaminants of concern, and an estimate of the extent of impacted area. The inventory will be used as a mechanism by which the Yakutat Tlingit Tribe can consider and respond to a request to conduct a site assessment from a person that is or may be affected by a release or threatened release of a hazardous substance, pollutant, or contaminant at a brownfield site located in the community in which the person works or resides. The list will also serve as an inventory of sites from which assessments or cleanups can be selected as part of our site-specific activities.

### **Oversight and enforcement authorities or other mechanisms and resources:**

A key component of oversight mechanisms that will be initiated will be the development of a Quality Assurance Project Plan (QAPP). The QAPP will be developed to ensure that environmental data collected during assessment and cleanup activities are of the type and quality needed for decision-making, and will be provided to the USEPA for approval. Sampling that may be conducted in accordance with the QAPP includes environmental sampling to characterize the nature and extent of contaminants at identified sites, verification of cleanup following an emergency response, and confirmation of cleanup following work performed by others.

Initially the Tribe is interested in performing sampling for dioxins. Dioxins have been found but the source and extent are unknown. The QAPP will be used to guide future sampling for dioxins; no sampling is planned under this current funding request. The need for the samples and possible locations will be determined by the results of the analysis conducted under Task 2, Activity 5. In the future the QAPP will also be applied to sampling eligible sites identified in the inventory.

### **Mechanisms and resources to provide meaningful opportunities for public participation:**

Activities performed under this key element will be related to the Public Record, and site inventory. A process will be developed for the most efficient way to disseminate information on the public records system for the Yakutat Tlingit Tribe Tribal Response Program. This may include utilizing existing mechanisms or developing new ones. The purpose of the public outreach will be to introduce the Yakutat community to the program, obtain input from the community on sites to include in the inventory, provide a venue for discussing and developing criteria for identifying the community's priority sites.

The Tribe's Tribal Response Program may host informational meetings for community members to explain the purpose of the Tribal Response Program, highlight goals and objectives of the

program, and educate the community on use of the public record system. The Public Record, which will be maintained and updated annually, as well as the outreach presentation may be posted on an Internet website.

The Tribe anticipates several outreach events. There will definitely be one at the start of the program to gather information and one at the end to present the findings, especially the dioxin sample map. Yakutat Tlingit Tribe anticipates providing an article, about the program, in the Tribal newsletter on a regular basis. How many additional events and how the interim findings will be presented to the community and reviewed is a topic that will be discussed in the initial outreach event.

### **Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete:**

Activities planned under this task include conducting a technical review of available information and assessing environmental concerns at the former military sites. The technical review will include recalculating toxic equivalent (TEQ) values for previously detected dioxins at sites and developing a map that shows the location of all dioxin samples that have been analyzed to date and the TEQ at each location.

In addition, the method detection limits and screening levels used in past investigations will be examined for their appropriateness and protectiveness of the Tribe's use of natural resources. The Tribe needs to participate in the USACE's Remedial Investigation/Feasibility Study (RI/FS) work under FUDS to ensure that Tribal priorities and concerns are being addressed. The USACE has conducted cleanup and restoration activities of former military sites in Yakutat since the 1980s, and the Tribe does not have the resources to fully participate in these cleanup efforts. The Tribe requires funding to conduct technical reviews of the USACE's work plans, site investigation reports, and project correspondence related to the USACE efforts under FUDS. The output for this task will be a report on the status of the sites. The Tribe proposes to break this task down into the following subtasks:

- Identify reports and data to include in technical review
- Conduct technical reviews of documents
- Compile review comments by sites
- Identify sites and sample locations with dioxin data
- Recalculate TEQ values for all dioxin samples (The use level of seafood in Yakutat is much higher than the national average)
- Develop map with dioxin sample locations and TEQ results
- Develop report on the status of cleanup of sites

Contractors will assist Tribal members in coordinating project activities including, developing a survey/inventory of Brownfields sites, setting up the public record system in a web-based GIS format, developing public outreach/educational materials, identifying data reports and conducting technical reviews, identifying available dioxin data and recalculating TEQ values,

mapping TEQ results, and developing status reports on cleanup activities (see Section 8 for budget narrative).

I plan for the Tribe to eventually train and to do most of the work on the website with the ability to enter data from the GIS ArcView and AutoCAD as information becomes available. List of favorite movies (just seeing if you are paying attention ...!) [Recently, IRON MAN](#)

### **Primary program goals**

To establish a certain comfort level of the Yakutat forelands and certainly let the Public know the food they gather from the lands and estuaries are acceptable to eat.

### **Contact information:**

Alex James  
(907) 784-3539  
[ajames@yakutatsustain.com](mailto:ajames@yakutatsustain.com)  
[ajames@ytttribe.org](mailto:ajames@ytttribe.org)

Rochelle Lekanof  
(907) 784-3539  
[rlekanof@yakutatsustain.com](mailto:rlekanof@yakutatsustain.com)

Katrina Fraker  
Administrative Assistant  
(907) 784-3539  
[kfraker@yakutatsustain.com](mailto:kfraker@yakutatsustain.com)





**The Yukon River Inter-Tribal Watershed Council** is an Indigenous grassroots non-profit organization, consisting of 70 First Nations and Tribes, dedicated to the protection and preservation of the Yukon River Watershed. The YRITWC accomplishes this by providing Yukon First Nations and Alaska Tribes in the Yukon Watershed with technical assistance, such as facilitating the development and exchange of information, coordinating efforts between First Nations and Tribes, undertaking research, and providing training, education and awareness programs to promote the health of the Watershed and its Indigenous peoples.

## **Our Mission**

We, the Indigenous Tribes/First Nations from the headwaters to the mouth of the Yukon River, having been placed here by our Creator, do hereby agree to initiate and continue the clean-up and preservation of the Yukon River for the protection of our own and future generations of our Tribes/First Nations and for the continuation of our traditional Native way of life.

## **Our Vision**

Our vision, put simply, is “to be able to drink water directly from the Yukon River.” To that end, we dedicate ourselves to a number of tenets:

- *Understanding:* We are dedicated to understanding the Yukon River Watershed by means of monitoring, measuring and researching, and to use this knowledge to clean, enhance and preserve life along the Yukon River.
- *Education:* We are dedicated to promoting environmental and traditional education for the Indigenous Peoples of the Yukon River Watershed, by means of education programs, scholarships, internships, volunteer opportunities and incentive programs.
- *Stewardship:* In honor of our heritage, we are dedicated to being good stewards of the Yukon River Watershed and its tributaries, and to restore and preserve its health for the benefit of future generations.
- *Enforcement:* We are dedicated to developing and enforcing strong state, federal, territorial and provincial environmental standards to preserve the long-term health of the Yukon River Watershed.
- *Organization:* We are dedicated to providing greater organizational strength to the Indigenous Peoples of the Yukon River Watershed, both by assisting and improving Indigenous governments, and also by being a model of organization built on collaboration and mutual respect.

## **Our Executive Committee**

The YRITWC Board of Directors is comprised of the Indigenous Peoples gathered at the bi-annual summit meetings. At these summit meetings, 14 steering committee members are

selected (7 from Alaska and 7 from the Yukon) through a process of consensus. Executive Committee members do not represent any First Nation or Tribal Government; rather, they represent the geographic areas of those governments.

**YRITWC Co-Chairs**

**Yukon Flats**  
Clarence Alexander  
Fort Yukon, Alaska 99740

**Carcross Tagish**  
George Shepherd  
Carcross, YT Y0B 1B0

**Alaska Region Executive Committee Members**

**Middle Yukon**

Kathleen Peters-Zuray  
Tanana, AK 99771

**Innoko Confluence**

David Maillelle, 2nd Chief  
Grayling, AK 99590

**Coastal Communities**

Moran Simon  
Hooper Bay, AK 99664

**Innoko Confluence Alternate**

Chief Carl Jerue, Jr.  
Anvik, AK 99558

**Tanana River Alternate**

Chief Victor Lord

**Tanana River**

Rondell Jimmie  
Nenana, AK 99760

**Koyukuk River**

Karen Kriska  
Nenana, AK 99760

**Lower Yukon**

Chief James Landlord  
Mountain Village, AK 99632

**Koyukuk River Alternate**

Robert Albert

**Middle Yukon Alternate**

Maryanne Whiel  
Rampart, AK 99767

**Elder Advisors**

Peter Captain Sr. , Sarah James, Trimble Gilbert, Chief Benedict Jones, Martha Wright, Pat Sweetsir, and Nick Andrew Sr.

**Yukon Region Executive Committee Members**

**Northern Tutchone**

Chief Eric Fairclough  
Carmacks, YT Y0B 1C0

**Southern Tutchone**

Geraldine Pope

**Tr'ondëk Hwëch'in**

Darren Taylor  
Dawson City, YT Y0B 1G0

**Kaska**

Chief Daniel Morris

Burwash Landing, YT Y0B 1V0

**White River**

Chief Anela Demit

Beaver Creek, YT Y0B 1A0

**Elder Advisors**

Stanley James, Harold Gatensby

Watson Lake, YT Y0A 1C0

**Kwanlin Dün**

Jessie Dawson

Whitehorse, YT Y1A5A5



### **Yukon River Inter-Tribal Watershed Council**

Sustainable Lands Department  
Yukon River Inter-Tribal Watershed Council  
725 Christensen Drive, Suite 3  
Anchorage, Alaska 99501  
[www.yritwc.org/Departments/Sustainable-Lands.aspx](http://www.yritwc.org/Departments/Sustainable-Lands.aspx)  
[www.yritwc-brownfield.com](http://www.yritwc-brownfield.com)

### **Staff Contacts**

Kelly Donnelly  
Alaska Region Director  
(907) 258-3337  
[kdonnelly@yritwc.org](mailto:kdonnelly@yritwc.org)

Karla Brollier  
Sustainable Lands Director  
(907) 258-3337  
[kbrollier@yritwc.org](mailto:kbrollier@yritwc.org)

Willoughby Peterson  
Program Manager  
(907) 258-3337  
[wpeterson@yritwc.org](mailto:wpeterson@yritwc.org)

### **Sustainable Land Department**

The Yukon River Inter-Tribal Watershed Council (YRITWC) is a coalition of 70 Tribes and First Nations that rely upon the Yukon River and its tributaries for survival through clean water and subsistence hunting and fishing activities. Our 128(a) Tribal Response Program is designed to inventory and catalog all contaminated sites among the 44 participating communities that lie within the Alaska portion of the Watershed, prioritize their level of severity, initiate and support assessment and cleanup activities for highest priority sites that meet the EPA definition of a “brownfield,” and maintain a public record of sites at which response actions are planned or have been completed. YRITWC as described in the guidance, is taking reasonable steps to include, the following elements of a response program:

- (1) Timely survey and inventory of brownfield sites in state or tribal land;
- (2) Oversight and enforcement authorities or other mechanisms and resources to ensure that a response action will protect human health and the environment and be conducted in accordance with applicable laws, and that a tribe will complete the response action (including long-term operations and maintenance/monitoring) if the person completing response fails to do so;
- (3) Mechanisms and resources to provide meaningful opportunities for public participation;  
and

(4) Mechanisms for approval of a cleanup plan and verification and certification that cleanup is complete.

### **Program Highlight**

YRITWC has received 128(a) funding Tribal Response Program since FY05. The Sustainable Lands staff conduct public education and outreach, facilitate community-specific action planning for prevention and response to contaminated sites issues, provide technical training to Tribal Environmental Technicians (TETs), support and oversee Regional Response Team efforts, support and assist other 128(a) Tribal grantees, of which there are currently 27 in Alaska, and manage a brownfield information database and webpage for public use.

Over the years, YRITWC has met the following milestones:

- Developed an inventory and prioritization method
- Developed a public records and brownfields webpage ([www.yritwc-brownfield.com](http://www.yritwc-brownfield.com))
- Conducted site visits in 44 tribal communities in the Yukon River watershed;
- Developed and maintain an inventory database of over 400 potential brownfields sites;
- Completed 12 Phase I Environmental Site Assessments (ESAs), 6 Phase II ESAs with site-based action plans, and 2 Environmental Management Plans (using professional environmental consultants); initiated the implementation of 12 Site-Based Action Plans;
- Presented at State, Tribal and National conferences and meetings;
- Created the DVD short video: *Yookkene: An Introduction to Brownfields*

The goals for YRITWC are to continue building upon the decade of experience in brownfields and provide more opportunities for community involvement and capacity building. We believe that the best response is a well-informed local response and the Brownfield TRP has the ability to facilitate key meetings, trainings, and job opportunities to help make that happen.

### ***Hughes Cleanup Project 2012***

In 2012, the YRITWC Brownfields Program contracted site-specific cleanup services (both local and other) for a property having petroleum hydrocarbon-impacted soil located in the heart of the community of Hughes, Alaska. This site previously received an assessment in 2008 through the YRITWC and in 2009 through the Alaska Department of Environmental Conservation (ADEC). YRITWC and ADEC collaborated together in 2012 to respond to the concern through an Analysis of Brownfield Cleanup Alternatives (ABCA) and a Corrective Action Plan. After many stakeholder and community meetings, a schedule of cleanup work was decided to coincide with the reuse goal for the property – a new community water storage tank. *Update:* The ANTHC was able to install the brand new water tank for the community of Hughes in October 2015.

**Together, all the participating communities are strengthening tribal environmental capacity within the Yukon River Inter-Tribal Watershed Council.**

## **5. Brownfield Assistance and Funding**

- 5.1. DEC Brownfield Assessments and Cleanups:  
DBAC Fact Sheet and DBAC Request Form**
- 5.2. EPA Targeted Brownfield Assessments (TBA) Fact Sheet**
- 5.3. EPA Guidance for Assessment Grants FY15--Page 1**
- 5.4. EPA Guidance for Cleanup Grants FY15--Page 1**
- 5.5. EPA Guidance for Revolving Loan Fund Grants FY14--Page 1**
- 5.6. EPA Guidance for Environmental Workforce Development & Job Training  
Grants FY15--Page 1**
- 5.7. EPA Guidance for Technical Assistance to Brownfields Grants FY15--Page 1**
- 5.8. EPA Guidance for Brownfields Area-wide Planning Grants FY15--Page 1**
- 5.9. Other Opportunities (EJ Small Grants, BIA, ICDBGs, USDA, etc.)**

## **DEC's Contaminated Sites Program**

### **DEC Brownfield Assessment or Cleanup Request Form - 2016**

#### **Introduction**

Thank you for your interest in applying for Alaska Department of Environmental Conservation Brownfield Assessment and Cleanup services. Using funds from the U.S. Environmental Protection Agency (EPA), the Alaska Department of Environmental Conservation will conduct a number of DEC Brownfield Assessment and Cleanups (DBAC) at eligible properties in Alaska. DEC continues to assist Alaskan communities across the state by conducting environmental site assessments, a limited cleanup effort, and characterization/cleanup planning. A DBAC is intended to help reduce the environmental uncertainties or conditions that hinder the reuse or redevelopment of a brownfield.

The objectives of a DBAC are to:

- Help clarify whether an environmental problem is limiting a site's use or intended reuse or redevelopment;
- Help identify the nature and extent of contamination;
- Provide recommendations and estimate costs for additional assessment, if needed; and
- When funding permits, conduct cleanup activities designed to enable reuse of a site.

In selecting projects, we look for solid reuse or redevelopment plans and strong community support and commitment. This year's DBAC request period will close at 5:00pm AST January 29, 2016. To apply for funding please complete the following application and send via email or fax to our office.

#### **Reuse and Community Support**

Brownfields are about beneficial reuse and redevelopment. Reuse goals can include: new construction, redevelopment using existing infrastructure, creation of recreation areas, preservation of green space, enhancement of sustainable subsistence habitat, and many others. Putting contaminated properties back into productive use can provide many environmental, social, and economic benefits to your community.

When considering the proposed benefit of your project, think about the priorities in your community. Some things to consider: the creation of jobs, preservation of historically or culturally significant property, location for community activities or educational purposes, preservation of subsistence habitat, reuse or recycling of materials or infrastructure, cost savings to the community, or increased property values.

#### **Eligible Applicants**

DEC Brownfield Assessment are available to public, quasi-public or non-profit entities such as municipalities, state agencies, tribal governments, and community development organizations interested in redeveloping abandoned or underutilized properties.

**General Application Process**

Applicants will be required to submit the enclosed Application Form for the Department of Environmental Conservation Brownfield Assessment and Cleanups in which they demonstrate eligibility, provide property information, and document community support of the project. A DBAC Review Team composed of individuals with expertise in environmental site investigation, remediation, and brownfield redevelopment issues will evaluate the applications.

The applicant must complete the entire application form. Incomplete applications will not be accepted. DEC reserves the sole right to reject any applications that do not meet the eligibility requirements or if information provided in the application is found to be inaccurate.

**The applicant is required to have a pre-application submittal discussion with ADEC brownfield staff to determine eligibility and discuss any potential issues.** Please begin preparing your application well before the deadline to ensure appropriate time for the pre-application meeting and to gather any additional information that may be required. We are here to help so please call us with any questions about the application or the eligibility of your project.

**Application Assistance**

If you have questions regarding brownfields or the DBAC application process, please contact either of our DEC Brownfield staff. We are happy to talk with you – we want to help you submit a successful DBAC application!

Amy Rodman  
[amy.rodman@alaska.gov](mailto:amy.rodman@alaska.gov)  
(907) 465-5368

Christy Howard  
[christy.howard@alaska.gov](mailto:christy.howard@alaska.gov)  
(907) 465-5206

**SUBMISSION REQUIREMENTS:**

A copy of the completed application must be received at the following address no later than

**5pm AST on Friday, January 29, 2016**

Alaska Department of Environmental Conservation

Contaminated Sites Program

410 Willoughby Avenue, Suite 311

Juneau, AK 99811

Attention: Amy Rodman or Christy Howard

Or via email at

[amy.rodman@alaska.gov](mailto:amy.rodman@alaska.gov) or [christy.howard@alaska.gov](mailto:christy.howard@alaska.gov)

**A. Threshold Criteria: The following must be TRUE:**

- This site **IS NOT** federally owned.
- To our knowledge, this site or facility **HAS NOT** received funding for remediation from the Leaking Underground Storage Tank (LUST) Trust Fund.
- The Applicant/Organization requesting this service **IS NOT** directly responsible for causing the potential contamination.
- The Owner of the property is not directly responsible for causing the potential contamination, **OR** the Owner has no financial capacity to properly address the assessment or cleanup of the site.
- There is a documented reuse or redevelopment plan for the site that is described in this request. (Documented means that it is in a resolution, business plan, or economic development plan, or that funding for reuse is actively being sought and can be documented).

**If any of the above statements is NOT TRUE, your site is probably not eligible for brownfield services. If you have questions or concerns, please call us to discuss them.**

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**B. Liability**

To be eligible for DEC Brownfield Assessment and Cleanup services eligible entities must demonstrate that they are not liable under CERCLA for the contamination at the site.

If the grantee owns the property being assessed/cleaned up, indicate which of the following bases for determining that the grantee is not potentially liable as an owner under Section 107(a) of CERCLA applies, and briefly describe the circumstances.

The owner is a recognized tribal government entity and is not a “person” under the definition of CERCLA.

The owner acquired the property “involuntarily”, such as by foreclosure or eminent domain or bequest.

The contamination migrated from an adjacent property such that the owner qualifies for and has satisfied the contiguous property owner exception to liability, including all appropriate inquiry, reasonable steps, notice and access/institutional controls cooperation.

[ ] The owner satisfies the elements of the Bona Fide Prospective Purchaser exception to liability, including all appropriate inquiry, reasonable steps, notice and access/institutional controls cooperation.

[ ] Other (please explain):

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### C. Background Information

1. To the best of your knowledge, is the Owner of the property in question:

Private    City/Public    Native Corp.    Tribe    State

2. Known or suspected contaminant(s) at the site (check one):

Hazardous Substances    Petroleum Only    Hazardous Substances and Petroleum

3. Is this site currently listed on DEC's *Contaminated Sites* database?

Yes    No      If Yes, please list the DEC file number here: \_\_\_\_\_

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### D. Ranking Criteria

The following ranking criteria will be used to prioritize and select projects for state fiscal year 2017 funding (SFY 17 begins July 1, 2016). The number of sites selected depends on our actual FY17 funding. Your site will be ranked by a review team based on the following criteria. Projects that rank high will meet the following criteria, please consider these carefully when constructing your application.

1. **Applicant/Owner** – Applicant is a unit government, non-profit, tribe, or other community centered entity who is seeking a benefit for many.
2. **Project Requirements** – It is clear what the project requires from the information provided. Our efforts will be able to provide a product that will significantly move revitalization forward.
3. **Project Team** – Applicant has a project team of three or more that are representative of the needs of the community and support from these representatives is documented.
4. **Site Condition and Use** – Application includes information about current and former site use to the extent that is known, acreage, and address information that enables us to easily identify the area in maps. A thoughtful and researched understanding of current and past use must be provided. Site is abandoned, blighted, or significantly under-utilized.
5. **Viability of Reuse Plan** - Plans for sustainable development is well thought out and documented. Continuation funding has been procured or is being sought.

6. **Community Support and Benefit** – The community has been included in the proposal and support is documented through letters. The project would lead to a measurable community benefit through increase in jobs, preservation of a resource, or construction/revitalization of a community facility or structure. The applicant has the resources and inclination to insure the project is successful.

7. **Bonus points will be provided for the following:**

- a. Green building or habitat preservation
- b. Historical or cultural significance
- c. Alternative energies

**The project must provide a definite benefit to the community, and we must be able to cover the needed scope of work with our available funding. Each of these questions must have a response in order for your request to be considered.**

### **1. Applicant/Owner**

a. **Applicant** - Provide the name and address of the organization applying for the DBAC service, the name of the contact person, email, telephone, and fax numbers. If Applicant is Village IGAP staff OR Tribal Response Program staff, please provide the name of your EPA Project Officer.

b. **Property Owner** - The owner of the property must allow DEC access to the site. If the applicant is different from the owner, attach written consent for access from the owner. (Note: the applicant must be able to secure access for DEC and its contractors to conduct the assessment or cleanup.)

### **2. Project Summary**

a. **Project Summary** – Summarize your project and describe how this effort will help you accomplish your goals for the site.



**b. Findings from Past Environmental Assessments** - Has the site had previous assessment activities?

No       DBA       Targeted Brownfield Assessment (TBA)    Other\_\_\_\_\_

If other, please explain:

Please attach copies of executive summaries or summary and conclusions sections from any past reports. If a DBAC service is approved for your project, complete copies of previous reports must be made available if not already in DEC files.

**c. Project Team** – Please form a project team of three or more individuals or organizations to ensure continuity beyond this effort and coordination for success of the overall project. Attach a letter of support from each team member and list the names and contact information of each individual or organization below:

### **3. Site Information and History**

**a. Current Site Condition and Use** – Provide the common name of the site, address, approximate acreage, zoning, and types of buildings. Please attach a site map or aerial photograph showing the site's location in the community, adjacent land use and identify property boundaries. Identify on the map or aerial photo any areas of known or suspected contamination

#### **b. Historical Site Use**

1. Describe the previous known uses of the site and when the different activities occurred.
2. Summarize any historic or cultural significance of the property.
3. Identify **when** and **how** the site became or may have become contaminated, with what substance(s), and where any contamination is likely to be found.

**4. Community Planning and Reuse**

**a. Reason for Concern -** Please discuss concerns with the site and identify any specific problems.

**b. Reuse or Redevelopment Plans and Documentation-** Please describe the reuse or redevelopment plan that the proposed work will help accomplish. Please attach any documentation referencing resolutions, business planning, community planning, a proposal for grant funding, or loan applications, that helps support the vision for the reuse or redevelopment of the property in question.

**c. Public Benefit –** Briefly describe how your proposed reuse or redevelopment plans for the property will provide a benefit to the public. Explain why this is important to your community.

**d. Other Community Plans or Projects –** Please let us know if other work is being planned or underway in your community that may help assist in this effort, such as available heavy equipment or other resources.

**Disclaimer (fine print)**

Under no circumstances does an award of DBAC services imply that DEC accepts liability for any contamination that may exist at the site, nor is DEC responsible for any necessary cleanup of hazardous substances that may be found at the site. Liability for contamination on a property is specifically addressed in Alaska Statute (AS) 46.03.822, which outlines those who are liable for the release of a hazardous substance. The general liability categories include: (1) those with an ownership interest in the property; (2) those in control of the substance at the time of the release; or (3) those who arrange for disposal or transport of the substance.

Brownfield work focuses on clarifying environmental concerns associated with property for which there is no known viable responsible party. By applying for a DEC Brownfield Assessment or Cleanup, it should be clear to all parties associated with a request that the work requested of DEC is designed to identify, clarify, and in some cases, remediate environmental hindrances that currently impede the continued use, proposed use, redevelopment, or sale of a property. Work conducted by DEC may result in identifying a property as a contaminated site, and require the site be listed on DEC's *Contaminated Sites Database*. With listing comes the requirement of potentially responsible and liable parties to address cleanup of contamination in accordance with regulatory requirements.

**DBAC Request Submittal Checklist**

Before submitting your DBAC request form, please check the following items are complete:

- Did you answer each question?
- Did you attach a letter from the property owner granting access to the site, if the owner is different from the applicant, as described in Question 2(b)?
- Did you attach a letter of support from each team member for Question 3?
- Did you attach a site map or aerial photograph of the site with the information requested in Question 4(a) shown?
- Did you attach executive summaries or summary and conclusions sections from any past environmental reports about the site, as described in Question 5?
- Did you attach documentation of the reuse or redevelopment plans the community has for the site, as described in Question 6(a)?



# EPA Targeted Brownfields Assessments

## The Basics

The U.S. Environmental Protection Agency's (EPA) Brownfields Program is designed to empower states, communities and other stakeholders to work together in a timely manner to prevent, assess, safely clean up and sustainably reuse brownfields. EPA provides technical and financial assistance for brownfields activities through an approach based on four main goals: protecting human health and the environment, sustaining reuse, promoting partnerships and strengthening the marketplace. Brownfields grants and technical assistance, through Targeted Brownfields Assessments (TBAs), serve as the foundation of the Brownfields Program and support revitalization efforts by funding environmental assessment, cleanup and job training activities. Thousands of properties have been assessed and cleaned up through the Brownfields Program, clearing the way for their reuse.

### What Is a Targeted Brownfields Assessment?

EPA's TBA program is designed to help minimize the uncertainties of contamination often associated with brownfields—especially for those entities without EPA Brownfields Assessment grants. The TBA program is not a grant program, but a service provided through an EPA contract in which EPA directs a contractor to conduct environmental assessment activities to address the requester's needs. Unlike grants, EPA does not provide funding directly to the entity requesting the services. TBA assistance is available through EPA's Regional Brownfields offices.

A TBA may encompass one or more of the following activities:

- An "all appropriate inquiries" assessment (Phase I), including a historical investigation and a preliminary site inspection;
- A more in-depth environmental site assessment (Phase II), including sampling activities to identify the types and concentrations of contaminants and the areas to be cleaned; and
- Evaluation of cleanup options and/or cost estimates based on future uses and redevelopment plans.

**A BROWNFIELD** is defined as real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. The 2002 Brownfields Law further defines the term to include a site that is "contaminated by a controlled substance; contaminated by petroleum or a petroleum product excluded from the definition of 'hazardous substance;' or mine-scarred land."

### Who Is Eligible to Apply for a Targeted Brownfields Assessment?

Eligible entities include state, local and tribal governments; general purpose units of local government, land clearance authorities or other quasi-governmental entities; regional council or redevelopment agencies; states or legislatures; or nonprofit organizations.

TBA assistance may only be used at properties that meet the statutory definition of a brownfield. The TBA program does not provide resources to conduct cleanup or building demolition activities. Cleanup assistance is available under EPA's Cleanup or Revolving Loan Fund (RLF) grants. Information on EPA's Brownfields Cleanup and RLF grants can be found on the EPA Brownfields website at [www.epa.gov/Brownfields](http://www.epa.gov/Brownfields).



Environmental assessments through the TBA Program help to revitalize communities and assist in redevelopment.

## What Properties Are Typically Targeted for TBA Assistance?

The TBA selection process varies slightly in each EPA Region. The Regions have discretion in selecting areas to target for environmental site assessment assistance and typically prefer to target properties that are abandoned or publicly owned, have low to moderate contamination, include environmental justice issues, suffer from the stigma of liability or have a prospective purchaser willing to buy and pay for the cleanup of the property, if needed. The selection process is guided by regional criteria. **Please visit [www.epa.gov/Brownfields](http://www.epa.gov/Brownfields) for more information on your region's criteria and application process.**

## Examples of TBA Successes

*Bellflower, CA* – EPA provided \$65,000 in contractor-led TBA assistance to assess the Café Camillia/Fronk's Restaurant site in downtown Bellflower. From the 1940s to 1970s, the property was the site of a fueling and service station. EPA's Underground Storage Tank (UST) Program provided support for the identification and initial assessment of the site in 2011. In 2012, EPA TBA funds were used for a field investigation to determine if petroleum contamination from three USTs had caused groundwater or soil contamination. Results found contamination levels to be of no impact to the health of future site occupants and next-door residents. The property has been redeveloped, as part of Downtown Bellflower's Revitalization Vision Strategy, and now is home to the new Fronk's Restaurant and mixed-use affordable housing.

*Nashville, TN* – Cumberland Park is an innovative play space for children and families, incorporating unique play structures and water features that create an exciting new attraction along Nashville's riverfront. EPA contractor-led TBA assistance, along with the Army Corps of Engineers and the Tennessee Department of Environment and Conservation (TDEC), assessed the property, which was formerly a saw mill and a bridge/barge manufacturing facility. The assessments identified several areas impacted by polynuclear aromatic, lead and arsenic that required cleanup. TDEC and the Metro Parks and Recreation Department worked cooperatively to develop and implement plans that incorporated a combination of soil removals, engineered caps and institutional controls to address environmental concerns and provide for safe reuse of the property. The Play Park opened in April 2012 and is approximately 6.5 acres, encompassing 900 feet of riverfront. It includes an outdoor amphitheater that can hold approximately 1,200 people for an event.



A fueling and service station, closed in the 1970s, is assessed before being redeveloped into a new restaurant and affordable housing complex in downtown Bellflower.



Nashville's Cumberland Park has become a community hub after redevelopment in 2012.

*Weirton, WV* – EPA provided contractor-led TBA assistance to assess the former RG Steel Plant in Beech Bottom. The 200-acre property has an ideal location, situated between State Route 2 and the Ohio River. As a historic steel manufacturer, site operations raised environmental concerns affecting long-term development options. The site owner, The Business Development Corporation of the Northern Panhandle, requested EPA assistance and EPA performed Phase I and Phase II environmental site assessment activities. The Phase II investigation revealed that groundwater contamination may be present. The site owner is coordinating with its Land Revitalization Specialist and the WV Department of Environmental Protection to determine the best redevelopment options for the site.

## How Can I Apply for TBA Assistance?

If you are interested in receiving TBA assistance, please contact the EPA Brownfields staff in your Region. **You can find current contact information on the EPA Brownfields website at [www.epa.gov/Brownfields](http://www.epa.gov/Brownfields).**

## OVERVIEW

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)

**TITLE:** FY16 Guidelines for Brownfields Assessment Grants

**ACTION:** Request for Proposals

**RFP NO:** EPA-OSWER-OBLR-15-04

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.818

**DATES:** Proposals must be submitted electronically through [www.grants.gov](http://www.grants.gov) by 11:59 p.m. Eastern Time on December 18, 2015. Please refer to Section IV.B, *Due Date and Submission Instructions*, for further instructions.

**SUMMARY:** The Small Business Liability Relief and Brownfields Revitalization Act (“Brownfields Law”, P.L. 107-118) requires the U.S. Environmental Protection Agency (EPA) to publish guidance to assist applicants in preparing proposals for grants to assess and clean up brownfield sites. EPA’s Brownfields Program provides funds to empower states, communities, tribes, and nonprofits to prevent, inventory, assess, clean up, and reuse brownfield sites. EPA provides brownfields funding for three types of grants:

1. Brownfields Assessment Grants – provides funds to inventory, characterize, assess, and conduct planning (including cleanup planning) and community involvement related to brownfield sites.
2. Brownfields Revolving Loan Fund (RLF) Grants – provides funds for a grant recipient to capitalize a revolving fund and to make loans and provide subgrants to conduct cleanup activities at brownfield sites.
3. Brownfields Cleanup Grants – provides funds to conduct cleanup activities at a specific brownfield site owned by the applicant.

Under these guidelines, EPA is seeking proposals for **Assessment Grants only**. If you are interested in requesting funding for Cleanup and/or Revolving Loan Fund Grants, please refer to announcement EPA-OSWER-OBLR-15-06 (Cleanup Grant guidelines) or EPA-OSWER-OBLR-15-05 (Revolving Loan Fund Grant guidelines) posted separately on [www.grants.gov](http://www.grants.gov) and [www2.epa.gov/brownfields/apply-brownfields-grant-funding](http://www2.epa.gov/brownfields/apply-brownfields-grant-funding).

For the purposes of these guidelines, the term “grant” refers to the cooperative agreement that EPA will award to a successful applicant. Please refer to Section II.C for a description of EPA’s anticipated substantial involvement in the financial assistance agreements awarded under these guidelines.



## OVERVIEW

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)

**TITLE:** FY16 Guidelines for Brownfields Cleanup Grants

**ACTION:** Request for Proposals

**RFP NO:** EPA-OSWER-OBLR-15-06

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.818

**DATES:** Proposals must be submitted electronically through [www.grants.gov](http://www.grants.gov) by 11:59 p.m. Eastern Time on December 18, 2015. Please refer to Section IV.B, *Due Date and Submission Instructions*, for further instructions.

