Brownfields in Alaska: Challenges and Opportunities for Land Redevelopment Policy Options in Rural Alaska

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## Table of Contents

Executive Summary ....................................................................................................................................................... v

1.0 Introduction ....................................................................................................................................................... 1
  1.1 Definition of the Problem .............................................................................................................................. 1
  1.2 Brownfields ................................................................................................................................................... 1
  1.3 Brownfields ................................................................................................................................................... 2
  1.4 Lumpers and Splitters ................................................................................................................................... 2

2.0 Historical Trajectory of Brownfields ................................................................................................................... 3
  2.1 National Brownfields History ......................................................................................................................... 3
  2.2 Alaskan Brownfields History ......................................................................................................................... 3
  2.3 General Brownfields Needs in Rural Alaska ................................................................................................. 4
  2.4 Challenges and Opportunities for Alaskan Brownfields ................................................................................ 5
  2.5 Assessment Activities ................................................................................................................................... 8
    2.5.1 Technical Assistance to Brownfields Communities Program ..................................................... 9
  2.6 Costs of Cleanup .......................................................................................................................................... 9

3.0 Methodology and Literature Review ................................................................................................................ 13
  3.1 Methodology ............................................................................................................................................... 13
  3.2 Literature Review ........................................................................................................................................ 13
    3.2.1 Colorado Brownfields Program Model ..................................................................................... 14
    3.2.2 Oregon Brownfields Program Model ........................................................................................ 14

4.0 Legal Framework and Findings ....................................................................................................................... 15
  4.1 The Alaska Native Claims Settlement Act ................................................................................................. 15
    4.1.1 Regional Corporations ............................................................................................................. 16
    4.1.2 Village Corporations ................................................................................................................ 17
  4.2 The Comprehensive Environmental Response, Compensation and Liability Act ..................................... 19
  4.3 The Brownfields Revitalization and Environmental Restoration Act of 2001 .............................................. 20

5.0 Brownfields Program Funding ......................................................................................................................... 21
  5.1 Section 104(k) Funding Exclusions in Alaska ............................................................................................... 21
  5.2 CERCLA Section 128(a) Funding ................................................................................................................ 22
    5.2.1 State Tribal Response Programs ............................................................................................. 22

6.0 Grant Options for Cleanup, Construction, Planning, and Associated Brownfields Activities ....................... 25
  6.1 Financial Opportunities through the Department of Housing and Urban Development ............................... 25
    6.1.1 Brownfields Economic Development Initiative ........................................................................ 25
    6.1.2 Indian Community Development Block Grant ...................................................................... 25
    6.1.3 State Administered Community Development Block Grants ............................................. 25
  6.2 Financial Opportunities through the United States Department of Agriculture ....................................... 26
Table of Contents (continued)

6.2.1 Community Facilitates Grant Program .......................................................... 26
6.3 Financial Opportunities through Alaska Energy Authority .......................... 27
   6.3.1 Renewable Energy Fund ................................................................. 27
6.4 Financial Opportunities through United States Environmental Protection Agency ........................................ 27
   6.4.1 Community Action for a Renewed Environment Grant .......................... 27
7.0 Policy Alternatives ............................................................................................ 27
   7.1 Create a Regional Brownfield Authority .................................................. 27
      7.1.1 Criteria Evaluation ........................................................................ 27
   7.2 Create a Voluntary Cleanup Program through Business Partnerships .... 27
      7.2.1 Criteria Evaluation ........................................................................ 27
   7.3 Restructure Program Operations to Maximize Existing Dollars .............. 27
      7.3.1 Criteria Evaluation ........................................................................ 27
8.0 Policy Recommendation .................................................................................... 27
9.0 Conclusion ........................................................................................................ 27
10.0 References ....................................................................................................... 27
Acknowledgments .................................................................................................. 27

List of Figures

Figure 1 Sustainable Brownfield Redevelopment Guidelines and Process .................. 11
Figure 2 Regional Corporations Created Under ANSCA ......................................... 18
Figure 3 Tribal Response Programs in Alaska .......................................................... 23

List of Tables

Table 1 Sample of Documented Brownfields Examples in Alaska .............................. 6
Table 2 Native Regional Corporations and ANCSA Villages ....................................... 19
# Acronyms List

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABA</td>
<td>American Bar Association</td>
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<tr>
<td>ADEC</td>
<td>Alaska Department of Environmental Conservation</td>
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<tr>
<td>AEA</td>
<td>Alaska Energy Authority</td>
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<tr>
<td>AFN</td>
<td>Alaska Federation of Natives</td>
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<tr>
<td>ANCSA</td>
<td>Alaska Native Claims Settlement Act</td>
</tr>
<tr>
<td>ARC</td>
<td>Assessment, Revolving Loan Fund, and Cleanup Grants</td>
</tr>
<tr>
<td>As</td>
<td>Arsenic</td>
</tr>
<tr>
<td>AVEC</td>
<td>Alaska Village Electric Cooperation</td>
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<tr>
<td>BEDI</td>
<td>Brownfields Economic Development Initiative</td>
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<tr>
<td>BIA</td>
<td>Bureau of Indian Affairs</td>
</tr>
<tr>
<td>CARE</td>
<td>Community Action for a Renewed Environment</td>
</tr>
<tr>
<td>CCLR</td>
<td>Center for Creative Land Recycling</td>
</tr>
<tr>
<td>CDBG</td>
<td>Community Development Block Grant</td>
</tr>
<tr>
<td>CDPHE</td>
<td>Colorado Department of Public Health and Environment</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>DBA</td>
<td>DEC Brownfields Assessment</td>
</tr>
<tr>
<td>DCCED</td>
<td>Department of Commerce, Community, and Economic Development</td>
</tr>
<tr>
<td>DEECD</td>
<td>Department of Education and Early Childhood Development</td>
</tr>
<tr>
<td>DERP</td>
<td>Defense Environmental Response Restoration Program</td>
</tr>
<tr>
<td>DOI</td>
<td>Department of the Interior</td>
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<tr>
<td>EPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>FS</td>
<td>Feasibility Study</td>
</tr>
<tr>
<td>FUDS</td>
<td>Formerly Used Defense Sites</td>
</tr>
<tr>
<td>FY</td>
<td>Fiscal Year</td>
</tr>
<tr>
<td>Hg</td>
<td>Mercury</td>
</tr>
<tr>
<td>HUD</td>
<td>Housing and Urban Development</td>
</tr>
<tr>
<td>ICDBG</td>
<td>Indian Community Development Block Grant</td>
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<tr>
<td>IGAP</td>
<td>Indian Environmental General Assistance Program</td>
</tr>
<tr>
<td>ILC</td>
<td>Iliamna Lake Contractors</td>
</tr>
<tr>
<td>MMRP</td>
<td>Military Munitions Response Program</td>
</tr>
<tr>
<td>MRA</td>
<td>Munitions Response Area</td>
</tr>
<tr>
<td>MSA</td>
<td>Munitions Response Site</td>
</tr>
</tbody>
</table>
Acronyms List (continued)

NAPA  National Academy of Public Administration
NCP  National Contingency Plan
NPL  National Priorities List
OBDD  Oregon Business Development Department
Pb  Lead
PRP  Potentially Responsible Party
RCRA  Resource Conservation and Recovery Act
RLF  Revolving Loan Fund
R&R  Reuse and Redevelopment
STRP  State Tribal Response Program
TAB  Technical Assistance to Brownfields Communities Program
TBA  Targeted Brownfields Assessment
TRP  Tribal Response Program
USACE  United States Army Corps of Engineers
USDA  United States Department of Agriculture
UST  Underground Storage Tank
VCP  Voluntary Cleanup Program (National Program)
VCUP  Voluntary Cleanup Program (Colorado Program)
VOC  Volatile Organic Compound
YDC  Yukaana Development Council
Executive Summary

The purpose of this research is to address the Brownfield reuse and redevelopment efforts in Alaska and offer solutions to the challenges associated with securing Brownfields funding in rural Alaska. The policy option solutions include creating a regional authority on Brownfields in Alaska, creating a voluntary cleanup program, and refining the assessment criteria used by Brownfield coordinators in the state. Blighted properties can be found in both urban and rural parts of the State but those in rural communities need more attention and focus due to the difficulty in obtaining funds for the cleanup and redevelopment phases that follow initial inventory and assessment. Brownfields are an environmental concern as much as they are a policy concern in Alaska. The existence of contamination and pollution affects quality of life and public health in rural communities. From a public administration standpoint, people who live near sources of pollution need protection and the land should be remediated so it is useful economically to future generations. The Brownfields policy as it applies to Alaska is complex because financial resources are constrained by the historical legal framework governing land ownership, because travel to remote locations can be difficult for coordination efforts, and because the federal program is relatively new and few precedents exist. This research will:

1. Reviews the historical trajectory of Brownfields;
2. Explain the actions that have shaped Brownfields legislation and policies;
3. Identify financial opportunities available to Regional and Village Corporations for Brownfields projects; and
4. Recommend policy options that support rural community access to cleanup and reuse funding sources.

These recommendations are designed to support Brownfield coordinators with the Alaska Department of Environmental Conservation, the United State Environmental Protection Agency Region 10 coordinators, and the Tribal Response Coordinators throughout Alaska.

The Brownfields financial dilemma demonstrates that policy options created to address a public problem sometimes result in negative or unintended consequences. The difference between the reservation structure in the Lower 48 and land ownership in Alaska has resulted in the State's ineligibility to receive cleanup funding. Consequently, the Brownfields policy in Alaska creates a gap between the program's intended goals and how useful the program actually is in revitalizing Brownfields. This policy report will build an organizational framework meant to amass resources resulting in an effective Brownfields program in Alaska.

The Brownfields program is meant to offer financial assistance that will protect human health and the environment or promote economic development. Program funding also supports “enabling the creation of, preservation of, or addition to parks, greenways, undeveloped property or other recreational property.” Brownfields programs are active and highly functioning in Alaska but historically, there has been little success. Funding challenges are the reason for the program’s inability to assist in all facets of the typical Brownfields project life cycle.

This is particularly true for tribes in rural Alaska. The funding eligibility portion of the Brownfields legislation had to be written to comply with The Alaska Native Claims Settlement Act of 1971. Alaskan tribes are still eligible for grants; they just can’t apply for them directly. There are, however, other financial opportunities for tribes to redevelop underutilized and contaminated lands around their villages. This research reviews existing grant options for rural Alaska and will suggest policy modifications that support access to funding needs in village communities.

The costs of revitalizing these properties can be substantial and without funding, many sites will not move past the inventory and assessment phases of the project’s life cycle. Costs are incurred for site assessments, planning and remediation costs, risk management concerns, and estimating the future value of a property following the completion of redevelopment.

Redevelopment and reuse offers many benefits to a community including protection of public health and the environment, increasing or protecting greenspace, transforming abandoned properties into community assets, retaining and creating jobs, and utilizing existing and underused infrastructure (such as sewers, roads, and pipes).