**SUMMARY:** The Small Business Liability Relief and Brownfields Revitalization Act (“Brownfields Law”, P.L. 107-118) requires the U.S. Environmental Protection Agency (EPA) to publish guidance to assist applicants in preparing proposals for grants to assess and clean up brownfield sites. EPA’s Brownfields Program provides funds to empower states, communities, tribes, and nonprofits to prevent, inventory, assess, clean up, and reuse brownfield sites. EPA provides brownfields funding for three types of grants:

1. Brownfields Assessment Grants – provides funds to inventory, characterize, assess, and conduct planning (including cleanup planning) and community involvement related to brownfield sites.
2. Brownfields Revolving Loan Fund (RLF) Grants – provides funding for a grant recipient to capitalize a revolving fund and to make loans and provide subgrants to conduct cleanup activities at brownfield sites.
3. Brownfields Cleanup Grants – provides funds to conduct cleanup activities at a specific brownfield site owned by the applicant.

Under these guidelines, EPA is seeking proposals for **Cleanup Grants only**. If you are interested in requesting funding for Assessment and/or Revolving Loan Fund Grants, please refer to announcement EPA-OSWER-OBLR-15-04 (Assessment Grant guidelines) or EPA-OSWER-OBLR-15-05 (Revolving Loan Fund Grant guidelines) posted separately on [www.grants.gov](http://www.grants.gov) and [www2.epa.gov/brownfields/apply-brownfields-grant-funding](http://www2.epa.gov/brownfields/apply-brownfields-grant-funding).

For the purposes of these guidelines, the term "grant" refers to the cooperative agreement that EPA will award to a successful applicant. Please refer to Section II.C for a description of EPA's anticipated substantial involvement in the financial assistance agreements awarded under these guidelines.

## OVERVIEW

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)

**TITLE:** FY16 Guidelines for Brownfields Revolving Loan Fund Grants

**ACTION:** Request for Proposals

**RFP NO:** EPA-OSWER-OBLR-15-05

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.818

**DATES:** Proposals must be submitted electronically through [www.grants.gov](http://www.grants.gov) by 11:59 p.m. Eastern Time on December 18, 2015. Please refer to Section IV.B, *Due Date and Submission Instructions*, for further instructions.

**SUMMARY:** The Small Business Liability Relief and Brownfields Revitalization Act (“Brownfields Law”, P.L. 107-118) requires the U.S. Environmental Protection Agency (EPA) to publish guidance to assist applicants in preparing proposals for grants to assess and clean up brownfield sites. EPA’s Brownfields Program provides funds to empower states, communities, tribes, and nonprofits to prevent, inventory, assess, clean up, and reuse brownfield sites. EPA provides brownfields funding for three types of grants.

1. Brownfields Assessment Grants – provides funds to inventory, characterize, assess, and conduct planning (including cleanup planning) and community involvement related to brownfield sites.
2. Brownfields Revolving Loan Fund (RLF) Grants – provides funding for a grant recipient to capitalize a revolving fund and to make loans and provide subgrants to conduct cleanup activities at brownfield sites.
3. Brownfields Cleanup Grants – provides funds to conduct cleanup activities at a specific brownfield site owned by the applicant.

Under these guidelines, EPA is seeking proposals for **Revolving Loan Fund Grants only**. If you are interested in requesting funding for Assessment and/or Cleanup Grants, please refer to announcement EPA-OSWER-OBLR-15-04 (Assessment Grant guidelines) or EPA-OSWER-OBLR-15-06 (Cleanup Grant guidelines) posted separately on [www.grants.gov](http://www.grants.gov) and [www2.epa.gov/brownfields/apply-brownfields-grant-funding](http://www2.epa.gov/brownfields/apply-brownfields-grant-funding).

For the purposes of these guidelines, the term "grant" refers to the cooperative agreement that EPA will award to a successful applicant. Please refer to Section II.C for a description of EPA's anticipated substantial involvement in the financial assistance agreements awarded under these guidelines.



## OVERVIEW

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)  
**TITLE:** FY16 ENVIRONMENTAL WORKFORCE DEVELOPMENT AND JOB TRAINING (EWDJT) GRANTS  
**ACTION:** Request for Proposals (RFP)  
**RFP NO:** EPA-OSWER-OBLR-16-01

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.815

**DATES:** Proposals are due by January 14, 2016. Proposals must be submitted through [www.grants.gov](http://www.grants.gov) by 11:59 p.m. Eastern Time on January 14, 2016. Please refer to Section IV.B., for further instructions.

**SUMMARY:** This notice announces the availability of funds and solicits proposals from eligible entities, including nonprofit organizations, to deliver environmental workforce development and job training programs that recruit, train, and place local, unemployed and under-employed residents with the skills needed to secure full-time employment in the environmental field, with a focus on solid and hazardous waste remediation, environmental health and safety, integrated pest management, and wastewater-related training.

While Environmental Workforce Development and Job Training grants require that Hazardous Waste Operations and Emergency Response (HAZWOPER) training be provided to all individuals being trained, as outlined in Section III.C., applicants may design their own curricula and choose what types of supplemental environmental training they want to deliver as referenced in Section I.C. Additionally, under this competition, applicants also may choose to deliver training in various other environmental media as referenced in Section I.B. EPA encourages applicants to develop their curricula based on local labor market assessments and employers' hiring needs, while also delivering comprehensive training that results in graduates securing multiple certifications.

For the purposes of these guidelines, the term "grant" refers to the cooperative agreement that EPA will award to a successful applicant. Please refer to Section II.C for a description of EPA's anticipated substantial involvement in the financial assistance agreements awarded under these guidelines.

NOTE: EPA also urges applicants to review the Frequently Asked Questions, which can be found at: [www.epa.gov/sites/production/files/2015-11/documents/fy16\\_ewdjt\\_faqs.pdf](http://www.epa.gov/sites/production/files/2015-11/documents/fy16_ewdjt_faqs.pdf).

**FUNDING/AWARDS:** The total funding available under this competitive opportunity is approximately \$3,500,000, subject to availability of funds, quality of proposals received, and other applicable considerations for FY 2016. EPA anticipates awarding approximately 17-18 environmental workforce development and job training cooperative agreements at amounts up to \$200,000 each. (*Refer to Section II.A, What is the Amount of Available Funding?*)

## OVERVIEW SECTION

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)

**TITLE:** “TECHNICAL ASSISTANCE TO BROWNFIELDS COMMUNITIES”

**ACTION:** Request for Proposals (RFP) - Initial Announcement

**RFA NO:** EPA-OSWER-OBLR-16-02

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.814

**DATES:** The closing date and time for receipt of proposals is December 21, 2015, 11:59 p.m. ET. Proposals must be submitted electronically through [www.grants.gov](http://www.grants.gov) by 11:59 p.m. Eastern Time on December 21, 2015 to receive consideration. Proposals received after 11:59 p.m. ET on December 21, 2015, will not be considered.

**SUMMARY:** This notice announces the availability of funds and solicits proposals from eligible entities (including eligible non-profit organizations) to provide technical assistance to communities on brownfield issues.

**FUNDING/AWARDS:** The total estimated funding for the solicitation is \$11,000,000. EPA anticipates award of up to 11 cooperative agreement(s). The maximum value of each grant will be based on the technical assistance being provided, however, grant(s) in each geographical area shall not exceed \$1,000,000 each under this competitive opportunity. Cooperative agreements awarded will be funded incrementally. Additional funds may be added in each subsequent year of the agreement, subject to satisfactory performance and the availability of funds. (*Refer to Section 2(A).*)

### **CONTENTS BY SECTION**

1. Funding Opportunity Description
2. Award Information
3. Eligibility Information
4. Proposal and Submission Information
5. Proposal Review Information
6. Award Administration Information
7. Agency Contact
8. Other Information

## OVERVIEW SECTION

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)  
**TITLE:** FY2015 BROWNFIELDS AREA-WIDE PLANNING GRANT  
**ACTION:** Request for Proposals (RFP)  
**RFP NO:** EPA-OSWER-OBLR-14-06

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.814

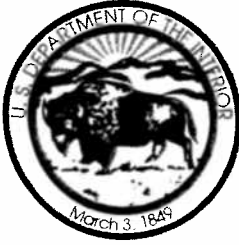
**DATES:** Proposals are due by September 22, 2014. Proposals may be sent through the U.S. Postal Service, commercial delivery service, or electronically through [www.grants.gov](http://www.grants.gov). Only one method should be used for the submission of the original, complete proposal package. Proposals sent through the U.S. Postal Service or via a commercial delivery service must be postmarked by September 22, 2014. Proposals sent through <http://www.grants.gov> must be received by 11:59 p.m. Eastern Time on September 22, 2014.

**SUMMARY:** This notice announces the availability of EPA grant funds and solicits proposals from eligible entities to conduct research, technical assistance, and/or training activities that will enable the entity to develop an area-wide plan for brownfields assessment, cleanup, and subsequent reuse. Brownfields area-wide planning (BF AWP) grant-funded activities must be directed to one or more brownfield site(s) located in a specific area, such as a neighborhood, a district (e.g., downtown, arts or shopping area), a local commercial corridor, a community waterfront, or a city block. Each project funded under this grant must result in an area-wide plan which includes specific plan implementation strategies for assessing, cleaning up, and reusing the brownfields site(s) as well as related brownfields and project area revitalization strategies.

**FUNDING/AWARDS:** The total estimated funding available under this competitive opportunity is \$4 million, subject to availability of funds, quality of proposals received, and other applicable considerations. The maximum amount of grant funding that applicants may apply for under each proposal is \$200,000. Applicants may submit more than one proposal so long as each one is for a different project area and is submitted separately. However, if selected for funding, an applicant will not receive funding for more than one proposal, and the maximum amount of funding an applicant may receive under the FY15 BF AWP grant is \$200,000. Project periods up to 24 months are allowed. EPA anticipates selecting approximately 20 projects through this competitive opportunity. Individuals, for-profit firms, and the FY10 and FY13 EPA BF AWP Program recipients are not eligible to apply.

### **CONTENTS BY SECTION:**

- I. Funding Opportunity Description
- II. Award Information
- III. Applicant Eligibility Information and Threshold Criteria
- IV. Proposal Submission Information



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS  
ALASKA REGIONAL OFFICE  
Division of Environmental & Cultural Resource Management  
3601 C St, Ste 1100  
Anchorage, Alaska 99503-5947



Requesting Environmental Project Funds from BIA Alaska Regional Office,  
Division of Environmental & Cultural Resource Management

BIA Alaska Region provides funds to Tribal governments and tribal organizations for most environmental projects *up to \$25,000*. These projects must be submitted for review to Kristin K'eit, Regional Environmental Scientist, using a BIA grant application package that is similar to most other Federal grant applications. Contact Kristin for a package.

For projects *greater than \$25,000*, a short paragraph with the specific project description and a detailed project budget must be submitted in writing to Kristin K'eit. The project will then be added to the special project list for the Alaska Region, Environmental Services Branch. The list is submitted to BIA Central Office in August, for possible funding in early spring. If selected for funding, the Tribal government or other tribal organization will then be notified by Kristin and required to submit a completed BIA grant application package. If the applicant has a negotiated PL 93-638 agreement with BIA Alaska Region, the money can possibly be added to the agreement as project-specific funding.

IF funding is available for the project, the completed, original grant package is forwarded to the Regional Contracting Officer. If approved, the Contracting Office will send the Tribe a Notice of Grant Award that states how much was awarded in the grant, the responsibilities of the grant, such as written and financial reports deadlines, requesting the funds, the timeline of the grant and how to complete the grant.

**Remember! Nothing is final until you've received a Notice of Grant Award.**

Kristin K'eit, Environmental Scientist  
907-271-4030  
Kristin.k'eit@bia.gov

Mark Kahklen, Environmental Specialist  
907-271-4004  
Mark.kahklen@bia.gov

Fax: (907) 271-1750



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS**

ALASKA REGIONAL OFFICE  
Division of Environmental & Cultural  
Resource Management  
3601 C St, Ste 1100  
Anchorage, Alaska 99503-5947

Kristin K'eit, Environmental Scientist: 907-271-4030  
Mark Kahklen, Environmental Specialist: 907-271-4004  
Fax: (907) 271-1750



**REQUIRED DOCUMENTS FOR 638 CONTRACT APPLICATION**

- 1. Authorizing Tribal Resolution**
- 2. Program Narrative\***
- 3. Position Description(s)\***
- 4. Program Budget Calculations and Budget Narrative Justification;**  
include sub-contractor estimates for justification\*
- 5. ACH Vendor Payment Information Form**
- 6. Drug-Free Workplace Form**

The **authorizing tribal resolution** must be certified by the tribal council.

\*See "**Summary of Elements for Preparation of Grant Proposals,**" included in this packet, for guidance on program narrative, position descriptions and program budget.

**INSTRUCTION FOR COMPLETING THE ACH VENDOR PAYMENT SYSTEM-PAYMENT INFORMATION FORM**

PLEASE SELECT ONE OR MORE OF THE FOLLOWING CHOICES ON THE ACH FORM: **ONE ANSWER IS REQUIRED**

**PAYEE:** BIA is making a payment to a client

**CUSTOMER:** a client is making a payment to BIA

**ONE TIME PAYMENT:** A vendor doing business with BIA one time only.

**ADD NEW CODE:** This is a new vendor to the FFS System.

**CHANGE INFORMATION:** This is for an existing vendor that's requesting changes in their name, banking info., etc.

**ACTIVATE CODE:** This is for a vendor who is currently inactive and needs to be reactivated. **Explanation required.**

**INACTIVE CODE:** This is for a vendor whose information is no longer current or doing business with BIA.

**TRIBE / ORGANIZATION / VENDOR INFORMATION**

**IS THIS A PL 93-638 CONTRACT VENDOR? REQUIRED YES OR NO.**

**NINE DIGIT DUNS#:** A nine digit number required for all private sector vendors providing goods or services to Federal Agencies.

**NAME/ADDRESS:** Name and address of the vendor receiving the payment.

**VENDOR CODE:** ALL PL 93-638 CONTRACT VENDORS ARE PROVIDED WITH A CODE

**SS#/FED ID#:** Select one and insert either the Social Security number or the Federal Tax ID.

**HOME ORG:** Print the vendor's home organization code for Vendor Types E, C, and F.

**CONTACT PERSON:** Enter the name of the vendor's point of contact.

**TELEPHONE NUMBER:** Enter the telephone number of the vendors contact person.

**CONTACT E-MAIL ADDRESS:** (OPTIONAL.)

**VENDOR TYPE:** Select the appropriate letter on the ACH Form.

G = Government

E = Current BIA Employee

S = State/Local Gov't

W= Billing and Collection

N = Private Sector

T = Indian Tribe

U = Utilities

L= Loans

C = Invitational Traveler (Non-BIA Employee)

F = Former BIA Employee

B= Business License Fee

X = Tribal Organization

**BUREAU OF INDIAN AFFAIRS INFORMATION SECTION**

**HOME ORG:** vendor types of E, C and F.

**TELEPHONE NUMBER:** Print the requesting person's telephone number.

**CONTACT PERSON:** Print the requesting person's name. Without the requesting person's name on the ACH Form, the vendor will not be activated until all necessary information is received.

**FINANCIAL INSTITUTION INFORMATION**

**BANK NAME/ADDRESS:** Print the name and address of the bank payment will be submitted to.

**ACCOUNT#: REQUIRED.** Please print the account number the payment will be deposited into.

**NINE DIGIT ROUTING#: REQUIRED.** This number is also referred to as the ABA number. This number is obtained from the bank or may be found at the bottom of your account booklet.

**CHECKING/SAVINGS:** This will indicate to FFS and Treasury the type of account. Please check one.

**NAME (S) OF ACCOUNT HOLDER:** This would be the name of the vendor for the account.

**ACH COORDINATOR OR FINANCIAL INSTITUTION REPRESENTATIVE NAME: REQUIRED.** Normally this is a member of the bank staff that is familiar with the electronic transfer of monies.

**TELEPHONE NUMBER:** Enter the telephone number for the ACH Coordinator or Financial Institution Representative.

**PLEASE BE ADVISED ALL FORMS MUST BE AS ACCURATE AND COMPLETE AS POSSIBLE IN ORDER FOR THE VEND TABLE TO BE UPDATED PROPERLY AND IN A TIMELY FASHION.**

**NOTE:**

**ALL PRIVATE SECTOR VENDORS ARE REQUIRED TO OBTAIN A DUNS# FROM DUN & BRADSTREET (1-866-705-5711) AND REGISTER IN CCR. A DUNS# NOT REGISTERED IN CCR IS NOT VALID. VENDORS MUST UPDATE OR RENEW THEIR REGISTRATION AT LEAST ONCE PER YEAR TO MAINTAIN AN ACTIVE STATUS IN CCR.**

**AN ACH FORM IS NOT REQUIRED FOR CCR VENDORS. DUNS # SHOULD BE PROVIDED VIA E-MAIL TO "VENDOR MAILBOX." \*\*\***

**If you have any questions or concerns regarding the ACH Forms or vendor records, please contact the following:  
Charlotte Mosley 703-390-6411; LaNicha Taylor-Stubbs 703-390-6305; or Roya Tavakoli 703-390-6565**

# ACH VENDOR PAYMENT SYSTEM PAYMENT INFORMATION FORM

Data being collected on this form is requested under provision of 31 U.S.C. 3322 and 31 CFR 210. Failure to provide information may prevent the receipt of payment(s) through the P638 Contract Payment System and/or ACH payments.

PAYEE                       CUSTOMER                       ONE-TIME PAYMENT  
 ADD NEW CODE             CHANGE INFORMATION        ACTIVATE CODE             INACTIVATE CODE

## TRIBE / NAME OF FEDERAL AGENCY DESIGNATED AGENCY

IS THIS A PL 93-638 CONTRACT VENDOR?                       DESIGNATED AGENT?                       STUDENT?  
PLEASE CHECK ONE:     NO     YES

NINE DIGIT DUNS #: \_\_\_\_\_ + \_\_\_\_\_                      VENDOR CODE: \_\_\_\_\_  
First four letters of last name + first letter of first name + last four digits of SSN\*

NAME: \_\_\_\_\_

ADDRESS 1: \_\_\_\_\_

ADDRESS 2: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

SS #:  FED ID #: \_\_\_\_\_ HOME ORG: E00620

(REQUIRED FOR E, C, & F)

CONTACT PERSON: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

VENDOR TYPE:     G     N     C     E     T     X     X     U     F     W     L

## BUREAU OF INDIAN AFFAIRS INFORMATION

CONTACT INFORMATION: Kristin K'eit

TELEPHONE: 907-271-4030                      kristin.k'eit@bia.gov

## FINANCIAL INSTITUTION INFORMATION

BANK NAME: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

ACCOUNT #: \_\_\_\_\_ NINE DIGIT ROUTING #: \_\_\_\_\_

CHECKING     SAVINGS  
(CHECK ONE)

NAME(S) OF ACCOUNT HOLDER: \_\_\_\_\_

Please fill out this form entirely and legible. Failure to do so will delay the processing of the form.

Vendor Mailbox FAX #: 703-390-6405

REVISED APRIL 2008

\*If the last name is only three letters, the vendor code configuration is as follows: Three letters of last name + first two letters of first name + last four digits of SSN.

## SUMMARY OF ELEMENTS FOR PREPARATION OF GRANT PROPOSALS

### A. Statement of Purpose:

A brief and general statement of what will be done under the proposal sufficient to establish that the purposes is within the scope of the program and funds involved.

### B. Problem/Needs Statement:

Sufficient information to describe the problems and related needs that the proposed project will address. Should be supported by data and other objective facts as appropriate to the nature of the proposal. The extent to which this part is developed and detailed will depend on the complexity of the issues and the degree to which the proposal must serve to convince that it should be funded, particularly if it will be competing with other proposals for limited funds.

### C. Goals and Objectives:

Should flow from Problem/Needs description.

Goals are a statement of the "improvement" that will be realized when the project is completed. They should be stated in a way that they are measurable. If selected from among several alternatives, the selection should be justified.

Objectives are the concrete accomplishments that are, in the aggregate, deemed necessary to meet the goals. They should be sufficiently described so they can be related to the goals (and each other).

### D. Methodology:

Describe in reasonable detail what work will be done, how, by whom, and when. The proper test for adequacy would be whether it is sufficiently described such that an overall project coordinator can be hire after the grant is awarded, and would be able to implement and complete the project, as the organization wants it done, by relying substantially upon the proposal/grant document. Additionally, the methodology must reasonably demonstrate that is feasible to achieve the goals and objectives in the manner described with the resources that are identified.



**E. Resources Required:**

1. **Budget:** An itemized budget with accompanying justification sufficient to demonstrate that the costs proposed are:

- a) No more than are necessary to complete the work,
- b) Reasonable as to amounts to be paid for each cost item,
- c) Allowable under applicable federal cost standards, and
- d) Fairly allocated to this project vis-à-vis other activities of the proposing organization.

2. **Personnel:** Position descriptions for personnel to be used which contain major duty listings and qualification requirements adequate to ensure a type and level of performance sufficient to meet objectives and attain goals. Additionally, a showing, usually by an organization chart, as to how personnel fit into the organization as a whole, including with regard to management and supervisory systems.

3. **Facilities:** A showing that facilities (office space, storage, etc.) necessary for performance are available, or can be obtained, and will be adequate for their purposes.

4. **Equipment:** A listing of equipment needed to perform the work, including information as to what is presently available and how the needed rest will be obtained.

**F. Monitoring Plan:**

A description of the methodology the organization will establish to ensure that the work is being properly and timely performed throughout the length of the project - and including identification of the personnel who will be responsible to perform the monitoring.

**G. Evaluation Plan:**

The means or tests that will be applied periodically during performance, and comprehensively at the end, to determine the degree to which the project is meeting/has met goals, including identification of reasons why expectations were not met, or were exceeded. Evaluation system should be sufficient to be useful to support revisions in methodology during performance if indicated, or continuation of the same or a revised project(s) in the future [should show that if either is working (or worked) or isn't (or didn't)].

AGENCY: U.S. Environmental Protection Agency  
Office of Environmental Justice

TITLE: Environmental Justice Small Grants Program

ACTION: Request for Applications (RFA) Amendment No. 2

FUNDING NO: EPA-OECA-OEJ-15-01

CFDA: 66.604

DATE: November 21, 2014

SUMMARY: This notice is issued to amend the 2015 Environmental Justice Small Grants (EJSG) Program Request for Applications (RFA). This amendment serves as notice that the Environmental Justice Small Grants Program has extended the deadline for applications. The amended deadline for submitting applications under this announcement is January 9, 2015 11:59 pm Eastern Standard Time (EST).

**This amendment supersedes all previous versions.** All other terms and conditions remain unchanged.

## OVERVIEW SECTION

**AGENCY:** ENVIRONMENTAL PROTECTION AGENCY (EPA)

**TITLE:** "FY 2012 HAZARDOUS WASTE MANAGEMENT GRANT PROGRAM FOR TRIBES"

**ACTION:** Request for Proposals (RFP) - Initial Announcement

**RFP NO:** EPA-OSWER-ORCR-12-04

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO.:** 66.812

**DATES:** The closing date and time for receipt of proposals is May 21, 2012, 5:00 p.m. ET. Proposals submitted through <http://www.Grants.gov> must be received by May 21, 2012, 5:00 p.m. ET. Proposals submitted in hard copy, as described in *Section 4(C)* of this announcement, must be received in the EPA program office via hand delivery, U.S. Postal Service, or express mail service by May 21, 2012, 5:00 p.m. ET to receive consideration. Proposals received after the closing date and time of this announcement will be returned to sender without further consideration. Because of the unique situation involving U.S. mail screening, EPA highly recommends that applicants use an express mail or courier service option to transmit their proposals.

**SUMMARY:** This notice announces the availability of funds and solicits proposals from federally-recognized tribes or intertribal consortia for the development and implementation of hazardous waste programs and for building capacity to address hazardous waste management in Indian Country. In accordance with the EPA Indian Policy of 1984, EPA recognizes tribal governments as the primary parties for managing programs for reservations.

**FUNDING/AWARDS:** The total estimated funding available under this competitive opportunity is \$311,000, subject to the availability of funds and quality of proposals received. EPA anticipates award of up to 4 cooperative agreements whose maximum estimated value each shall not exceed \$78,000 resulting from this competitive opportunity. (*Refer to Section 2(B).*)

### **CONTENTS BY SECTION:**

1. Funding Opportunity Description
2. Award Information
3. Eligibility Information
4. Proposal and Submission Information
5. Proposal Review Information
6. Award Administration Information
7. Agency Contact
8. Other Information

EPA-OSWER-ORCR-12-04



1

## U.S. Department of Housing and Urban Development

**Program Office:** Public and Indian Housing  
**Funding Opportunity Title:** Community Development Block Grant (ICDBG) Program for Indian Tribes and Alaska Native Villages  
**Announcement Type:** Initial  
**Funding Opportunity Number:** FR-5900-N-23  
**Primary CFDA Number:** 14.862  
**Due Date for Applications:** **October 14, 2015**

**FOR FURTHER INFORMATION CONTACT:** Please direct questions regarding the specific program requirements of this Program Notice of Funding Availability (NOFA) to the agency contact identified in Section VII. Please direct questions regarding the FY 2015 General Section to the Office of Strategic Planning and Management, Grants Management Division, at (202) 708-0667 (this is not a toll-free number). Persons with hearing or speech impairments may access these numbers via TTY by calling the Federal Relay Service at 1-800-877-8339.

### Additional Overview Information

1. Incorporation of the General Section. HUD publishes a General Section each fiscal year that contains mandatory requirements for all applicants to HUD's various competitive grant programs, including this NOFA. Applications must meet all of the requirements of the General Section in addition to the requirements of this NOFA to be considered and potentially receive funding. The full title of the General Section is the General Section to the Fiscal Year 2015 NOFAs for Discretionary Programs. Copies are available at [Grants.gov](http://Grants.gov) or HUD's [Funds Available](http://Funds Available) page, [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/administration/grants/fundsavail](http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/grants/fundsavail).

2. OMB Approval Number(s): 2577-0191

## I. Funding Opportunity Description.

### A. Program Description.

#### 1. Purpose.

The purpose of the ICDBG program is the development of viable Indian and Alaska Native communities, including the creation of decent housing, suitable living environments, and economic opportunities primarily for persons with low- and moderate- incomes as defined in 24 CFR 1003.4. The Office of Native American Programs (ONAP) in HUD's Office of Public and Indian Housing administers the program. Applicants can use these funds for a multitude of community development purposes including those that improve the lives of tribal youth by creating and providing protective factors that build an individual's resiliency. Accordingly, funds can be used to develop Head Start facilities, Boys and Girls Clubs, recreation centers, and job training programs as well as to improve the living situations of entire families.

**a. Single Purpose Grants.** Projects funded by the ICDBG program must meet the primary objective, defined at 24 CFR 1003.2, to principally benefit low- and moderate-income persons. Consistent with this objective, not less than 70 percent of the expenditures of each Single Purpose grant shall be for activities that meet the regulatory criteria at 24 CFR 1003.208 for:

# Community Development Block Grant

**CDBG Application Handbook FFY 2015**



**State of Alaska  
Bill Walker, Governor**

**Department of Commerce, Community, and Economic Development  
Chris Hladick, Commissioner**

**Division of Community and Regional Affairs**

## Rural Development – Utilities Programs

| Program   | Objective  | Applicant  | Uses   | Population  | Loan/Grant  | Terms/Conditions   |
|---|--|--|--|---|---|--|
| <b>Rural Alaska Village Grants</b>                  | Provide infrastructure for Native rural Alaska areas.  | Rural Alaskan Native Villages or the State of Alaska on their behalf   | Remedy a dire sanitation condition, such as recurring instances of waterborne communicable disease; or no community-wide water and sewer system exists, thus requiring residents to haul water to, or human waste from their homes.  | Rural areas and towns with up to 10,000 population  | Grant   | Funds may pay up to 75% of the project costs, with the State of Alaska or local contributions providing the other 25%                                    |
| <b>Water and Waste Disposal Loans and Grants</b>    | Provide infrastructure for rural areas.  | Public entities, Indian Tribes and non-profit corporations.  | Build, repair and improve public water systems and waste collection and treatment systems.   | Rural areas, and towns with up to 10,000 population.  | Direct loan and grant.                                    | Repayment period is a maximum of 40 years. Grant funds may be available.   |
| <b>Water and Waste Disposal Loan Guarantees</b>     | Provide infrastructure for rural areas.  | Public entities, Indian Tribes and non-profit corporations.  | Construct, repair and improve water supply and distribution systems and waste collection and treatment systems.  | Rural areas, and towns with up to 10,000 population.  | Loan guarantee.   | Eligible lenders obtain up to a 90% guarantee on loans they make and service.  |
| <b>Solid Waste Management Grants</b>                | Provide technical assistance and/or training to those who operate and maintain active landfills.   | Public bodies, private non-profit organizations, Indian Tribes, academic institutions.   | Technical assistance and training to improve landfill conditions and protect against threats to nearby water resources.  | Rural areas, and towns with up to 10,000 population.  | Grant.  | Applications accepted year-round. Complete applications submitted to National Office for review.   |
| <b>Technical Assistance/ Training/Circuit Rider</b> | Provide technical assistance and training.   | Public, private, and non-profit organizations.   | Provide technical assistance and training to assist with management of water and waste projects.   | Rural areas and towns with up to 10,000 population.   | Grant.  | As funds are available. Complete applications submitted to National Office for review.   |
| <b>Rural Broadband Loan and Loan Guarantee</b>      | Deployment of broadband service to eligible rural communities.<br><b>Note:</b> The 2014 Farm Bill revises program provisions. New rules are expected to be published in FY 2015. | Entities seeking to provide broadband services in rural areas.   | Finance the construction, improvement and acquisition of facilities and equipment to provide broadband service in eligible rural communities.  | Refer to the new rules, when available, for population limits.  | Refer to the new rules, when available, for loan details. | Refer to the new rules, when available, for loan terms and conditions.   |
| <b>Electric and Telecommunications Loans</b>        | Assist rural communities in obtaining affordable, high-quality electric and telecommunications services.   | Non-profit and cooperative associations, public bodies, and other utilities.   | Generation, transmission facilities and distribution of electric power, including alternative, renewable, conservation and energy efficiency programs. Enhance 911 emergency service, digital switching equipment, and fiber optic cable, along with traditional main system telecommunications service. | Electric: areas served by an existing rural electric borrower, or rural areas other than a city or town of more than 20,000.<br>Telecommunications: areas cities with population under 5,000. | Direct loan or loan guarantee.                            | Interest rates are established in accordance with 7CFR 1714.<br><a href="http://www.rd.usda.gov">Contact RUS at www.rd.usda.gov</a> or 1 (800) 670-6553. |
| <b>Distance Learning and Telemedicine</b>           | Development and deployment of advanced telecommunication services throughout rural America to improve education and health care.   | Incorporated entities, including municipalities, for-profit, and non-profit corporations that operate rural schools, libraries, health care clinics and other educational or health care facilities. | To provide end-user equipment and programming that delivers distance learning and telemedicine services into eligible areas.   | Rural areas outside incorporated or unincorporated cities with populations up to 20,000.  | Grant.  | Awards range from \$50,000 to \$500,000. A minimum of 15% in matching funds is required.   |
| <b>Community Connect</b>                            | Provide public access to broadband in otherwise unserved communities.  | Public bodies, tribes, cooperatives, non-profits, limited dividend or mutual associations; corporations and other legally organized entities   | To build broadband infrastructure and establish a community center that offers free public access to broadband for two years.  | A single community outside incorporated or unincorporated cities with population over 20,000 which does not have broadband.   | Grant.  | Minimum: \$50,000; Maximum: \$1 million. Amounts are published in Notices of Funding Availability and may vary.  |

**Electric and Telecom Programs: Contact the Rural Utilities Service Administrator; Water Programs: Contact the Rural Development State Office.**




## Community Facilities Direct Loan & Grant

### What does this program do?

This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings.

### Who may apply for this program?

Eligible borrowers include:

- Public bodies
- Community-based non-profit corporations
- Federally-recognized Tribes 

### What is an eligible area?

Rural areas including cities, villages, townships and towns including Federally Recognized Tribal Lands with no more than 20,000 residents according to the latest [U.S. Census Data](#) are eligible for this program.

### How may funds be used?

Funds can be used to purchase, construct, and/or improve essential community facilities, purchase equipment and pay related project expenses.

Examples of essential community facilities include:

- Health care facilities such as hospitals, medical clinics, dental clinics, nursing homes or assisted living facilities
- Public facilities such as town halls, courthouses, airport hangars or street improvements
- Community support services such as child care centers, community centers, fairgrounds or transitional housing
- Public safety services such as fire departments, police stations, prisons, police vehicles, fire trucks, public works vehicles or equipment
- Educational services such as museums, libraries or private schools

- Utility services such as telemedicine or distance learning equipment
- Local food systems such as community gardens, food pantries, community kitchens, food banks, food hubs or greenhouses

For a complete list see Code of Federal Regulations [7 CFR, Part 1942.17\(d\)](#) for loans; [7 CFR, Part 3570.62](#) for grants.

### What kinds of funding are available?

- Low interest direct loans
- Grants
- A combination of the two above, as well as our [loan guarantee program](#). These may be combined with commercial financing to finance one project if all eligibility and feasibility requirements are met.

### What are the funding priorities?

Priority point system based on population, median household income

- Small communities with a population of 5,500 or less
- Low-income communities having a median household income below 80% of the state nonmetropolitan median household income.

### What are the terms?

Funding is provided through a competitive process.