The benefits are numerous but inaction can be costly. Ignoring contaminated sites can result in damage to human health, ecosystem damage, fiscal costs in the form of revenue losses to local governments, and social costs of environmental inequality.
1.0 Introduction

A brownfield site is defined by the United States Environmental Protection Agency (EPA) as “real property, the expansion, development, or reuse of which may be complicated by the presence or potential presence of hazardous substances, pollutants, contaminants, controlled substances, petroleum or petroleum products, or mine scarred land,” but this definition is actually split into two subcategories based on site funding eligibility: “B”rownfields and “b”rownfields. The distinction between the definitions is the capitalization of the word and can therefore cause confusion to individuals studying brownfields as to whether or not a site may qualify for cleanup grants. The reuse and redevelopment (R&R) for each site determines the subcategory under which a site will fall. National Priorities List (NPL) sites, federal property and facilities, and contaminated sites with a responsible party are not considered eligible criteria for EPA grant funding (EPA, 2009a). The Alaska Department of Environmental Conservation (ADEC) models its Brownfield definition after EPA’s but modifies it slightly stating “a brownfield is 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.”

1.1 Definition of the Problem

Contaminated regions tend to be located in underserved communities, rural or urban (University of Washington, 2009). Brownfield reuse and redevelopment can increase a community’s quality of life by protecting public health and generating community interest in the growth and management of new properties that better serve those communities. These projects are valuable to communities but require capital in order to be developed and implemented. Funding is key to revitalizing bighted properties but tribes in Alaska cannot access Brownfield funding as easily as tribes in the Lower 48 or small businesses or municipal governments.

The problem is rooted in the language of the legislation that drives cleanup funding, specifically the structure of the Alaska Native Claims Settlement Act (ANCSA) and the exclusion of Alaska Native Tribes from competitive grant eligibility. Another factor negatively impacting R&R efforts is the lack of regulations (either State or federal) in place to run a Brownfields program. This is beneficial because programs can be tailored to fit the needs of each State, but also detrimental because a lack of regulatory structure and definition limits how effective a program can be in handling Brownfields. This is particularly difficult for Alaska’s Brownfield Program because it is a section of ADEC’s Contaminated Sites Program and is required to operate under the regulatory framework of Contaminated Sites rather than having its own guidelines to follow.

The complexity of this problem will be addressed in two ways:

1. By identifying the financial opportunities for cleanup other than EPA competitive grants available to Native Regional and Village Corporations; and
2. By recommending alternative policy options that support rural community needs to secure cleanup funding and meet the objectives of Brownfields R&R in interested communities.

Alaska’s funding ineligibility is addressed in the legal framework section of this policy report. The research aims to answer the question: “What policy actions should be taken to support rural community access to brownfields funding sources for revitalization and other associated activities?”

Environmental concerns are a public policy issue because they illustrate what we as society are willing to tolerate regarding the ecological health of our neighborhoods and surrounding communities. When the public voices its concern regarding environmental degradation and contamination, it is the duty of public administrators to address the existence and extent of that pollution and correct the problem for the public’s benefit.

1.2 Brownfields

A “B”rownfield is defined as real property with either perceived or actual contamination on which an enhanced or new use for the site exists. There must be a specific reuse plan that will enhance the property in a better way. The vision and plan for revitalization of the contaminated site determines site eligibility for EPA grant funding (Morales, 2010).
1.3 brownfields

A “b”rownfield is defined as real property with either perceived or actual contamination on which an enhanced or new use for the site exists but does not have a reuse plan to follow the assessment and cleanup phase of the contamination (Morales, 2010). If a site does not have a reuse plan, it is ineligible for federal funding but may still receive an assessment. The distinction between having a reuse plan and not having one is a common factor that affects funding eligibility.

1.4 Lumpers and Splitters

There are numerous contaminated sites in Alaska. It is difficult to know an exact number because site categorization varies between industry definitions nationwide. Sites have been lumped together and split based on assessments conducted over time (Roberts and O’Connell, 2010). A site that was once assessed as one (1) contaminated area could later be re-assessed and filed as three (3) separate sites based on the type of contamination found, the location of the contamination, and the sampling methods used to determine contamination. A good example of the complexities behind lumpers and splitters is the way munitions response sites are assessed through the Defense Environmental Restoration Program (DERP) for the Military Munitions Response Program (MMRP).

MMRP splits munitions sites into Munitions Response Areas (MRAs) and Munitions Response Sites (MRSs) (ADEC, 2006). An MRA is a larger area in which there can be multiple response sites. If an MRA is classified as one area but there are 10 MRSs within that single MRA, the site can be counted as one (1) or eleven (11). This explains why contaminated sites can be counted in so many different ways making it challenging to pinpoint an exact number of sites in Alaska, including brownfields. ADEC’s Contaminated Sites database lists over 6,000 sites in the State (2010). Not all contaminated sites are brownfields by any means but this does illustrate how few or many sites there can be based on grouping criteria and the nature of the contamination.

John Carnahan states “every community has multiple sites and properties that are directly affected by environmental hindrances. DEC’s informal estimates are that there are likely hundreds of brownfields across Alaska, many of which we know nothing about.” Approximate site assessment requests and completed assessments will be discussed in Section 2.5.
### 2.0 Historical Trajectory of Brownfields

#### 2.1 National Brownfields History

According to a University of Washington study (2009), there are approximately 400,000 brownfields across the United States. The majority of this contamination is an inadvertent outcome of the country shifting its focus on industrialization in the 1970s to an economy based on technology development and services information. Industrial areas were often located in neighborhoods populated by minorities and poor communities. Geographically, these communities are “disproportionately burdened” by the effects of brownfields. This illustrates the idea of ecological unfairness to the brownfields problem and begs the question as to whether or not certain communities are privy to environmental justice. Small towns, rural communities and underserved neighborhoods are typically and more often impacted by the negative health and economic costs of brownfields.

Environmental concerns on Indian lands pose many problems. There is difficulty in developing basic infrastructure, the threat of groundwater contamination caused by underground storage tanks (UST) and old landfill sites. Asbestos can be found at these sites as well as lead paint (EPA, 2009b). The cost of cleanup, lack of public awareness, and outside economic and environmental interests has kept sites in these polluted and underutilized conditions.

Now that brownfields are gaining recognition by the wider public, public policy concerns have emerged and need to be addressed. The primary public interests are safeguarding public health and community development. The University of Washington states the costs of brownfield inaction to be:

- Damage to human health and associated costs to address healthcare needs;
- Ecosystem damage;
- Fiscal costs (in the form of revenue losses to local governments); and
- Social costs of environmental inequality.

The unique history and tribal culture coupled with “jurisdictional issues…and the ability to deal effectively with environmental issues in Indian country” (EPA, 2009b) need to be evaluated and understood when examining the brownfields policy as it applies to Alaska.

#### 2.2 Alaskan Brownfields History

Much of the existing contamination in Alaska is the result of inadvertent petroleum spills, historical dumping practices, and careless chemical handling. These actions are typically associated with the development of growing populations (ADEC, 2007). This differs from the brownfield origins throughout the rest of the country because rural Alaska typically does not have infrastructure like the rest of the United States, particularly for industrial development other than oil and gas. There are no factories or dry cleaners in rural Alaska similar to those in the Lower 48. ADEC states that the legacy of contamination in Alaska has not been fully addressed. There were thousands of mines developed in Alaska in the mid 20th century (ADEC, 2007) and many of them are likely contaminated by tailings that contain high levels of heavy metals like mercury (Hg), arsenic (As), and lead (Pb).

Old Bureau of Indian Affairs (BIA) schools and other former buildings were made using lead paint. Many of these are dilapidated and sit unused in rural Alaska. Old tank farms used to store fuel have begun to leak and village landfills have become overcrowded with solid waste. Burn sites from fires, old fish canneries, and former power plants pose health risks because contamination potentially exists. At many locations throughout rural Alaska, these structures are falling into states of disrepair. Abandoned sites pose safety risks to residents living nearby.

There are limited records on site contamination prior to the 1970s in Alaska. Most of the contamination in the State occurred before environmental policies and regulations were created, making it difficult to know the exact source of contamination. It is estimated that 96% of the known contaminated sites existed before environmental regulations and policies were developed (ADEC, 2007). Programs that address spill prevention and response as well as solid waste control and proper handling now prevent many accidents from taking place. These policies also prevent future impacts on the land and human health.
2.3 General Brownfields Needs in Rural Alaska

Contaminated sites in rural communities pose threats to human health and hinder community growth and development. Contaminated land is underutilized creating a need for R&R. Brownfields can be used in a variety of ways to better serve the needs of communities in rural Alaska. Many communities would like to revitalize the land in ways that not only better serves the community but also support economic development. Table 1 lists documented examples of various Brownfields Projects in Alaskan communities and demonstrates the community’s vision for R&R.1

Although Table 1 provides information on the assessments and potential for reuse in these communities, it is not a comprehensive table. It is imperative to recognize that neither ADEC nor EPA dictates or suggests reuse ideas for communities. The EPA Brownfields and Land Revitalization State and Tribal Program states that the EPA hopes “through public participation activities like visioning projects and public hearings, the community impacted [by the Brownfield] will be able to voice their need for redevelopment” (Sims, 2010). A reuse plan for conversion to greenspace holds as much weight as a project with economic development potential. EPA has no bias towards one redevelopment idea verses another when awarding competitive grants.

There are many benefits to redeveloping land in rural Alaska. EPA (2006) lists potential benefits in a broader sense which allow communities to create visions compatible with needs and wants of local residents. These include:

- Protecting public health and environment by removing or stabilizing contaminants;
- Increasing or protect greenspace (natural areas, parks, and gardens);
- Transforming idled or abandoned properties into community assets;
- Retaining and creating jobs;
- Increasing tax revenue for communities;
- Revitalizing declining neighborhoods; and
- To utilize existing and underused infrastructure (sewers, roads, and pipes).

The first of these benefits for rural Alaska is the protection of human and environmental health. Second, there is little infrastructure that is still useful to residents. Construction grants for R&R projects could transform the landscape, remove dilapidated or dangerous structures, and provide employment for those who live in villages and Native communities.

A common plan for R&R is converting a site to greenspace and using the land for communal gardening. Due to the harsh winter climate in rural Alaska, some of these gardens have also been proposed to be greenhouses so gardening can take place year round. Sustainable building practices have also been discussed concerning greenhouses and other new structures associated with community R&R plans. Ideas like these may be eligible for renewable energy grants and provide funding for projects that employ green building practices.

Modern technology and environmental conservation practices show that leaking batteries, dumping fuel on the ground (rather than disposing of it properly), and underground fuel tanks can affect groundwater. This directly affects the health of the residents exposed to these chemicals as well as the animals that live in the region because they ingest contamination through drinking water or eating plant life that has come into contact with pollutants. The entire food web can be disrupted by exposure to hazardous substances.

The vast majority of Native Alaskans depend on subsistence living practices for food. Where Brownfields affect the fish and wildlife populations, the food supply is compromised. The health risks are enormous when the food chain is disrupted by exposure to toxins and other pollutants. When contaminants leach into groundwater, a chain reaction is set in motion that affects wildlife, aquatic life, and human health (NIOSH Pocket Guide to Chemical Hazards, 2005).

In addition to R&R plans, Table 1 lists contamination found at these sites. Asbestos exposure can result in eye irritation, restricted pulmonary function, dyspnea (shortness of breath), and lung cancer. Benzene exposure can cause dizziness, nausea, dermatitis, and bone marrow depression. Chlorine contact can result in nausea, vomiting,

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1 This table addresses R&R ideas in Alaskan communities between 2007 and 2010 but is not a complete list of all of assessments conducted by ADEC.
headache, dermatitis, and chemical pneumonia. Hg contamination can cause chest pain, chemical pneumonia, bronchitis, proteinuria (excess protein in urine), and gastrointestinal tract disruption. Pb (paint and battery acid) exposure has been linked to kidney disease, anemia, encephalopathy (brain dysfunction), malnutrition, and tremors (NIOSH Pocket Guide to Chemical Hazards, 2005).