Direct Loan:

- Loan repayment terms may not be longer than the useful life of the facility, state statutes, the applicants authority, or a maximum of 40 years, whichever is less.
- Interest rates are set by Rural Development, contact us for details and current rates.
- Once the loan is approved, the interest rate is fixed for the entire term of the loan, and is determined by the median household income of the service area.
- There are no pre-payment penalties.
- Contact us for details and current interest rates applicable for your project.

### What are the terms? (continued)

#### Grant Approval:

Grant funds must be available. Applicant must be eligible for grant assistance, which is provided on a graduated scale with smaller communities with the lowest median household income being eligible for projects with a higher proportion of grant funds. Grant assistance is limited to the following percentages of eligible project costs:

Maximum of 75 percent when the proposed project is:

- Located in a rural community having a population of 5,000 or fewer; and
- The median household income of the proposed service area is below the higher of the poverty line or 60 percent of the State nonmetropolitan median household income.

Maximum of 55 percent when the proposed project is:

- Located in a rural community having a population of 12,000 or fewer; and
- The median household income of the proposed service area is below the higher of the poverty line or 70 percent of the State nonmetropolitan median household income.

Maximum of 35 percent when the proposed project is:

- Located in a rural community having a population of 20,000 or fewer; and
- The median household income of the proposed service area is below the higher of the poverty line or 80 percent of the State nonmetropolitan median household income.

Maximum of 15 percent when the proposed project is:

- Located in a rural community having a population of 20,000 or fewer; and

- The median household income of the proposed service area is below the higher of the poverty line or 90 percent of the State nonmetropolitan median household income. The proposed project must meet both percentage criteria. Grants are further limited.

### Are there additional requirements?

- Applicants must have legal authority to borrow money, obtain security, repay loans, construct, operate, and maintain the proposed facilities
- Applicants must be unable to finance the project from their own resources and/or through commercial credit at reasonable rates and terms
- Facilities must serve rural area where they are/will be located
- Project must demonstrate substantial community support
- Environmental review must be completed/acceptable

### How do we get started?

Contact your [local offices](#) to discuss your specific project. Applications are accepted year round

### Who can answer questions?

Contact our [local office](#) that serves your area.

### What governs this program?

- Direct Loan: [7 CFR Part 1942, Subpart A](#)
- Grant: [7 CFR Part 3570, Subpart A](#)

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NOTE: Because citations and other information may be subject to change please always consult the program Instructions listed in the section above titled “What Law Governs this Program?” You may also contact your [local office](#) for assistance.

**You will find additional forms, resources, and program information at [www.rd.usda.gov](http://www.rd.usda.gov)**



## **6. The Cleanup Process**

- 6.1. Cleanup Process Fact Sheet and Flowchart**
- 6.2. The Conceptual Site Model**
- 6.3. The Risk Assessment**
- 6.4. Phase 1 - Environmental Site Assessment  
(as per ASTM Standard E1527-13)**
- 6.5. Phase 2 - Site Characterization Process  
(as per 18 AAC 75-78)**



Alaska Department of Environmental Conservation

# The Cleanup Process

July 2015

## The Cleanup of Contaminated Sites in Alaska

The Alaska Department of Environmental Conservation's Contaminated Sites Program oversees the cleanup or conducts the cleanup of contaminated sites<sup>1</sup> based on their danger to public health and the environment. DEC stresses that prevention is the best way to protect people and the environment. When leaks or spills do occur, cleaning up soil and groundwater can be quite difficult, time-consuming and expensive, but foremost in the process is protecting the health and safety of people, and the environment.

The following process describes the investigation and cleanup of what remains after an initial spill response or once an underground leak or discharge is discovered. The process can range from a large, formal cleanup with extensive public involvement and lasting several years to a simple one taking a few months. It all depends on the source and extent of contamination and the threat to humans and the environment. This fact sheet briefly summarizes the cleanup process. For complete information, see Alaska's Statutes Title 46, and Alaska's Administrative Code of regulations 18 AAC 75. If the contamination comes from a leaking underground fuel tank, the process is slightly different: see 18 AAC 78. Cleanup overseen by a federal agency, military sites for example, may also use other terms and the steps may vary somewhat.

### Site Characterization Workplan

18AAC 75.335 (b)\*

The person who caused the contamination or who owns the land is typically the one legally responsible for cleaning it up. That person must arrange for a "qualified environmental professional"\*\*\* (typically a contractor or consultant) to prepare a site characterization workplan for DEC approval. Preparation usually involves these steps:

**Scoping**, to find all available information about the site, how much and what kind of contamination exists, and what harm there could be to people, animals and plants.

A **Conceptual Site Model**, or a first estimate of what and where the contaminants are, how they behave under site conditions, and what threat they may pose. This may be in a separate report or included in the next step.

A **Workplan**, to guide a more detailed investigation, designing field work to confirm or correct the first estimates of the conceptual site model.

**Field investigation:** Guided by the workplan, the contractor (qualified environmental professional) takes samples and gathers more information at the site, and DEC oversees this work. The contractor then recommends cleanup techniques and levels in the report.

**Cleanup levels:** One of the most important parts of the cleanup process is determining cleanup levels - the concentration of a hazardous substance that may be left in soil or water without posing a threat to human health, safety or welfare, or

### Site Characterization Report

18AAC 75.335 (c)

\*Title 18 of Alaska's Administrative Code of regulations, Chapter 75, section 335, paragraph (b)

\*\*See tips on selecting an environmental consultant at: [www.dec.alaska.gov/spar/csp/selecting\\_consultant.pdf](http://www.dec.alaska.gov/spar/csp/selecting_consultant.pdf). Also see glossary for the definition of qualified environmental professional at [www.dec.alaska.gov/spar/glossary.htm](http://www.dec.alaska.gov/spar/glossary.htm)

## DEC's Cleanup decision

18AAC 75.335-370, Cleanup and reporting requirements

## Cleanup and report

18AAC 75.360, Cleanup and reporting requirements

## Site closure

18AAC 75.375, Institutional controls

18AAC 75.380, Site closure

to the environment. Different levels are chosen depending on the contaminant, the soil, and whether or not the hazardous substance would be taken in through breath, skin, or eating/drinking. When little is known about a site, strict default cleanup levels set in state and federal law are used to be most protective. Less strict levels can sometimes be set when specific information is known about the site.

A **Risk Assessment** is sometimes conducted to gather detailed information about the site and how people would be exposed to contamination. Risk assessments can also be used to justify protective cleanup levels which are more or less strict than default levels. An important part of a risk assessment is to gather information from residents and other people on how they use the land and its resources.

**Site Characterization Report:** This report draws conclusions about the contamination and the risk to people and the environment, and it proposes cleanup levels for DEC to approve. A formal risk assessment, if conducted, would also be included. Removal of 100% of the contamination may not be possible, practical or affordable. Cleanup techniques are analyzed, and one or more is recommended based on their protectiveness, as well as practicality, effectiveness, conformity with state regulations, and consideration of any public comment.

DEC's decision is made in writing, defining soil and groundwater cleanup levels and cleanup techniques. The decision takes into account current and future use of the site, the degree of treatment, and protection of human health and safety and the environment if contamination will remain on site. Minimizing spread of contamination and monitoring plans are also part of it. In a formal cleanup, the decision involves first issuing a Proposed Plan, inviting public comment, and a final Record of Decision.

Before work begins, the responsible person submits a cleanup plan to DEC. After a plan is approved, the work must be performed by a qualified environmental professional, with DEC oversight to document and inspect the effort. A final report is completed for DEC review when cleanup is complete.

**Institutional Controls:** DEC will give "Cleanup Complete" status when efforts to reduce contamination have met approved cleanup levels, or the possibility of human exposure to any residual contamination is highly unlikely.

Complete cleanup is not always practical or affordable. DEC may allow residual contamination to remain at a site if it does not pose a risk to human health or the environment, but there may be conditions or restrictions on land use that require compliance by current or future owners/operators. Those conditions require follow-up reporting. DEC would then grant "Cleanup Complete – Institutional Controls" status. The conditions allow the land to be put back to use.

DEC recovers the cost of its oversight and/or damages from responsible persons, if this hasn't already happened.

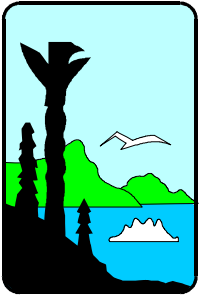
## Follow-up

DEC's Contaminated Sites Program protects human health, safety and the environment by overseeing and conducting cleanups at contaminated sites in Alaska and by preventing releases from underground storage tanks and aboveground storage tanks. For follow-up questions, please contact the Contaminated Sites staff in the office closest to you:

Anchorage (907) 269-7503 / Fairbanks (907) 451-2143

Juneau (907) 465-5390 / Kenai (907) 262-5210 / Soldotna (907) 262-5210

[dec.alaska.gov/spar/csp](http://dec.alaska.gov/spar/csp)



# Alaska Department of Environmental Conservation Contaminated Sites Remediation Program

## The Cleanup Process

Person in charge of operation or facility notifies DEC when a discharge or release occurs.

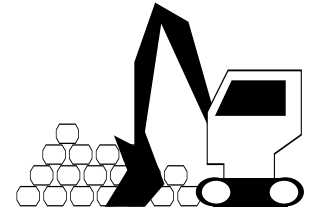
Responsible person (as defined in AS46.04.020 or AS46.09.020) must contain, investigate and cleanup contamination under DEC oversight.

With DEC approval, responsible person or DEC may conduct interim removal action, which may or may not result in site closure. Usually conducted to remove "hot spots."

**Reporting**  
18 AAC 75.300



**Initial Response**  
18 AAC 75.310  
18 AAC 75.315



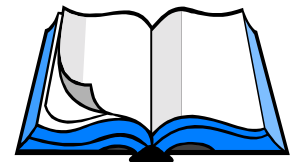
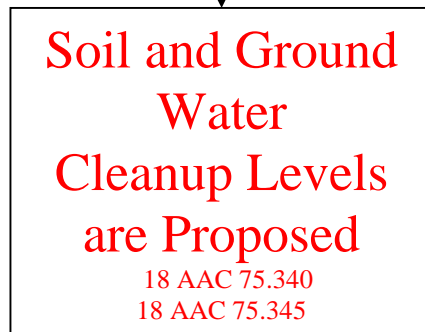
**Interim Removal Action**  
18 AAC 75.330



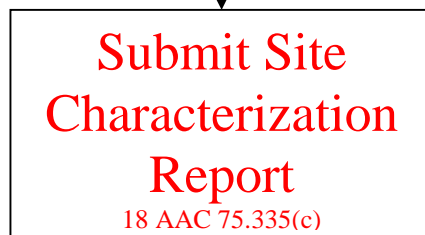
Responsible person has qualified person (as defined in 18 AAC 75.990) prepare site characterization workplan for DEC approval.



Alternatives are: For soil cleanups, methods One, Two, Three, and Four. For ground water cleanups, Table C, 10 times Table C if the ground water will not be used as a drinking water source, or an alternative cleanup level arrived at by using a site-specific risk assessment.



Responsible person has qualified person submit site characterization report (results) and proposed cleanup plans to DEC for approval.



Site Characterization and cleanup techniques, Soil Cleanup levels, Groundwater Cleanup levels, Future use of Groundwater, and Institutional Controls.

**DEC Decides  
What Needs to be  
Done Based on  
Site Data and  
Public Input**

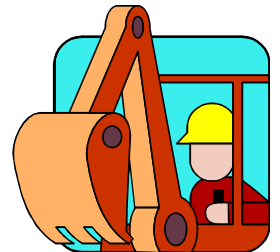
Decision Document  
**18 AAC 75.335 through  
18 AAC 75.375.**



Responsible person ensures site cleanup is conducted or supervised by qualified person and sampling and analysis conducted by qualified impartial third party.

**Submit Cleanup  
Plan for DEC  
Approval;  
Implement  
Cleanup Plan**

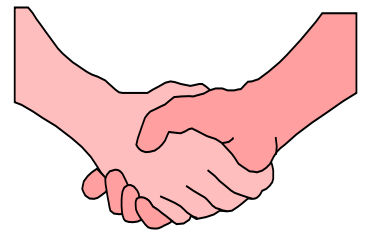
18 AAC 75.360  
18 AAC 75.355



Responsible person submits final cleanup report prepared by qualified person to DEC. DEC recovers cost of oversight from responsible person.

**Final Cleanup  
Report and Site  
Closure**

18 AAC 75.380



## The Conceptual Site Model

This is a brief introduction to the use of the conceptual site model (CSM). DEC has a guidance document for development of a CSM that can be obtained through our website at:

[http://dec.alaska.gov/spar/csp/guidance\\_forms/csguidance.htm](http://dec.alaska.gov/spar/csp/guidance_forms/csguidance.htm)

A copy of the most recent **DEC CSM Guidance** is included on the compact disk with this handbook.

A *conceptual site model* (CSM) is a way to describe and evaluate how people, animals, and plants might come in contact with contaminants at a location. It is intended to illustrate how the current and possible future spread of contamination in the environment might occur.

A CSM is designed to show real or possible “exposure pathways,” not quantify the exposure or health risks presented by that exposure—this is done in a complete risk assessment. A CSM should be prepared as part of most assessments and for every site cleanup. The preparation of a CSM does not need to be a complicated process.

In general, a CSM can be developed with only the most basic information about the site and does not require a complete assessment in order to prepare; however, the less information available, the more the preparer needs to err on the side of caution. This may require assuming that a person, plant, or animal could be exposed to contamination that is thought to be present, or could be present based on the information currently available. The CSM is used to assist project managers in properly evaluating the potential threats at a site, but should be continually revised as new site information becomes available. This new information could add new pathways, or eliminate them, providing a more clear and understandable picture for the reader. Developing a CSM is a critical step in evaluating a contaminated site, and must be prepared during the initial stage of site characterization.

In general, the CSM will identify the following:

- Current and future ways people or animals may be exposed through direct contact, ingestion, inhalation, etc. These are referred to as the *exposure pathways*;
- Routes the contaminants may take as they move through soil, groundwater, or surface water, (*migration routes*); and
- Types of *receptors* (people or animals) that could be exposed.

### Timing of CSM Development

CSMs are completed at the following stages of a project:

- Sometimes before the first characterization as a means to discuss what is known about a site and help to determine what type of assessment is needed, and what are the perceived priorities to evaluate;
- As part of the site characterization workplan;
- If a risk assessment is being conducted; and
- Whenever new information is discovered that significantly changes the initial CSM. Examples may be following a Phase I Environmental Site Assessment, any form of site investigation or characterization, or after a cleanup.

There may also be multiple routes of exposure through the soil, water, air, food, and the potential for exposure through each of these pathways must be evaluated and added together to fully understand the total potential impact from the exposure of concern.

### Preliminary CSM

A *preliminary CSM* depicts any known information regarding complete or potentially complete exposure pathways at a site *at the time it is developed*. Unless sufficient evidence makes it possible to eliminate a pathway, it should be considered potentially complete at this stage of the CSM.

Designating a pathway as complete *may* simply mean that the pathway needs to be further investigated. Preliminary CSMs should be updated as additional information becomes available, such as through further site investigation. As additional information eliminates pathways and shows them to be incomplete, that information is documented. Later versions of a site's CSM incorporate all additional information or results of site investigation that were not available at the time the preliminary CSM was developed.

### Exposure Pathways

Contamination moves or spreads from the source area (like a spill) to receptors through *pathways*. The route a substance takes from its source (where it was released) to its end point (where it ends), is the pathway. An exposure pathway has five parts:

1. A source of contamination (such as a leaking tank);
2. The environmental media and transport mechanism (such as flow through groundwater);



3. A point of exposure (such as a private well);
4. A route of exposure (eating, drinking, breathing, or touching), and
5. Receptors (people, plants, or animals potentially or actually exposed).

When all five parts are present at a site, the exposure pathway is termed a *complete* exposure pathway. If any of these parts is not present then the pathway is considered *incomplete*. For instance, if there is groundwater contamination, but there is no drinking water wells in the vicinity of the plume, then the pathway would be *incomplete at that time*. Without precautions, it is possible that a well could be installed in the future whereby the pathway would be considered *complete*.

The CSM identifies all the ways in which exposure *could* take place. This means that complete exposure pathways should also include those that may be complete in the future based on contaminant migration or changes in land use. It is important to remember that identifying a pathway as complete *does not* automatically indicate that there is actual harm or risk to people or the environment. It does mean that exposure across that pathway does require further analysis to determine if it presents a risk.

### **Contaminant Transport**

Contaminants at a site may move through the environment from the source through various processes, such as:

- Volatilization of chemicals from soil or the surface;
- Degradation of chemicals into soil or groundwater;
- Erosion of particulate-bound chemicals from soil;
- Leaching of contaminants in soil through infiltrating water;
- Movement downstream in water or on suspended sediment;
- Transport of chemicals with groundwater flow;
- Migration from groundwater to surface water; or
- Movement through the atmosphere.

Contaminants may also change their form and be altered or transformed *chemically* through processes such as photolysis, hydrolysis, oxidation, reduction, or biologically through biodegradation.

### **Routes of Exposure**

The primary routes of exposure are through:

- Eating or drinking (*Ingestion*)

- Breathing (*Inhalation*)
- Direct contact with the skin (*Dermal contact*)

Not all of the routes are expected to be identified at every site, while some unique site-specific conditions may require additional exposure route analyses. Remember that complete pathways include currently complete pathways and any that may be complete in the future based on contaminant migration or changes in land use. Also, identifying a pathway as complete does not necessarily indicate that a negative health outcome is anticipated, but rather the route of exposure needs evaluation.

Often the available information is not sufficient to determine whether a pathway is complete. Take for example a family living on a site with known soil and groundwater contamination. If contamination was measured in a drinking-water well, then ingestion of the groundwater would be a *complete* pathway. However, if it's not clear whether the contaminants could evaporate from soil into outdoor air (for example, the source may be small, the contamination deep, or frozen ground limits volatilization of certain compounds), breathing in (inhalation) of volatile contaminants in the outdoor-air pathway still *has the potential* to be complete and should be treated as such, until further assessment indicates whether an exposure is occurring, or not.

### **Conceptual Site Model Guidance**

DEC has developed the *Policy Guidance on Developing Conceptual Site Models* to provide detailed information on developing CSMs. Please refer to this guidance as you review, develop, or consider the use of CSMs in your work. The first figure at the end of this document is the first page of the CSM checklist or scoping form that is used by project managers to develop a CSM. The second figure is a graphic flow-chart view of a CSM, and the third figure shows a graphical cartoon CSM. These figures illustrate tools for developing a CSM. The full guidance, and an *interactive* electronic copy of the entire scoping form and the graphic flow chart are provided on the compact disk with this handbook, and are also available online through DEC's website.

### **References**

Alaska Department of Environmental Conservation. *Policy Guidance on Developing Conceptual Site Models*. October 2010.

Website: Triad Resource Center. <http://www.triadcentral.org/mgmt/splan/sitemodel/>

First page only—the full, interactive CSM Scoping Form is on the compact disk with this handbook.

### Human Health Conceptual Site Model Scoping Form

Site Name:   
File Number:   
Completed by:

#### Introduction

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, a CSM graphic and text must be submitted with the site characterization work plan.

*General Instructions: Follow the italicized instructions in each section below.*

#### 1. General Information:

*Sources (check potential sources at the site)*

- |  |  |
|--|--|
| <input type="checkbox"/> USTs                          | <input type="checkbox"/> Vehicles                    |
| <input type="checkbox"/> ASTs                          | <input type="checkbox"/> Landfills                   |
| <input type="checkbox"/> Dispensers/fuel loading racks | <input type="checkbox"/> Transformers                |
| <input type="checkbox"/> Drums                         | <input type="checkbox"/> Other: <input type="text"/> |

*Release Mechanisms (check potential release mechanisms at the site)*

- |                                 |  |
|---------------------------------|--|
| <input type="checkbox"/> Spills | <input type="checkbox"/> Direct discharge            |
| <input type="checkbox"/> Leaks  | <input type="checkbox"/> Burning                     |
|                                 | <input type="checkbox"/> Other: <input type="text"/> |

*Impacted Media (check potentially-impacted media at the site)*

- |  |  |
|--|--|
| <input type="checkbox"/> Surface soil (0-2 feet bgs*)  | <input type="checkbox"/> Groundwater                 |
| <input type="checkbox"/> Subsurface Soil (>2 feet bgs) | <input type="checkbox"/> Surface water               |
|  | <input type="checkbox"/> Other: <input type="text"/> |

*Receptors (check receptors that could be affected by contamination at the site)*

- |   |  |
|---|--|
| <input type="checkbox"/> Residents (adult or child)                       | <input type="checkbox"/> Site Visitor                |
| <input type="checkbox"/> Commercial or industrial worker                  | <input type="checkbox"/> Trespasser                  |
| <input type="checkbox"/> Construction worker                              | <input type="checkbox"/> Recreational User           |
| <input type="checkbox"/> Subsistence harvester (i.e., gathers wild foods) | <input type="checkbox"/> Farmer                      |
| <input type="checkbox"/> Subsistence consumer (i.e., eats wild foods)     | <input type="checkbox"/> Other: <input type="text"/> |

\* bgs – below ground surface

CSM Graphic Form (blank)

**HUMAN HEALTH CONCEPTUAL SITE MODEL GRAPHIC FORM**

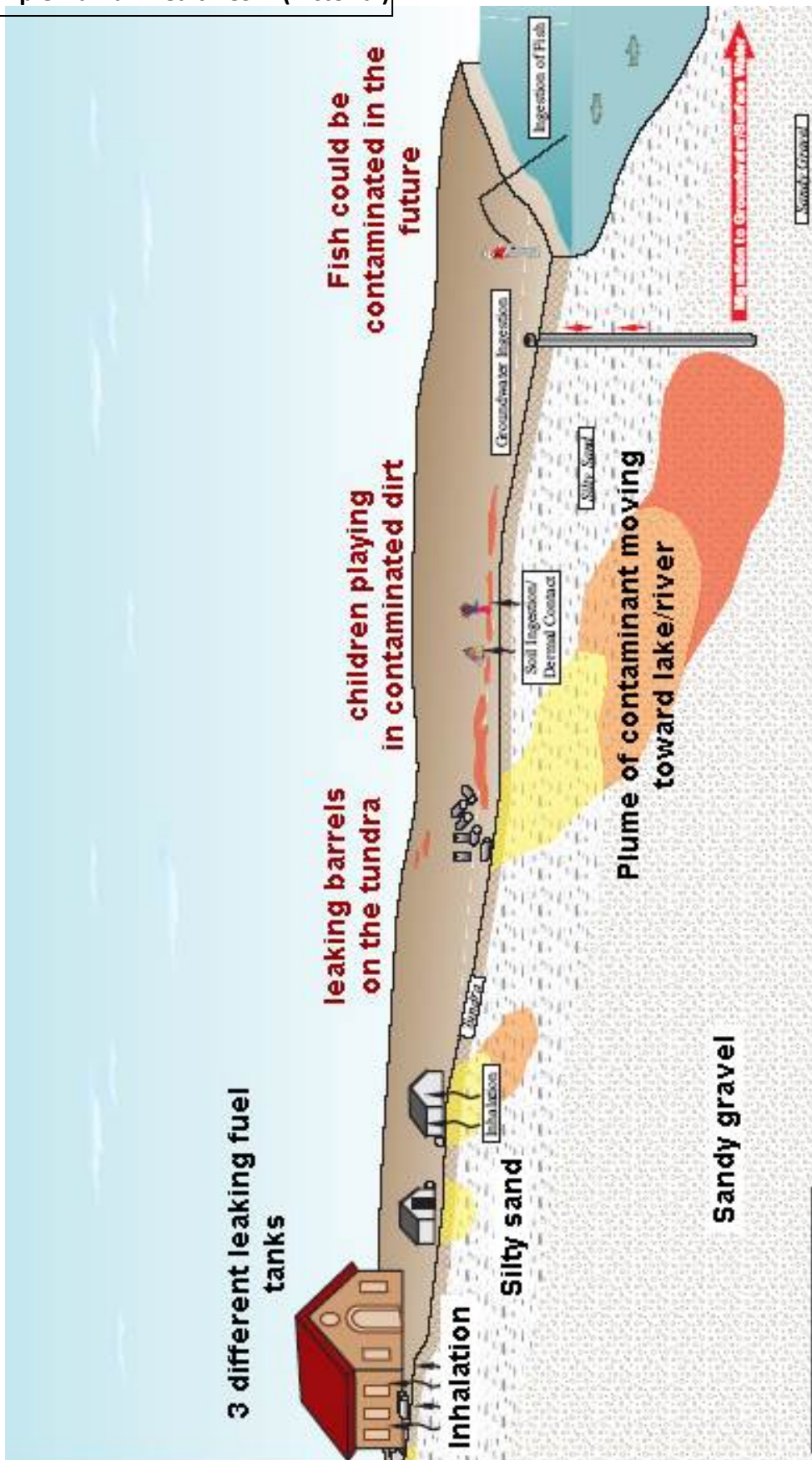
Site: \_\_\_\_\_  
 Completed By: \_\_\_\_\_  
 Date Completed: \_\_\_\_\_

**Instructions:** Follow the numbered directions below. Do not consider contaminant concentrations or engineering/land use controls when describing pathways.

|   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|----------------------------------|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|-----------------------------------|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|
| <p><b>(1)</b><br/>Check the media that could be directly affected by the release.</p> <p><b>Media</b></p> <p><input type="checkbox"/> <b>Surface Soil (0-2 ft bgs)</b><br/>                 Direct release to surface soil <span style="float: right;">check soil</span><br/>                 Migration to subsurface <span style="float: right;">check soil</span><br/>                 Migration to groundwater <span style="float: right;">check groundwater</span><br/>                 Volatilization <span style="float: right;">check air</span><br/>                 Runoff or erosion <span style="float: right;">check surface water</span><br/>                 Uptake by plants or animals <span style="float: right;">check biota</span><br/>                 Other (list): _____</p> <p><input type="checkbox"/> <b>Subsurface Soil (2-15 ft bgs)</b><br/>                 Direct release to subsurface soil <span style="float: right;">check soil</span><br/>                 Migration to groundwater <span style="float: right;">check groundwater</span><br/>                 Volatilization <span style="float: right;">check air</span><br/>                 Uptake by plants or animals <span style="float: right;">check biota</span><br/>                 Other (list): _____</p> <p><input type="checkbox"/> <b>Groundwater</b><br/>                 Direct release to groundwater <span style="float: right;">check groundwater</span><br/>                 Volatilization <span style="float: right;">check air</span><br/>                 Flow to surface water body <span style="float: right;">check surface water</span><br/>                 Flow to sediment <span style="float: right;">check sediment</span><br/>                 Uptake by plants or animals <span style="float: right;">check biota</span><br/>                 Other (list): _____</p> <p><input type="checkbox"/> <b>Surface Water</b><br/>                 Direct release to surface water <span style="float: right;">check surface water</span><br/>                 Volatilization <span style="float: right;">check air</span><br/>                 Sedimentation <span style="float: right;">check sediment</span><br/>                 Uptake by plants or animals <span style="float: right;">check biota</span><br/>                 Other (list): _____</p> <p><input type="checkbox"/> <b>Sediment</b><br/>                 Direct release to sediment <span style="float: right;">check sediment</span><br/>                 Resuspension, runoff, or erosion <span style="float: right;">check surface water</span><br/>                 Uptake by plants or animals <span style="float: right;">check biota</span><br/>                 Other (list): _____</p> | <p><b>(2)</b><br/>For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Check additional media under (1) if the media acts as a secondary source.</p> <p><b>Transport Mechanisms</b></p> <p><input type="checkbox"/> Direct release to surface soil <span style="float: right;">check soil</span></p> <p><input type="checkbox"/> Migration to subsurface <span style="float: right;">check soil</span></p> <p><input type="checkbox"/> Migration to groundwater <span style="float: right;">check groundwater</span></p> <p><input type="checkbox"/> Volatilization <span style="float: right;">check air</span></p> <p><input type="checkbox"/> Runoff or erosion <span style="float: right;">check surface water</span></p> <p><input type="checkbox"/> Uptake by plants or animals <span style="float: right;">check biota</span></p> <p><input type="checkbox"/> Other (list): _____</p> <p><input type="checkbox"/> Direct release to subsurface soil <span style="float: right;">check soil</span></p> <p><input type="checkbox"/> Migration to groundwater <span style="float: right;">check groundwater</span></p> <p><input type="checkbox"/> Volatilization <span style="float: right;">check air</span></p> <p><input type="checkbox"/> Uptake by plants or animals <span style="float: right;">check biota</span></p> <p><input type="checkbox"/> Other (list): _____</p> <p><input type="checkbox"/> Direct release to groundwater <span style="float: right;">check groundwater</span></p> <p><input type="checkbox"/> Volatilization <span style="float: right;">check air</span></p> <p><input type="checkbox"/> Flow to surface water body <span style="float: right;">check surface water</span></p> <p><input type="checkbox"/> Flow to sediment <span style="float: right;">check sediment</span></p> <p><input type="checkbox"/> Uptake by plants or animals <span style="float: right;">check biota</span></p> <p><input type="checkbox"/> Other (list): _____</p> <p><input type="checkbox"/> Direct release to surface water <span style="float: right;">check surface water</span></p> <p><input type="checkbox"/> Volatilization <span style="float: right;">check air</span></p> <p><input type="checkbox"/> Sedimentation <span style="float: right;">check sediment</span></p> <p><input type="checkbox"/> Uptake by plants or animals <span style="float: right;">check biota</span></p> <p><input type="checkbox"/> Other (list): _____</p> <p><input type="checkbox"/> Direct release to sediment <span style="float: right;">check sediment</span></p> <p><input type="checkbox"/> Resuspension, runoff, or erosion <span style="float: right;">check surface water</span></p> <p><input type="checkbox"/> Uptake by plants or animals <span style="float: right;">check biota</span></p> <p><input type="checkbox"/> Other (list): _____</p> | <p><b>(3)</b><br/>Check all exposure media identified in (2).</p> <p><b>Exposure Media</b></p> <p><input type="checkbox"/> soil</p> <p><input type="checkbox"/> groundwater</p> <p><input type="checkbox"/> air</p> <p><input type="checkbox"/> surface water</p> <p><input type="checkbox"/> sediment</p> <p><input type="checkbox"/> biota</p> | <p><b>(4)</b><br/>Check all pathways that could be complete. The pathways identified in this column must agree with Sections 2 and 3 of the Human Health CSM Scoring Form.</p> <p><b>Exposure Pathway/Route</b></p> <p><input type="checkbox"/> Incidental Soil Ingestion</p> <p><input type="checkbox"/> Dermal Absorption of Contaminants from Soil</p> <p><input type="checkbox"/> Inhalation of Fugitive Dust</p> <p><input type="checkbox"/> Ingestion of Groundwater</p> <p><input type="checkbox"/> Dermal Absorption of Contaminants in Groundwater</p> <p><input type="checkbox"/> Inhalation of Volatile Compounds in Tap Water</p> <p><input type="checkbox"/> Inhalation of Outdoor Air</p> <p><input type="checkbox"/> Inhalation of Indoor Air</p> <p><input type="checkbox"/> Inhalation of Fugitive Dust</p> <p><input type="checkbox"/> Ingestion of Surface Water</p> <p><input type="checkbox"/> Dermal Absorption of Contaminants in Surface Water</p> <p><input type="checkbox"/> Inhalation of Volatile Compounds in Tap Water</p> <p><input type="checkbox"/> Direct Contact with Sediment</p> <p><input type="checkbox"/> Ingestion of Wild or Farmed Foods</p> | <p><b>(5)</b><br/>Identify the receptors potentially affected by each exposure pathway. Enter "C" for current receptors, "F" for future receptors, "CF" for both current and future receptors, or "I" for insignificant exposure.</p> <p><b>Current &amp; Future Receptors</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Residents or children (adults or children)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Commercial or industrial workers</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Site visitors, trespassers, or recreational users</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Construction workers</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Farmers or subsistence harvesters</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Subsistence consumers</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Other</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> | Residents or children (adults or children) |  |  |  |  |  |  |  |  |  | Commercial or industrial workers |  |  |  |  |  |  |  |  |  | Site visitors, trespassers, or recreational users |  |  |  |  |  |  |  |  |  | Construction workers |  |  |  |  |  |  |  |  |  | Farmers or subsistence harvesters |  |  |  |  |  |  |  |  |  | Subsistence consumers |  |  |  |  |  |  |  |  |  | Other |  |  |  |  |  |  |  |  |  |
| Residents or children (adults or children)  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| Commercial or industrial workers  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| Site visitors, trespassers, or recreational users   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| Construction workers  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| Farmers or subsistence harvesters   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| Subsistence consumers   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| Other   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |                                   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |

Revised, 10/01/2010

Example Human Health CSM (Pictorial)



## The Risk Assessment

*This is a brief introduction to risk assessments. DEC has a guidance document for risk assessments titled “Risk Assessment Procedures Manual” that can be obtained through our website at:*

[https://dec.alaska.gov/spar/csp/guidance\\_forms/docs/RAPM%202015%20Final%20October%201%202015.pdf](https://dec.alaska.gov/spar/csp/guidance_forms/docs/RAPM%202015%20Final%20October%201%202015.pdf)

The Alaska Department of Environmental Conservation (DEC) developed a *Risk Assessment Procedures Manual* (RAPM) in October 2015. This manual provides risk assessment procedures for use during the assessment and remediation of contaminated sites in Alaska.

A risk assessment is essentially a tool used to determine if current or future exposure will pose a health risk to a community. It is also the process of gathering information for estimating short- and long-term effects on human health or the environment resulting from exposure to hazards associated with a particular product or technology.

Regulatory actions require an integration of two distinct processes: *risk assessment* and *risk management*.