These chemicals can gravely impact a community through routine exposure. The tribal health consortiums will incur greater costs to treat residents suffering from these side effects, some of which cannot be reversed. Environmental justice becomes an issue because residents of rural Alaska are not afforded the same protection from pollutants as those in urban regions of the State.

### 2.4 Challenges and Opportunities for Alaskan Brownfields

Addressing Brownfields in rural Alaska involves numerous challenges compared to the opportunities but there are chances to improve blighted properties. The primary challenge is the ineligibility of Alaskan tribes to receive competitive grants. Other challenges include:

- Remote location of communities and associated travel costs to conduct business in rural Alaska;
- Shorter field work seasons;
- Language barriers hinder communication between agency officials and rural residents; and
- Moving projects past the assessment phase.

Grants do not cover the administrative costs needed to oversee and complete a project. The maximum grant award is $200,000; it is meant to be “seed” money partnered with additional funding sources (Sims, 2010). $200,000 is generally not enough to complete a Brownfield project from start to finish. If a community doesn't have the funds to finish a project, it may not be worth it to even start the process of developing a reuse plan and applying for grants.

Community interest must remain strong or projects likely won’t develop. Brownfields are also a specialized field of environmental work. Experienced individuals tend not to remain in the villages, so if leaders must move to a new subsistence camp or leave to care for an ailing family member in another village, interest can fade or dissolve entirely (Goolie, 2010). The absence of a strong community leader can cause a Brownfield program to lose support quickly. There must be an internal desire within the community for any Brownfield project to be successful. In fact, there is only one instance in which a rural community was able to secure funding for a Brownfield project. The community of St. Paul partnered with the local government to apply for a competitive grant. St. Paul won the grant but eventually returned the money because the city lost momentum for R&R plans (Morales, 2010).

A Native Corporation applied for a competitive grant but did not receive the award because the proposed project had already received interest from other entities. The R&R plan was to convert an old logging camp into a tourist attraction (Carnahan, 2010). Because a local tourism outfit had an interest in the project, the site was not considered blighted but rather an existing property with pending redevelopment. This is an unfortunate example. If the grant had been awarded and matched with dollars from the tourism industry, the property may have been redeveloped into a facility used to generate revenue. The ruling is contradictory to the premise of “seed” money because the community had a financial resource through the tourism company that would have been partnered with the EPA competitive grant.

Despite these challenges, there are opportunities for the Brownfields Program in Alaska. There are a lot of federal dollars earmarked for Alaska and leveraging these dollars between programs has started to occur at the federal level (Sims, 2010).

Capacity building provides an opportunity for tribes to pool resources and find ways to circumvent these challenges. These funds are available to inventory brownfields and apply for assessments. They also provide communities with the chance to become familiar with the condition of their ecological surroundings and understand how Brownfields, while polluted, can be valuable properties for R&R that will benefit their villages for generations to come.
Table 1
Sample of Documented Brownfields Examples in Rural Alaska

<table>
<thead>
<tr>
<th>Site Name/Location</th>
<th>Owned by Native Corporation or Village Corporation?</th>
<th>Documented Contamination at Site</th>
<th>Community Concerns</th>
<th>Assessment Complete / Assessment Fiscal Year</th>
<th>Cleanup Actions Taken</th>
<th>Reuse/Redevelopment Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Village of Tazlina Former Copper Valley School</td>
<td>No</td>
<td>Asbestos, bags of unknown powdery substances, underground storage tanks (UST), lead paint cans, and lead-acid batteries.</td>
<td>Contamination and other refuse from a dump site may be eroding into the river. Children also play in this area and therefore susceptible to contact with contaminants</td>
<td>No / 2010</td>
<td>None</td>
<td>This site is of historical significance to those who attended the former school. The community wishes to reuse the property for an environmental and cultural center for Native Leaders</td>
</tr>
<tr>
<td>Afognak Raspberry Strait Dumpsite</td>
<td>Yes</td>
<td>Lead-acid batteries, petroleum associated materials, used oil filters, and engine parts.</td>
<td>The dump causes concern due to its proximity to a stream, wetlands, and a tribal shareholders' lodge</td>
<td>No / 2010</td>
<td>None but the site is eligible for an EPA competitive clean up grant because the land is owned by the corporation</td>
<td>Plans to return the land to its natural state to protect tribal subsistence use areas</td>
</tr>
<tr>
<td>Tuluksuk Native Council BIA School and Old Power Plant</td>
<td>No, but school is owned by Department of Education and Early Childhood Development (DEEC) and is possibly eligible for cleanup funding through that program</td>
<td>Contamination associated with power plants (i.e., mercury, chlorine, coal burning emissions). Project will address both the BIA school and power plant.</td>
<td>Fire hazards and human health risks associated with contamination</td>
<td>In progress / 2010</td>
<td>None but the BIA school to be assessed is owned by DEEC and could therefore be eligible for funding through DEEC’s money</td>
<td>Tuluksuk would like to build 28 homes for a subdivision.</td>
</tr>
<tr>
<td>Native Village of Elim Tank Farm</td>
<td>No</td>
<td>Contaminated soil and groundwater caused by diesel range organics (DRO), petroleum, and benzene.</td>
<td>Contaminated water affects all aspects of life. Animals and human drink the water and are exposed to the chemicals. When residents consume animals exposed to contamination, their levels of exposure increase</td>
<td>No / 2010</td>
<td>No</td>
<td>Would like the land to be used for commercial and residential property development but no clear plan is in place</td>
</tr>
<tr>
<td>Aniak Native Community Power Plant and Tank Farm</td>
<td>No</td>
<td>Waste oil, glycol, and battery acid.</td>
<td>Groundwater contamination</td>
<td>No / 2010</td>
<td>No</td>
<td>The community would like to restore the area to greenspace for communal gardening needs</td>
</tr>
</tbody>
</table>

*Site assessment profiles were generated using data from ADEC’s Brownfields Assessment Summaries. This table reflects 11 summaries of 43 researched for this report. Complete summaries can be accessed via the internet at http://dec.alaska.gov/spar/csp/bfprojects.htm.
Table 1
Sample of Documented Brownfields Examples in Rural Alaska (continued)

<table>
<thead>
<tr>
<th>Site Name/Location</th>
<th>Owned by Native Corporation or Village Corporation?</th>
<th>Documented Contamination at Site</th>
<th>Community Concerns</th>
<th>Assessment Complete / Assessment Fiscal Year</th>
<th>Cleanup Actions Taken</th>
<th>Reuse/Redevelopment Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manokotak Village Council Old BIA School</td>
<td>No</td>
<td>Unknown until assessment is complete, suspected fuel from tank farm.</td>
<td>Building is a public nuisance and safety hazard for residents</td>
<td>In progress / 2010</td>
<td>None</td>
<td>A new building is proposed for the site but will not been determined exact type until assessment is complete</td>
</tr>
<tr>
<td>Village of Lower Kalskag Tank Farm</td>
<td>No</td>
<td>Fuel releases associated with tank farms.</td>
<td>Groundwater contamination</td>
<td>Yes / 2009</td>
<td>No</td>
<td>Storage spaces for city and tribal offices, an office building for landfill management, and a new lodging facility for visitors</td>
</tr>
<tr>
<td>McGrath Native Village Council</td>
<td>No</td>
<td>UST was discovered after the existing town hall burned down and an assessment of fire damage was conducted. A fuel release was discovered and resolved to move to next stage in R&amp;R.</td>
<td>Lack of community center, groundwater contamination may exist from unknown UST</td>
<td>Yes / 2009</td>
<td>No</td>
<td>McGrath would like to rebuild the community center while incorporating green building practices into construction. McGrath has secured funds from the Interior Regional Housing Authority and will apply for an Indian Community Development Block Grant</td>
</tr>
<tr>
<td>Village of Bill Moore's Slough Old BIA School Playground</td>
<td>No</td>
<td>Used syringes for tuberculosis vaccines were dumped at site. Location is next to the school fuel tank. It is unknown if fuel tank is a source of contamination.</td>
<td>Resident (especially children) exposure to used needles</td>
<td>Yes / 2009</td>
<td>No</td>
<td>The community would like to convert the site to a parking lot and basketball court</td>
</tr>
<tr>
<td>Port Heiden Meshik Seafood Co-op</td>
<td>No</td>
<td>Fuel releases associated with tank farms. Tank farm upgrades have left old tanks underutilized.</td>
<td>n/a</td>
<td>Yes / 2008</td>
<td>No</td>
<td>Port Heiden would like to utilize the structures to repair fishing boats and store equipment like heavy machinery and snow machines</td>
</tr>
<tr>
<td>Pilot Point Tribal Council Alaska Packers Cannery</td>
<td>No</td>
<td>Fuel contamination.</td>
<td>n/a</td>
<td>Yes / 2007</td>
<td>No</td>
<td>Pilot Point would like to convert some of the old cannery buildings into a summer youth camp, a museum/visitor center, and a metal and woodworking shop for the community</td>
</tr>
</tbody>
</table>

*Site assessment profiles were generated using data from ADEC’s Brownfields Assessment Summaries. This table reflects 11 summaries of 43 researched for this report. Complete summaries can be accessed via the internet at http://dec.alaska.gov/spar/csp/bfprojects.htm.*
2.5 Assessment Activities

Brownfields in Alaska are assessed by ADEC and modeled after EPA’s Targeted Brownfield Assessment (TBA) Program (Labaw, 2010). TBAs are organized around the end goal of the client’s needs (EPA, 2003). This explains why having a community vision for development is a critical component when requesting an assessment. A TBA is a service and not a grant. EPA personnel select sites for assessment based on the following criteria:

- Public need and benefit;
- Plans for R&R;
- Mechanisms used for cleanup;
- Government involvement; and
- Public ownership of the site.

Stakeholders are involved throughout the process. The average value of an assessment is $50,000 and requests to EPA are accepted on an ongoing basis. A full-scale feasibility study (FS) is not completed for assessments. EPA addresses the process in four parts:

1. Site Inventory;
2. Phase I;
3. Phase II; and

Phase I entails historical review of the site and identification of environmental conditions. Phase II confirms whether or not contamination is present at a site and if so, sampling of the soil, groundwater, and other environmentally related media begins.

ADEC “assists Alaskan communities by conducting environmental site assessments intended to help reduce the environmental uncertainties that may hinder the reuse or redevelopment of a brownfield” (ADEC, 2010). DBAs (DEC Brownfields Assessments) are ADEC’s program to inventory and assess Brownfields in Alaska. Like a TBA, a DBA is a service only and not a grant. Communities requesting an evaluation should have funding in place for reuse before applying for a DBA to ensure there are resources to complete the project (Williams, 2010). DBA objectives are:

- To help determine whether an environmental problem at a site is limiting its desired reuse;
- To help identify the nature and extent of contamination;
- To make recommendations and estimate costs for additional assessment, if needed; and
- To identify cleanup options and provide an estimate of cleanup costs.

The requests are evaluated for eligibility then ranked and prioritized. Assessment and cleanup should coordinate closely with community reuse needs in order to provide the most benefit to those who live near the site. DBA eligibility is determined by having secure access to the site, the absence of a viable responsible party and is greater when the reuse plan is strongly supported by the community requesting the assessment (Benson, 2010). “Reuse and revitalization must be a consideration of ADEC assessments. Up-front planning is the most important element of a plan and it must have community support” (Benson, 2010). The DBA request period for 2010 ended 19 February 2010. The request period closes in this time frame each year so ADEC personnel has time to inventory and rank the requests prior to the start of the field work season. ADEC also needs time to coordinate assessments with EPA before the beginning of the fiscal year (FY), which begins annually July 1. There is a short field work season in Alaska and ADEC cannot begin that work until funds are available so early planning and organization are fundamental elements for successful DBAs.

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2 If the land is privately owned, the owner cannot be responsible for the contamination and a cost-sharing commitment for cleanup must be in place.
3 The State of Alaska annually ends its fiscal year June 30 and begins its new fiscal year July 1.
The requests are ranked using the following criteria:

1. Viable reuse plan for the site;
2. Strong community project team;
3. Consideration of other resources needed to complete the project; and
4. A community interest in the reuse plan.

There have been roughly 120 DBA requests since the inception of the program and about 100 TBA requests to EPA. These requests have come from communities, non-profit organizations, and various State agencies (Carnahan, 2010). An example of ADEC’s success with the DBA Program is its ability to complete multiple assessments with a limited budget. An assessment can cost as much as $50,000. During FY10, 18 requests for DBAs were received. Of those requests, eight assessments were completed with a budget of $130,000. Since the beginning of the program, approximately $2 million has been spent on 70 assessments in Alaska (Carnahan, 2010).

Mr. Carnahan explains ADEC’s funding in more detail stating “the contracted services amount for FY10 was $130,000 but included no labor or other costs for the program. Our grant has been approximately $460,000, but we received increases the past two years, with last year’s grant totaling $617,000 to fund staff labor for [up to 4 staff], travel, and contracted services. In addition to the $130,000 EPA Section 128(a) grant, we are managing approximately $550,000 in state-contracted services for assessments on state sites that have a reuse or redevelopment component to it, or are associated with schools. We have more than 20 projects underway at this time.” There have not been many assessment requests for sites located on lands owned by Native Corporations. Most of the assessments have covered properties owned by cities, non-profit organizations, or by the State itself.

ADEC Brownfields coordinators agree that much of the program’s success is attributable to interagency collaboration and statewide outreach. ADEC coordinates with EPA, Indian Environmental General Assistance Program (IGAP) staff, local government agencies and Tribal Response Programs (TRP) to engage communities and address brownfields. TRP’s are used by tribes to establish environmental protection and to develop resource management offices (EPA, 2009b) that offer either community assistance or know where to seek technical aid and resources for residents that may not otherwise have access to those programmatic features. After assessment, it is imperative to understand the processes relevant to sustainable brownfield redevelopment. This process is provided in Figure 1.

### 2.5.1 Technical Assistance to Brownfields Communities Program

The Technical Assistance to Brownfields Communities Program (TAB) is offered through EPA to guide communities through the cleanup and development process (EPA, 2010). The TAB grants serve as an independent source of information assisting communities with residential involvement, better resources to understand the health impacts of brownfield sites, remediation and site preparation activities, finance questions, and information on integrated approaches to cleanup and redevelopment.

The service also offers review and explanation of technical reports, provides basic knowledge of science and environmental policy, and facilitates community support efforts and other stakeholder involvement activities. This is a valuable resource for communities in need of technical expertise. Entities interested in this program should contact Brownfields Coordinators in their EPA regions to determine the assistance best suited for a particular project.

### 2.6 Costs of Cleanup

It is unrealistic to provide an umbrella cost estimate to Brownfields; each site is unique based on location, existing contamination, and the intended reuse of the property after assessment is complete. Brownfields are wide-ranging so giving a dollar amount to all efforts would not properly capture the needs of sites in various communities (Sims, 2010).

For example, if a site needed only a UST pulled from the ground and the remaining land was capped with cement, that may cost as little as $125,000 (Sims, 2010). If the site is a former garage for the auto industry, it could cost hundreds of millions of dollars to remove all of the debris, sample the soil and groundwater for pollutants, and remediate the land to appropriate cleanup levels for the intended reuse.
Sites are cleaned up to levels that protect human health. For a site that intends to be used for residential property, the most protective standards are followed and only the lowest levels of contamination can be present at a site. Estimating cleanup is nearly impossible if there is no intended reuse idea in mind. Exact data on the cost of cleanup can be difficult to obtain in Alaska because most assessments don’t progress beyond Phase II and cleanup options and estimates are determined during Phase IV.
Figure 1  Sustainable Brownfield Redevelopment Guidelines and Process

Stage 1: Initiation
- Initiate Process
  - Recognize a need or vision of redevelopment
  - Recognize development opportunity
  - Take initiative
  - Compile initial information
- Identify Stakeholders
  - Critical activity of initiation
  - Use diverse outreach strategies
  - Citizen advisory groups
  - Build consensus

Stage 2: Evaluation
- Determine Project Viability
  - Comprehensive Analysis
  - Identify past and current land uses
  - Impact of future land use
  - Identify potential financing sources
- Identify Environmental Risks
  - Property assessment
  - Determine risk
  - Assess remedial options
  - Risk communication
- Determine Applicable Regulations
  - Regulatory agency oversight & approval
  - Corrective action objectives
  - Institutional & engineering controls
  - Determine reuse options

Stage 3: Transaction
- Financial Risk Analysis
  - Alerting to environmental conditions that need management
  - Determine acceptability of risk and make disclosures
  - Determine insurance needs
- Legal and Financial Activities
  - Preliminary and pre-closing agreements
  - Allocating financial risks
    - Inside transaction documents
    - Outside transaction documents

Stage 4: Implementation
- Permitting
  - Stakeholder agreement
  - Coordinate with redevelopment
  - More efficient permitting process
- Remedial Action
  - Implement remedial action as appropriate
  - Integrate with development, prior, during, and long-term
  - Meet corrective action objectives
- Exit Strategy
  - Use controls to ensure new brownfields are not created
  - Redevelopment underway
  - Remedial action implemented
  - Regulations met

*Information provided by the American Society for Testing Materials
3.0 Methodology and Literature Review

3.1 Methodology

This research will draw on both quantitative and qualitative information and data. The information is technical data on assessments, definitions, administrative procedures, and legal constraints. The applied research portion will consist of interviews with key Brownfields personnel within various governmental and non-profit agencies. These interviews are a part of an iterative process and provide qualitative data vital to understanding the nature of brownfields as a policy problem.

Interviews are important to this report because they indicate community needs, can be used to help communities collaborate to address brownfields, and explain what actions need to be taken to support the Brownfields Program in Alaska. Interviews with key personnel and industry officials provide valuable information and in clarify the limitations of funding activities. A variety of questions were asked during interviews. Some questions include:

1. What are some of the health effects of exposure to Brownfields contaminants?
2. How many regional and village corporations have applied for competitive grants?
3. What factors led to the legislative exclusion of Alaskan tribes concerning competitive cleanup grants?
4. What are some examples of community needs with regard to R&R efforts?

This issue is complex and relatively new compared to other programs handling contaminated sites so institutional knowledge is imperative when evaluating the challenges and opportunities for Brownfield revitalization in Alaska. A complete list of personal communication is available in Section 9.0.

Criteria used to determine which policy alternative is most fitting for the purposes of this research will include technical feasibility, program effectiveness, and political viability.

- Technical feasibility is defined as a criterion for evaluation alternatives. It measures whether the alternative will actually produce the desired result and how difficult it can be to meet the major program objectives (Patton and Sawicki, 1993).
- Program effectiveness is a tool used to determine whether the policy alternative will increase Brownfield resources economically.
- Political viability measures whether the alternative is acceptable or can be made acceptable to relevant groups.

3.2 Literature Review

Brownfields literature is widely available through ADEC and EPA. While ADEC literature focuses primarily on Alaska’s program, EPA has materials germane to both Alaska and the United States as a whole. Explanations of inventory and assessments are well documented and thoroughly explained. Presentations given at the Alaska Forum on the Environment held February 8-12, 2010 were especially helpful in clarifying the Brownfield problem in Alaska.

The historical practices that lead to contamination in Alaska are outlined by ADEC in a 2007 management study of contaminated sites. Brownfields origins are slightly different Outside Alaska and are explained in a joint effort report completed by the University of Washington and the State of Washington’s Department of Ecology. The book Alaska Native Land Claims has been used to simplify the intricacies of the Alaska Native Claims Settlement Act and the resulting regional and village corporations. This settlement is convoluted but necessary to understand because it shaped the way funding is funneled to Alaska for rural projects. This research is necessary to understand why Alaskan tribes are ineligible for EPA grant funding. The central reason that Alaskan tribes are not eligible for funding is that tribes do not own land in Alaska, the corporations do, and any entity applying for funding must own the land on which the Brownfield sits.

Opportunities for grants and funding beyond EPA competitive grants will be evaluated and given review based on the grants options compiled by Mr. Ignacio Dayrit of the Center for Creative Land Recycling (CCLR) and through grant
research reviewing federal, state, and local programs. Mr. Dayrit’s suggestions have created outlets for research into agencies typically not associated with environmental cleanup and redevelopment and may be useful to TRPs to explore. The Department of Housing and Urban Development (HUD), the United States Department of Agriculture (USDA), the Alaska Energy Authority (AEA) and EPA are among the entities that will be examined as sources of funding.

Programs in Colorado, Oregon, and Washington State are highlighted in the University of Washington Study and have been useful for developing models for Brownfield revitalization in Alaska. Colorado and Oregon’s programs will be reviewed and used in policy recommendations if they are feasible in Alaska and compatible with the needs of rural communities wanting to redevelop Brownfields.

3.2.1 Colorado Brownfields Program Model

Properties that sit untouched because of their real or perceived contamination can be rehabilitated using the Colorado Department of Public Health and Environment’s Voluntary Cleanup Program (VCUP). The program provides “public and private property owners with the resources to facilitate cleanups as well as assurances against regulatory enforcement. VCUP’s are a way to get both federal and state remedial plans approved in a one-stop shop” (Colorado Department of Public Health and Environment [CDPHE], 2010).

Under VCUP, property owners prepare and submit a cleanup plan to CDPHE program staff. Within 45 days, a state voluntary cleanup specialist assesses whether the plan will adequately protect nearby human health and the environment, based on the site’s contaminant levels and proposed land use. Cleanup begins once CDPHE accepts the plan. It is up to the property owner, using an environmental professional, to self-certify that cleanup is complete and the plan’s goals have been met.\(^4\)

Streamlined use of state time and resources helps private owners turn contaminated sites into economically viable properties while protecting human health and the environment. VCUP allows sites like old gas stations and abandoned landfills to quit festering as blighted property.

3.2.2 Oregon Brownfields Program Model

The Oregon Brownfields Redevelopment Fund was created to assist private persons and local governments in evaluating, cleaning, and redeveloping brownfields (Oregon Department of Business Development Department [OBDD], Division of Infrastructure Finance, 2010). Individuals, businesses, non-profit organizations, and tribes are all included on the list of eligible applicants for the Brownfields Redevelopment Fund. Applicants fall into two categories for this program; municipal and non-municipal. Tribes are considered municipal applicants. Environmental actions funded through this program must be linked to site redevelopment that facilitates economic development or community revitalization.