**Risk assessments** organize and interpret technical information for use by those making decisions. Risk assessment is the scientific process of evaluating the toxic properties of compounds and the conditions of human and ecological exposure, to determine the likelihood that an exposed population or ecosystem will be adversely affected. The DEC RAPM provides instruction in preparing a site-specific risk assessment. The process relies on available, reputable scientific information and conservative judgments in the case of uncertainty.

Environmental “risk” is the chance that human health or the environment will suffer harm as the result of the presence of environmental hazards.

**Risk management** is the process by which risk assessment results are combined with other site information to make decisions about *risk reduction*.



In addition to considering the human health and ecological risk assessment data, risk management takes into consideration the technical feasibility for action, the costs involved, political and social acceptability, and the impact of proposed alternative remedial actions. The DEC RAPM does not provide guidance on the risk management decisions that must be made by DEC.

### **The Risk Assessment Process**

Risk assessments are developed to assess risk to current and future receptors at or near a contaminated site based on current conditions. It does not consider the conditions that may be present after remediation or after the establishment of institutional controls (these are physical, engineered, or legal controls that limit the use of a property in order to prevent exposure). Risk assessment may also be used as a tool in determining alternate cleanup levels for the site based on site-specific factors.

A risk assessment may be necessary if additional complete pathways are identified other than those protected by the cleanup levels in the 18 AAC 75 tables (ingestion and inhalation of contaminated soil or groundwater). For instance, inhalation of volatile contaminants in indoor air, ingestion of wild foods, or exposure to aquatic or terrestrial ecological receptors are not protected under the cleanup levels in the 18 AAC 75 tables.

Therefore, if one of these pathways is complete at a site, a risk assessment may be warranted.

*Route of exposure*  
The way people come into contact with a hazardous substance. Three routes of exposure are breathing (inhalation), eating or drinking (ingestion), and direct contact with the skin (dermal contact).

### **Risk Assessment Requirements**

A risk assessment must be conducted by an experienced individual in consultation with DEC.

The following documents must be submitted to DEC for review and approval during the risk assessment process:

- Human Health Preliminary Conceptual Site Model (CSM)
- Risk Assessment Work Plan
- Risk Assessment

For ecological risk assessments, a scoping evaluation must be submitted initially.

### **Public Participation**

Public participation is required in certain circumstances during the risk assessment process. For instance, public comment is required by DEC:

- When alternate cleanup levels are proposed for soil and groundwater based on a site-specific risk assessment;
- When making a commercial or industrial land-use designation for developing alternate cleanup levels; and
- When alternative points of compliance are established for groundwater that is hydrologically connected to surface water.

### **Planning for a Risk Assessment**

The planning stage of a risk assessment includes the creation of a conceptual site model (CSM – see Section 6.2). A CSM characterizes the distribution of contaminant concentrations across the site and identifies all potential exposure pathways, migration routes, and potential receptors at a site.

Steps of the risk assessment planning process include:

- Scoping Meeting: During this meeting the purpose and limitations of the risk assessment are discussed as well as the work plan requirements, among other topics. This meeting also establishes the lines of communication and documents the deliverables schedule.
- Risk Assessment Work Plan: Describes the tasks and methods that will be used to assess risk to human health and the environment. It should consider soil, groundwater, sediments, surface water, air, and biota if each of these is applicable, and describe how risk from exposure to each medium will be assessed.
- Submittal: for a human health risk assessment the deliverables required include:
  - CSM
  - Risk Assessment Work Plan
  - Risk Assessment

For an ecological risk assessment the deliverables may include:

- Scoping evaluation with preliminary screening
- A screening-level ecological risk assessment (if warranted)
- Baseline Risk Assessment Work Plan



- And Baseline Risk Assessment.

### **Human Health Risk Assessment Methodology**

The methodology included in the RAPM integrates federal, state, and regional requirements with site-specific information to provide a framework for performing a Human Health Risk Assessment at an Alaska contaminated site. The main steps of a Human Health Risk Assessment are described in detail in the RAPM and illustrated on Figure 1. Briefly, these steps include:

- Data Evaluation - During this step the adequacy of the available data is evaluated, the existing data gaps identified, the contaminants of potential concern (COPCs) selected, and the available information evaluated for consistency with the CSM.
- Exposure Assessment - The process of determining magnitude, frequency, duration, and route of exposure to a chemical or physical agent. The results of the exposure assessment are detailed CSMs and a set of exposure assumptions that, combined with chemical-specific toxicity information, characterize potential risks at the site. DEC requires that current as well as future exposure scenarios are considered during the exposure assessment.
- Toxicity Assessment - This step identifies the potential adverse effects associated with COPCs and estimates, using numerical toxicity values, the likelihood that these adverse effects will occur based on the extent of the exposure. The preparation of a toxicity assessment relies primarily on existing toxicity information and does not usually involve development of toxicity values or dose-response relationships.

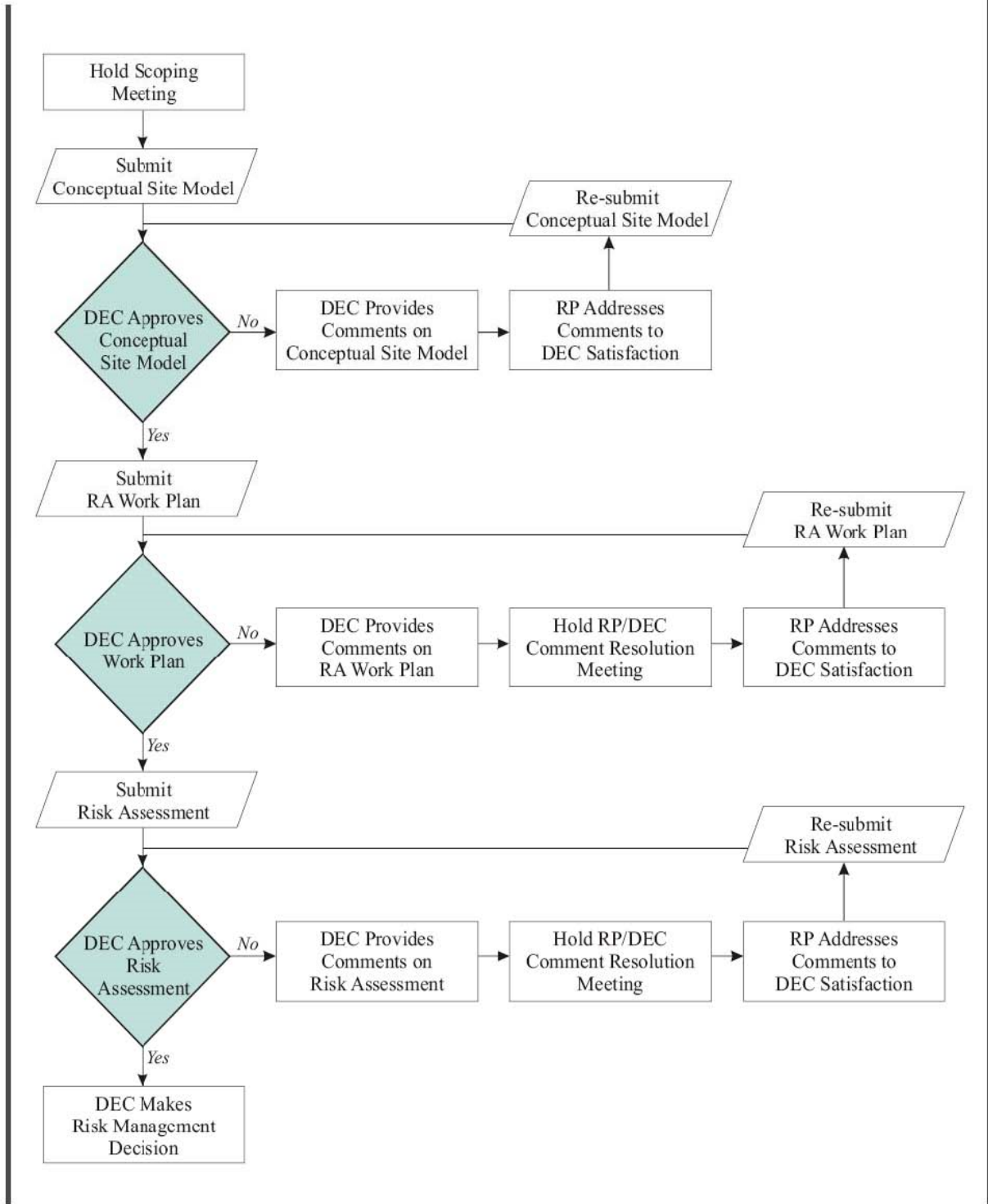
Important elements of this step include:

- *Toxicity Hierarchy* - each chemical is identified as a carcinogen (cancer causing) or non-carcinogen (non-cancer causing). Reference doses are then derived for non-carcinogens.
- *Toxicity Value Conversions* - toxicity values are provided for the three main routes of exposure: ingestion, inhalation, and dermal contact.
- *Types of exposures* - carcinogenic and non-carcinogenic effects of chronic and sub chronic exposures are considered. Chronic exposures are defined as seven years or more; sub chronic are considered from two weeks to seven years. Acute exposures (less

than two weeks) should be addressed immediately and in conjunction with the state or federal health department.

- Toxicity Profiles- The final human health risk assessment should provide toxicity information for each COPC.
- Risk Characterization - This section integrates the information from the exposure assessment and the toxicity assessment to form the basis for the characterization of human health risks. A qualitative as well as quantitative description of the risks is presented including:
  - Carcinogenic risk
  - Non-carcinogenic risk
  - Cumulative risk
  - Risk from lead exposure
  - Risk from bulk hydrocarbons
- Uncertainty assessment - This section is a qualitative discussion of the uncertainties within a human health assessment. These may include natural variability, measurement error, sampling error, human error, extrapolation mandated by incomplete knowledge or incorrect assumptions, and oversimplification.

**FIGURE 1**  
**HUMAN HEALTH RISK ASSESSMENT PROCESS**

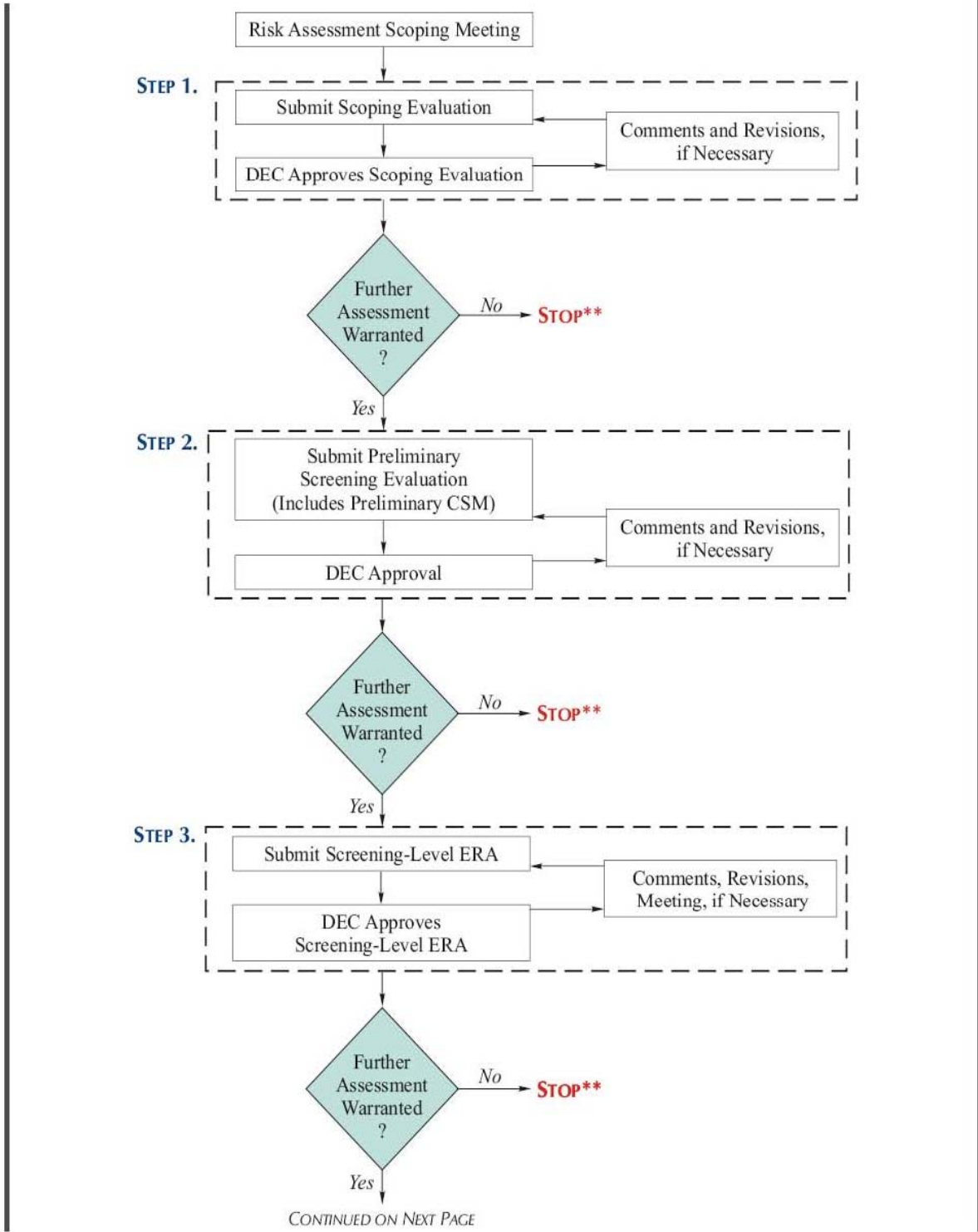


### **Ecological Risk Assessment Methodology**

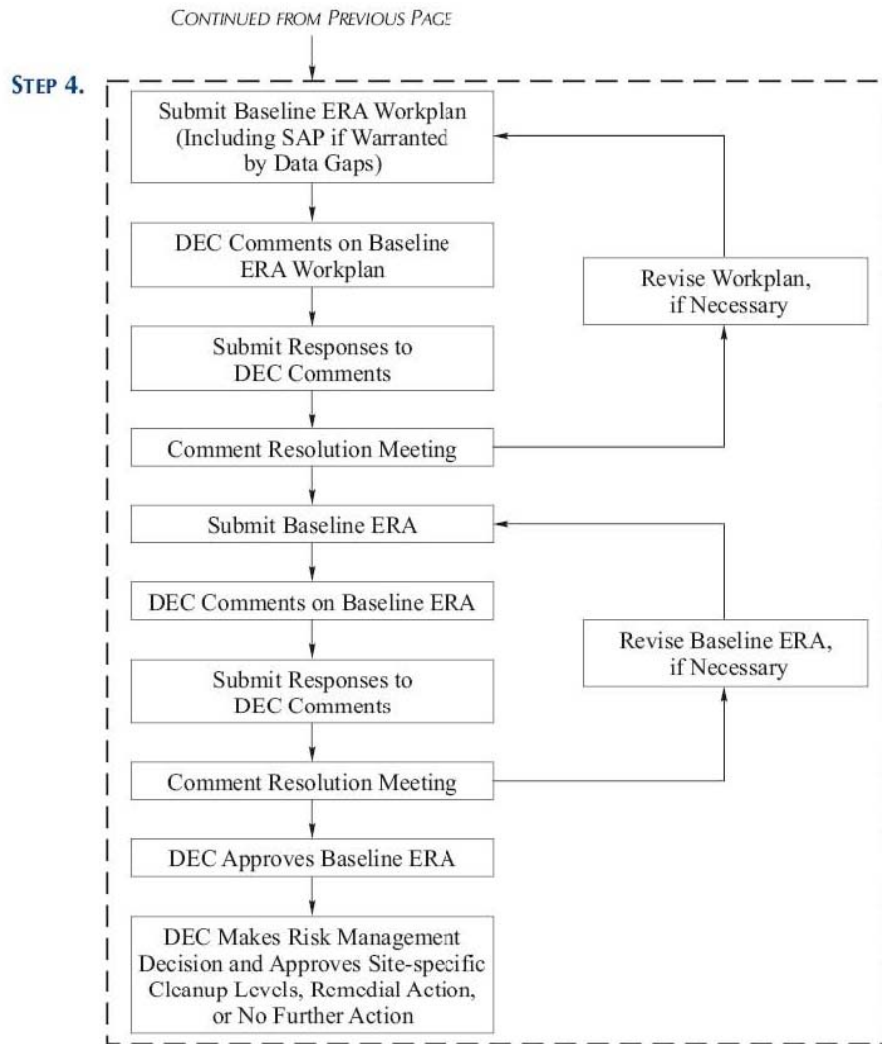
Ecological risk assessment is a process that evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors. Because Brownfield site characterization activities usually occur in areas that were previously developed, ecological risk assessments are rarely required.

The main steps of an ecological risk assessment are summarized in the following flowchart. For detailed description of each step please refer to the *DEC Risk Assessment Procedures Manual*, and to *DEC's Ecoscoping Guidance*, both of which are provided on the compact disk with this handbook.

**FIGURE 2**  
**ECOLOGICAL RISK ASSESSMENT PROCESS IN ALASKA\***



**FIGURE 2**  
**ECOLOGICAL RISK ASSESSMENT PROCESS IN ALASKA\* (CONT.)**



**Key:**

DEC Alaska Department of Environmental Conservation  
 ERA Ecological Risk Assessment  
 SAP Sampling and Analysis Plan

**Notes:**

- \* Some tasks may occur concurrently.
- \*\* DEC makes risk-management decision regarding need for remedial action.

## Phase I – Environmental Site Assessment

*The Phase I Environmental Site Assessment guideline is generally accepted to be ASTM International's E1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." This copyrighted standard is available at ASTM International's website for a charge of \$67 at: <http://www.astm.org/Standards/E1527.htm>*

*A copy of the first page of the standard is shown at the end of this section.*

### Phase I Definition and Purpose

The Phase I Environmental Site Assessment (ESA) is designed to evaluate the environmental conditions of a parcel of commercial real estate during the process of a property transaction. The Phase I ESA may be carried out by the interested party to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA<sup>1</sup> liability. The ASTM Standard (E1527-13) for conducting a Phase I ESA is generally accepted as constituting *all appropriate inquiry* into the previous ownership and uses of a property. Although the standard for carrying out a Phase I ESA is generally intended for liability protection in the context of real estate transactions, the standard is an excellent reference for environmental professionals to use in their own investigations of potential brownfield sites.

The Phase I ESA procedure is generally intended to be a systematic evaluation of a property to determine contamination or other conditions that can create liability, remedial obligations, development restrictions, and unanticipated costs and delays.

### Phase I Historical and Statutory Context

The original CERCLA (1980) defenses included the following:

- Act of God
- Act of War
- Act/Omission of a Third Party

New protections from CERCLA liability were introduced with the Superfund Amendments and Reauthorization Act (SARA) of 1986, which created the "Innocent Landowner Defense" in which the purchaser:

- Had no knowledge of contamination, and

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<sup>1</sup> The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC 9605), also known as the "Superfund Law."

- Had conducted “all appropriate inquiry” (or due diligence) into the property’s environmental condition.

In 2002, the Small Business Liability Relief and Brownfields Revitalization Act (also known as the “Brownfields Law”) required that EPA develop federal standards and practices for all appropriate inquiry. This led to the development of ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, which satisfies the All Appropriate Inquiry requirement for establishing the innocent landowner defense under CERCLA and SARA, and the Brownfields law.

ASTM E1527-13<sup>2</sup> outlines the process for evaluating a property for potential environmental concerns and assessing potential liability for any contamination present at the property. ASTM-equivalent Phase I ESAs are routinely required by lenders, insurers, buyers, and others, and they are required of parties receiving Brownfields assessment grants. This standard is also used by the Alaska Department of Environmental Conservation (DEC) term contractors in conducting DEC Brownfield Assessments. However, it is important to note that the Phase I ESA is not part of the State of Alaska’s regulatory process for contaminated site characterization and cleanup.

### **Why do a Phase I ESA?**

A Phase I ESA is typically done before a property transaction, but can also be used in other instances. The various reasons one might conduct a Phase I ESA are listed below:

- Required if seeking protection from CERCLA liability
- Lender or insurer requirements
- Brownfields funding requirements
- Seller evaluation of sale potential
- Protect buyer’s interests
- Avoid delays and restrictions (later on)
- Gain information that will help property owner comply with “continuing obligations” after purchase

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<sup>2</sup> See also: ASTM E1528-14, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process*.



Continuing obligations for someone purchasing a known contaminated property may include one or more of the following:

- Comply with land use restrictions;
- Do not impede effectiveness or integrity of institutional controls;
- Take “reasonable steps”;
- Provide cooperation, assistance and access; and
- Comply with CERCLA information requests and subpoenas.

### **Components of a Phase I ESA**

The key components of a Phase I ESA to satisfy the requirements of all appropriate inquiry, or due diligence, are summarized below:

- Phase I inquiry has to be done by an environmental professional;
- Interviews have to be conducted with current and past owners, operators, and occupants of the subject property;
- Reviews of historical sources, such as aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records;
- Search for environmental cleanup liens;
- Reviews of federal, state, tribal, and local government records, such as environmental databases and public health records<sup>3</sup>;
- Visual walk-through (site visit) inspection of the property;
- Specialized knowledge on the part of the entity having the Phase I done;
- Consideration of whether the property is underpriced because of contamination; and
- Commonly known or reasonably ascertainable information about the property, from sources such as neighbors, government officials, newspapers, websites, libraries, historical societies, or community organizations.

A copy of the first page of ASTM E1527-13 is shown on the next page. The full standard is available only from ASTM International at [www.astm.org](http://www.astm.org).

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<sup>3</sup> These are often ordered as a package from private data vendors; typically include properties within a specified “search radius” of the subject property.



Designation: E1527 - 13

## Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process<sup>1</sup>

This standard is issued under the fixed designation E1527; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

### 1. Scope

1.1 *Purpose*—The purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment*<sup>2</sup> of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and *petroleum products*. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the “*landowner liability protections*,” or “*LLPs*”); that is, the practice that constitutes *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B). (See Appendix X1 for an outline of CERCLA’s liability and defense provisions.) Controlled substances are not included within the scope of this standard. Persons conducting an *environmental site assessment* as part of an EPA Brownfields Assessment and Characterization Grant awarded under CERCLA 42 U.S.C. §9604(k)(2)(B) must include controlled substances as defined in the Controlled Substances Act (21 U.S.C. §802) within the scope of the assessment investigations to the extent directed in the terms and conditions of the specific grant or cooperative agreement. Additionally, an evaluation of *business environmental risk* associated with a parcel of *commercial real estate* may necessitate investigation beyond that identified in this practice (see Sections 1.3 and 1.3).

1.1.1 *Recognized Environmental Conditions*—In defining a standard of good commercial and customary practice for conducting an *environmental site assessment* of a parcel of

*property*, the goal of the processes established by this practice is to identify *recognized environmental conditions*. The term *recognized environmental conditions* means the presence or likely presence of any *hazardous substances* or *petroleum products* in, on, or at a *property*: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a *material threat* of a future release to the environment. *De minimis* conditions are not *recognized environmental conditions*.

1.1.2 *Petroleum Products*—*Petroleum products* are included within the scope of this practice because they are of concern with respect to many parcels of *commercial real estate* and current custom and usage is to include an inquiry into the presence of *petroleum products* when doing an *environmental site assessment* of *commercial real estate*. Inclusion of *petroleum products* within the scope of this practice is not based upon the applicability, if any, of CERCLA to *petroleum products*. (See X1.1.2.1 for discussion of *petroleum exclusion* to CERCLA liability.)

1.1.3 *CERCLA Requirements Other Than Appropriate Inquiries*—This practice does not address whether requirements in addition to *all appropriate inquiries* have been met in order to qualify for the *LLPs* (for example, the duties specified in 42 U.S.C. §9607(b)(3)(a) and (b) and cited in Appendix X1, including the continuing obligation not to impede the integrity and effectiveness of *activity and use limitations* (AULs), or the duty to take reasonable steps to prevent releases, or the duty to comply with legally required release reporting obligations).

1.1.4 *Other Federal, State, and Local Environmental Laws*—This practice does not address requirements of any state or local laws or of any federal laws other than the *all appropriate inquiries* provisions of the *LLPs*. Users are cautioned that federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this practice. Users should also be aware that there are likely to be other legal obligations with regard to *hazardous substances* or *petroleum products* discovered on the *property* that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for non-compliance.

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee E50 on Environmental Assessment, Risk Management and Corrective Action and is the direct responsibility of Subcommittee E50.02 on Real Estate Assessment and Management.

Current edition approved Nov. 1, 2013. Published November 2013. Originally approved in 1993. Last previous edition approved in 2005 as E1527 - 05. DOI: 10.1520/E1527-13.

<sup>2</sup> All definitions, descriptions of terms, and acronyms are defined in Section 3. Whenever terms defined in 3.2 are used in this practice, they are in *italics*.

## Site Characterization Process (Phase II)

*DEC has specific requirements associated with conducting site characterization on contaminated sites. The most important element is the requirement for having a site characterization workplan approved by your DEC project manager. Review and approval by DEC is only required for sites that have been identified as “contaminated sites” and sites that are involved in the cleanup process. For example, a Phase I environmental site assessment, or other investigation conducted to determine if a site is contaminated, may not require DEC review and approval. However, if you think you will need to use the information or data collected as part of an investigation as evidence to demonstrate that your site is not a contaminated site, you should involve DEC early in the planning process to ensure that you collect all the information necessary the first time, so that DEC can make an appropriate and defensible decision.*

### **What Do We Want to Know?**

As environmental program managers, one of the things we will eventually have to do is make a determination of whether a site is contaminated or not. We might ask ourselves the question, “How contaminated is it?” which is not always an easy question to answer. Depending on the type of information you are looking for, the way you go about seeking that answer may differ.

For example, if you ask the question, “Is this site contaminated?” are you asking if a release occurred, or if there is any detectable concentration of contamination above a certain level at the site? Are you interested in whether the groundwater is contaminated, or if the contamination can be cleaned up with available resources? Do you want to know everywhere it is contaminated or just whether there is contamination in a certain area that is impeding the use of the site? Do you want to know if people are at risk, or if this is going to cost you money? The process for answering some of these questions, as well as characterizing a site, can sometimes be confusing. Collecting various types of samples and analyzing them are significant elements of the characterization process; however, we need to be certain when taking samples, that we are actually taking the samples that we need.

### **Collecting the Right Samples**

More often than we care to admit, we find ourselves simply taking samples that do no more than verify something we already knew. This may happen when consultants are directed to determine “if a site is contaminated.” They may just go out, grab some samples from beneath the leaking tank, and tell you that it is contaminated. However, this doesn’t really give you the

information you truly want. There should always be a good reason for taking a sample.

For example, if you see that there is a leak from an aboveground storage tank, and the ground is obviously contaminated with diesel fuel, does taking a sample from the center of that spill tell you anything about the release that you didn't already know? *Maybe*, but for the most part, the sample will tell you that there is a lot of diesel fuel in that sample – something you knew before you spent several hundred dollars analyzing the sample. The results do not:

- represent the average or greatest concentration of contaminant (well, maybe it does, but you can't be certain);
- tell you how deep the contamination goes;
- tell you the lateral extent of the contamination;
- tell you the volume of contamination;
- tell you how much contaminated soil needs to be cleaned up.

It is possible that the sample not only didn't tell you much more than you already knew, it might also have added to the confusion. Sometimes the samples come back cleaner than you thought they should – now what do you do?

### **Asking the Right Questions**

You need to ask yourself some simple questions before you spend significant time and money on characterization and sampling:

1. What do I need or want to know?
2. What is the question(s) I am trying to answer?
3. What type of information or data will help me answer this question?
4. What is the proper way to collect these data?
5. Do I know where and how to collect representative data?
6. Will the resulting information be representative of the true nature of the problem?
7. What will I do with this information?

Answers to some of these questions can come in varying ways, and laboratory data, while often very necessary, is not always the way to answer your questions. (Personal knowledge of a release and an understanding of the background can sometimes be more useful than collecting a few samples.)

Analytical data also may not answer your question if you have collected the samples from the wrong area, didn't collect enough samples, didn't take the samples properly, or didn't analyze the samples with the proper tests. Working with your consultant and/or the DEC, will help you figure out the way to approach these questions. Sometimes you may not be able to afford to answer every question at once, so you step back and prioritize the way you want to approach your characterization. Sometimes you simply need to determine if the magnitude of the problem is within your capacity to clean it up right away – there may be a better way to focus your work with this objective than to simply send someone out to collect samples. These are the types of things to think about when you approach a site characterization plan. Whatever your decision might be, it is important to maintain communication with your DEC project manager.

### **DEC Site Characterization Requirements**

There is some assistance available. The DEC provides specific steps to address the *Site Characterization Process* at its website. It is a good place to start in getting a background to the entire *DEC Cleanup Process*, and how it relates to the regulatory requirements. This webpage may be found at:

<http://www.dec.state.ak.us/spar/csp/process.htm>

At the website each phase of the process is explained and appropriate guidance is hyperlinked on the side bar for easy access to the documents. Under the *Site Characterization* tab you will find a link to DEC's "Site Characterization Work Plan and Reporting Guidance for Investigation of Contaminated Sites."

We understand that site characterization is often an iterative process. Planning, investigating, and reporting may occur more than once. Work with your DEC project manager to determine what should be the proper format for a workplan and report that adapts to your site needs.

Remember that collecting samples and analytical data are important, but you need to be sure to collect the right samples, from the right places, for the right reasons. Really thinking through the site characterization program *before* you start helps to ensure the results of the investigation will answer some or all of your questions about a site. This planning is really the most important part of the site characterization process, and is *much* less expensive than actual field work!

### **18 AAC 75.335. Site Characterization**

This is the official location of the site characterization requirements in the Alaska regulations for contaminated site cleanup. (The latest version of the regulations is included on the disk with this handbook and is labeled 18 AAC 75 Article 3.) If the cleanup is the result of a regulated underground storage tank (UST) release (heating oil tanks are *not* considered regulated tanks and are cleaned up under the contaminated site regulations), then you would adhere to 18 AAC 75 regulations. USTs are addressed under 18 AAC 78; however, DEC is in the process of combining these regulations since the site characterization process is nearly identical.

The general requirements for a site characterization are listed below:

1. Develop a site characterization workplan and provide to DEC for approval – it must be prepared by a *qualified person*;
2. It must include pertinent information about the site, the problem, potential receptors, what you want to find out, and specifically what you intend to do. There are a lot of potential factors that need to be addressed in a workplan, but the level of effort necessary should be equal to the potential problem you are dealing with. DEC can help you determine what is necessary in your workplan, so work with them from the beginning;
3. After completing your site characterization, you will submit a copy to DEC for comment and approval. Depending on the objectives of this investigation, the report should: explain what the investigation involved; review all the analytical data and findings; provide adequate diagrams and pictures to help DEC understand what took place and where; state the magnitude of the problem that was identified; and ensure that the data are useable by evaluating the quality control requirements for the project.
4. Ultimately, the report should explain to the reader what the next steps in the project will include. DEC can help you determine these, particularly because there are often many ways to approach a cleanup that are directly dependent on the magnitude of the problem, whether there is an immediate concern or not, funding limitations, the availability of equipment, etc.

The regulatory section specific to *site characterization* is listed below for your reference and can be found in the e-copy of 18 AAC 75. The Article 3 regulations (consisting of 75.300 through 75.396) should be reviewed to better understand the context of the site characterization requirements, and the other requirements associated with environmental work. Cleanup levels, reporting requirements, and when to communicate with DEC are all covered in the regulations, but you may also find the cleanup process sheets a good place to narrow down a search for information.

*Excerpt from 18 AAC 75 Oil and Other Hazardous Substances Pollution Control (Regulations) Article 3 – for reference on Site Characterization Requirements:*

**18 AAC 75.335. Site characterization.** (a) Before proceeding with site cleanup under the site cleanup rules, a responsible person shall characterize the extent of hazardous substance contamination at the site.

(b) A responsible person shall submit a site characterization workplan to the department for approval before beginning site characterization work. The department will approve the site characterization workplan if the workplan is

- (1) prepared by a qualified person; and
- (2) designed, to the maximum extent practicable, to
  - (A) determine if a discharge or release of a hazardous substance has occurred;
  - (B) identify each hazardous substance at the site, including the concentration and extent of contamination; this information must be sufficient to determine cleanup options;
  - (C) identify site characteristics or conditions that could result in ongoing site contamination, including the potential for leaching of in-situ contamination and the presence of leaking barrels, drums, tanks, or other containers;
  - (D) evaluate the potential threat to human health, safety, and welfare, and to the environment from site contamination;
  - (E) identify any interim removal action necessary under 18 AAC 75.330;
  - (F) locate sources of known site contamination, including a description of potential releases into soil, sediment, groundwater, or surface water;
  - (G) evaluate the size of the contaminated area, including the concentrations and extent of any soil, sediment, groundwater, or surface water contamination;
  - (H) identify the vertical depth to groundwater and the horizontal distance to nearby wells, surface water, and water supply intakes;

(I) evaluate the potential for surface water run-off from the site and the potential for surface water or sediment contamination; and

(J) identify the soil type and determine if the soil is a continuing source for groundwater contamination.

(c) After completing site characterization work, the responsible person shall submit to the department for approval a site characterization report that

(1) is prepared by a qualified person;

(2) sets out the information obtained from activities performed in accordance with a site characterization workplan;

(3) sets out the results of sampling and analysis;

(4) demonstrates that the inspections, sampling, and analysis performed adequately characterize the extent of hazardous substance contamination; and

(5) proposes cleanup techniques for the site.

(d) The department will approve the report submitted under (c) of this section if the department determines that the work described in the report and the cleanup techniques proposed are protective of human health, safety, and welfare, and of the environment. The department will, as part of its approval, modify proposed cleanup techniques or require additional cleanup techniques for the site as the department determines to be necessary to protect human health, safety, and welfare, and the environment. (Eff. 1/22/99, Register 149; am 8/27/2000, Register 155)



## **7. Resources**

- 7.1. Brownfield Resources: Web Page Listings and Selected Pages**
- 7.2. DEC's Contaminated Sites Database Search**
- 7.3. Newsletters**
- 7.4. Training and Conference Information**
- 7.5. DEC's Contaminated Sites Web Map User's Guide**
- 7.6. DEC Contact Information: DEC Divisions**

## BROWNFIELD RESOURCES

For more information about Brownfields and Contaminated Sites, please visit the following websites:

Alaska Department of Environmental Conservation, Contaminated Sites Program:

<http://www.dec.alaska.gov/spar/csp/index.htm>

Alaska Department of Environmental Conservation, Reuse & Redevelopment:

<http://www.dec.alaska.gov/spar/csp/brownfields.htm>

The Cleanup Process (simplified pdf version):

[http://dec.alaska.gov/spar/csp/guidance/cleanup\\_process.pdf](http://dec.alaska.gov/spar/csp/guidance/cleanup_process.pdf)

The Cleanup Process, with details on related regulations and guidance:

<http://dec.alaska.gov/spar/csp/process.htm>

U.S. Environmental Protection Agency, Brownfield Home Page:

<http://www.epa.gov/brownfields>

U.S. Environmental Protection Agency, State & Tribal Response Program Grants:

<https://www.epa.gov/brownfields/brownfields-state-local-tribal-information>

Northeast Midwest Institute:

<http://www.nemw.org>

Technical Assistance to Brownfields Communities, Kansas State University:

<https://www.ksutab.org>

Institute for Tribal Environmental Professionals

<http://www4.nau.edu/itep/index.asp>

Center for Creative Land Recycling

<http://www.cclr.org>

Council of Development Finance Agencies

<http://www.cdfa.net/>

Center for Public Environmental Oversight

<http://www.cpeo.org/>

Sustainable City Network

<http://www.sustainablecitynetwork.com/>

## EPA Brownfield Websites

The EPA websites offer a substantial amount of information, from the national website to the Region 10 website. Here are some of the specific links:

National EPA Brownfield website:

<http://www.epa.gov/brownfields>

EPA Brownfields Grant Funding page:

<https://www.epa.gov/brownfields/types-brownfields-grant-funding>

EPA Brownfields Technical Assistance page:

<https://www.epa.gov/brownfields/brownfields-technical-assistance>

EPA Region 10 Brownfield page:

<https://www.epa.gov/brownfields/brownfields-and-land-revitalization-washington-idaho-oregon-and-alaska>

EPA CERCLA 128(a) Grant Funding Guidance page:

<https://www.epa.gov/brownfields/brownfields-comprehensive-environmental-response-compensation-and-liability-act-cercla>

EPA Region 10 Targeted Brownfields Assessment:

<https://www.epa.gov/brownfields/forms/targeted-brownfields-assessment-request-form-region-10>

EPA Brownfields Email Listserv page:

<https://www.epa.gov/brownfields/subscribe-brownfields-listserve>

EPA Brownfields Grant Funding page:

<https://www.epa.gov/brownfields/apply-brownfields-grant-funding>

## CLU-IN Website – Technology Innovation Program

This is by far one of the best free training websites there is. The Hazardous Waste Clean-Up Information (CLU-IN) Web Site provides information about innovative treatment and site characterization technologies to the hazardous waste remediation community. It describes programs, organizations, publications, and other tools for federal and state personnel, consulting engineers, technology developers and vendors, remediation contractors, researchers, community groups, and individual citizens.

The site was developed by the U.S. Environmental Protection Agency (EPA) but is intended as a forum for all waste remediation stakeholders.

This is one of the absolute best resources for articles and live training that you will find.

The **Clu-In** website: <http://www.clu-in.org/>

- Brownfield-specific information: <http://www.brownfieldstsc.org/>  
-under the tab “Issues”  
-then “Brownfields.”
- Subscribe for emails on the upcoming trainings. *Subscribe* at the following link:  
<http://www.clu-in.org/techdrct/>
- Not only are there live national and **FREE** training sessions online and through teleconference, there is also an extensive archive of hundreds of seminars online that you can download in Power Point and MP3, or even Podcast.

Check out what they have at:

<http://www.clu-in.org/training/>

## Interstate Technology & Regulatory Council

The DEC is currently a member of the ITRC, and participates on national workgroups that develop guidance and policies that affect Alaska and other states.

ITRC is a state-led coalition working together with industry and stakeholders to achieve regulatory acceptance of environmental technologies. ITRC consists of 50 states, the District of Columbia, multiple federal partners, industry participants, and other stakeholders, cooperating to break down barriers and reduce compliance costs, making it easier to use new technologies, and helping states maximize resources. ITRC brings together a diverse mix of environmental experts and stakeholders from both the public and private sectors to broaden and deepen technical knowledge and streamline the regulation of new environmental technologies.

ITRC accomplishes its mission in two ways: it develops guidance documents and training courses to meet the needs of both regulators and environmental consultants, and it works with state representatives to ensure that ITRC products and services have maximum impact among state environmental agencies and technology users. ITRC originated in 1995 from a previous initiative by the [Western Governors' Association](#) (WGA).

One of the more applicable references to many is the “Guidance Documents” page, located at:

<http://www.itrcweb.org/Guidance>

There is a specific location for brownfield-related issues, but this is limited in content. However, look through many of the other sections, from landfill strategies, to vapor intrusion, to ecological land use. There is a lot there!



## ITRC Documents - View, Download or Print For Free

ITRC publishes documents that broaden and deepen technical knowledge and expedite quality decision-making when faced with environmental challenges. ITRC has produced documents ranging from technical overviews and case studies of innovative remediation technologies to technical and regulatory guidance documents for applying cleanup technologies. ITRC documents are written and reviewed by teams of environmental professionals, including state and federal environmental regulators, federal agency representatives, industry experts, community stakeholders, and academia. With private and public sector members from all 50 states, the District of Columbia, and Puerto Rico, ITRC documents truly provide a national perspective.

To view, download or print a document, use one of these options: ([Click here](#) for an alphabetical list of all ITRC documents)

- Browse and select a topic from the list below.
- Select a topic from the drop-down menu below.
- Enter a keyword (e.g., Wetlands) in the Search box in the website header.

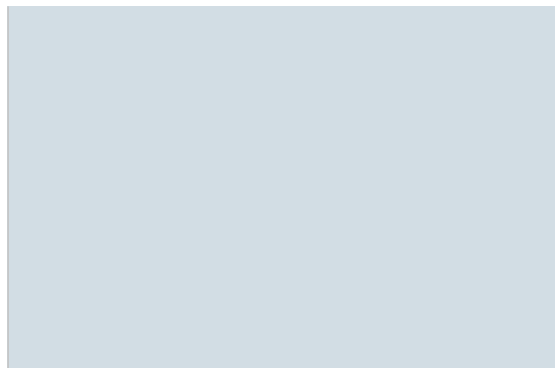
-- Select a Topic --

- > **Biofuels**
- > **Bioremediation**
- > **Brownfields**
- > **Dense Non-Aqueous Phase Liquids (DNAPLs)**
- > **Direct-Push Wells**
- > **Ecological Land Reuse**
- > **Enhanced Attenuation of Chlorinated Organics**
- > **Environmental Molecular Diagnostics**
- > **Green and Sustainable Remediation**
- > **Groundwater Statistics and Monitoring Compliance**
- > **Incremental Sampling Methodology (ISM)**
- > **In Situ Chemical Oxidation**
- > **Landfill Technologies**
- > **Light Non-Aqueous Phase Liquids (LNAPLs)**
- > **Mass Flux and Mass Discharge**
- > **Metals**
- > **Mining Waste**
- > **MTBE and Other Fuel Oxygenates**
- > **Munitions Response (e.g., UXO)**
- > **Natural Attenuation**
- > **Passive Samplers**
- > **Perchlorate**
- > **Performance Based Environmental Management**
- > **Permeable Reactive Barriers**
- > **Phytotechnologies**
- > **Plasma Technologies**
- > **Policy**
- > **Radionuclides**
- > **Remediation Process Optimization**

### Newest Documents [\(Click here for a full list\)](#)

- [Groundwater Statistics and Monitoring Compliance Web-based Guidance Document \(GSMC-1\)](#) December 2013
- [Biochemical Reactors for Mining-Influenced Water \(BCR-1\)](#) November 2013
- [Environmental Molecular Diagnostics \(EMD-2\)](#) April 2013
- [Geophysical Classification for Munitions Response Fact Sheets \(GCMR-1\)](#) October 2012
- [Incremental Sampling Methodology \(ISM-1\)](#) Feb 2012
- [Remediation Risk Management \(RRM-2\)](#) Jan 2012
- [Environmental Molecular Diagnostics \(EMD-1\)](#) Nov 2011
- [Green and Sustainable Remediation: A Practical Framework \(GSR-2\)](#) Nov 2011
- [Integrated DNAPL Site Strategy \(IDSS-1\)](#) Nov 2011
- [Biofuels: Release Prevention, Environmental Behavior, and Remediation \(Biofuels-1\)](#) Sept 2011
- [Development of Performance Specifications for Solidification/Stabilization \(S/S-1\)](#) Jul 2011
- [Permeable Reactive Barrier: Technology Update \(PRB-5\)](#) Jun 2011
- [Green and Sustainable Remediation: State of the Science and Practice \(GSR-1\)](#) May 2011
- [Project Risk Management for Site Remediation \(RRM-1\)](#) Mar 2011
- [Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites \(CS-1\)](#) Feb 2011
- [Mining Waste Treatment Technology Selection \(MW-1\)](#) Aug 2010

- > Remediation Risk Management
- > Risk Assessment
- > Sediments
- > Site Characterization and Monitoring
- > Small Arms Firing Ranges
- > Solidification/Stabilization
- > Thermal Desorption
- > Triad Approach
- > Vapor Intrusion
- > Verification
- > Wetlands



#### Outreach

General Feedback  
Submit a Success Story  
Outreach Materials

#### Program Areas

Board of Advisors  
Industry Affiliates Program  
Public/Tribal Stakeholders  
State Engagement (POCs)  
Team Resources  
Training

#### Contacts

Board of Advisors  
Management  
State Points of Contact  
Teams  
Training

#### For Members Only

Travel Reimbursement  
Member Search

#### Links

Federal Agencies  
Associations

Interstate Technology & Regulatory Council (ITRC) | 50 F Street, NW, Suite 350 | Washington, DC 20001  
Phone: 202-266-4932 | Fax: 202-266-4937 | Front Desk: 202-266-4920 | Email: [itrc@itrcweb.org](mailto:itrc@itrcweb.org)

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# DEC's Contaminated Sites Database Search

Anyone can search the DEC records online at:

[http://www.dec.state.ak.us/spar/csp/db\\_search.htm](http://www.dec.state.ak.us/spar/csp/db_search.htm)

You are able to download all records into an Excel format, which makes organizing and searching the records a bit easier.

The screenshot shows a web browser window displaying the Alaska Department of Environmental Conservation (DEC) website. The browser's address bar shows the URL [http://dec.alaska.gov/spar/csp/db\\_search.htm](http://dec.alaska.gov/spar/csp/db_search.htm). The website header includes the State of Alaska logo and navigation links for myAlaska, My Government, Resident, Business in Alaska, Visiting Alaska, and State Employees. The main content area is titled "Spill Prevention and Response" and features a search bar. Below the search bar, there are two main sections: "SPAR PROGRAMS" and "CONTAMINATED SITES PROGRAM DATABASE".

**SPAR PROGRAMS**

- Contaminated Sites
- Industry Preparedness
- Prevention and Emergency Response
- Response Fund Administration

**CONTAMINATED SITES PROGRAM DATABASE**

The State of Alaska is required by law to recover expenses incurred during cleanup, including staff oversight time and legal expenses. Current and former landowners, as well as any future owner of said property for which cleanup costs are associated, may be liable for state cleanup expenditures, including expenses that predate the sale of property.

For closed sites, the search results will show details of closure including any conditions or restrictions placed upon closure.

**Note:** If you are a responsible party that is required to periodically report to DEC, you may submit documents electronically to [dec.icunit@alaska.gov](mailto:dec.icunit@alaska.gov).

**Contaminated Sites (CS) Database**

- ▶ [Search Contaminated Sites Database](#)
- ▶ [Map of Contaminated Sites](#)

**Download All Records in Excel Format**

- ▶ [Download all Contaminated Sites Records](#)
- ▶ [Download all Leaking UST Records](#)

**OTHER DATABASES**

**Underground Storage Tank (UST) Database**

The Contaminated Sites Program database includes information about *Leaking* Underground Storage Tanks (LUST). For information about regular Underground Storage Tanks (UST), check out the UST Database.

- ▶ [UST Database](#)

At the bottom of the page, there are links for [Glossary/Acronyms](#), [Site Map](#), [Commissioner](#), [Public Notices](#), and [External Links](#). The footer includes the Department of Environmental Conservation address: 410 Willoughby Ave., Ste. 302, P.O. Box 111800, Juneau, AK 99811-1800. The page is copyrighted by the State of Alaska in 2011.

## Newsletters

There are many free and subscription newsgroups and newsletters available on the Internet that contain interesting and useful information about brownfields and other relevant topics. You can sign-up for most of these to be delivered directly to your inbox as they become available.

DEC's *Brownfield Bulletin* – Free

<http://dec.alaska.gov/spar/csp/brownfields-archive.htm>

Rural Community Assistance Corporation's *Network News* – Free

<http://www.rcac.org/category/network-news/>

Center for Public Environmental Oversight's *Brownfield Internet Forum* – Free

<http://www.cpeo.org/sub.html>

*Brownfield Renewal* - Subscription

<http://www.brownfieldrenewal.com/>

The National Brownfield Association's *Dirt E-Talk* - Free

<http://nbaprev.davincigraphics.com/Newsletter.aspx>

Rural Alaska Community Action Program, Inc.'s *Village Voices Newsletter*- Free

<http://www.alaskavillagevoices.org/>

International City/County Management Association's *Leadership Matters* and *Smartbrief* – Free

[http://icma.org/en/icma/newsroom/icma\\_e-newsletters](http://icma.org/en/icma/newsroom/icma_e-newsletters)

Smart Growth America's *National Brownfields Coalition* – Free

<http://www.smartgrowthamerica.org/brownfields>

USDA Rural Development - Alaska

<http://www.rd.usda.gov/ak>

Zender Environmental's *Alaska Solid Waste Newsletters* – Free

<http://www.zendergroup.org/news.html>

## Training and Conference Information

This is not an exhaustive list of trainings and conference information, but it describes some of the training (including online training) and conferences that are available.

### **Alaska State & Tribal Response Program (STRP) Brownfields Workshop:**

DEC offers an annual workshop to Alaskan STRP grantees. This workshop gives participants an opportunity to learn about a variety of brownfield-related topics through presentations and group activities, network with other brownfield professionals from around the state, and share success stories. Consult with DEC to see when the next workshop is scheduled.

### **Region 10 Annual State & Tribal Response Program Meeting with EPA:**

EPA holds an annual 2-day meeting in their Seattle offices for all STRP Grant Managers and staff from Region 10. This is an important meeting to discuss project activities and go over grant requirements. While the intention is that this meeting be held annually, it has been sporadically offered due to funding constraints. Consult with EPA for more information about the current scheduling and agenda.

### **Alaska Forum on the Environment**

<http://www.akforum.com/>

This is the largest and most comprehensive event in Alaska that focuses on climate change, emergency response, environmental regulations, fish and wildlife populations, rural issues, energy, military issues, business issues, solid waste, contaminants, contaminated site cleanup, mining and other topics pertaining to the environment.



### **Alaska Tribal Conference on Environmental Management:**

<http://www.atcemak.com/>

This conference explores different aspects of rural Alaska Natives' and American Indians' environmental concerns and solutions in areas such as air quality, climate change, solid waste management, water quality and food sustainability.

**Western Brownfield Workshop:**

This workshop is open to EPA Brownfields grantees, parties interested in applying for grants, federal and state partners, and consultants invited by grantees from Regions 8, 9, and 10, as well as Guam, the Trust Territories, American Samoa, and the Northern Mariana Islands (all part of Region 9). It is an excellent opportunity to meet with other grant managers (new and experienced) and discuss issues of brownfield importance. This workshop occurs sporadically, due to funding fluctuations. The Western Brownfields Wire page has newsletters for regions 8, 9, and 10:

<https://www.epa.gov/brownfields/western-brownfields-wire-wbwire>

**National Brownfield Conference:**

<http://www.brownfieldsconference.org/en/home>

The National Brownfields Conference provides a forum for training, research and technical assistance to communities to facilitate the inventory, assessment, remediation, and redevelopment of brownfields sites, community involvement, and the green and sustainable revitalization of brownfields and contaminated sites. This is a large venue, with more information than you can cover in a month!

**Tribal Lands and Environmental Forum**

<http://www4.nau.edu/itep/conferences/>

This conference is a joint effort between the Institute for Tribal Environmental Professionals, The National Tribal Waste and Response Assistance Program Steering Committee, and USEPA's Office of Solid Waste and Emergency Response. This gathering is for environmental professionals from tribes, EPA, State/Local/Federal agencies, and other interested parties to meet, share knowledge and learn from one another about how to improve management and protection of tribal lands and human health. Opportunities for discussion of budget and policy issues as well as technical updates and information are usually available throughout the conference. Additionally, training sessions, tribe-to-tribe sharing, educational outreach projects, and many more sessions enhance both learning and networking among attendees.

**Clu-in:**

<http://clu-in.org/>

This website provides information about innovated site characterization and cleanup technologies and is highly recommended. The website includes a forum, internet seminars, and reference information most of which have been recorded for review at any time. All are free!

**Online 'ACRES' Training:**

<https://www.epa.gov/brownfields/brownfields-online-acres-training>

Online training for EPA's *ACRES* users is provided on a regular basis via WebEx and conference call. There is no need to pre-register for training; however we recommend that you test your computer to ensure that it will work correctly prior to the training. For those new to *ACRES*, it is a way EPA tracks on site information that is funded by their grant monies. EPA will provide direction on the type of information necessary for inclusion in *ACRES*.

## Alaska Department of Environmental Conservation – Spill Prevention and Response Contaminated Sites Map

### *How to use ADEC's Contaminated Sites map for Alaska*

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This map was created by the State of Alaska Department of Environmental Conservation - Contaminated Sites Program to assist the public in identifying known Contaminated Sites in the State of Alaska. This map displays contaminated sites throughout the state of Alaska. It has the capability to provide basic information about each site and a link to the more detailed cleanup chronology report for a selected site on the DEC Contaminated Sites Database.

This tutorial will provide basic instruction on how to navigate to a location and to identify a contaminated site if present. The imagery available to visually identify locations is improving all the time and is quite detailed for some areas. The locations of the symbols for the known contaminated sites are located using the best available information as provided to the DEC but may not be in the exact location of the actual contamination. If you need a better understanding of the history and cleanup status at a site, that can be learned by examining the hard copy files and reports at the DEC offices for each region of the state.

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To access the Contaminated Sites map, go to the main DEC Contaminated Sites website:

<http://dec.alaska.gov/spar/csp/>

State of Alaska > DEC > SPAR > CSP

**WELCOME**

Program Manager:  
Jennifer Roberts (907) 269-7553

The Contaminated Sites Program protects human health and the environment by managing the cleanup of contaminated soil and groundwater in Alaska.

**REGULATIONS AND TECHNICAL GUIDANCE**

- ▶ Current Regulations and Statutes, and Proposed Regulation Changes
- ▶ Technical Guidance
- ▶ Method Three Calculator

**RESEARCH**

- ▶ Contaminated Sites Database
- ▶ Map of Contaminated Sites
- ▶ Contaminated Site Summaries

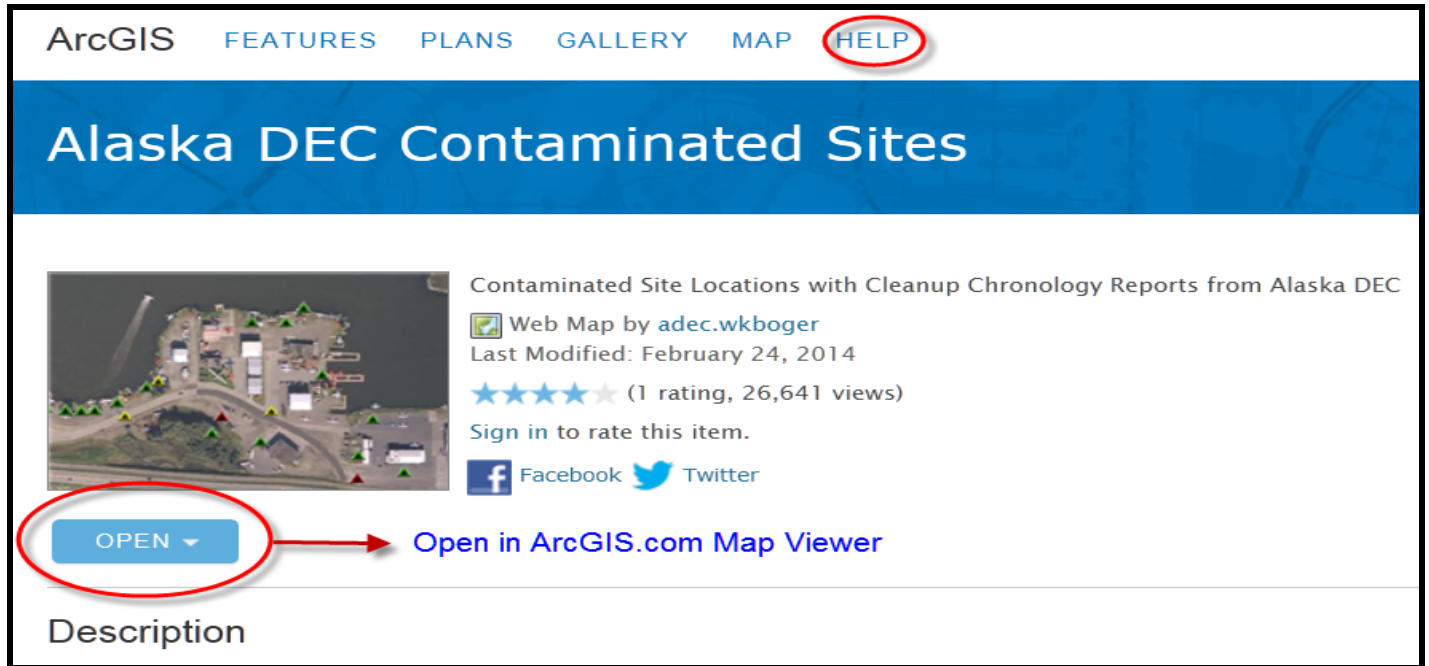
**OF INTEREST**

On the right-hand side of the page, click on “Map of Contaminated Sites”

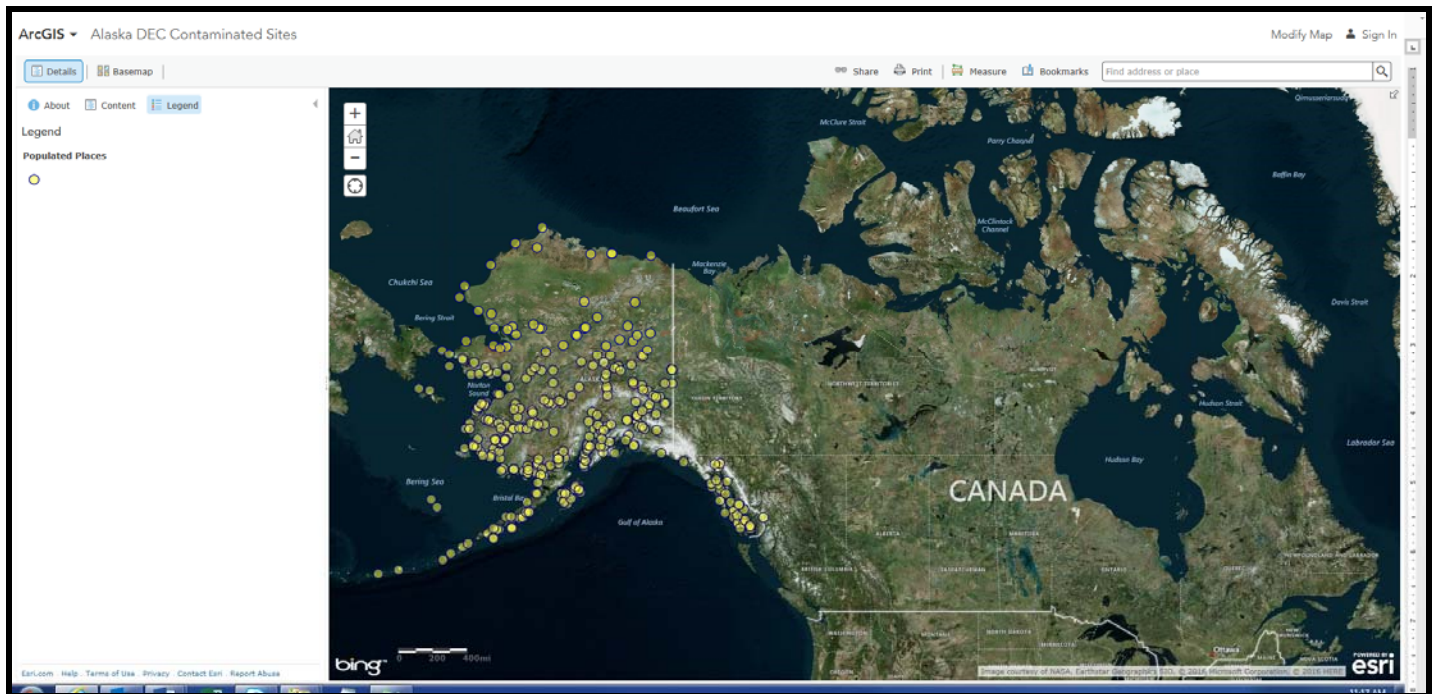


This will open the ArcGIS Alaska DEC Contaminated Sites Map website:

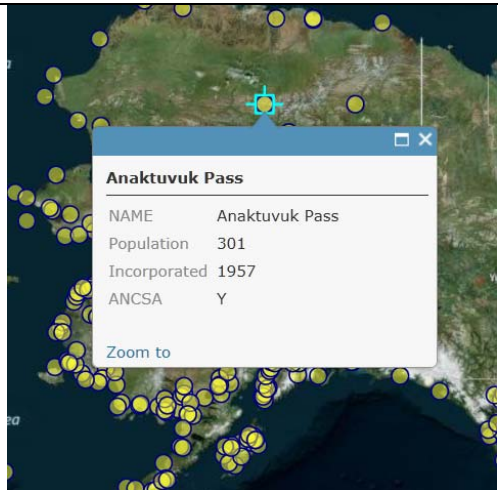
Click on the blue “OPEN” button, select the “Open in map viewer” option.



The Map will open to this view:

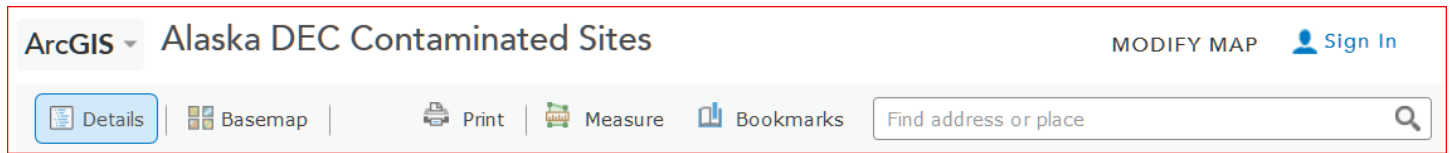


To find a location, whether it is a village, town, or just a Latitude and Longitude, you can use the search box on the top menu of the map. The major towns are listed under Bookmarks for easy location.

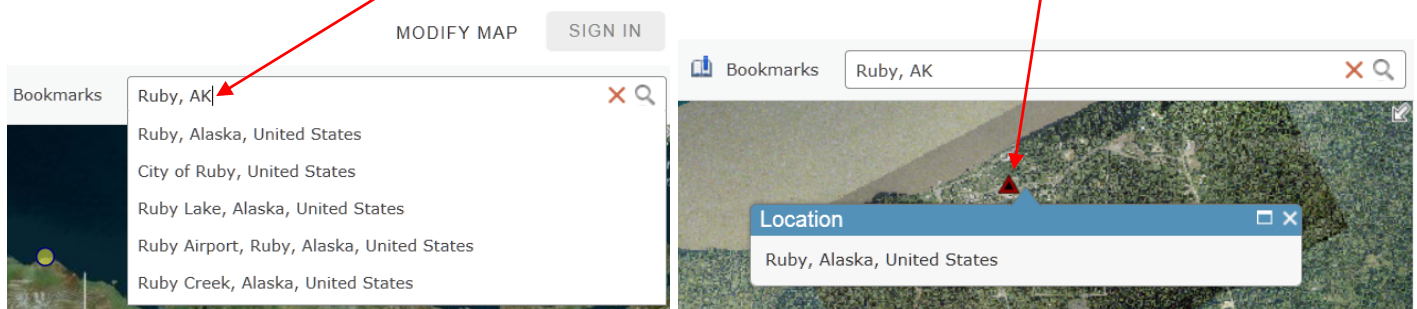


The **Populated Places** layer is for assisting in locating a particular village or part of the state. You can just click on any yellow dot to get a pop up about the village located at that spot.

As you zoom in on the map to find a location the Populated Places layer will disappear and the Contaminated Sites layer Icons will appear.

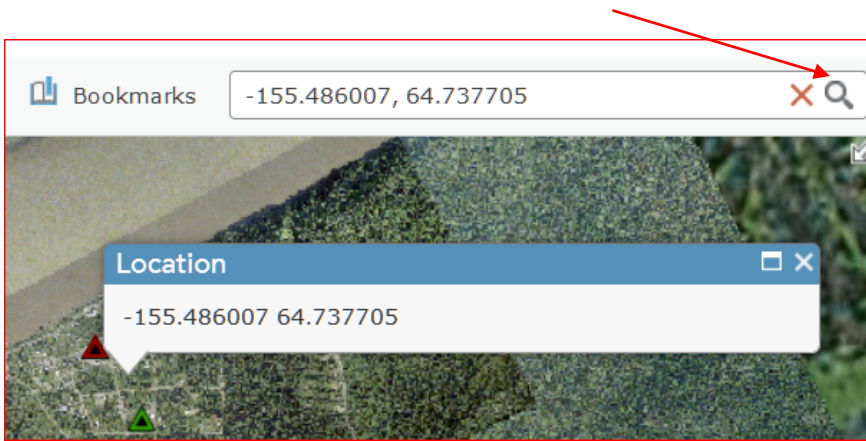


To go to a town you type the name along with a comma and the state. If the name is recognized, the menu will display suggestions in a dropdown. Hit return and the map will zoom to that location.

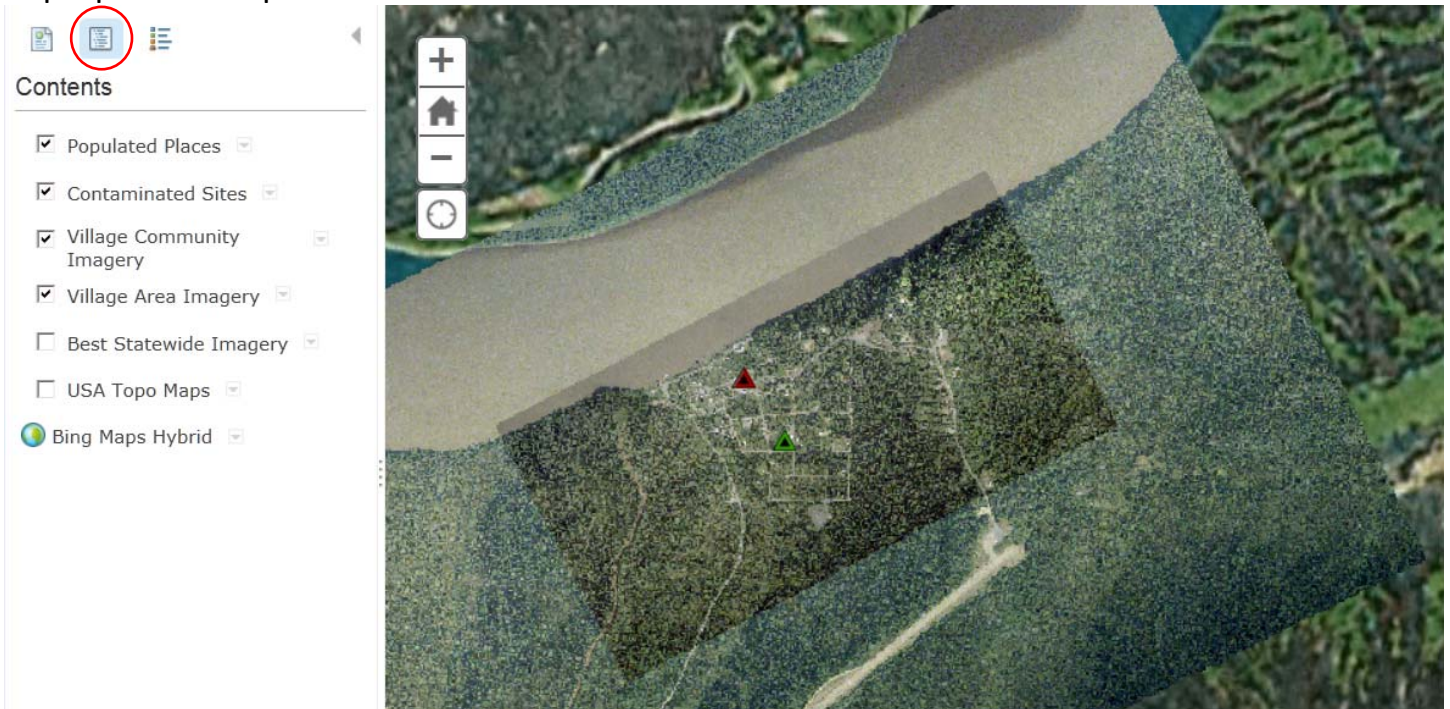


To use Longitude and Latitude you must enter them in the X,Y conventional order.  
-155.486007, 64.737705 Longitude (X) first then a comma and a space followed by Latitude (Y). Use decimal degrees. Hit return or the little magnifying glass on the bar to go to that location.