The Oregon Coalition Brownfields Cleanup Fund is offered through Oregon’s Business Development Department. This program funded through a cooperative agreement between EPA and the local government agency. The department administers the program on behalf of a coalition of partners. The fund’s primary purpose is to assist private persons and local governments to cleanup and redevelop brownfields. Ineligible applicants include those who are potentially liable for having caused the contamination, applicants currently barred or suspended from spending state or federal funding, and any site proposed to be or listed as an NPL site. The cleanup of the project must be associated with a reuse activity.

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\(^4\) In addition to cleanup plan reviews, the program offers assistance to brownfield properties in the form of environmental site assessments, tax credits, revolving loans and up to $250,000 a year in statewide project funding. Usually given to public or non-profit groups, the programs’ environmental site assessments provide better understanding of the environmental conditions affecting a property. Assessments help assuage community fears, showing that problematic sites often are easier to redevelop than originally thought.
4.0 Legal Framework and Findings

The environmental law system is an organized way of using all of the laws in our legal system to minimize, prevent, punish, or remedy the consequences of actions which damage or threaten the environment, public health, and safety. Federal policies concerning Brownfields originated with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA has served as a model for many state run cleanup programs and is administered by EPA (University of Washington, 2009). EPA began to address contaminated sites across the country that were not on the NPL but were in need of attention as they posed risks to human health and the environment. In 1993, the concept of brownfields was created and defined as “abandoned, idled, or under-used industrial and commercial facilities where expansion and redevelopment is complicated by real or perceived environmental contamination” (University of Washington, 2009).

The Brownfields Economic Development Initiative (BEDI) was created by EPA in 1993 (HUD, 2010). This initiative addressed contaminated sites with known health risks but not the type that posed public health concerns similar to those on the NPL. This program was supported by Superfund Appropriations (see Section 4.1) for four years until 1997 when BEDI became its own line item in EPA’s budget. BEDI is now a competitive grant offered though the Department of Housing and Urban Development (HUD). It will be discussed in more detail in Section 6.0.

The Voluntary Cleanup Program (VCP) began and was recognized by EPA in the late 1990s. VCP was established in several states to expedite the process of cleaning sites with less contamination than others. Although VCP’s efforts are parallel to that of Brownfields, it is important to note that the programs are not identical because VCP did not emphasize R&R, a primary component of the Brownfields Program.

The Brownfields Program has been vital to EPA’s land renewal goals. The program not only provides grants and technical assistance for cleanup but also teaches communities about sustainable reuse of land and preventing future brownfields (EPA, 2009b). The purpose of this program is assist in building partnerships that foster learning and training between local communities and governments while finding beneficial reuses of contaminated lands.

In 1993, President Bill Clinton’s director of BIA, Aida Deer, decreed that every one of Alaska’s 231 native villages was a tribe, thereby doubling the state’s tribes with the “stroke of a pen”. Sovereignty advocates wanted each village to be fully recognized as a sovereign nation. "That course of action cannot succeed," Alaska Senator Ted Stevens told the Alaska Federation of Natives (AFN) at its annual convention in 2003. "If those villages are recognized as sovereign nations, the future of Alaska as a state is in jeopardy: Alaska would ultimately encompass a huge collection of independent tribal nations, unconnected by a state government and unprotected by the federal system." Each tribe was then recognized as a sovereign nation but did not have land ownership rights and did not have reservation status to conduct tribal business and establish rules like Lower 48 tribes.

Meanwhile, Public Law 93638 passed enacting the Indian Self Determination Act. This required federal agencies to subcontract with Indian agencies to manage government Indian programs (Angvik, 2010). The federal government had to do business with tribes but tribes had to list themselves with BIA in order to be recognized as an entity with which the government would conduct business. Previously enacted laws shaped the language and eligibility requirements of the Brownfields legislation. In order to be in compliance with prior statutes, regional and village corporations in Alaska must be the responsible parties for grant applications.

4.1 The Alaska Native Claims Settlement Act

ANCSA was signed into law by President Richard M. Nixon on December 18, 1971. ANCSA is the largest land claims settlement in United States history. ANCSA was enacted by Congress with the intention to resolve the long-standing issues surrounding indigenous land claims in Alaska and to stimulate economic development throughout the State. The settlement overshadowed Native claims to the land by transferring land titles to 12 Alaska Native Regional Corporations and over 200 local Village Corporations. A thirteenth regional corporation was later created for Alaska Natives who no longer live in Alaska (Alaska History and Cultural Studies, 2010) but are corporation shareholders.
The creation of village and regional corporate structures under ANCSA shifted the basis for political power in Alaska Native politics. The regional corporations were the 'winners'. They became the ones responsible for holding the remaining Alaska Native lands, as well as the money received for payment. The tribal governments received neither land nor money; only the corporations received compensation. This compensation came from Congressional appropriations and State and federal mineral reserves totaling $462.5 million to be paid over an 11 year period to the Alaska Native Fund (Arnold, 1975).

Alaska Natives received 40 million acres of land. In this transaction, all prior aboriginal land claims ceased to exist. Regional and village corporations received fee simple titles\(^5\) to lands roughly four times the amount American Indians in the Lower 48 received. Native Alaskans received:

- Twenty-two millions acres were set aside to the village corporations,
- Sixteen million to regional corporations,
- Two million were set aside for special land grants in Non-Native regions such as Kodiak, Sitka, and Juneau (Arnold, 1975).

Lands could not be chosen by regional and village corporations if they were national parks, Department of Defense sites, or wildlife refuges. The benefits of these land claims were designed to accrue through shareholder stocks modeled after business entities. As shareholders, Natives are considered part-owners of corporate business interests.

In 1966 AFN was formed as a statewide, voluntary, non-profit association. Their goal was to promote the common interests of Alaska Natives and to get a fair settlement of the land rights (Alaska History and Cultural Studies, 2010). With the discovery of oil on the North Slope, the U.S. government became intensely interested in settling the land claims because resource development had great economic potential for Alaska. In 1971, at a special convention of the AFN, the final draft of a Congressional legislative settlement was approved. Fifty-six of the 511 delegates voted against the settlement. Incidentally, President Nixon signed the legislation into law even before the AFN voted. Some ANCSA opponents believe the discovery of oil fast tracked all appropriate vetting processes to make way for an economically and politically attractive project.

The land ownership structure created by ANCSA led to the grant exclusion because tribes do not own land in Alaska. This is an example of how unintended consequences occur when decisions anticipated to benefit the wider public do not meet their intended goals.

ANCSA put land ownership in the hands of Native Corporations. Individual tribal communities in Alaska cannot apply for competitive EPA grants because ANCSA's land ownership guidelines assume regional and village corporations own all of the Native lands. This can make it difficult to determine who actually owns a piece of property and who is responsible for any necessary cleanup efforts because not all Brownfields in rural Alaska are on native owned lands.

### 4.1.1 Regional Corporations

Twelve Native Regional Corporations were created under ANCSA and later, a thirteenth corporation was created for shareholders who no longer lived in Alaska. The corporations received 16 million acres of land and chose land based on geographical location within each respective region. A map detailing the geographic location of each Regional Corporation is provided in Figure 2.

According to Robert Arnold (1975), the regional corporations were responsible for implementing the settlement within their geographic boundaries as well as:

- Receiving payment made by the federal and State governments as compensation and disbursing that money (about 45%) to village corporations and individuals while saving the rest;
- Becoming owners of mineral source rights; and

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\(^5\) **Fee Simple** n. absolute title to land, free of any other claims against the title, which one can sell or pass to another by will or inheritance.
• Supervising the incorporation of villages, assisting them in their land selection programs, and reviewing their spending plans.

Regional corporations own the subsurface rights to ANCSA land. They were formed with the intention of handling the land the same way a business entity would. Corporations generate revenues for shareholders based on leased land use. This is different from reservation ownership and management in the Lower 48. The Department of the Interior (DOI) owns and manages land on behalf of tribal interests Outside (Angvik, 2010). Periodically, DOI leased tribal lands for industrial development. If these activities resulted in contamination, it was easy to determine who owned the land and who was responsible for cleanup.

Business corporations are designed to earn money. Under ANCSA, all land rights went to the corporations to use as assets to generate revenue with which they could buy and sell business services. Corporations are governed by articles of incorporation and bylaws and a system of accountability is in place to assist in measuring the successful performance of each corporation (Arnold, 1975).

- State law defines how corporations may conduct business within the legal boundaries of the law;
- The articles of incorporation are rule type agreements created by those who run the entities and “establish the basic relationship between the stockholders, (the owners of the corporation), the company, and its management”; and
- Bylaws “contain most of the rules of control between the directors and the officers of the corporation.”

Business efforts are aggregated into one corporation per region based on the number of tribes in each region. In a 2002 report to DOI, BIA listed 562 federally recognized tribes; over 200 are in Alaska alone. Economically, it was the most structured way to address the needs of so many tribes. Table 2 provides a list of each corporation, its non-profit entity (Native Associations), and the total square miles allotted through the settlement.

Some corporations generate revenue by leasing their land rights for natural resource development, through government contracts, by operating hotels, running restaurants, operating oil services, and through timber companies. By pooling financial resources, more funds are available to villages at once rather than each community receiving small amounts of money individually for village needs. Shareholders have been savvy in designing non-profit housing and public health authorities similar to regional corporations to address the growing needs of health care and housing in rural Alaska.

Some people believe that corporations have not been proactive in applying for Brownfield funding because they are hesitant to open themselves up to the liability associated with contaminated sites. The federal government often excludes tribes from liability but because the corporations own the land in Alaska, corporations may be reluctant to accept responsibility for the contamination as they could be considered PRPs. If corporations can be PRPs at the State level, it is unlikely they would have any interest in coordinating on environmental cleanup and community revitalization efforts. Others believe corporations are hesitant to apply for funding because private land owners must agree to a cost-sharing commitment for cleanup.

Lack of economic viability may also explain why corporations are not applying for grants of behalf of their communities. The corporations may not have matching funds to support brownfields projects or need more program knowledge before committing financial resources to R&R efforts.

4.1.2 Village Corporations

203 Village corporations received 22 million acres and the land surface rights through ANCSA. Under the act, it was mandatory that Native villages become village corporations if more than half of the village’s population was Native and the community was not modern or urban in nature (Arnold, 1975). The villages could become either business corporations or non-profit organizations. Non-profits did not generate revenue of any kind but provided services to the community in some form.