Once you have located your area of interest you can choose the best imagery for that location. Select the Contents icon in the center of the left hand menu. This map has three imagery sources plus the Topo Maps layer showing and there are more available under the Basemap Pop Up on the top menu bar.



The Village Community Imagery is from the Department of Community and Regional Affairs (DCRA) and is the most detailed imagery from the State but is not available for every village. More is added every year however and soon every village will be covered. That is the small rectangle in the center of this map view.

The Village Area Imagery is also from DCRA and covers an area around the village that contains any village infrastructure. This layer is at a slightly lower resolution than the Community imagery. It is the larger rectangle showing on this map view.

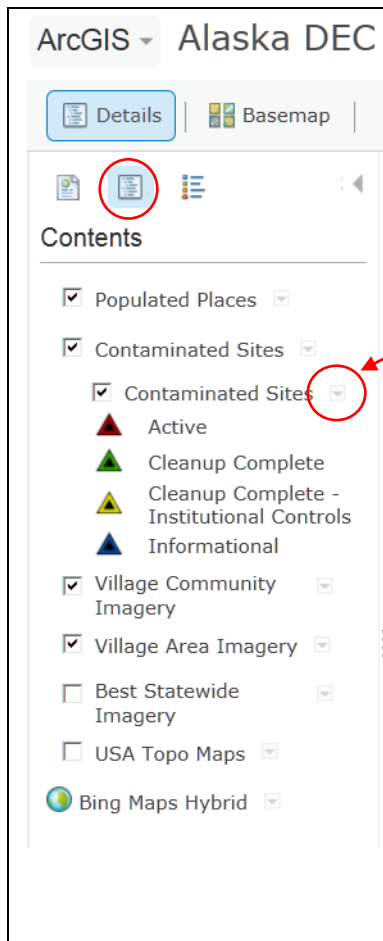
The Best Statewide Imagery is also known as the Best Data Layer (BDL) and is from the State of Alaska. It covers the state and has various levels of resolution and detail depending on the location.

The Bing Maps Hybrid layer is a licensed copy of the commercial BING imagery. It is a global imagery set. If you switch away from this layer to another Basemap you will have to reload the map to get the BING layer back.

The map displays layers in the order they show in the Contents menu. You have to turn off (uncheck) a layer to see what is below it.

---

To navigate on the map the typical actions apply for moving and zooming. Use the scroll wheel on the mouse or the plus and minus tabs on the map to zoom in and out. You can also hold down the shift key and draw a box around an area and then release the mouse to zoom to that specific area. To move the map around just hold down the left button on the mouse and drag the image. Release the mouse button when you have the view you want.

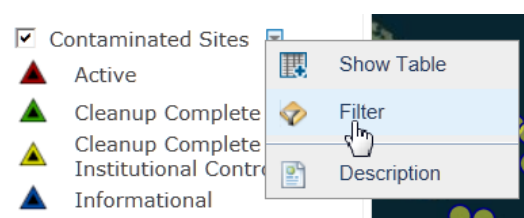


To see all of the layers available on the map select the Contents icon which is in the center of the three available in this menu window.

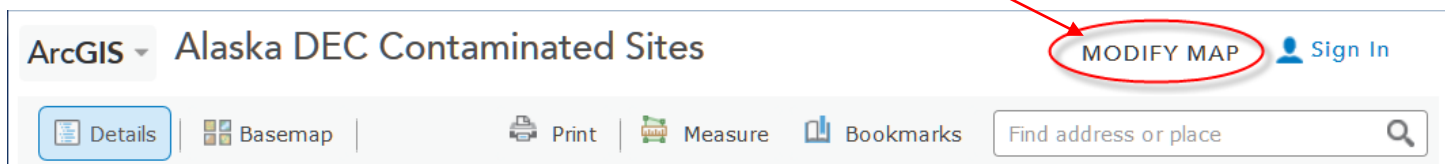
To see further information you can click on the name of a layer and get a drop down if it is available. All of the menus in the ArcGIS.com interface are contextual meaning that what you see depends on selections in other places on the map.

To see what is available click the small “carrot” down arrow next to each layer name.

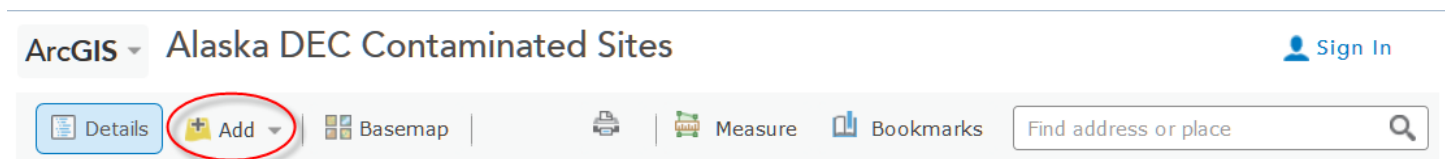
You can change the transparency of a layer, change the symbol in a layer, zoom to that layer, or show a table of the data in that layer and filter it for a specific selection or location.



To see more of the available tools select Modify Map in the upper right corner.

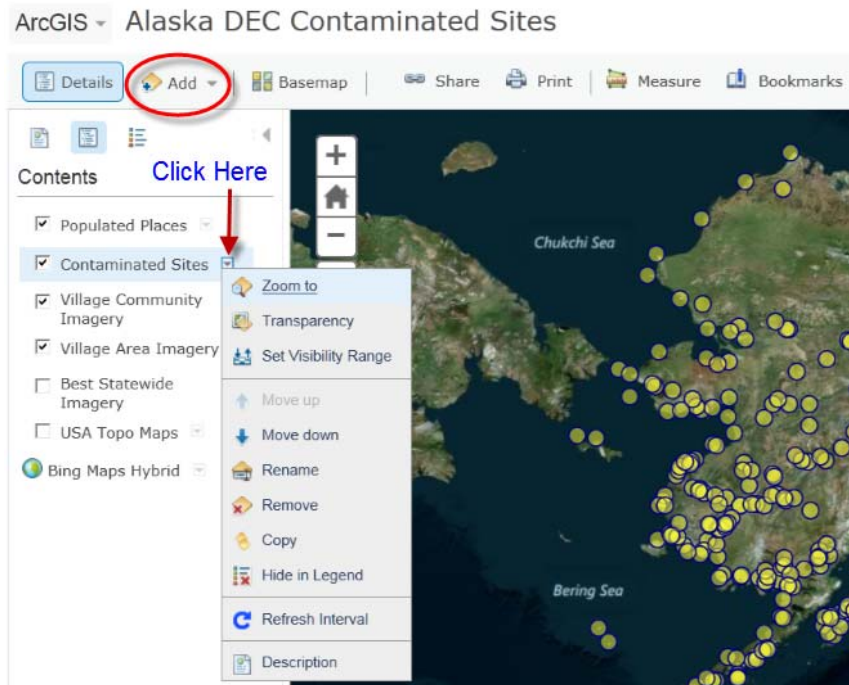


The menu will change. The Modify Map button will disappear and the Add (data) button will appear.

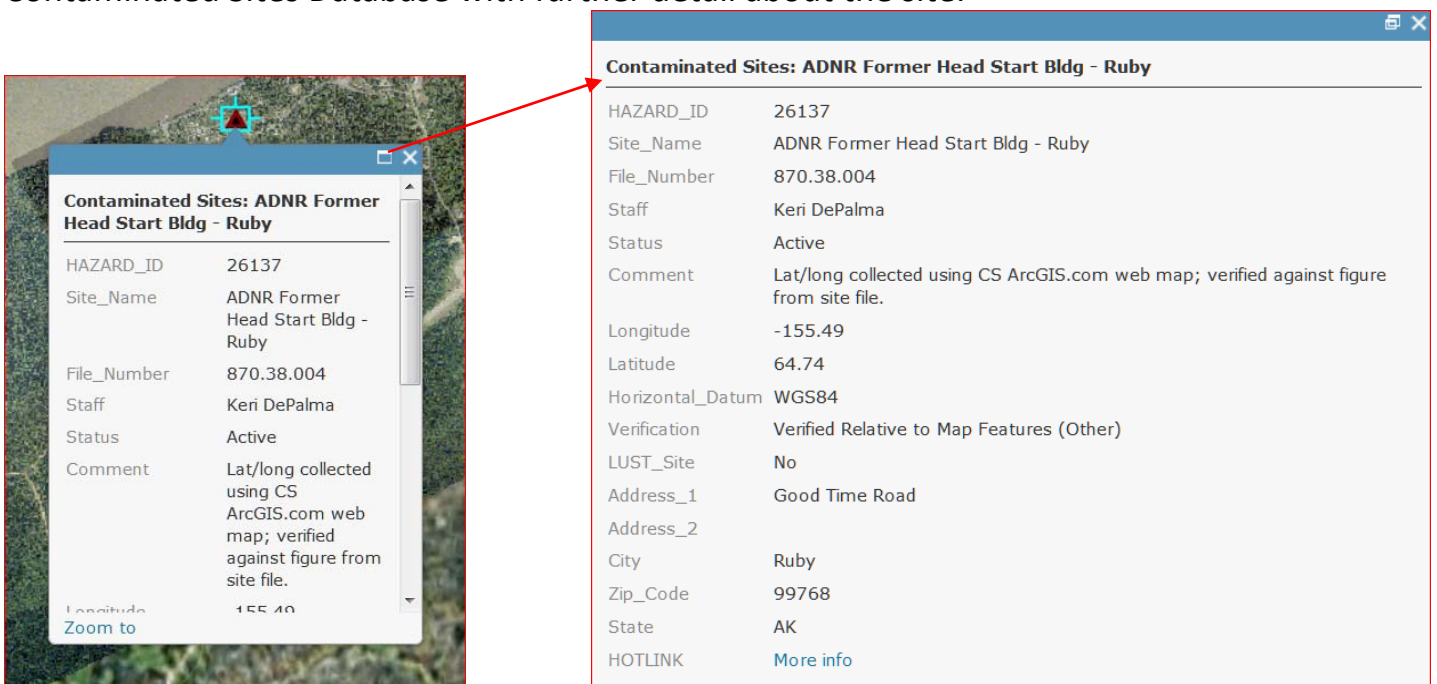


This will allow you to do more with the map and to create your own view if you need to. This is also where you can add more layers of data from other sources if you want.

Click the little “carrot” next to the layer to see the new drop down menu as shown below.



Once you are zoomed in on an area that you are interested in you can get information related to any visible Contaminated Site by just clicking on the triangle shaped colored icon for the site. You will get a Pop-up box with all the information and a link at the bottom to the Contaminated Sites Database with further detail about the site.





The Pop-Up window can be expanded to see everything by clicking the small window icon at the top.

To find a specific site you will need to use the tools in the drop down menu next to the Contaminated Sites Name in the Contents menu. You need to select the drop down on the layer indicated below.

ArcGIS Alaska DEC Contaminated Sites

MODIFY MAP SIGN IN

Details Basemap Share Print Measure Bookmarks -155.486007, 64.737705

Contents

- Populated Places
- Contaminated Sites
- Contaminated Sites (selected)
- Village Community Imagery
- Village Area Imagery
- Best Statewide Imagery
- USA Topo Maps
- Bing Maps Hybrid

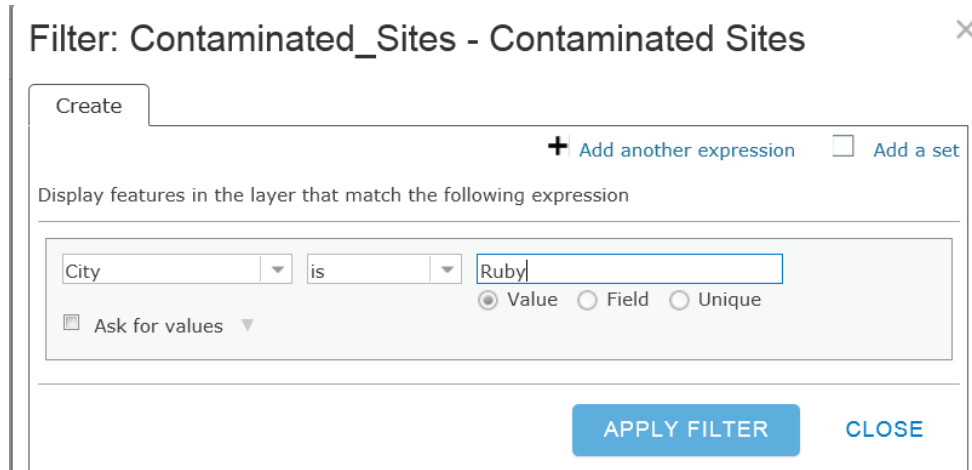
Map Tools: +, Home, -, Refresh

Map Data: © 2012 DigitalGlobe, Earthstar Geographics SIO, © AND, © 2013 Nokia, POWERED BY esri

| HAZARD_ID | Site_Name                          | File_Number | Staff               | Status           | Comment | Longitude | Latitude | Hori |
|-----------|------------------------------------|-------------|---------------------|------------------|---------|-----------|----------|------|
| 24        | UAF Ballaine Lake Landfill         | 105.23.002  | Kalu Kalu           | Cleanup Complete | null    | -147.82   | 64.87    | null |
| 25        | Fort Greely P. 46 Bldg 601 Freight | 141.38.038  | Emily Youcha        | Cleanup Complete | null    | -145.72   | 63.97    | null |
| 26        | Duncan Canal White Alice Site      | 1521.38.012 | Anne Marie Palmieri | Active           | null    | -133.17   | 56.75    | null |

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You will select “Show Table” to get the view above. The selection “Hide Table” is showing because the Table has already been selected. There are currently 7,260 sites in the Database. You want to narrow that down by using the Filter also known as a query. Select “Filter” from the drop down.



In this case we picked “City” from the drop down menu but you can pick any field that you have some information about. We used “is” as the modifier here as we know the name of the town, there are other selections available depending on your need. Type in the name and select Apply Filter to limit the view of this layer to just those locations with Ruby as the City Name in the Database. We get three results.

ArcGIS - Alaska DEC Contaminated Sites MODIFY MAP [SIGN IN](#)

Details | Basemap | Share | Print | Measure | Bookmarks | -155.486007, 64.737705

**Contents**

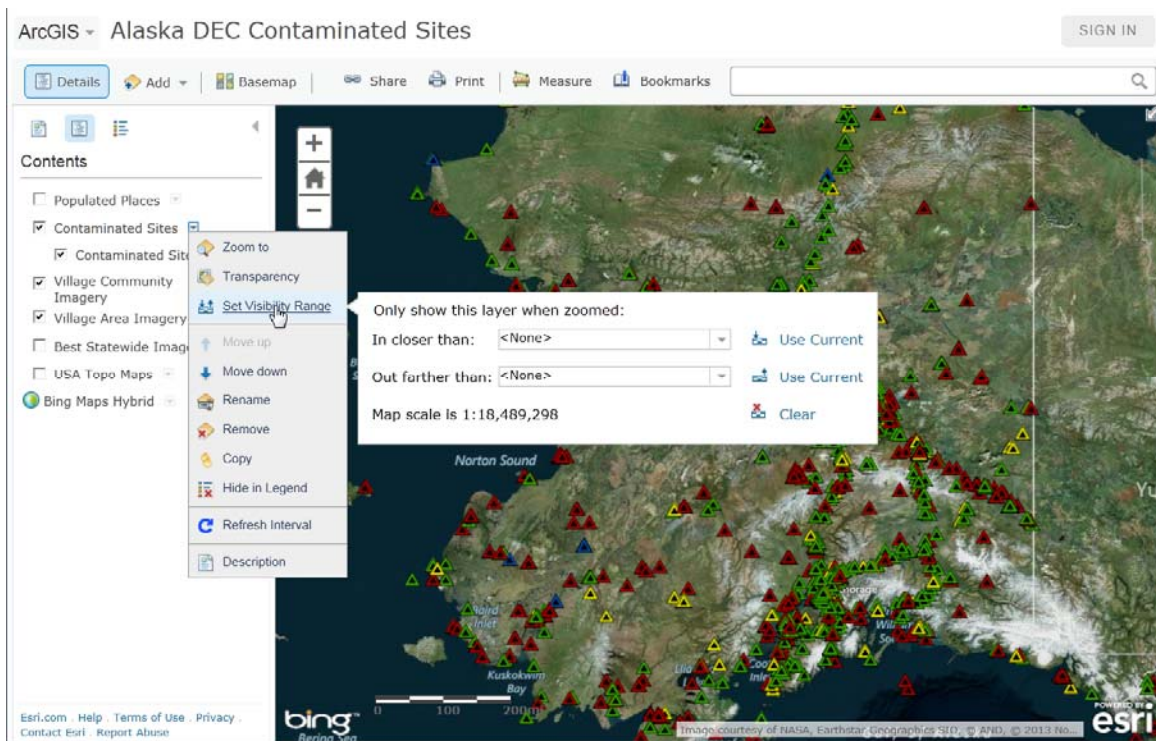
- Populated Places
- Contaminated Sites
  - Contaminated Sites
- Village Community Imagery
- Village Area Imagery
- Best Statewide Imagery
- USA Topo Maps
- Bing Maps Hybrid

| Contaminated Sites (3 features, 2 selected) |                                |             |                 |                  |   |           |          | Table Options |
|---|--------------------------------|-------------|-----------------|------------------|---|-----------|----------|---------------|
| HAZARD_ID                                   | Site_Name                      | File_Number | Staff           | Status           | Comment   | Longitude | Latitude | Hori          |
| 3,807                                       | City of Ruby Teen Center Spill | 870.38.001  | IC Unit         | Cleanup Complete | null  | -155.48   | 64.74    | Unkr          |
| 25,914                                      | BLM Melozi Hot Springs         | 870.38.003  | Melody Debenham | Active           | Lat/long collected using DEC ArcMap GIS; location estimated | -154.69   | 65.13    | WGS           |

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By having the Table showing you can select the site you want to go by clicking on that row to make it blue and then selecting Center on Selection from the Table Options drop down menu to be able to then zoom in on that site. Notice also that the selected site is highlighted with a Blue Box. If you query for a site without the Table showing you will see that site on the statewide map and can zoom to it but first you would need to make the Contaminated Sites layer visible at the State level.

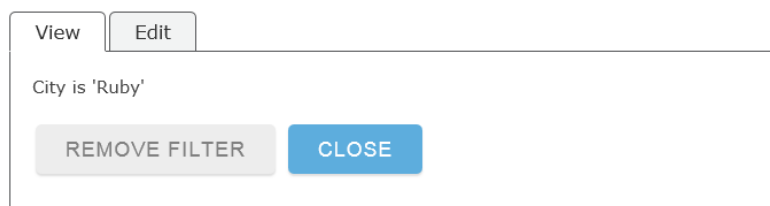


You do this by selecting Modify Map to make Set Visibility Range available. Then change the In closer than: number to <None>. You can see in the above view that the Triangle icons are now visible and after the filter is applied you can see in the view below that just the Ruby icons are visible and you can zoom in.



To get all the icons to show again you need to go back into the filter and remove it. You could also select the Edit tab and change things in the filter for another query.

Filter: Contaminated\_Sites - Contaminated Sites



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For more details on how to use the tools and features of the ArcGIS.com viewer you can refer to the HELP files and tutorials available. Go to the Help Pages at:

<http://doc.arcgis.com/en/arcgis-online/>

To save a view or location for reference at a later time you will have to create your own account on ArcGIS.com to have a place to store the saved map. Many of the tutorial instructions assume you have an account. There are two types of accounts; Public (free) and Organization (subscription costs). The Sign In page as seen below provides a place to create and register an ArcGIS Online Public Account. These public accounts are limited for storage



size and access to some tools but provide all you need to maintain a basic local web map that is visible to the public.

<https://www.arcgis.com/home/signin.html>

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# Contact Information

|   |                                  |
|---|----------------------------------|
| <b>Main Office Numbers</b>  |                                  |
| Anchorage   | (907) 269-7500                   |
| Fairbanks   | (907) 451-2100                   |
| Juneau  | (907) 465-5066                   |
| <b><u>Office of the Commissioner</u></b>                                |                                  |
| Press Contact   | (907) 465-5066<br>(907) 465-5009 |
| <b><u>Division of Air Quality</u></b>                                   |                                  |
| <a href="#">Air Non-Point and Mobile Sources Program</a>                | (907) 465-5105                   |
| <a href="#">Air Permits Program</a>                                     |                                  |
| <a href="#">Air Monitoring &amp; Quality Assurance Program</a>          |                                  |
| <b><u>Division of Environmental Health</u></b>                          |                                  |
| <a href="#">Drinking Water Program</a>                                  | (907) 269-7644                   |
| <a href="#">Food Safety &amp; Sanitation Program</a>                    |                                  |
| <a href="#">Laboratory Services</a>                                     |                                  |
| <a href="#">Pesticide Control Program</a>                               | (800) 478-2577                   |
| <a href="#">Solid Waste Program</a>                                     | (907) 269-7802                   |
| <a href="#">State Veterinarian</a>                                      |                                  |
| <b><u>Division of Administrative Services</u></b>                       |                                  |
| <a href="#">Administrative Services</a>                                 | (907) 465-5010                   |
| <b><u>Division of Spill Prevention &amp; Response</u></b>               |                                  |
| <a href="#">Contaminated Sites Program</a>                              | (907) 465-5250                   |
| <a href="#">Prevention, Preparedness &amp; Response Program Program</a> |                                  |
| <a href="#">Response Fund Administration</a>                            |                                  |
| <b><u>Division of Water</u></b>   |                                  |
| <a href="#">Facility Programs</a>                                       | (907) 465-5180                   |
| <a href="#">Municipal Grants &amp; Loans</a>                            |                                  |
| <a href="#">Operations Assistance</a>                                   |                                  |
| <a href="#">Remote Maintenance Worker</a>                               |                                  |
| <a href="#">Operator Training and Certification</a>                     |                                  |
| <a href="#">Village Safe Water</a>                                      |                                  |
| <a href="#">Water Quality Programs</a>                                  |                                  |
| <a href="#">Compliance</a>  |                                  |

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1-87-SAFE-FOOD

**Office of the Commissioner** - Larry Hartig, Commissioner

Department of Environmental Conservation

410 Willoughby Ave., Ste. 303

P.O. Box 111800

Juneau, AK 99811-1800

Telephone:(907) 465-5066

Fax Number:(907) 465-5070

Email: [dec.commissioner@alaska.gov](mailto:dec.commissioner@alaska.gov)

**Division of Air Quality** - Denise Koch, Director

Juneau (907) 465-5105

Toll Free (866)241-2805

Division of Air Quality

Department of Environmental Conservation

410 Willoughby Ave, Ste. 303

PO Box 111800

Juneau, AK 99801

Telephone: (907) 465-5105

Fax Number: (907) 465-5129

Email: [Denise.Koch@alaska.gov](mailto:Denise.Koch@alaska.gov)

**Air Non-Point and Mobile Sources Program** - Cindy Heil, Program Manager

Anchorage (907) 269-7577; Fairbanks (907) 451-2167; Juneau (907) 465-5105

Air Non-Point and Mobile Sources

Division of Air Quality

Department of Environmental Conservation

619 E. Ship Creek, Ste. 249

Anchorage, AK 99501

Telephone: (907) 269-7577

Fax Number: (907) 269-7508

Email: [Cindy.Heil@alaska.gov](mailto:Cindy.Heil@alaska.gov)

[Air Permits Program](#) - John Kuterbach, Program Manager

Anchorage (907) 269-7577; Fairbanks (907) 451-2139; Juneau (907) 465-5100

Air Permits Program  
Division of Air Quality  
Department of Environmental Conservation  
410 Willoughby Ave., Ste. 303  
P.O. Box 111800  
Juneau, AK 99811-1800  
Telephone: (907) 465-5100  
Fax Number: (907) 465-5129  
Email: [John.Kuterbach@alaska.gov](mailto:John.Kuterbach@alaska.gov)

[Air Monitoring & Quality Assurance Program](#) - Barbara Trost, Program Manager

Anchorage (907) 269-6249

Ambient Air Monitoring  
Division of Air Quality  
Department of Environmental Conservation  
619 E. Ship Creek, Ste. 249  
Anchorage, AK 99501  
Telephone: (907) 269-6249  
Fax Number: (907) 269-4589  
Email: [Barbara.Trost@alaska.gov](mailto:Barbara.Trost@alaska.gov)

[Division of Environmental Health](#) - Christina Carpenter, Acting Director

Anchorage (907) 269-7644

[Drinking Water](#)

Anchorage (907) 269-7656 | Soldotna (907) 262-5210

Fairbanks (907) 451-2108 | Wasilla (907) 376-1850

Juneau (907) 465-5350

[Food Safety & Sanitation](#)

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Anchorage (907) 269-7501 | Dutch Harbor (907) 581-4632

Fairbanks (907) 451-2120 | Juneau (907) 465-5163

## Alaska State & Tribal Response Program - Brownfield Handbook

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Kenai/Soldotna (907) 262-5210 | Ketchikan (907) 225-6200

Kodiak (907) 486-3350 | Wasilla (907) 376-1854

Sitka (907) 747-8614 | Valdez (907) 835-8012

### Laboratory Services

5251 Dr. Martin Luther King Jr. Ave  
Anchorage, Alaska 99507

Seafood and Food Safety Laboratory (907) 375-8200

Contaminated Sites Lab Approval (907) 375-8210

Drinking Water Certification - chemistry (907) 375-8210

Drinking Water Certification - microbiology (907) 375-8209

### Pesticide Control

1700 E. Bogard Rd.  
Bldg. B, Suite 103  
Wasilla, AK 99654  
(907) 376-1870 FAX (907) 376-2382  
Toll Free In-state 1-800-478-2577

### Solid Waste

555 Cordova St  
Anchorage, AK 99501  
(907) 269-7802

### State Veterinarian

Dr. Bob Gerlach  
5251 Dr. Martin Luther King Jr. Ave  
Anchorage, Alaska 99507  
Phone: 907-375-8214 Fax: 907-929-7335

### Kenai Office

43335 Kalifornsky Beach Rd. - Suite 11  
Soldotna, AK 99669-9792  
(907) 262-5210/FAX (907) 262-2294

**Kodiak Office**

P.O. Box 515  
Kodiak, AK 99615-0515  
(907) 486-3350/FAX (907) 486-5032  
(Physical Location: 316 Mission Road, Kodiak, AK)

**Sitka Office**

901 Halibut Point Road - Suite #3  
Sitka, AK 99835-7106  
(907) 747-8614 / FAX(907) 747-7419

**Division of Administrative Services - Tom Cherian, Director**

(907) 465-5010

**Administrative Services**

Budget (907) 465-5235  
Financial Services (907) 465-5273  
Procurement (907) 269-0291  
Environmental Crimes Unit (907) 451-2148  
Information Technology Services (907) 465-5060

**Division of Spill Prevention and Response - Kristin Ryan, Director**

(907) 269-3094

Division of Spill Prevention and Response  
Department of Environmental Conservation  
410 Willoughby Ave., Ste. 303  
P.O. Box 111800  
Juneau, AK 99811-1800  
Telephone: (907) 269-3094  
Fax Number: (907) 269-7654  
Email: [Kristin.Ryan@alaska.gov](mailto:Kristin.Ryan@alaska.gov)

**Contaminated Sites Program - Jennifer Roberts, Program Manager**

Juneau (907) 465-5390; Anchorage (907) 269-7503; Fairbanks (907) 451-2143

Contaminated Sites Program  
Division of Spill Prevention and Response  
Department of Environmental Conservation  
555 Cordova St.  
Anchorage, AK 99501  
Telephone: (907) 269-7553

Fax Number: (907) 269-7649

Email: [Jennifer.Roberts@alaska.gov](mailto:Jennifer.Roberts@alaska.gov)

CS Program Organization

|                      |                |
|----------------------|----------------|
| State/Private Sites  | (907) 269-7503 |
| Federal Facilities   | (907) 269-7503 |
| Anchorage staff      | (907) 269-7503 |
| Fairbanks staff      | (907) 451-2143 |
| Juneau staff         | (907) 465-5390 |
| Kenai/Soldotna staff | (907) 262-5210 |

[Prevention, Preparedness & Response Program](#) - Gary Folley, Program Manager

Juneau (907) 465-5340; Anchorage (907) 269-3063; Fairbanks (907) 451-2121;  
Soldotna (907) 262-5210

Prevention, Preparedness & Response Program  
Division of Spill Prevention and Response  
Department of Environmental Conservation  
43335 Kalifornsky Beach Road, Suite 11  
Soldotna, AK 99669  
Telephone: (907) 262-3411  
Fax Number: (907) 262-2294  
Email: [Gary.Folley@alaska.gov](mailto:Gary.Folley@alaska.gov)

Preparedness and Response Section Manager– Graham Wood  
Division of Spill Prevention and Response  
Department of Environmental Conservation  
555 Cordova St.  
Anchorage, AK 99501-2617  
Telephone: (907) 269-7680  
Fax Number: (907) 269-7687  
Email: [Graham.Wood@alaska.gov](mailto:Graham.Wood@alaska.gov)

Prevention and Technical Section Manager – Sarah Moore  
Division of Spill Prevention and Response  
Department of Environmental Conservation  
410 Willoughby Ave., Ste. 303

P.O. Box 111800  
Juneau, AK 99811-1800  
Telephone: (907) 465-5239  
Fax Number: (907) 465-5245  
Email: [Sarah.Moore@alaska.gov](mailto:Sarah.Moore@alaska.gov)

Interagency Coordination Section Manager – Steve Russell  
Division of Spill Prevention and Response  
Department of Environmental Conservation  
43335 Kalifornsky Beach RD STE 11  
Soldotna, AK 99669  
Telephone: (907) 262-3401  
Fax Number: (907) 262-2294  
Email: [Steven.Russell@alaska.gov](mailto:Steven.Russell@alaska.gov)

[Response Fund Administration](#) - Jeff Hoover, Admin Operations Manager

Juneau (907) 465-5270

Response Fund Administration  
Division of Spill Prevention and Response  
Department of Environmental Conservation  
410 Willoughby Ave., Ste. 303  
P.O. Box 111800  
Juneau, AK 99811-1800  
Telephone: (907) 465-5270  
Fax Number: (907) 465-5262  
Email: [jeff.hoover@alaska.gov](mailto:jeff.hoover@alaska.gov)

[Division of Water](#) - Michelle Hale, Director

(907) 465-5135

[Facility Programs](#)

Bill Griffith, Program Manager  
555 Cordova Street  
Anchorage, AK 99501-2617  
Telephone: (907) 269-7601  
Fax Number: (907) 269-7509  
Email: [Bill.Griffith@alaska.gov](mailto:Bill.Griffith@alaska.gov)

[Municipal Grants & Loans](#)

Mike Lewis, Program Manager  
555 Cordova St  
Anchorage, AK 99501-2617  
Telephone: (907) 269-7616



Fax Number: (907) 269-7509

Email: [Mike.Lewis@alaska.gov](mailto:Mike.Lewis@alaska.gov)

**Operations Assistance**

**- Remote Maintenance Worker Program**

**- Operator Training and Certification Program**

Carrie Bohan, Program Manager

410 Willoughby Ave., Ste. 303

P.O. Box 111800

Juneau, AK 99811-1800

Telephone: (907) 465-5143

Fax Number: (907) 465-5177

Email: [Carrie.Bohan@alaska.gov](mailto:Carrie.Bohan@alaska.gov)

**Village Safe Water Program**

Greg Magee, Program Manager

555 Cordova Street

Anchorage, AK 99501-2617

Telephone: (907) 269-7613

Fax Number: (907) 269-7650

Email: [Greg.Magee@alaska.gov](mailto:Greg.Magee@alaska.gov)

**Water Quality Programs**

Sharon Morgan, Program Manager

410 Willoughby Avenue, Suite 303

Juneau AK 99811-1800

Telephone: 907-465-5530

Fax: 907-465-5517

Email: [sharon.morgan@alaska.gov](mailto:sharon.morgan@alaska.gov)

**Compliance**

Mike Solter, Program Manager

555 Cordova Street

Anchorage, AK 99501

Telephone: (907) 269-6281

Fax Number: (907) 334-2415

Email: [michael.solter@alaska.gov](mailto:michael.solter@alaska.gov)

**Cruise Ship**

410 Willoughby Ave

Ste. 303

Juneau, AK 99801-1800

Telephone: (907) 465-5138

Fax Number: (907) 465-5177

**Wastewater Discharge Authorization**

Wade Strickland, Program Manager  
555 Cordova Street  
Anchorage, AK 99501  
Telephone: (907) 269-7580  
Fax Number: (907) 334-2415  
Email: [wade.strickland@alaska.gov](mailto:wade.strickland@alaska.gov)

### **Water Quality Standards Assessment & Restoration**

Nancy Sonafrank, Program Manager  
610 University Dr.  
Fairbanks, AK 99709  
Telephone: (907)451-2726  
Fax Number: (907) 451-2187  
Email: [Nancy.Sonafrank@alaska.gov](mailto:Nancy.Sonafrank@alaska.gov)

### **TOLL-FREE and EMERGENCY numbers**

#### Telephone Accessibility Information

**Oil and hazardous substances spills:** During normal business hours, contact the nearest DEC Area Response Team: [DEC's Spill Prevention and Response Division](#)

- Anchorage: (907) 269-3063
- Fairbanks: (907) 451-2121
- Juneau: (907) 465-5340
- After hours: 800-478-9300

Underground storage tank problems:

[Industry Preparedness Program, in the Spill Prevention and Response Division \(Terminals and Tank Farms Section, Underground Storage Tanks\)](#) – (907) 269-3055, After Hours (800) 478-9300

EPA in Alaska 1-800-781-0983 - Anchorage (907) 271-5083

Questions regarding safe food handling practices  
1-87-SAFE-FOOD - Anchorage 907-334-2560



## Offices

### **Anchorage Office:**

555 Cordova St - 5th Floor  
 Anchorage, AK 99501  
 Fax: 907-269-7510

### **Fairbanks Office:**

610 University Ave  
 Fairbanks, AK 99709-3643  
 Fax: 907-451-2188

### **Juneau Office:**

410 Willoughby, Suite 303  
 Juneau, AK 99801  
 Fax: 907-465-5362

## Staff Contacts

| <b>South Central and Western Facilities:</b>   |   |
|--|---|
| Program Coordinator<br>General Information Contact<br>Rebecca Colvin<br>907-269-7802<br><a href="mailto:rebecca.colvin@alaska.gov">rebecca.colvin@alaska.gov</a> | Industrial Waste Specialist<br>Oil and Gas Facilities Statewide<br>Reese Thieme<br>907-269-7590<br><a href="mailto:reese.thieme@alaska.gov">reese.thieme@alaska.gov</a> |
| Rural Landfill Specialist<br>Stephen Price<br>907-269-7467<br><a href="mailto:stephen.price@alaska.gov">stephen.price@alaska.gov</a>                             | Rural Landfill Specialist<br>Vacant<br>907-269-7642   |
| Municipal Landfill Specialist<br>Kaylie Holland<br>907-269-7626<br><a href="mailto:kaylie.holland@alaska.gov">kaylie.holland@alaska.gov</a>                      | Risk Management Specialist<br>Marty Brewer<br>907-269-1099<br><a href="mailto:marlena.brewer@alaska.gov">marlena.brewer@alaska.gov</a>                                  |
| Regional Manager<br>Lori Aldrich<br>907-269-7622<br><a href="mailto:lori.aldrich@alaska.gov">lori.aldrich@alaska.gov</a>   |   |

| <b>Southeast Facilities:</b>  |   |
|---|---|
| <p>Municipal Landfill Specialist<br/>Sandra Woods<br/>907-465-5318<br/><a href="mailto:sandra.woods@alaska.gov">sandra.woods@alaska.gov</a></p>                                 |   |
| <b>Interior and Northern Facilities:</b>  |   |
| <p>Industrial Waste Specialist<br/>Municipal and Military Landfills<br/>Neil Lehner<br/>907-451-2134<br/><a href="mailto:neil.lehner@alaska.gov">neil.lehner@alaska.gov</a></p> | <p>Rural Landfill Specialist<br/>Trisha Bower<br/>907-451-2174<br/><a href="mailto:trisha.bower@alaska.gov">trisha.bower@alaska.gov</a></p> |
| <p>Rural Landfill Specialist<br/>Sarah Durand<br/>907-451-2761<br/><a href="mailto:sarah.durand@alaska.gov">sarah.durand@alaska.gov</a></p>                                     | <p>Regional Manager<br/>Doug Buteyn<br/>907-451-2135<br/><a href="mailto:doug.buteyn@alaska.gov">doug.buteyn@alaska.gov</a></p>             |

## **8. Community Gardens**

- 8.1. Community Gardens as a Redevelopment Option**
- 8.2. “So You Want to Start a Community Garden in Alaska?” –  
Presentation by Heidi Rader of the University of Alaska  
Fairbanks Cooperative Extension Service**
- 8.3. Brownfields and Urban Agriculture: Interim Guidance for Safe  
Gardening Practices (EPA 2011)**

## COMMUNITY GARDENS AS A REDEVELOPMENT OPTION

Community gardens are bursting forth from the soil of reclaimed brownfields across the nation. People are embracing community gardens as redevelopment options for brownfields for many reasons, such as:

- The startup costs are minimal – soil and seeds can get be enough get things rolling.
- Gardening locally improves food security. Alaska relies heavily on food imported from the contiguous 48 states, which leaves Alaskans vulnerable when the supply chain is disrupted.
- Raised beds installed on top of an impermeable liner could be one way to safely reuse a brownfield with contaminated soil still in place.
- An improved sense of community created by people coming together to do something useful.
- Increased fruit and vegetable consumption by children involved in gardening.
- Abundant grant opportunities available to help people secure equipment, seeds, greenhouses and more.



# So you want to start a: Community Garden in Alaska?

Sec 8.2 So You Want to Start a Community Garden in Alaska



by Heidi Rader

UAF Cooperative Extension Service  
& Tanana Chiefs Conference





# What is a Community Garden?



“A common garden where members share the labor and rewards.”

“Any piece of land gardened by a group of individuals,” according to the American Community Garden Association, “We . . . have a broad definition of what a community garden entails. It can be urban, suburban, or rural. It can grow flowers, vegetables or community. It can be one community plot, or can be many individual plots. It can be at a school, hospital, or in a neighborhood. It can also be a series of plots dedicated to "urban agriculture" where the produce is grown for a market.”





# Why start a Community Garden?

**IMPROVE NUTRITION AND FITNESS**

*Create Something Beautiful*

Provide positive work experiences and activities for youth

Relieve stress    Grow fresh food

Save \$\$\$\$ on Groceries **IT'S FUN!**

PROMOTE HEALTHY COMMUNITIES & FAMILIES

# Did you know that. . .

Families that participated in community garden efforts ate 89% more fresh veggies than usual<sup>1</sup>

70 to 80% consumed at least five servings of fruit and vegetables daily

74% of gardeners preserved produce (freezing, pickling, drying)

95% shared produce with neighbors, emergency food service providers, and others

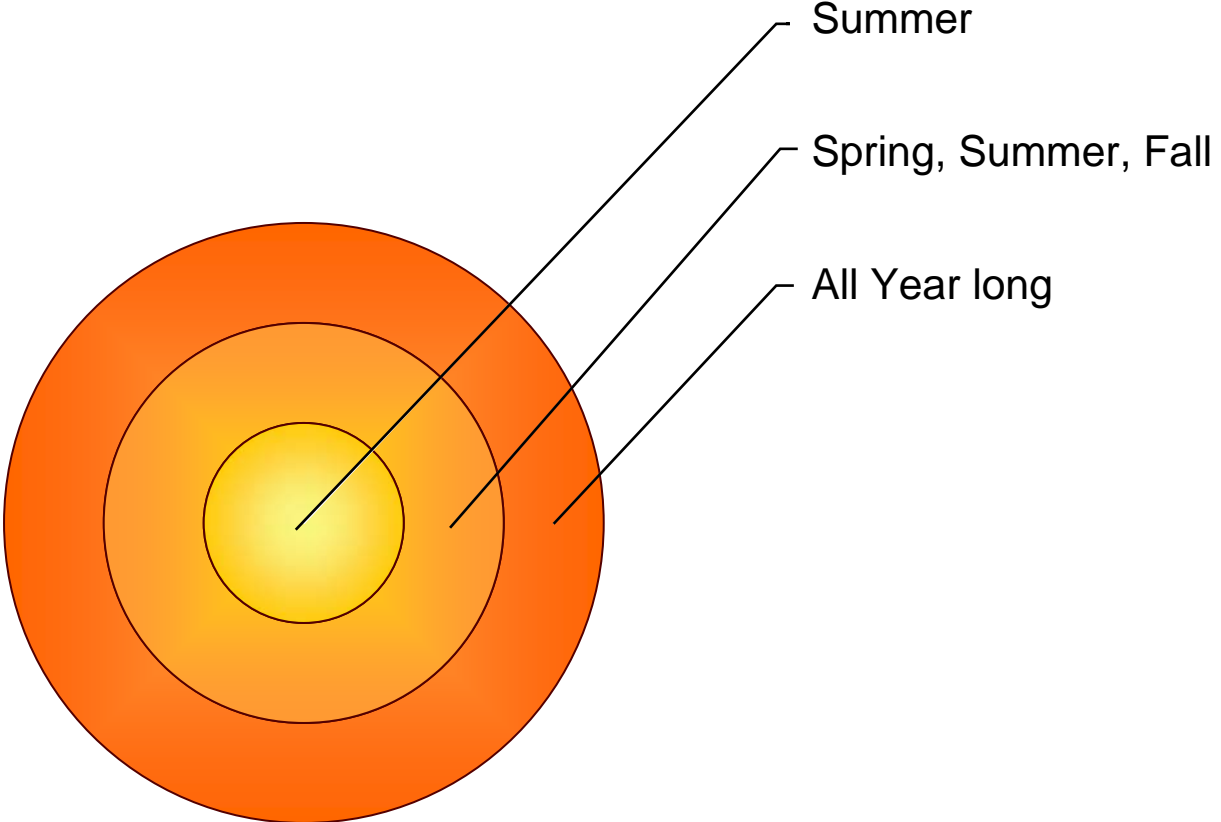
<sup>1</sup>Sullivan, A.F. 1999. Community Gardening in Rural Regions: Enhancing Food Security and Nutrition. Center on Hunger and Poverty Tufts University

# Types of Community Gardens

1. Community Garden composed of individual plots.
2. Youth/School gardens
3. Entrepreneurial/job training market gardens
4. Communal Plot
5. Food/Pantry gardens
6. Therapy Gardens
7. Demonstration Gardens

# Set Reasonable Goals







# What can a 10 x 10 ft. Subsistence Garden produce?



- 10 lbs. zucchini
  - 5 lbs. potatoes
  - 1 broccoli
  - 1 cabbage
  - 12 turnips
  - 3 heads of lettuce
  - 12 carrots
  - 5 lbs. of snap beans
- = about 50 lbs. of vegetables worth \$300\*

\*Estimated



# Sample Budget

| Item                            | Amount              | Cost/person           |
|---------------------------------|---------------------|-----------------------|
| Seeds                           | ~10 Various packets | \$0 (provided by TCC) |
| Seed Potatoes                   | 5 lb.               | \$4                   |
| Fertilizer                      | 3 cups              | \$5                   |
| Live plants                     | 15 plants           | \$10                  |
| Rototiller                      |                     | \$120                 |
| Greenhouse                      |                     | 0\$                   |
| Average per tribal member cost: | \$20                | 500                   |

Community gardening cost: \$1700 (plus gas, parts overtime)

# Pros and Cons of Home Gardens Compared with Community Gardens

Garden  
types:

## Pros

## Cons

### Home

1. May do more work because of convenience
2. Easier to guard against pests and vandals

1. Need your own tools, greenhouse, water, space, and fence.
2. Usually take care of it alone

### Community

1. Share tools, fence, space, greenhouse, water
2. Good if people don't have space to garden
3. Arrange so you take turns watering garden

1. How do you keep track of work?
2. Easier for vandalism



# From Idea to Action--10 Steps to Success\*

1. Does the *community* want a community garden?
2. Hold a meeting with interested people—Identify purpose of garden.
3. Find and evaluate potential garden sites.
4. Identify resources needed for starting a garden.
5. Determine how you will fund-raise for this budget.
6. Hold a Second meeting
7. Develop a Garden plan.
8. Establish gardener guidelines and draft the gardener application.
9. Prepare and develop the site.
10. Celebrate your success!

\*From the Community Gardening Toolkit—University of Missouri Extension Service

# Step 1: Does the *community* want a community garden?

1. Do a survey. . .
  1. By phone
  2. Hand one out at the Tribal Council
  3. Interview individuals and record answers
  4. TCC Extension will help you & is already in the process of doing these surveys.
2. Identify the type of Community garden people want and how many hours per week they envision spending in the garden.

If there is at least 10 people interested in a Community Garden then move on to **Step 2** . . .



## Step 2: Hold a Meeting to determine the purpose of the Community Garden.

A community garden can mean many things to different people. A good way to figure this out is by deciding what the purpose of the garden is.

1. Is it to provide a source of fresh, locally produced food?
2. Is it to beautify the village?
3. Is it to provide positive, healthy activities for the community?
4. Is it a combination of these?
5. Have a group brainstorming session where everything is considered; then prioritize.



# Individual Plots

- Each person cares for their own plot
- They plant what they like, weed, water, and harvest their own plots
- You can also have individual pots in a greenhouse
- Tools, fence, water, and space is shared.



Photo by Heidi Rader

# Communal Plots

- A good manager is more important for a Communal plot.
- Members of the garden could sign-in hours.
- You could say that each member has to work 2 hours/week in the communal plot if they want to receive vegetables.



Photo by Heidi Rader

# Step 3: Find and evaluate potential garden sites

1. Does the site get at least 6 hours of direct sun-light in the spring summer and fall?
2. Is there water available?
3. Is the site big enough?
4. Is it flattish?
5. How close is the site to the people who plan to use it?
6. Is the site visible?
7. Is it fenced?
8. Was the soil contaminated at any point?
9. Is the soil rocky?
10. Could the land be donated or leased long term?

# Step 4: Identify budget needed for supplies and labor

1. Some infrastructure and supplies necessary are for start up costs while others are needed annually.
2. Annually
  1. Seeds
  2. Fertilizer
  3. Seed potatoes
  4. Transplants
  5. Community Garden Coordinator?
3. Start-up
  1. Tools
  2. Greenhouse
  3. Rototiller
  4. Fence
  5. Water pump/Irrigation
4. Garden know-how
  1. Are those interested in a Community Garden knowledgeable about gardening?
  2. Are there Master Gardeners or other knowledgeable gardeners that will volunteer their time?
  3. Do garden workshops need to be scheduled?
  4. Are those interested in the Community Garden willing/able to take the Alaska Master Gardener Online Course?



# Step 5: Determine ways to fund-raise for the estimated budget.

1. Membership fees
2. Fund-raising drives
3. Produce sales
4. Sponsorship of local businesses
5. Local agencies may be able to contribute in-kind or financial support (schools, health-clinic, tribal Council, Extension Service)
6. Grants from government agencies or private foundations



Photo by Heidi Rader

TCC Agriculture/Extension currently provides seeds for TCC Gardeners for free!

## Step 6: Hold a second meeting

1. As a group, evaluate potential garden sites
2. Look at budget and decide on how group will find funds.
3. Have any goals, values, or vision of garden changed?
4. Do you have a garden leader or leadership team?

# Step 7: Develop a Site plan.

1. Individual or Communal plots?
2. Location and size of garden beds
3. Total size of lot
4. How many people want to garden?
5. Paths
6. Compost bins
7. Shed
8. Garden name?
9. Has a long-term lease been drafted?

## Step 8: Establish gardener guidelines and draft the garden application.

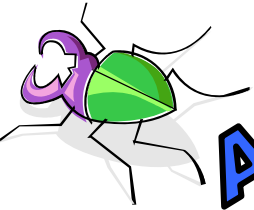
1. Application or membership fee?
2. Plot maintenance?
3. Garden maintenance?
4. End of season?
5. Composting?
6. Use of Materials and tools?
7. Water?
8. Pets and children?
9. Use of Alcohol and drugs?
10. What happens if garden rules are violated?

## Step 9: Prepare and Develop the site

1. Now you're ready to prepare the site.
2. Scheduling regular work days with gardeners who have committed to the garden is a good way to go.
3. A Garden coordinator is helpful at this stage.







# Alaska Master Gardener Online!



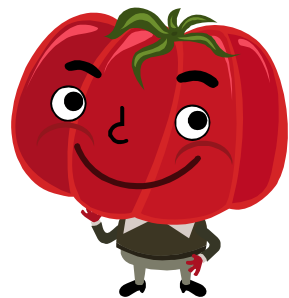
Get Answers to  
your Gardening  
Questions!  
Meet other  
Gardeners  
across  
Alaska!



*Come learn about:*

- *Vegetables*
- *Flowers*
- *Lawns*
- *Landscaping*
- *And much more!*
- *Ways to*

*garden longer  
(Take home frost cloth!)*



With Heidi Rader  
Agriculture & Horticulture Agent for UAF &  
Tanana Chiefs Conference  
Contact: [ffhbr@uaf.edu](mailto:ffhbr@uaf.edu) 1-800-478-6822

**Give back to your community!**

Bring your garden questions!





Photo provided by Freda Beasley of Galena



Photo provided by Freda Beasley of Galena





Photo provided by Freda Beasley of Galena



Photo provided by Freda Beasley of Galena

Photo provided by Freda Beasley of Galena



Photo provided by Freda Beasley of Galena





# Step 10: Celebrate your success

Potlucks

Garden parties

Show off!





# For more information on Community Gardening in Alaska!

1. For more information on gardening in the Tanana Chiefs Conference Region,  
CONTACT: Heidi Rader  
F.R.T.E.P. Director with  
UAF CES & TCC  
Tanana Chiefs Conference Agriculture  
122 First Avenue, Suite 600  
Fairbanks, Alaska 99701  
Phone: (907) 452-8251 ext. 3477 or  
1-800-478-6822 ext. 3477  
Fax: (907) 459-3954  
email: Heidi.Rader@alaska.edu
2. Visit TCC Agriculture/Extension's website at:  
<http://cals.arizona.edu/myice/tribe/tanana-chiefs-conference> You can also access  
this site by going to [www.tananachiefs.org](http://www.tananachiefs.org), clicking on Tribal Development, and  
then Agriculture!
3. Visit the University of Alaska Fairbanks Cooperative Extension Service website at  
[www.uaf.edu/ces](http://www.uaf.edu/ces) for information on everything from gardening to saving energy to  
home food preservation for Alaska!
4. University of Missouri: *Community Gardening Toolkit*:  
<http://extension.missouri.edu/publications/DisplayPub.aspx?P=MP906>
5. University of Florida: *Starting a Community Garden* <http://edis.ifas.ufl.edu/EP124>

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Heidi.rader@alaska.edu

122 First Avenue, Suite 600

Fairbanks, Alaska 99701

Phone: 1-800-478-6822 ext. 3477

<http://>

<http://cals.arizona.edu/myice/tribe/tanana-chiefs-conference>





# BROWNFIELDS AND URBAN AGRICULTURE:

Interim Guidelines for Safe Gardening Practices



Summer 2011





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## INTRODUCTION

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This document is a condensation of the input of 60 experts from academia, state and local government, and the nonprofit sector who gathered in Chicago on October 21 and 22, 2010 to outline the range of issues which need to be addressed in order to safely grow food on former brownfield sites. A list of the participants in this workshop is available in Appendix A.

In short, there are three major issues:

1. Before deciding whether to garden on a site, it is important to research its history, because a site may have a range of contaminants depending on its past uses;
2. Once the past uses have been determined, there are options for testing, cleanup or exposure-management approaches which prospective urban farmers can utilize in order to garden safely; and
3. Although a wealth of experience has been gained through brownfields cleanup over the last 15 years, the cleanup standards in existence are designed to protect people on the site from ingestion and inhalation of contaminants in the soil, water and air, but do not address consumption of food grown on the site. Over time, we expect that standards will be updated to address this gap. In the interim, existing residential cleanup standards can be used as a benchmark for safe gardening.

### Overview of the Issue: Brownfields and Urban Agriculture

Across the country, communities are adopting the use of urban agriculture and community gardens for neighborhood revitalization. Sites ranging from former auto-manufacturing sites, industrial complexes, and whole neighborhoods, down to small individual lots, including commercial and residential areas, are being considered as potential sites for growing food. As an interim (less than five years) or long-term use, greening a parcel by implementing agricultural practices can improve the environment, build amenities, revitalize neighborhoods, and have direct benefits to residents' food access and nutrition.

Redeveloping any potentially contaminated urban property (often referred to as *brownfields*), brings up questions about the site's environmental history and the risks posed by proposed reuse. Current brownfield and contaminated land risk-based cleanup approaches establish cleanup levels based on proposed reuses. For residential, commercial or industrial brownfield redevelopment, individual states have set rules and standards for how to conduct an investigation and clean-up activities through what are known as Voluntary Cleanup Programs. Residential reuse requires the most stringent cleanup as it assumes children and families will live on the property.

The benefits of urban agriculture vary from health and environmental to economic and social. Gardening in urban areas:

- Increases surrounding property values, beautifies vacant properties, increases a sense of community, and provides recreational and cultural uses.
- Increases infiltration of rainwater, reducing stormwater overflows and flooding, decreases erosion and topsoil removal, improves air quality, and reduces waste by the reuse of food and garden wastes as organic material and compost.
- Increases physical activity and educates new gardeners on the many facets of food production from food security to nutrition and preparation of fresh foods.

Kids who garden are more likely to try and like vegetables and eat more of them, and the combination of the social connection of gardening with the increased access to fruit and vegetables creates a new norm in children who continue to make healthier choices (Robinson-O'Brien, 2009, Alaimo, K et al., 2008).

However, the rise of agriculture as infill redevelopment creates new questions about the risks associated with agricultural uses, particularly where food crop or animal forage production is concerned. In many parts of the country, advisory standards and practices for agricultural redevelopment simply do not exist.

U.S. Environmental Protection Agency (EPA) Brownfields and Land Revitalization, in cooperation with programs within the Office of Solid Waste and Emergency Response (OSWER), and our State and Tribal program counterparts from around the country are working with communities on many of these on-the-ground redevelopment projects. In addition, the EPA Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin) Community and Land Revitalization Branch began working with local and regional stakeholders and a national committee in mid-2010 to learn more about implementing urban agriculture and community gardens in the safest way possible. These guidelines are intended to protect public health by informing communities about safe gardening practices when creating gardens on vacant lands or structures that may have an environmental history.

The committee quickly identified a number of policy gaps contributing to the uncertainty around gardening on former brownfield sites. The first is that at this time, there are no definitive standards for soil contaminant levels safe for food production that reflect the soil site conditions and management practices common at agriculture sites. EPA has long-established soil screening levels for contaminated site cleanup but these threshold-screening levels frequently serve as a starting point for further property investigation and do not factor in plant uptake or bioavailability. Nonetheless, the application of these contaminated land analysis and screening approaches can provide support to emerging operations and reassure consumers and markets about food risks from environmental contaminants.

Another policy gap surrounds the connection between soils and food safety issues. US Food and Drug Administration (FDA) and US Department of Agriculture (USDA) regulate certain elements of food safety and material application in food production areas, such as biosolids or sewage sludge application on farmed land. Farms seeking organic certification also have restrictions on materials use and application. USDA also regulates the international import of soils. There are also agreed international standards on levels of contaminants in final food products (FAO, Codex Alimentarius)<sup>1</sup> but neither FDA nor USDA have standards that regulate the quality of soil as a growing medium.

There are also gaps in practice. The extent of contamination on sites and properties that have been selected for urban agriculture isn't clear. Many community gardening and developing farm organizations test for agronomic parameters – nitrogen, phosphorus, and potassium (N-P-K) as well as pH and organic content. A smaller subset of organizations may test for environmental contaminants, although often only for lead. Other organizations and USDA extension agents encourage full metal panel testing which incurs greater costs to the gardener. A recent compendium of urban agriculture practice and planning by the American Planning Association (see Resources and References section) noted few local requirements for soil testing and very few examples of locally driven testing on behalf of community organizations.

This document is designed to fill the identified gaps presented above by presenting a process and set of recommendations for developing agricultural reuse projects on sites with an environmental history. Potential gardeners, state environmental agencies and regulators can use this process to determine how to address the risks inherent to redeveloping brownfields for agricultural reuses while being protective of human health. There is a large body of ongoing research as concern about contamination emerges and urban gardening becomes a common practice, particularly in communities with limited economic activity. This document can be used as an interim

<sup>1</sup> The Codex Alimentarius Commission was created in 1963 by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) to develop food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Programme. The main purposes of this Programme are protecting health of the consumers and ensuring fair trade practices in the food trade, and promoting coordination of all food standards work undertaken by international governmental and non-governmental organizations.



guideline until such research can provide more definitive standards and policies for agricultural reuse on these sites. Although the guide was developed in the Midwest, it may be used to benefit tribes and communities throughout the country wishing to utilize urban agriculture on brownfield sites and vacant properties.

### Process: Development of these Guidelines

While creating urban agriculture projects, local governments and community non-profits have identified gaps in knowledge and policy that create unintentional roadblocks to completion of agriculture redevelopment projects on brownfield sites, particularly for food production.

To address the identified gaps in a meaningful way, our first task was to inform each other on the current state of knowledge on agricultural redevelopment. Two webinars in Fall 2010 presented a snapshot of the state of science and policy issues in urban agriculture:

1. The *State of Science and Research Needs*, included contaminant exposure routes, bioavailability, and plant uptake; and
2. *Policy Barriers and Incentives to Reusing Brownfields for Community Gardens and Urban Agriculture*, included stability of land tenure and the lack of clear cleanup standards.
3. These webinars were widely attended by practitioners and local governments across the country, and are available for viewing on the U.S. EPA's Urban Agriculture website at:
4. <http://www.epa.gov/brownfields/urbanag>.

The webinars provided the foundation for the Brownfields and Urban Agriculture Midwest Summit October 21 and 22, 2010, which brought together over 60 invited experts from non-profits, community groups, academia, and various forms of government to develop a decision protocol for safe urban agriculture.



# RECOMMENDATIONS

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## Overview of Recommendations

Just as conventional agriculture can pose risks to farmers, neighbors, and the environment, each urban agriculture scenario poses its own risks. The convened experts developed a list of ideas and a process for addressing these risks so that growers can be aware they have selected a brownfield and brownfields can be redeveloped safely and efficiently into agriculture projects. They found that the underlying question in this strategy becomes: How clean is clean? This somewhat simple question becomes complex when considering the scientific data required and policies that need to be in place in order to answer this question fully.

### Complicating factors

When focusing on food production, determining the ideal conditions for developing agriculture reuses on brownfields is challenging due to the high number of exposure and risk assessment variables. These include: soil type, likely contaminants, crop type, garden size, climate, who enters the garden, individual gardener/farmer practice, how long they spend in the garden, growing for individual or family use, donation or market, state regulations, etc. Our attention has focused on environmental contaminants likely to be found in soils or soil material brought on site rather than biological risks from urban growing.

#### Exposure routes and risk assessment

Most states have risk-based cleanup standards, which means the amount of contamination allowed to remain on a remediated site is based upon the planned reuse and possible exposure that a person would encounter while participating in that reuse. An industrial reuse would not need to have the strict standards for cleanup that a residential reuse would, simply because the amount of time a person is on site and the kinds of activities he or she would participate in (exposures) are completely different.

Determining exposure is based on the amount of time spent onsite as well as the three major exposure routes: inhalation (breathing), direct contact (touching), or ingestion (a child's hand-to-mouth play or the accidental ingestion of soil by gardeners while eating, drinking or smoking with unwashed hands). In many cases, the best management practices discussed below can significantly reduce the possibility of exposure to contaminants at urban agriculture sites, therefore reducing risk.

Making health-related determinations about how to implement gardening and farming practices at a site must take into account: specific knowledge about contaminants and human contact with the soil that occurs preparing the site and during gardening/farming work; during the periodic application of soil amendments, pesticides or other materials used in growing; and finally, the uptake of contaminants by plants and any health risks that could be associated with using the plants as a source of food for people or livestock.

Modifying existing policies would require state-by-state assessments of risk criteria, soil cleanup standards, voluntary brownfields programs, and health agency standards, as well as coordination on a level that is easily translatable to neighborhood gardener and emerging small scale urban farms. Ongoing research to advance these efforts is being conducted across many different disciplines, answering questions about amounts of contamination taken up by various crops and working with states as they determine risk-based standards for soil cleanup or stabilization for agriculture. While we don't have the answers to all of these questions yet, following the guidelines included in the

subsequent section will provide a clear process for organizations to identify and reduce risks, reassure gardeners, and yield safer, more efficient growing scenarios.

How clean is clean for gardening activities?

Clean-up and reuse of any brownfield site is based on risk assessment and exposure scenarios – the levels of contamination present and how a person can be exposed to that contaminant, based on the intended reuse. These criteria for residential, commercial and industrial reuse are based on potential exposure: length of time spent on the site, types of activities performed on the site, and potential contamination pathways such as inhalation, ingestion, or possible dermal contact with contamination.

Urban agriculture is a new category of land use with different patterns of exposure – people are in closer contact with the soil than for any other category, for different time periods. While residential use is based on living, sleeping and eating in a dwelling on a property, the overall time and proximity to soil and potential contaminants make gardening and farming somewhat different from residential or commercial use. A commercial-scale urban agriculture scenario would have yet another set of exposure criteria to the workforce and potential neighbors. While these risk scenarios still require refinement based upon additional research and policy discussion, it is clear that a separate category of use should be established.

However, as with all reuse categories, there are potential best management practices (BMPs) that can significantly reduce risk from multiple exposure pathways. Uncertainty about specific cleanup and reuse standards serves as a recognized policy barrier to implementing agriculture projects, but we also must recognize the health benefits from eating locally grown food and balance this with the manageable risk associated with using brownfield sites. While clean up levels were not the focus of the workshop efforts, they are a known policy issue that should be resolved in the future.

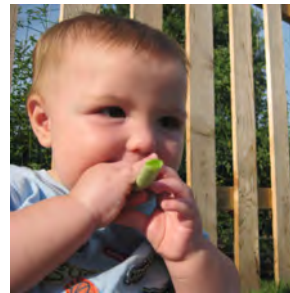
### Exposure pathways



*Direct exposure to contamination.*



*Inhalation of contamination.*



*Uptake by plants and subsequent consumption.*



How clean is clean for plants to be safe for consumption?

The high degree of variability in soils, limited control of public spaces and unique characteristics of how crops (species and variety, edible portions of plants) and humans respond (age, precautions taken) makes issuing blanket statements of safety virtually impossible. Plant uptake of contaminants is a concern to urban gardeners and those who would like to include locally grown food on their menus. While many of the uptake risks from urban soils can be controlled by demonstrated BMPs discussed in further detail below, ongoing research on plant uptake and bioavailability continues to bridge knowledge gaps.

Success in brownfield redevelopment across the country, and success in other gardens intuitively tells us that gardening in populated areas is not a new idea, nor is it impossible to do safely. EPA has developed a simple logic model, included below, that is based on the results of our working session and BMPs identified at successful larger scale agriculture projects. This does not answer every question that has been raised; rather it poses the questions you should ask in order to garden safely, and discusses what information you should collect in order to make decisions.

This model describes the process by which a gardener should consider safely implementing a garden of any type (hoop houses or greenhouses, farm stand, vertical, aquaculture, community gardening plots) on a piece of property that has potential contamination.



The process for assessing properties for the presence or potential presence of environmental contamination often is referred to as “environmental due diligence,” or “environmental site assessment.” Phase I Environmental Site Assessments (ASTM 1520) and All Appropriate Inquiry (ASTM 312) are the industry standards for identifying potential environmental concerns according to previous uses of the property. These methods require desktop-based investigation like looking at Sanborn maps, historical aerial photos, city and county records and reviewing environmental databases, as well as conducting interviews of neighbors and previous owners, and visiting the site to assess any visual cues for contamination, such as evidence of storage tanks. Potential property owners have an environmental professional prepare a report containing this type of information prior to most real estate transactions, but historical information is commonly available to anyone wishing to do the research on the internet, at a local library, or county records office.



## STEP-BY-STEP GUIDELINES

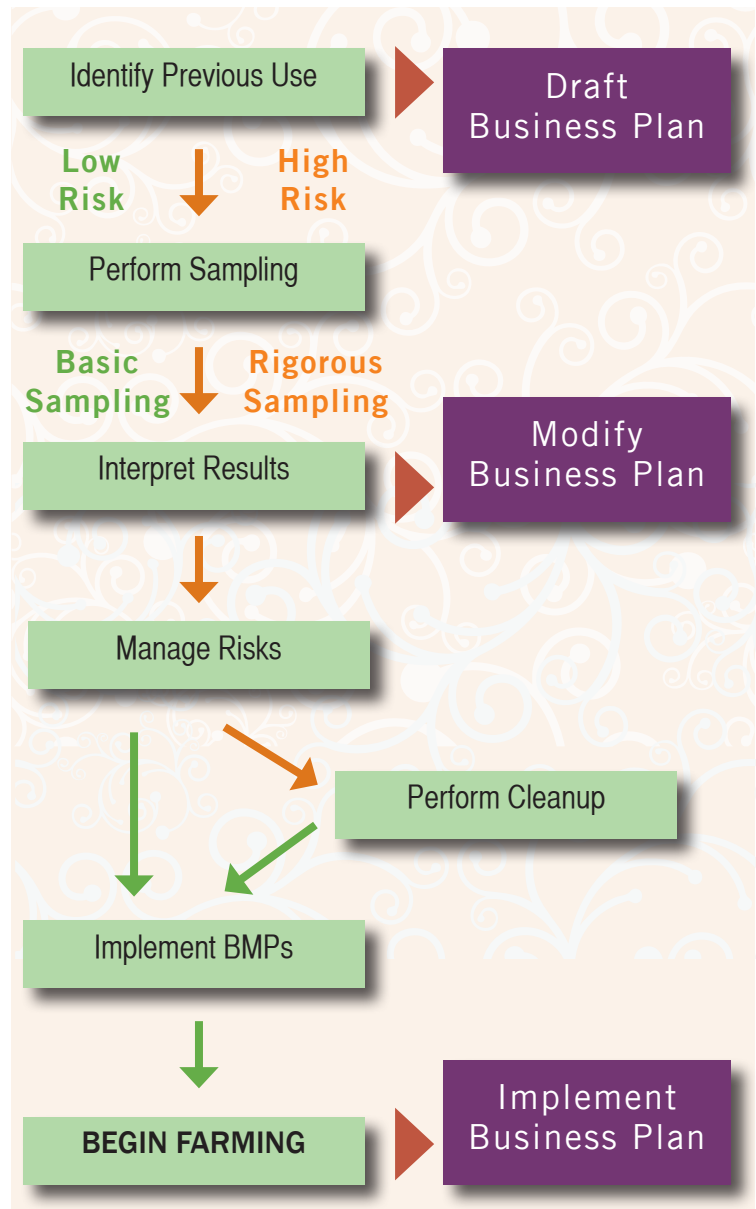
The following logic process proposes a series of questions you need to ask and the information you need to gather in order to make decisions while implementing an urban agriculture project. Each of these steps has multiple sub-steps and issues that you may want to look into further. However, this model may be applied to any urban agriculture project on any brownfield site, and may be of value for other reuses where contact with soil may be higher, such as parks or recreational areas.