6 Regional Corporations own the subsurface rights to their lands as well as the subsurface rights of Village Corporation lands.
7 562 tribes is an approximate number. More recently, EPA stated there were 561 (EPA, 2009) federally recognized tribes in the United States.
Figure 2  Regional Corporations Created Under ANCSA

Figure provided courtesy of the United States Department of the Interior, Bureau of Land Management
Table 2 Native Regional Corporations and ANCSA Villages

| Abbreviation | ANCSA Native Association | Alaska Native Regional Corporation | Total Square Miles
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>AHTNA</td>
<td>Copper River Native Association</td>
<td>Athna, Incorporated</td>
<td>28,000</td>
</tr>
<tr>
<td>ASRC</td>
<td>Arctic Slope Native Association</td>
<td>Arctic Slope Regional Corporation</td>
<td>84,000</td>
</tr>
<tr>
<td>BBNC</td>
<td>Bristol Bay Native Association</td>
<td>Bristol Bay Native Corporation</td>
<td>40,000</td>
</tr>
<tr>
<td>BSNC</td>
<td>Bering Straits Association</td>
<td>Bering Straits Native Corporation</td>
<td>23,000</td>
</tr>
<tr>
<td>CAC</td>
<td>Chugach Native Association</td>
<td>Chugach Alaska Corporation</td>
<td>15,000</td>
</tr>
<tr>
<td>CIRI</td>
<td>Cook Inlet Association</td>
<td>Cook Inlet Region, Inc.</td>
<td>38,000</td>
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<td>DOYON</td>
<td>Tanana Chiefs’ Conference</td>
<td>Doyon, Limited</td>
<td>200,000</td>
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<td>n/a</td>
<td>Association of Village Council Presidents</td>
<td>Calista Corporation</td>
<td>56,000</td>
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<td>n/a</td>
<td>Kodiak Area Native Association</td>
<td>Koniag, Incorporated</td>
<td>73,000</td>
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<td>n/a</td>
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<td>The 13th Regional Corporation</td>
<td>n/a(^9)</td>
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<td>NANA</td>
<td>Northwest Alaska Native Association</td>
<td>NANA Regional Corporation</td>
<td>36,000</td>
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<td>SEAC</td>
<td>Tlingit-Haida Central Council</td>
<td>Sealaska Corporation</td>
<td>32,000</td>
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<tr>
<td>TAC</td>
<td>Aleut League</td>
<td>The Aleut Corporation</td>
<td>11,000</td>
</tr>
</tbody>
</table>

4.2 The Comprehensive Environmental Response, Compensation and Liability Act

CERCLA was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites, hence the name, Superfund (EPA, 2010). CERCLA is responsible for:

- Establishing prohibitions and requirements concerning closed and abandoned hazardous waste sites;
- Providing for liability of persons responsible for releases of hazardous waste at these sites; and
- Establishing a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and

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8 Native Associations are the non-profit entities within the regional corporation structure. Because they are non-profit entities, they have been the principal vehicle Congress used to funnel appropriations to Alaska. Native Associations are the original entities prior to ANCSA; the for-profit Regional Corporations were created out of Native Association location and interests.

9 Square mileage based on original land allotments under ANCSA (Arnold, 1975).

10 The 13th Corporation was created after the original 12; therefore, those Natives became shareholders in one of the 12 existing corporations.
Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on EPA's NPL.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the NPL. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986 (EPA, 2010).

4.3 The Brownfields Revitalization and Environmental Restoration Act of 2001

The Brownfields Revitalization and Environmental Restoration Act of 2001 was enacted when President George W. Bush signed the Small Business Liability Relief Act January 11, 2002 into law (Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. 107-118, 115 Stat. 2356 [January 11, 2002]). The law was created to fund a national program for the cleanup and development of contaminated real estate while reducing the continual litigation created by the Joint and Several Liability policy of Superfund. The legislation authorized grant funds separate from Superfund. The amendments are:

- Relieve homeowners, small businesses, and charities from Superfund liability for municipal solid waste disposal;
- Exempt from Superfund liability all contributors of very small quantities of hazardous substances; and
- Lift the specter of Superfund liability from most contaminated real estate.

This piece of legislation was considered to groundbreaking because it established that “brownfields sites need to be transacted rather than regulated as if they were classic Superfund sites on the National Priorities List…[it] de-coupled the brownfields programs from the painstaking, detailed cleanup regulations found in the NCP” (American Bar Association [ABA], 2002a).

Joint and Several Liability is the legal obligation under which a party may be liable for the payment of the total judgment and costs that are associated with contamination. It is a designation of liability by which members of a group are either individually or mutually responsible to a party in whose favor a judgment has been awarded, even if that party is only partially responsible for losses inflicted (EPA, 2010). The liable parties can be numerous. There may be one party that is liable for all damages or there could be multiple parties responsible for certain portions of the total damages required to cleanup a contaminated site (Reges, 2009).

EPA had been concerned about the impact Superfund has on small parties. Even under its policy of fair and equitable enforcement, EPA’s objective in Superfund has been to concentrate on major potentially responsible parties (PRP) (ABA, 2002b). Joint and Several Liability attached responsibility to any PRP that contributed even the smallest amount of contamination to a site causing small parties to spend thousands of dollars on litigation when the contamination for which the party was responsible, could have comingleed with decades old contamination.

A critical piece of this legislation is Section 104(k): Brownfields Revitalization Funding. This section of the law explains what entities are eligible for EPA competitive cleanup grants. Section 104(k) excludes states eligible grant entities include “an Indian Tribe other than in Alaska.” The exclusion had to be included by former Senator Ted Stevens in order to comply with ANCSA. The ANCSA legislation was enacted in 1971 creating the land ownership structure for Alaska Native Regional Corporations and Alaska Native Village Corporations.

The Brownfields legislation and Section 104(k) funding cannot apply to Alaskan tribes because tribes do not own land; the regional and village corporations do. Alaska is still able to apply for funding but the application must be made by a corporation, not a tribe. ANCSA’s design will be discussed in Section 4.3. The one exception is the Metlakatla Indian Community. The Metlakatla community is not subject to the exclusion as it was given reservation status in 1891 when tribal members emigrated from Canada (Arnold, 1975).
5.0 Brownfields Program Funding

According to informal ADEC estimates, Alaska has received around $12.5 million in federal brownfield assistance since the beginning of the decade. This money has supported State Tribal Response Programs (STRP), TBAs, and competitive grants (awarded on a limited basis). There are two main sources of funding that assist tribes with revitalizing contaminated sites in their communities: Section 128(a) Funding and Section 104(k) Competitive Grant Program Funding. This is because Section 104(k) had to be written to comply with ANCSA and other previously enacted Indian laws. In Alaska, regional and village corporations (as well as the Metlakatla Indian Community) are eligible for funding but federally recognized tribes are not. This section will explain exclusions and sources of program funding.

5.1 Section 104(k) Funding Exclusions in Alaska

Section 104(k) states eligible entities as “an Indian Tribe other than in Alaska.” This exclusion constrains Alaska’s program but only because it had to comply with ANCSA. This means tribes in Alaska cannot apply for or receive Assessment, Revolving Loan Fund, and Cleanup (ARC) Grants. These grants are used for sites contaminated with petroleum, hazardous substances, pollutants, and contaminants. EPA lists the funding opportunities as:

- Brownfields Assessment Grants (up to $200,000 over three years);
- Brownfields Revolving Loan Fund (RLF) Grants (up to $1,000,000 over five years); and
- Brownfields Cleanup Grants (up to $200,000 over three years).

Job training grants are unavailable in Alaska. These grants would be beneficial because it enables a community to take advantage of jobs created by the assessment and cleanup phases of the project life cycle. Job training grants teach residents the requirements for handling and removing hazardous substances, teach facility management practices, and train for response activities associated with cleanup and groundwater extraction. These efforts create communal interest and investment in the project while encouraging sustainable practices that may prevent future Brownfields.

A local environmental attorney asserts there are number of factors that contributed to the exclusion of Alaskan tribes from competitive grants. In the 1980s, Congress created the definition of an “Indian Tribe” under CERCLA § 101 (36), 42 USC § 9601 (36). The Indian Tribe definition included “any Alaska Native village” but excluded “Native Corporations created by ANCSA” (Reges, 2010).

“Alaska Native villages” may have been meant as the entities recognized as tribes by BIA. BIA was periodically instructed by Congress to list tribes so they could be recognized for eligibility for special programs. This relates to the Indian Self-Determination Act and Aida Deer’s sovereignty decree discussed in Section 4.0. The last time this list was published was 2008 and included several hundred tribes in Alaska. The challenge behind recognized tribes in Alaska receiving Brownfields cleanup grants boils down to:

“Since the 1980s Congress has realized that many of the "tribes" are not really organized but the Native Corporations created under ANCSA are thriving, well-organized and better able than any "tribal entity" to actually make use of a brownfield. So, when Congress created the Brownfields Revitalization Act they switched gears. They excluded "Tribes" in Alaska (except Metlakatla, which is organized) but included "Native Corporations."

Bottom line, ANCSA Corporations can take advantage of Brownfields and if a tribal entity (other than Metlakatla) wants in on the action it must go through the appropriate ANCSA corporation” (Reges, 2010).

The end result is that Native Corporations are the authoritative bodies with the best chance to secure funding. As stated before, Alaskan tribes were not deliberately excluded from competitive grants. The authority to apply for grants rests with corporations because of the land ownership structure. The TRPs need to continue with their outreach efforts to corporations if they want circumvent the Alaskan tribe funding exclusion.
5.2 CERCLA Section 128(a) Funding

Section 128(a) of CERCLA provides program funding. Through Section 128(a), Congress built upon brownfield activities and provided EPA with expanded authority to fund activities that build capacity for State and Tribal Response Programs (STRP) (Sims, 2010). These response programs provide the basic programmatic capacity for most, if not all, brownfield work for a state or tribe. Additionally, this funding allows for limited site specific work on Brownfields (Sims, 2010). In Alaska, Section 128(a) funding is used to cover inventory and the administrative costs of TRPs.

The funding is meant to ensure that STRP programs include, or take reasonable steps to include, certain elements of capacity building that will increase the number of response actions conducted or overseen by each region’s program. This funding is not intended to supplant current state or tribal funding and provides financing for a limited number of assessments or cleanup efforts (Sims, 2010).

Section 128(a) is also used to operate ADEC’s Brownfields Program. These funds are separate from the $130,000 assessment grant money ADEC used to complete the FY10 assessments. This funding is authorized at $50 million per year and is awarded on an annual basis. If Alaska were eligible for 104(k) funding, 128(a) money could be used to capitalize on revolving loan funds and to purchase environmental insurance (EPA, 2009a).

5.2.1 State Tribal Response Programs

STRPs were created to oversee the assessment and cleanup activities at the “majority of brownfields sites across the country.” Some of these sites are the focus of CERCLA while others are sites regulated by both CERLCA and the Resource Conservation and Recovery Act (RCRA) (EPA, 2010). These programs are funded by Section 128(a) funds and shared between states, tribes, and territories to increase the number of response teams. The purpose of STRPs is to ensure that state and tribal response programs are taking reasonable steps to include a “public record” of sites and associated activities. These programs are commonly referred to as TRPs in Alaska.