### 1. Identify Previous Use

What is the history of your proposed site?

The previous use of the property and those surrounding it will be the major deciding factor on how cautious you should be before gardening. It is important to gather enough information about the site prior to beginning actual gardening activities so that you may tailor additional site investigation to the likely contamination left behind. Special environmental assessments are commonly required prior to purchasing most commercial and industrial properties, but those simply leasing the land from the owner or local landbank, or those receiving donated land should also plan to do some level of research.

The more historical information learned about a site's previous uses, the more informed decisions can be made during garden development. If you plan to sell produce or value-added products, now is the time to draft a business plan for your garden. Farm design and duration (short or long term use), types of crops planted and expected costs for construction or remediation will all be informed by the site's previous uses and the expected condition of existing soils. The business plan should be revisited throughout this process to ensure the potential for success of your garden. More information on developing a business plan and its ties to the redevelopment process is presented in the final section of this document.



## Determine Whether Previous use is High or Low Risk to Site Soil and Water

What does the site history suggest about the likelihood of contamination and potential site risks to food production?

No two vacant parcels are alike. However, we can infer possible types of contamination based on the previous use of the property. For example, residential areas may have unsafe concentrations of lead where the presence of older housing stock or structures indicates lead-based paint was present. Polycyclic aromatic hydrocarbons (PAHs), a group of chemicals formed during the incomplete burning of coal, oil, gas, wood, garbage, or other organic substances, can be found at former residential properties as well as commercial and industrial properties from fires or combustion processes. PAHs stick to soil particles and are found in coal tar, crude oil roofing tar, wood smoke, vehicle exhaust, and asphalt roads. Sites previously used for parking may have high concentrations of petroleum from leaking oils and fuel, and gas stations may have had leaking underground storage tanks that can cause contaminated groundwater and soils, or poor indoor air quality. Even greenspace or agricultural uses may have hotspots from over-fertilized ground, pesticides, or animal feed spills. The table below presents some example contaminants of concern found on brownfield sites.

| Land Use  | Common Contaminants   |
|---|---|
| Agriculture, green space  | Nitrate, pesticides/herbicides  |
| Car wash, parking lots, road and maintenance depot, vehicle services  | Metals, PAHs, petroleum products, sodium, solvents, surfactants   |
| Dry cleaning  | Solvents  |
| Existing commercial or industrial building structures   | Asbestos, petroleum products, lead paint, PCB caulks, solvents  |
| Junkyards   | Metals, petroleum products, solvents, sulfate   |
| Machine shops and metal works   | Metals, petroleum products, solvents, surfactants   |
| Residential areas, buildings with lead-based paint, where coal, oil, gas or garbage was burned  | Metals, including lead, PAHs, petroleum products creosote   |
| Stormwater drains and retention basins  | Metals, pathogens, pesticides/herbicides, petroleum products, sodium, solvents                              |
| Underground and aboveground storage tanks   | Pesticides/herbicides, petroleum products, solvents   |
| Wood preserving   | Metals, petroleum products, phenols, solvents, sulfate  |
| Chemical manufacture, clandestine dumping, hazardous material storage and transfer, industrial lagoons and pits, railroad tracks and yards, research labs | Fluoride, metals, nitrate, pathogens, petroleum products, phenols, radioactivity, sodium, solvents, sulfate |

*(Adapted from Boulding and Ginn, 2004)*

Each of the above constituents may be present at levels that pose no risk or, if present in high concentrations, may be harmful to those doing the initial site preparation, to the gardener, or to the quality of the plants that you are hoping to grow.

Once you feel you have an understanding of the previous uses of the site, determine whether that use is high or low risk for agriculture reuses, the likely crops or garden design, and sample the site accordingly. As a rule

of thumb, recreational or residential previous uses are typically lower risk while commercial and industrial uses can be considered higher risk, although you may find information in your research that suggests otherwise for your particular site. Consult with your state environmental agency, local health department, or county's USDA Cooperative Extension office to determine what kinds of samples you should take to accurately represent the conditions at your site.

### Finding your ag extension

The USDA National Institute of Food and Agriculture funds the Cooperative Extension System – a nationwide educational network staffed by experts in agriculture working to identify and address current issues and problems. Extension offices are located in each US state and territory at its land-grant university, as well as in local and regional networks often in each county. Find your local Extension office at: <http://www.csrees.usda.gov/Extension>.

## 2. Perform Sampling

What additional information is needed to determine soil quality? What additional information is needed to identify or rule out potential contamination risks?

Two types of soil quality sampling are recommended for every site: soil as a growing medium, and soil contaminant concentrations for safety. Because each parcel of land is unique, each sampling approach should be considered individually. However, given that not all previous uses are created equal, we can make some assumptions about the relative risk of the previous use, and this will guide our sampling strategy. Low risk previous uses like residential areas, green space, traffic corridors and parking areas generally have a narrow band of likely contamination that allows for a basic sampling strategy. High risk uses, like manufacturing or railyards, open up the possibility of many types of contamination over a wide area of the site, and requires a more rigorous sampling strategy. Some organizations can provide technical assistance for soil testing, including the EPA and state brownfields programs, and USDA Natural Resources Conservation Service (EPA 2009).

### Sampling methodology

How do you decide where to sample and how deep to go? Sampling methodologies will vary slightly depending on what you are sampling for or the type of crop you are planning to grow because some plant root systems are deeper and more extensive than others. Refer to the University of Louisville's *Urban Agriculture and Soil Contamination: An Introduction to Urban Gardening* and Purdue University's factsheet entitled, *Collecting Soil Samples for Testing* for more information on sampling frequency, collection, location, and the best time to take your samples. Don't forget to call ahead of time to have utilities marked before digging anywhere on your site. Find your local "Call before you dig" service at <http://www.call811.com>.

### Low risk uses – basic sampling

Sampling for soil quality should include a composite sample that represents the on-site soil structure and composition and reflects the preferred growing area. This type of sampling and analysis is simple to perform and relatively inexpensive to do. Sampling for pH, organic matter, nutrients (nitrogen, phosphorus, potassium), soil composition (sandy, clayey, etc) and texture will determine what types of improvements should be made or amendments added so that plants can thrive in your garden.



Sampling for soil safety should include, at a minimum, composite sample(s) which would be tested for a wide range of metals (including heavy metals, iron, and salts, some of which are necessary plant nutrients, such as magnesium, potassium, calcium, sodium), PAHs, and additional constituents based on likely contaminants associated with the site's previous use. Any area that appears out of the ordinary, is suspicious looking (including stained or discolored soils, or the lack of plant growth in soils), or indicates a potential for contamination, should be submitted with additional discrete samples in each area. This will allow you to identify the type and extent of existing contamination and to estimate if cleanup is required or if you only need to have special considerations when designing your garden.

For your records, you may wish to draw, photograph or note soil sample collection locations on a map depicting the site. If you collected five samples to combine into one composite sample, you should note their individual locations. For example, you would identify that sample #3, was taken from the top 2 inches of material at a location 2 feet from the north (left) side of the path and 5 feet east of the entrance. You may also wish to flag or mark sample locations until your results come back; typical lab turnaround time is approximately two weeks.

### **High risk uses – more rigorous sampling**

Any large parcel with multiple historical uses will require more rigorous sampling in addition to the methods mentioned above. This should include multiple composite or discrete samples for any suspected contaminant in each area of the site. Additional discrete samples should be collected where contamination is suspected. If groundwater contamination is likely, or if a spill is suspected, deeper soil sampling and groundwater sampling is strongly suggested.



### 3. Interpret Results

What do the sampling results mean for risk to growers or healthy plant growth? What contaminant levels are low, frequently seen, easily addressed and can be managed with good practices? What levels are too high and require involvement of environmental experts?

While the EPA prescribes groundwater/drinking water guidelines, no hard and fast rules for agricultural soils exist on the federal level. Most states set guidelines for soil cleanup with risk-based standards based on anticipated reuse of the property. Residential clean-up levels are the most restrictive, so if contaminant levels are below residential use levels, it is safe to assume your site is safe for gardening and will be protective of public health. We recognize, however, some communities may want to seek levels lower than residential reuse levels in the interests of precaution.

Because no agricultural reuse standards exist as discussed above, contamination levels falling within the commercial and industrial reuse categories warrant a site-specific risk determination and mitigation. If you don't have a qualified environmental professional on staff and you are concerned about your sampling results, you should get help interpreting the results of your sampling effort. State and local health agencies, state environmental agencies and USDA Cooperative extension offices, located in most counties, are good places to start for help in determining what safe gardening levels in your soil may be.

Not all types of contamination will have the same effect on you as a gardener or on your crops. Research on soil metal chemistry and plant uptake conducted at the USDA has found that most metals are so insoluble or so strongly attached (i.e. adsorbed) to the actual soil particles or plant roots, that they do not reach the edible portions of most plants in levels which would compromise human health when eating grown crops. Maintaining a neutral soil pH can control much of the risk of exposure via plant uptake. For example, lead is known to be toxic to humans, and can be found in extremely high concentrations in some urban soils where extensive lead-based paint was used or where historical lead industry activity occurred. The risk to the gardener, inhaling dust or ingesting actual soil from dirty hands is much higher than the risk of the consumer eating the properly washed crops grown from this soil. Important exceptions to the strategy of keeping a neutral pH include soils with high concentrations of cadmium and cobalt, which can be toxic to humans, and sometimes molybdenum and selenium, which are more of a concern for livestock (Chaney, 1984).

Other soil metals, such as copper, are phytotoxic and will kill the plant before the metal concentration in the soil would be harmful to a gardener. In these cases, accidental ingestion of the actual soil during initial preparation or as part of ongoing gardening activities would have the greatest negative health effect.

It is important to know which areas of the site are contaminated in levels that are unsafe for in-ground gardening activities and what that means for your garden design. Additional testing may be necessary to determine the extent of contamination if a hotspot is found.

#### A note on analysis

Most tests for soil contaminants use extraction methods (i.e., the sample is digested in acid and then diluted prior to analysis) yielding a total contaminant concentration. The amount of that contaminant that is bioavailable or bioaccessible (i.e. the ability of ingested contaminants to be absorbed by the body) to plants or people will be less than the resulting total contaminant level – actually a fraction of the total value. Often in the case of lead in urban soils, a small fraction of the total lead concentration is found to be bioavailable, likely due to the historic applications of fertilizers, manures and composts, which change the characteristics of soil and can cause inactivation of lead in soils over time. Because determining bioavailability is costly and because regulating a total concentration is the most protective of human health, test result interpretation frequently focuses on total concentrations.



## 4. Manage Risks

### Perform Clean-Up

When is clean-up necessary? Which remediation techniques are best for agriculture reuses?

If results indicate that the existing soil is not safe for gardening activities and you are planning to plant in-ground, remediation may be necessary. Work with your state environmental agency's Voluntary Cleanup Program to determine which remediation technique would be most effective for your site. Consider cost, accessibility, the timeframe needed, environmental effects, and effectiveness for agriculture before choosing a remediation technique (RUAF 2006). Techniques most applicable for agriculture projects include physical (excavation, installing geotextiles, soil washing or soil vapor extraction) or biological (microbial, phytoremediation, or application of soil amendments).

#### Will phytoremediation work for my site?

Phytotechnologies are long-term remedial solutions that use plants to remediate soil and water impacted with different types of contaminants. Organic contamination including: oils, solvents, and some pesticides, and inorganic contaminants like salts (salinity), and heavy metals, especially nickel and arsenic are well suited to a long-term phytoremediation or phytoextraction approach. Using plants to stabilize soils, keeping an appropriate pH, and controlling metal mobility, as well as keeping dust down, is a proven strategy for reducing exposure to contaminated soils. However, not all contaminants react the same way to phytoremediation, and some metals like lead, cadmium and zinc, just aren't mobile enough to benefit from phytotechnologies. Get more information on phytoremediation and other phytotechnologies in the Interstate Technology Regulatory Council document, "Phytotechnology Technical and Regulatory Guidance and Decision Trees, Revised," available at: [www.itrcweb.org/Documents/PHYTO-3.pdf](http://www.itrcweb.org/Documents/PHYTO-3.pdf).

Many non-remedial options exist for sites with low levels of contamination, or sites with contamination exposure risks which can be controlled by planting *above ground*, including installing raised beds, gardening in containers, green walls or rooftop growing, and aquaponics. More information on Best Management Practices and alternative growing techniques is presented on the following page.

Each remediation technique has unique benefits and drawbacks. Digging away the contaminated soil and disposing it in a landfill is the most effective technique for removing contaminants but can discard valuable topsoil. This is also the most expensive method, and replacing the contaminated soil with clean, non-industrial fill (that has been sampled for contaminants or has been certified as safe) can be cost-prohibitive to a non-profit gardener or community group. In-situ or on site remediation techniques or biological strategies may take multiple growing seasons or multiple applications, costly monitoring, and maintenance. Even remediation by amending with compost may be more involved than it sounds since composting needs to have preceded growing to create sufficiently healthy soil. In one EPA pilot project, yard waste compost added to a waste site for agriculture reuse used 20 tons of compost per acre for corn fields and 120 tons of compost per acre for peanut crops (EPA 1997). Not all projects will require this level of remediation, but working closely with your state Voluntary Cleanup Program will ensure that your urban agriculture development achieves the proper cleanup goals.



## Implement Best Management Practices (BMPs)

Are there things I can do to garden safely without performing a full remediation? What are everyday practices that will reduce risk?

Regardless of the degree of brownfields contamination or scale, every urban garden should implement BMPs to ensure continued protection from urban soils. In most instances, simply following these BMPs will bypass any potential exposure pathways from existing site contamination. However, projects should still be vetted with the state Voluntary Cleanup Program or local health officials to address any possible environmental and public health concerns. Because research has found that the predominant exposure routes of concern are direct contact with or ingestion of potentially contaminated soils, many of the BMPs presented below focus on separating you as a gardener from existing soils. In many cases, implementing BMPs such as those suggested below will allow safer gardening in a wider range of site conditions. Not every BMP is necessary for every single site, but a combination of BMPs appropriate for your particular site will provide better health outcomes.

### Construct physical controls

Risk is based on the extent of hazard or contaminant present and the potential for exposure to the hazard. Actions to remove or reduce hazard (amend soil) and reduce exposure (cover soil), reduce risks. Many good gardening practices, like adding compost and soil amendments, improve the soil while reducing the amount of contaminants and exposure to them.

- Build your garden away from existing roads and rail, or build a hedge or fence to reduce windblown contamination from mobile sources and busy streets.
- Cover existing soil and walkways with mulch, landscape fabric, stones, or bricks.
- Use mulch in your garden beds to reduce dust and soil splash back, reduce weed establishment, regulate soil temperature and moisture, and add organic matter.
- Use soil amendments to maintain neutral pH and add organic matter and improve soil structure.
  - Not all amendments are the same; be sure to choose the right amendments for your soil. For more information on choosing the right soil amendment, refer to the Colorado State University Extension webpage on soil amendments at <http://www.ext.colostate.edu/pubs/garden/07235.html>.
  - Keep in mind that each amendment type will have different application rates and techniques (e.g. rototilling), and may need to be maintained and reapplied annually.
  - Be sure to work with your local or state regulatory agency, and ask if your municipality provides free compost or mulch. Some amendments, such as Class A biosolids from sewage sludge, may be regulated under various regulatory programs.
- Add topsoil or clean fill from 'certified soil sources' to ensure the soil is safe for handling by children or gardeners of all ages and for food production. Your state or local environmental program, extension service, or nursery may be able to direct you to providers of safe certified soils, or to recommended safe sources for gardening soil.





- Build raised beds or container gardens
  - Raised beds help improve water drainage in heavy clay soils or low-lying areas. They also create accessible gardening locations for many users and allow for more precise soil management.
  - Foot traffic should not be necessary in the bed, so the soil does not become compacted and soil preparation in the coming years is minimized.
  - Your state or local city agency may recommend using a water permeable fabric cover or geotextile as the bottom layer of your raised bed to further reduce exposure to soils of concern.
  - Raised beds can be made by simply mounding soil into windrows or by building containers. Sided beds can be made from wood, synthetic wood, stone, concrete block, brick or naturally rot-resistant woods such as cedar and redwood.

## Emphasize good habits



*Wear gloves and wash hands after gardening and before eating.*



*Take care not to track dirt from the garden into the house.*



*Clean produce before storing or eating.*



*Peel root crops, and remove outer leaves of leafy vegetables.*



*Teach kids to wash fruits and vegetables before eating.*

## 5. Begin Farming

Whether it is a long-term or an interim use, simply greening a once-blighted or vacant property and improving the soil structure has real effects on the economic and social value of land and community health. It can also reduce the runoff of urban soil, silt and contaminants into stormwater systems by allowing greater infiltration of rain into soils improved with added compost and soil amendments. The ability to grow food or horticultural crops such as flowers or trees on this newly greened area will produce multiple beneficial effects to those who may farm it. Healthy eating, increased physical activity, reduction of blight, improved air quality and improved quality of life are all nearly immediate health benefits from urban agriculture.

## WHY INCLUDE A BUSINESS PLAN?

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Urban agriculture exists in various forms and scales. From community gardens to commercial enterprises, from edible landscapes to beekeeping, on a residential lot or on a former industrial site, there is no one-size-fits all to urban agriculture. However, most successful and sustainable urban agriculture projects do share one thing in common: a business plan. The urban agriculture business plan provides a road map to the garden's activities, an internal planning tool, and a way to communicate the project to external stakeholders and potential funders. Nearly every section of a business plan has strategic items that may be altered due to the condition of existing soils. Many farmers will find a new site before they make too many changes to their business plan, or will choose a new site based on remediation costs; but contingencies such as these also need to be addressed and communicated with investors and stakeholders via a well-designed business plan.

EPA, HUD and DOT have been working together under the Partnership for Sustainable Communities to ensure that federal investments, policies and actions support development that is efficient and sustainable. In one such brownfield pilot project in Toledo, OH, the EPA provided technical assistance to develop the *Urban Farm Business Plan Handbook*. This handbook provides a complete framework for developing an urban farm business plan and describes what information should be collected, evaluated, and presented in each section of the business plan, once the site is cleaned and ready for growing. The *Urban Farm Business Plan Handbook* is available for download at:

<http://www.epa.gov/brownfields/urbanag>.

The level of cleanup required and the costs for implementing that cleanup, such as transportation and disposal of dirty soils or clean fill, may have huge implications on the viability of your garden as originally planned. The business plan should be modified to address any changes from the original farm design after determining what level of cleanup may be required. The state of existing site soils may require a fresh look at the marketing, operating and financial aspects of your urban agriculture project, depending on whether your urban agriculture site is an interim or long-term use. A simple modification of garden type to save remediation costs, such as moving from in-ground planting to raised beds, may have implications on farm function or crop plans. While the risks of gardening on brownfield sites do exist, the end goal does not change. Gardening safely on sites with an environmental history is possible and economically feasible if planned properly.





## SUMMARY

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Implementing urban agricultural practices on brownfield sites addresses and mitigates public health concerns, reduces blight and preserves neighborhoods, while directly improving food access and nutrition. Communities wishing to redevelop brownfield sites into urban agriculture projects are faced with a unique problem because no set cleanup standard exists for urban agriculture reuse. In order to understand the issues surrounding urban agriculture redevelopment, EPA convened a group of experts that work on different aspects of urban agriculture and asked how communities should approach the redevelopment process, and what they need to know to develop urban agriculture safely.

What we found is that investigation into historical uses of the property and consideration of how existing contamination changes the gardening strategies available to you improves the likelihood for success of your urban agriculture project. Although urban lands are generally affected by previous activities with impacts on existing soils, using safe gardening practices and BMPs will control a wide range of contamination issues. Working with your state environmental agencies to properly addresses risk and, where BMPs are not enough, set cleanup goals, will result in a garden that brings benefits to the community for years to come.

Additional work continues to describe relationships between plant uptake and contamination, and to begin setting risk-based criteria for urban agriculture on the state level. ASTSWMO, the Association of State and Tribal Solid Waste Management Officials, has named urban agriculture standards and practices a priority topic for discussion in 2011, and EPA will continue to work with the states, other Federal Agencies, academics, and other partners as they examine possible urban agriculture reuse standards. Until more data is available, these Interim Guidelines can be used to identify types of information needed to make decisions in order to garden safely at a site that has potential contamination.



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### University of California Cooperative Extension, Los Angeles Division of Agricultural and Natural Resources

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Redefining Brownfields: Safe Urban Gardening

<http://cepm.louisville.edu/>

# PARTICIPANT LIST



| Last Name:       | First Name: | Organization:   | Title:  | Email Address:                           | Phone:               | City:           | State: |
|------------------|-------------|---|---|--|----------------------|-----------------|--------|
| Anderson         | Ryan        | Delta Redevelopment Institute   | Carbon Program Director                             | randerson@delta-institute.org            | 312-554-0900 x14     |                 |        |
| Auker            | Karla       |   |   | auker.karla@epa.gov                      | 312-353-2112         |                 |        |
| Barni            | Marie       | The Ohio State University Extension, Cuyahoga County                          | Director  | barni.4@osu.edu                          | 216-429-8200         | Cleveland       | OH     |
| Basta            | Nicholas    | The Ohio State University   | Professor of Soil and Environmental Chemistry       | basta.4@osu.edu                          | 614-292-6282         | Columbus        | OH     |
| Behringer        | David       | Behr Geo Environmental LLC  | Owner   | dbehringer@behrgeoenv.com                | 216-906-7752         | Aurora          | OH     |
| Belt             | Shawn       | Cleveland Botanical Garden  | Urban Farm Manager                                  | sbelt@cbgarden.org                       | 216-645-7798         | Cleveland       | OH     |
| Benveniste       | Patsy       | Chicago Botanic Garden  | Vice President, Community Education Programs        | pbenveni@chicagobotanic.org              | 847-835-6945         | Glencoe         | IL     |
| Berman           | Laurel      | ATSDR   | Brownfields Coordinator                             | laberman@cdc.gov                         | 312-886-7476         | Chicago         | IL     |
| Bildersee        | Jenn        | Portland Brownfield Program   | Program Coordinator                                 | jenn.bildersee@portlandoregon.gov        | 503-823-7764         | Portland        | OR     |
| Boyd             | Martha      | Angelic Organics Learning Center  | Program Director - Urban Initiative (Chicago)       | martha@learnconnect.org                  | 773-344-7198         | Chicago         | IL     |
| Buchanan         | Susan       | Great Lakes Center for Children's Env Health, UIC                             | MD, MPH   | sbucha3@uic.edu                          | 312-996-0806         | Chicago         | IL     |
| Carroll          | Ann         | US EPA  | Senior Policy Analyst                               | carroll.ann@epa.gov                      | 202 566-2748         | Washington      | DC     |
| Caton Campbell   | Marcia      | Center for Resilient Cities   | Milwaukee Director                                  | marcia.catoncampbell@resilientcities.org | 414-289-7799 x3075   | Milwaukee       | WI     |
| Chaney           | Rufus       | USDA-Agricultural Research Service  | Senior Research Agronomist                          | rufus.chaney@ars.usda.gov                | 301-395-4852         | Beltsville      | MD     |
| Choi             | Chris       | U.S. EPA  | Community Planner                                   | choi.christopher@epa.gov                 | 312.353.5006         | Chicago         | IL     |
| Clayton          | Zach        | Chicago Department of Environment   | Env. Engineer III                                   | zachary.clayton@cityofchicago.org        | 312-744-3161         | Chicago         | IL     |
| Colsman          | Mark        | Tetra Tech  | Senior Environmental Scientist                      | mark.colsman@tetratech.com               | 303-312-8883         | Denver          | CO     |
| Cooper           | Dan         | Chicago Park District   | Environmental Manager                               | dan.cooper@chicagoparkdistrict.com       | 312-742-4287         | Chicago         | IL     |
| Crause           | Tom         | Illinois EPA  | Manager , Office of Site Evaluation                 | tom.crause@illinois.gov                  | 217-524-1658         | Springfield     | IL     |
| Cwik             | Stephanie   | USEPA Region 5  | Environmental Scientist                             | cwik.stephanie@epa.gov                   | 312 886 0913         | Chicago         | IL     |
| Didier           | Matt        | USEPA Region 5  |   | didier.matthew@epa.gov                   | 312-353-2112         |                 |        |
| Doetch           | Ronald      | Urban Ag Design   | Founder   | rdoetch@aol.com                          | 815-742-3450         | Milwaukee       | WI     |
| Downing          | James       | City of Cleveland, Department of Community Development                        | Development Officer                                 | jdowning@cleveland.oh.us                 | 216-664-4059         | Cleveland       | OH     |
| Doyle            | David       | U.S. EPA  | Sustainability Coordinator                          | doyle.david@epa.gov                      | 913-551-7667         | Kansas City     | KS     |
| Dufficy          | Joseph      | US EPA Region 5   | Brownfields and NPL Reuse                           | dufficy.joseph@epa.gov                   | 312-886-1960         | Chicago         | IL     |
| Durnbaugh        | Aaron       | Chicago Department of Environment   | Deputy Commissioner                                 | adurnbaugh@cityofchicago.org             | 312-744-7468         | Chicago         | IL     |
| Fisher           | Wynecta     | E2 Inc  | Social and Environmental Equity Project Coordinator | wfisher@e2inc.com                        | 504-390-1707         | metairie        | LA     |
| Foster           | Sabrina     | E2 Inc  | Associate   | sfoster@e2inc.com                        | 434-975-6700 x256    | Charlottesville | VA     |
| Furio            | Brooke      | USEPA   | program analyst                                     | furio.brooke@epa.gov                     | 440 250 1705         | westlake        | OH     |
| Graham           | Dave        | City of Chicago Department of Environment                                     | Environmental Engineer III                          | dgraham@cityofchicago.org                | 312-744-3639         | Chicago         | IL     |
| Grosshans        | Jon         | US EPA  | Community Planner                                   | grosshans.jon@epa.gov                    | 312-353-5617         | Chicago         | IL     |
| Harrell          | Chris       | City of Indianapolis  | Brownfield Redevelopment Coordinator                | charrrell@indy.gov                       | 317-327-5845         | Indianapolis    | IN     |
| Heberle          | Lauren      | University of Louisville, Center for Environmental Policy and Management EFC4 | Director  | lauren.heberle@louisville.edu            | 502-852-4749         | Louisville      | KY     |
| Hettiarachchi    | Ganga       | Kansas State University   | Assistant Professor of Soil and Environ. Chemistry  | ganga@ksu.edu                            | 785-313-7024         | Manhattan       | KS     |
| Hillman          | Debbie      | Illinois Local Food and Farms Coalition                                       | Coordinator   | dhillman@sbcglobal.net                   | 847/328-7175         | Evanston        | IL     |
| Jones            | Edde        | Chicago Department of Environment   | Program Director                                    | eddejones@cityofchicago.org              | 312-746-9773         | Chicago         | IL     |
| King             | Gary        | Illinois Environmental Protection Agency                                      | Manager, Division of Remediation Management         | gary.king@illinois.gov                   | 217/782-0245         | Springfield     | IL     |
| Koonce           | Frances     | WI Dept of Natural Resources  | Natural Resources Supervisor                        | franceskoonce@wi.gov                     | 414 263 8697         | Milwaukee       | WI     |
| Laberge          | Kevin       | Chicago Department of Environment   | Environmental Engineer III                          | klaberge@cityofchicago.org               | 312-742-0463         | Chicago         | IL     |
| Larsen           | Kelly       | Windy City Harvest Chicago Botanic Garden                                     | Supervisor  | klarsen@chicagobotanic.org               | 847-650-7303         | Chicago         | IL     |
| Lauterbach       | Mary        | US EPA, OSWER, OSRTI  | Environmental Protection Specialist                 | lauterbach.mary@epa.gov                  | 703-603-0330         | Millersville    | MD     |
| Lofton           | Kerry       | Illinois Department of Agriculture  | Office of the Director                              | kerry.lofton@illinois.gov                | 312-814-4866         | Chicago         | IL     |
| Long             | P. Wayne    | University Of Kentucky, Cooperative Extension Service                         | ANR Agent/County Coordinator                        | phillip.long@uky.edu                     | 502-569-2344         | Louisville      | KY     |
| Mahoney          | Michele     | US EPA OSWER OSRTI  | Environmental Scientist                             | mahoney.michele@epa.gov                  | 703-603-9057         | Washington      | DC     |
| Mangrum          | Linda       | U.S. EPA-Region 5   | Brownfields Project Manager                         | mangrum.linda@epa.gov                    | 312-353-2071         | Chicago         | IL     |
| Martin           | Sabine      | Kansas State University   | TAB Director  | smartin1@ksu.edu                         | 785-313-0136         | Manhattan       | KS     |
| McElmurry        | Shawn       | Wayne State University  | Assistant Professor                                 | s.mcelmurry@wayne.edu                    | 313-577-3876         | Detroit         | MI     |
| Miller           | Tom         | Saginaw County Land Bank  | Manager   | saginawlandbank@gmail.com                | 989-980-1336         | Saginaw         | MI     |
| Morrison-Ibrahim | Deborah     | IUPUI Dept of Earth Sciences/Public Health                                    | PhD Student   | deemorri@umail.iu.edu                    | 317-670-4658         | Indianapolis    | IN     |
| Mysz             | Amy         | U.S. EPA  | Environmental Health Scientist                      | mysz.amy@epa.gov                         | 312-886-0224         | Chicago         | IL     |
| Newport          | Bob         | U.S. EPA Region 5   | Stormwater Specialist                               | newport.bob@epa.gov                      | 312-886-1513         | Chicago         | IL     |
| Reichtell        | Bobbi       | Neighborhood Progress, Inc  | Sr VP for Programs                                  | blr@neighborhoodprogress.org             | 216-830-2770 ext 207 | Cleveland       | OH     |
| Rhodes           | Harry       | Growing Home  | Executive Director                                  | hrhodes@growinghomeinc.org               | 773-546-9122         | Chicago         | IL     |
| Rock             | Steve       | USEPA   | Env. Engineer                                       | rock.steven@epa.gov                      | 513-569-7149         | Cincinnati      | OH     |
| Scanlon          | Joanne      | E2 Inc.   | Technical Analyst                                   | jscanlon@e2inc.com                       | 434-975-6700 x 253   | Charlottesville | VA     |
| Slattery         | Chris       | Delta Redevelopment Institute   | Senior Director                                     | cslattery@delta-institute.org            | 312-554-0900 x21     | Chicago         | IL     |
| Spencer          | Diane       | U.S. EPA  | Environmental Scientist                             | spencer.diane@epa.gov                    | 312-886-5867         | Chicago         | IL     |
| Splithoff        | Henry       | NYS Department of Health  | Research Scientist                                  | hms01@health.state.ny.us                 | 518 402 7800         | Troy            | NY     |
| Sprinkle         | Kristin     | E2 Inc.   | Program Manager                                     | ksprinkle@e2inc.com                      | 434-975-6700         | Charlottesville | VA     |
| Thompson         | David       | Integrated Sustainability Solutions   | Principal   | dmt@isschicago.org                       | 312.493.4970         | Chicago         | IL     |
| Valicenti        | Lyndon      | Chicago Department of Environment   | WRD Environmental Project Manager                   | lyndon.valicenti@cityofchicago.org       | 312-742-0150         | Chicago         | IL     |
| Van Der Kloot    | James       | USEPA   | Land Revitalization Coordinator                     | vanderkloot.james@epa.gov                | 312-353-3161         | Chicago         | IL     |
| Weber            | Ford        | Lucas County Improvement Corporation  |   | FWeber@LCICOH.com                        | 419-213-4510         |                 |        |
| Wilkinson        | Bruce       | US EPA Region 5 Pesticides Section  | Environmental Scientist                             | wilkinson.bruce@epa.gov                  | 312-886-6002         | Chicago         | IL     |
| Worthington      | Kimberly    | City of Chicago Dept of Environment   | Deputy Commissioner                                 | kworthington@cityofchicago.org           | 312-744-9139         | Chicago         | IL     |
| Yersavich        | Amy         | Ohio EPA-DERR   | Manager, SABR                                       | amy.yersavich@epa.state.oh.us            | 614-644-2285         | Columbus        | OH     |
| Young            | Mickey      | US EPA Region 3 - BF/LR   | Environmental Protection Specialist                 | young.mickey@epa.gov                     | 386-451-6688         | Philadelphia    | PA     |
| Zautner          | Lilah       | Neighborhood Progress Inc.  | Sustainability Manager                              | lcz@neighborhoodprogress.org             | 216-702-1423         | Cleveland       | OH     |



United States Environmental Protection Agency  
Region 5 Superfund Division  
77 W Jackson Blvd  
Chicago, IL 60604

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