5.2.1.1 Bureau of Indian Affairs Involvement with State Tribal Response Programs

BIA has little involvement with STRPs. BIA will not clean contamination unless it is responsible for it. In some cases, BIA will assist TRPs with the coordination of assessments and cleanup needs but beyond that there are minimal collaborative efforts between the agencies. BIA is not legally required to work with TRPs but as TRPs become more advanced, BIA may begin reaching out to them to further capacity building in Native communities. It would be useful for BIA to become more involved because the agency would become more aware on contamination on tribal lands. There are currently 13 active TRPs and three developing TRPs (Williams, 2010). These TRPs are provided in Figure 3 and offer programs for the following communities:

- Anvik Tribal Council
- Bristol Bay Native Association
- Kuskokwim River Watershed Council
- Manilaq Association
- Metlakatla Indian Community
- Middle Kuskokwim Consortium
- Native Council of Port Heiden
- Native Village of Point Hope
- Native Village of Selawik
- Native Village of St. Michael
- Nelson Island Consortium
- Tetlin Village Council
- Village of Kasaan
- Woody Island Village
- Yakutat Tlingit Tribe
- Yukon River Inter-Tribal Watershed Council

5.2.1.2 United States Army Corps of Engineers Involvement with State Tribal Response Programs

The United States Army Corps of Engineers (USACE) has virtually no involvement with Brownfields. Because USACE is party to environmental cleanup associated with programs under DERP\(^\text{11}\), people outside of the environmental industry confuse USACE’s involvement with Brownfields cleanup. There are several reasons USACE

\(^{11}\) In addition to MMRP, DERP also provides funding for the Base Realignment and Closure Program (BRAC), Formerly Used Defense Sites (FUDS), and the Installaion Restoration Program (IRP).
Figure 3  Tribal Response Programs in Alaska

Figure provided courtesy of the Alaska Department of Environmental Conservation
Brownfields In Alaska
Policy Options for Rural Communities

does not participate in local Brownfields Programs – the principal cause being is that ADEC and EPA both exclude federal properties and federal facilities from their respective Brownfields definition.

An Environmental and Special Programs coordinator with the Alaska branch of USACE stated there was “not one single example of USACE brownfield involvement in Alaska” and that “the Corps no longer uses land but ‘caps’ it instead of remediates because capping is more cost effective.” Due to budgetary constraints, the Civil Works Program limits USACE’s ability to deliver public services (Jager, 2010). There is also a high level of distrust between military agencies and Native communities. Rural residents have “insinuated that cleaning up contaminated sites to their [local] satisfaction was the military’s responsibility (if military was responsible for contamination) and it [cleanup] was deserved in return for their [Native] sacrifices” (Resource Solutions, 2001). Due to cultural differences, it is hard for USACE personnel and Native communities to understand both the cost effective and land restoration needs aspects. Coming to a balanced representation of these needs and deterrents can delay cleanup and reuse efforts (Resource Solutions, 2001).

Mr. Scott Kendall, Supervisor of Environmental Engineering, with USACE asserted that the primary client for USACE cleanup services are Formerly Used Defense Sites (FUDS) and active duty military bases. Cleanup programs under DERP do not “cleanup” contamination with the intention of reuse. USACE also handles projects with large budgets. Brownfields projects, while costly, generally do not carry the heavy price tags of standard USACE projects and therefore are not economically feasible for USACE participation. Mr. Kendall stated USACE’s branch of Environmental and Special Programs would handle projects in rural Alaska if there were a need and solicitation from the community providing the project was feasible from an engineering and economic standpoint. Rural Alaska’s financial hindrances would likely prevent USACE solicitation for local Brownfields projects.

In the history of EPA’s Brownfield program, USACE has been involved one time with Region 10. This was to provide facilitation of a systematic planning process at a public meeting in Seattle, Washington (Labaw, 2010).
6.0 Grant Options for Cleanup, Construction, Planning, and Associated Brownfields Activities

This section will explore grant opportunities beyond competitive EPA grants. Although legislation makes it difficult to secure competitive EPA grants, there are numerous funding sources that promote economic development; a central component of many brownfields R&R plans. This section proposes grant opportunities that provide financial assistance to support planning, cleanup, construction, and other activities associated with land revitalization needs.

6.1 Financial Opportunities through the Department of Housing and Urban Development

HUD was created in 1965 to execute United States policy on housing and city development. This section will discuss grant options available for Brownfield planning, construction, and reuse activities.

6.1.1 Brownfields Economic Development Initiative

The BEDI grant is a competitive grant program HUD administers to “stimulate and promote economic and community development.” BEDI is designed to assist communities with the redevelopment of blighted properties as defined by the EPA. BEDI grant funds are meant for use with a particular emphasis on Brownfields economic development projects (HUD, 2010).

Rural communities with economic development plans should explore the details of the BEDI grant. Initial BEDI research did not indicate that funds are ineligible for cleanup efforts. If the applicant stresses the significance of revitalizing a brownfield for economic purposes, the applicant will have a better chance at obtaining the funds. Port Heiden’s reuse plan focuses heavily on redeveloping storage tanks into facilities that support commercial fishing, therefore, satisfying the economic development opportunity requirement.

The purpose of the BEDI program is to spur the return of brownfields to productive economic use through financial assistance and enhance the security or improve the viability of a project financed with Section 108-guaranteed loan authority. Therefore BEDI grants must be used in conjunction with a new Section 108-guaranteed loan commitment.

Section 108 is the loan guarantee provision of the Community Development Block Grant (CDBG) program. The BEDI funds minimize the potential loss of future CDBG allocations. BEDI projects must increase economic opportunity for persons of low-and moderate-income or stimulate and retain businesses and jobs that lead to economic revitalization (HUD, 2010). BEDI funds have been made available on a competitive basis. Section 108 funds are available to eligible applicants throughout the year on a noncompetitive basis. This does create some difficulty in that one form of funding must be secured in order to obtain another.

6.1.2 Indian Community Development Block Grant

The Indian Community Development Block Grant (ICDBG) provides eligible grantees with direct grants for use in developing viable Indian and Alaska Native Communities, including decent housing, a suitable living environment, and economic opportunities, primarily for low and moderate income persons (HUD, 2010). These grants can be used for three separate categories; housing, community facilities, and economic development.

Housing needs include rehabilitation, land acquisition to support new housing construction, and under limited circumstances, new housing construction. Community facilities include infrastructure construction, e.g., roads, water and sewer facilities; and, single or multipurpose community buildings (HUD, 2010). The grant may be useful to the Tuluksak Native Council and their reuse plan to build a new subdivision.

6.1.3 State Administered Community Development Block Grants

The State Administered Community Development Block Grant is a subsidy of the CDBG program available through HUD and provides grants to non-entitlement areas. Non-entitlement areas are cities with populations of less than 50,000 and counties with populations less than 200,000 (HUD, 2010).
“The statutory objective of the program is to assist in developing viable communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for persons of low- and moderate-income.” The State must ensure that at least 70% of its CDBG grant funds are used for activities that benefit low- and moderate-income persons over a one-, two-, or three-year time period selected by the State. The broad objective is achieved by granting “maximum feasible priority to activities which benefit low- and moderate-income families or aid in the prevention or elimination of slums or blight” (HUD, 2010).

Under unique circumstances, states may also use their funds to meet urgent community development needs. A need is considered urgent if it poses a serious and immediate threat to the health or welfare of the community and has come to the public’s attention within the past 18 months. An eligible community with such a circumstance is the Native Village of Elim because contamination exists that may be polluting the drinking water source. This site should be considered one of immediate need if drinking water contamination is negatively impacting community health.

Moreover, if the Alaska Village Electric Cooperation (AVEC) is liable for cleaning the site, the cost of electricity may significantly increase for Elim residents because AVEC will have to make up for financial losses caused by cleanup costs. The site has not been decommissioned but its permit expired in 2005. It may be eligible for a grant because the request for an assessment was filed in 2009 and that date may fall into the 18 month discovery time frame if community members act quickly with R&R plans.

Communities receiving CDBG funds from the State may use the funds for many kinds of community development activities including, but not limited to:

- acquisition of property for public purposes;
- construction or reconstruction of streets, water and sewer facilities, neighborhood centers, recreation facilities, and other public works;
- demolition;
- rehabilitation of public and private buildings;
- public services;
- planning activities;
- assistance to nonprofit entities for community development activities; and
- assistance to private, for profit entities to carry out economic development activities (including assistance to micro-enterprises).

6.2 Financial Opportunities through the United States Department of Agriculture

6.2.1 Community Facilities Grant Program

The United States Department of Agriculture (USDA) makes this grant available to communities with populations less than 20,000 and assists in the development of essential community facilities. The grants are awarded on a graduated scale meaning applicants in smaller communities or with lower populations receive a high percentage of available grants. Communities with fewer than 5,000 people and with median household incomes below the poverty line receive the highest priority. The funds are available to municipalities, counties, special districts, non-profit corporations, and tribal governments. Entities must have legal authority in advance to complete activities associated with construction, operation, and maintenance. The Community Facilities Grant Program is generally used to fund projects under special initiatives such as Native American community development projects (USDA, 2010).

These funds can be used to develop essential community facilities including the construction, enlargement, and improvement of a community facility (USDA, 2010). Although this grant is intended to help with constructing or improving a community facility, it does not exclude environmental cleanup efforts associated with these improvements. This grant may apply to Pilot Point’s summer youth camp plans. The community has a reuse plans that include a new facility and upgrades to existing infrastructure that would benefit residents for many years to come. The grants cannot be used for the following purposes:

- To pay annual recurring costs, including purchases or rentals that are generally considered to be operating or maintenance costs;
• To construct or repair electric generating plants, electric transmission lines, or gas distribution lines to provide services for commercial sale;
• To pay costs to construct facilities to be used for commercial rental where the applicant has no control over tenants or the services offered; and
• To finance recreational facilities or community antenna television services.

6.3 Financial Opportunities through Alaska Energy Authority

6.3.1 Renewable Energy Fund

The Renewable Energy Fund is managed by AEA and provides support for the development of renewable energy by helping to remove market barriers, lowering financing costs, developing infrastructure, and educating the public. The program was created in 2008 and has been appropriated $125 million for grant qualifying projects (AEA, 2010).

This program can provide rural communities with reconnaissance efforts, feasibility studies, reuse designs, project permitting, and construction. AEA also offers assistance with tank farm decommissioning. The Renewable Energy Fund is not designed to specifically address brownfield revitalization but it does not exclude these project types from grant application. Tribal governments are eligible for grants but the projects must promote clean energy use and development. This grant could be used to decommission the tank Farm in Elim if the community develops a reuse plan that is focused on renewable and/or clean energy. Elim could propose to decommission the tank farm and install wind turbines to generate electricity. This would help AVEC avoid incurring cleanup costs and would prevent utility rate increases for surrounding villages.

6.4 Financial Opportunities through United States Environmental Protection Agency

6.4.1 Community Action for a Renewed Environment Grant

The Community Action for a Renewed Environment (CARE) grant is offered through EPA and created “in response to community requests for help in addressing environmental concerns.” CARE is designed to support regulatory approaches at the national level and meet community needs by building community capacity. CARE is intended to provide funding, information, training, technical support, and to help build community partnerships.

The creation of environmental regulations and permitting requirements has resulted in reductions in toxic releases and improvements to environmental conditions but these approaches have not always been beneficial in terms of addressing specific community concerns (EPA, 2010). The CARE grant allows for communities to engage and build capacity with regard to their environmental needs. While this grant could not be used for the purposes of cleanup, it does provide valuable dollars for community training, technical support, and partnership building. There is one CARE recipient currently in Alaska. The Nelson Island Consortia has been awarded a CARE grant in addition to the Section 128(a) funds used to operate its TRP.

The National Academy of Public Administration (NAPA) recently reported that “the CARE program has demonstrated how communities can effectively address environmental problems, and how EPA can work together with them for mutual gain” (EPA, 2009).

Eligible applicants include local, public non-profit institution/organizations, federally-recognized Indian tribal governments, Native American organizations, private non-profit institution/organization, quasi-public nonprofit institution/organization both interstate and intrastate, local government, colleges, and universities could be eligible to apply for CARE funds.
7.0 Policy Alternatives

This section will explore policy alternatives intended to alleviate the Brownfields funding challenge in Alaska. The best alternative according to the criteria will be recommended to program coordinators for further refining, development, and implementation. Each alternative will be evaluated based on:

1. Technical feasibility;
2. Program effectiveness; and
3. Political viability.

7.1 Create a Regional Brownfield Authority

Regional housing and health authorities are non-profit entities modeled after regional corporations and were created following ANCSA to address the housing and health needs of Native Alaskans. These authorities provide services that are otherwise difficult to obtain for native communities. For example, a tribe can apply for a housing grant but the grant award may not be enough to meet the objectives of the tribe’s housing project needs. Tribes in each region chose to amass their resources and create entities that apply for these grants and collectively pool the funds so there is more money for housing needs. As a larger being, the tribes are able to obtain more in funding and allocate the money based on prioritization and immediate housing needs in their regions.

Tribal health consortia are modeled the same way to provide medical services to Native Alaskans. These models can serve as a tool for Brownfields needs in rural Alaska. If TRPs used their capacity building dollars and practices to create formal, regional brownfields authorities, they may increase their chances of securing funding.

The authority will have both an economic development and environmental development department that coordinates and determines the needs of each community in its respective region. The environmental coordinators will assess brownfields to determine the level of cleanup needed based on existing contamination. The economic coordinators will be responsible for deciding how much money is available for specific projects on an annual basis and how those projects will contribute to community and economic growth. Their collective efforts will be used to apply for grants, inventory blighted properties, and request assessments.

A regional non-profit authority would be recognized by its regional corporation and therefore, eligible for sponsorship or financial support as TRPs would likely lose EPA Section 128(a) monies if they no longer operate as defined TRPs. This will require the cooperation of the regional and village corporations who have yet to partner with the TRPs on brownfields needs. A regional non-profit on brownfields can provide the corporations with more incentive to participate because the corporations will have fewer liability concerns and will be able to measure the program’s effectiveness through completed revitalization projects.

In the absence of a regional authority, an advisory council could be created. An advisory council would not require regional approval to form and operate. The council would not be held to the same compliance and regulatory standards as a regional authority but would still be able to offer guidance throughout the grant application process and provide assistance in aggregating funds for R&R projects.

7.1.1 Criteria Evaluation

A regional Brownfield authority or advisory board can be challenging from a technical feasibility standpoint. If regional corporations do not initially support this alternative, financing options will be limited. Funds are vital for start up costs and Section 128(a) can be used for specific program actions only. Section 128(a) could be used for capacity building in initially formulating and developing regional Brownfields authority but could not be used for implementing a new program. In order to be successful like housing and health authorities, this alternative will have to model itself closely after those non-profits and will have to be funded in the same manner.

The program effectiveness criterion works for this alternative if the regional authority is modeled after other Native non-profits and is funded the same way. A regional authority will increase economic resources for communities after its implementation because non-profits aggregate their financial resources to address community needs.
Creating this non-profit may not be politically viable. If regional corporations do not accept this alternative, rural Alaska will be without any sort of funding. It would require a Congressional Act to change how Section 128(a) money can be used so that funding source is not an option for supporting a regional Brownfield authority. TRPs do not want to risk their current funding source in order to create a new program and it will require intense lobbying efforts to amend the legislation to suit the needs of rural Alaska when it is a viable program in the Lower 48.

7.2 Create a Voluntary Cleanup Program through Business Partnerships

Village corporations have created for profit environmental cleanup entities. These subsidiaries were designed to create employment and training opportunities for tribal members. Two of them are the Yukaana Development Corporation (YDC) and Iliamna Lake Contractors (ILC). Environmental remediation is one of the man services provided by YDC. YDC was contracted to cleanup an area within a 10 mile radius of the former Galena Air Force Station. Significant contamination was found at Galena prior to its decommissioning in the early 1990s. ILC is a subcontractor for different former military site cleanup project near Lake Iliamna. This project is designed to demolish and cleanup an abandoned site.

ILC and YDC are environmental experts (among others) experienced in handling hazardous substances, sampling soil and groundwater for contamination, and restoring land to levels appropriate for reuse needs. Businesses like YDC and ILC have provided valuable training and job opportunities to rural communities. This alternative does not propose to develop a job training program but rather creates educational opportunities on environmental cleanup so communities can create voluntary cleanup programs.

ADEC and EPA will partner with TRPs and companies like YDC and ILC to develop environmental cleanup and waste handling education programs. Interested parties in rural communities will participate in training sessions and eventually create voluntary cleanup programs. The voluntary program can refer to Colorado’s VCUP for model design and implementation. Capacity building funds could be matched between several TRPs to organize training sessions and pay for the administrative costs. Residents who wish to participate in the program will attend and complete the cleanup courses taught and designed by industry professionals and contractors. Once residents have completed training, they will submit certification credentials to the State in conjunction with their cleanup plan.

Colorado’s program requires property owners to prepare and submit a cleanup plan to program staff. Within 45 days, a state voluntary cleanup specialist assesses whether the plan will adequately protect nearby human health and the environment, based on the site’s contaminant levels and proposed land use. ADEC and EPA will coordinate to determine what an acceptable cleanup plan is for rural communities. Cleanup begins once the plan is approved.

This represents a streamlined use of state time and resources to help land owners turn contaminated sites into properties protecting human health and the environment. The activities will bring the community together and alleviate the costs of cleanup because it is voluntary. This would also give TRP coordinators more time to research grants opportunities that support the planning construction phases that follow cleanup.

7.2.1 Criteria Evaluation

This alternative is technically feasible because capacity building dollars can be used to coordinate educational workshops for interested communities. Coordinated efforts between ADEC, EPA, and TRPs, will result in a company’s willingness to assist in the educational workshops. It will be beneficial for communities to seek help from local environmental businesses because it can reduce logistical hindrances and communication barriers.

A VCUP would support cleanup needs and remove the added effort of researching outside cleanup funding sources. Cleanup will essentially be free service since it is voluntary; therefore, enabling the TRPs to devote more time to researching grants that support communal R&R plans. This alternative meets the program effectiveness criterion because it removes one funding challenge while creating the opportunity to search for other economic sources.

Political viability will be difficult if a VCUP is not acceptable to community members. It will require a strong community leader to encourage others to join and participate in a VCUP.
7.3 Restructure Program Operations to Maximize Existing Dollars

The Brownfields Program provides employment to coordinators across the State and supports community efforts to grow knowledge about brownfields prevention and environmental conservation.

ADEC’s program has been successful because it provides inventory, assessments, assists with grant applications, and encourages capacity building. EPA can continue to provide Section 128(a) money for capacity building efforts. TRPs can continue to request assessments but should also work with regional corporations to encourage more grant application efforts on behalf of the community.

This program should continue to operate but consider modifying its ranking criteria to include more than “having secure access to the site, the absence of a viable responsible party and a reuse plan strongly supported by the community requesting the assessment.” These are valuable ranking criteria and should remain in use but used in conjunction with criteria that evaluates how much potential there is for the site to offer economic development to the community and if the reuse plan meets eligibility requirements of the grants listed in Section 6.0. The addition of ranking criteria will allow ADEC and EPA to further refine sites of immediate need and those with the best chance of meeting cleanup and R&R goals.

7.3.1 Criteria Evaluation

Technical feasibility works well for this recommendation because ADEC would have to evaluate two additional criteria when ranking sites. Sites that have economic development potential and/or meet outside grant eligibility requirements will receive a higher priority ranking. Communities with sites that meet all of the criteria will be in a better position to complete all phases of a Brownfields project and enjoy the outcome of the revitalization efforts.

The program will be more effective because it will yield an increase in sites that have progressed through all of the Brownfields phases. This will support the performance evaluation of the program and could result in an increase of State general funds after the next legislative session. Political viability will be supported as long as ADEC coordinators can modify the criteria in a way that suits Alaska’s needs. This may mean that economic development criteria will differ for communities requesting assessments based on urban or rural location.
8.0 Policy Recommendation

The creation of a VCUP is most fitting for the purposes of this research. Capacity building dollars will be used to create business partnerships and develop educational workshops that teach community members how to handle and dispose of hazardous substances. Voluntarism eliminates the need to seek out cleanup grants and communities can turn their focus to applying for community development grants like ICDBG and AEA’s renewable energy grants. ADEC and EPA will partner with the VCUPs in rural communities to review and approve village cleanup plans and will conduct oversight if there is a need during specific cleanup projects.

It is an effective alternative because it supports rural community access to funding sources needed for R&R activities. Residents trained through the educational workshops may see an economic benefit for themselves because with experience and practice, they can become eligible to apply for jobs with environmental cleanup businesses.

Political viability is the only deterrent as communal interest is unforeseeable until efforts to create and market a VCUP program are executed. Community interest in revitalizing a blighted property must remain strong for a voluntary program to be effective. This will require close coordination with the TRPs, industry officials, environmental cleanup businesses, and community members.
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9.0 Conclusion

The Brownfields Revitalization and Environmental Restoration Act of 2001 is a strong piece of legislation written to provide help to the public but it is not really applicable to rural Alaska. Perhaps the unique circumstances surrounding Alaskan land claims were not considered prior to creating this law subsequently resulting in the conundrum tribes face when seeking financial assistance. Intense lobbying efforts will need to be made at the federal level to amend the legislation but it is unknown whether or not this is even possible based on the tribal land ownership differences between Alaska and the Lower 48.

Some people believe it is unlikely that the land ownership structure in Alaska will change to include tribes as land owners. The corporations are successful business entities that provide valuable services in Alaska and dismantling these structures would be detrimental to the State’s economic development and other aspects of tribal livelihood. Instead, TRPs will have to continue with their outreach efforts to Native corporations and request that they apply for competitive EPA grants on behalf of the tribes. Corporation support is vital to addressing the public health concerns created by Brownfields and to promoting economic development that supports community growth.

The best strategy until (and if) the legislation can be amended is to involve Alaskan tribes in the creation of a voluntary cleanup program that teaches community members to handle and dispose of hazardous substances at their Brownfields sites. Because the program is based on remediation, there is no need to search for cleanup grants. Once cleanup is complete and approved by the appropriate agencies, communities can research grants that support their redevelopment ideas.

The Brownfields Program is a valuable program intended to serve the public good but is complex and difficult to execute when applied to Alaska. The policy needs to be refined to support the needs of everyone affected by environmental injustice; otherwise Alaska will continue to face the gap of intent created by the Brownfields Revitalization and Environmental Restoration Act of 2001.

The evolution of this research demonstrated that a policy or program that appears relatively straightforward can, in fact, be mired with challenges, convolution, and hindrances that prevent the effectiveness of the policy. The Brownfields Program offers so much value to communities, especially urban ones and those on tribal lands in the Lower 48 that it is unfortunate to see Alaska miss out on these revitalization opportunities.

One intention of this report was to provide grant suggestions to Brownfields coordinators in Alaska but the ultimate goal was to develop policy alternatives that support access to funds needed for Brownfields activities. If these policy alternatives are refined and implemented by Brownfields professionals, they will be useful in supporting the continuation of the program in Alaska.
10.0 References


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