



## APPENDIX 2: AN OVERVIEW OF COMMUNITIES IN ALASKA

### LOCAL GOVERNMENT IN ALASKA

Most states have complex structures for local government that are comprised of multiple governmental units with narrow functions. For instance, the State of Washington provides for 17 different local government units including counties, cities, port districts, transit districts, cemetery districts, fire protection districts, hospital districts, irrigation and reclamation districts, library districts, parks and recreation districts, school districts, sewer districts, water districts, public utility districts, diking and drainage districts, health districts, and weed control districts. In the Lower 48, the agglomeration of local governments serving a particular area is comprised of units with overlapping boundaries. Each of these units generally has an independent elected government body with authority to levy taxes.

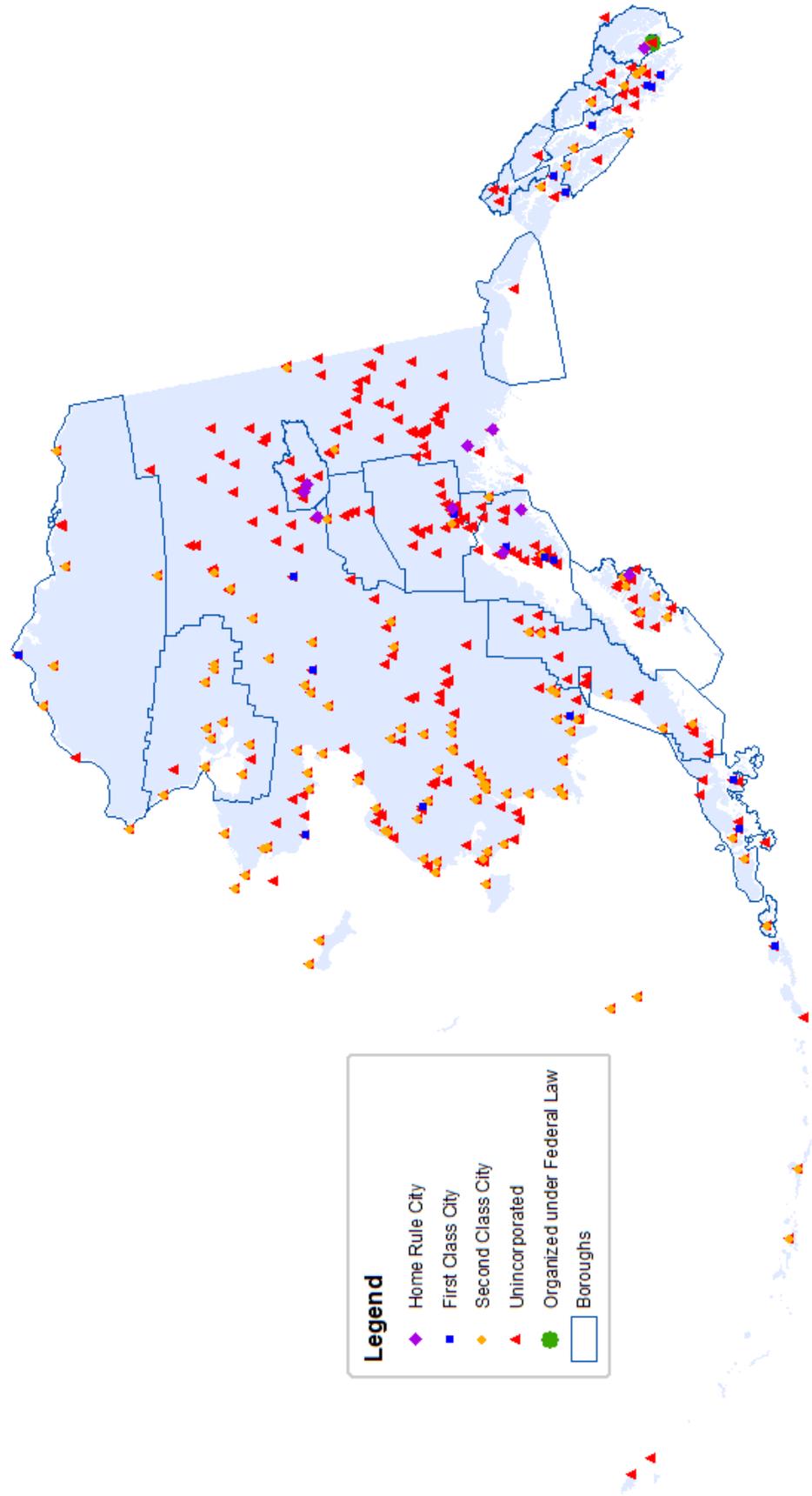
The framers of the Constitution of the State of Alaska the enjoyed great capacity to be innovative when it came to formulating local government structure for the State of Alaska. At the time, Alaska had only a rudimentary system of local government. The framers of Alaska’s Constitution endeavored to avoid the complex arrangement of local government and overlapping jurisdictions frequently found in the existing 48 states. Alaska’s Constitution recognizes only two types of municipal government – cities and boroughs. The term “municipality” is the generic term encompassing all classes and forms of cities and boroughs. City governments and borough governments in Alaska are municipal corporations and political subdivisions of the State of Alaska.

City governments operate at the community level. By law, the corporate boundaries of new city governments are limited to just that territory encompassing the present local community, plus reasonably predicted growth, development, and public safety needs during the next ten years. In contrast to the limits of city government, an organized borough is a regional government. Borough governments are intended to encompass large natural regions. The Alaska Constitution required all of Alaska to be divided into boroughs – organized or unorganized.

In Alaska, there are three different classifications of city government including home-rule, first-class, and second-class (Figure 1, next page, provides a map with the locations of Alaska’s municipalities). Five different classes of borough government are recognized in state law including unified homerule borough, non-unified home-rule borough, first class borough and second-class borough. In total, 145 cities are not located in an organized borough and therefore lack a regional form of government. These cities are located in the “unorganized borough”, which represents a large part of Alaska. In Alaska, 162 communities or places are incorporated as either a city or borough government in Alaska. In total, there are 114 city governments, 18 borough governments, and one community organized under federal law (Annette Island Reserve).



Figure 1: Map of Alaska Communities – Organized and Unorganized





## LEGAL AUTHORITY FOR PLANNING, PLATTING AND LAND USE REGULATION

Community size, cultural make-up, and type of local governing structure influence the level and character of local community planning. Only cities and boroughs can have land use powers. Land use regulation, as authorized by adopted municipal planning and zoning powers, is required for only a minority of communities including boroughs, home rule cities, and first class cities. Planning and zoning is elective for second class cities, which are largely located in rural Alaska.

In total, only a minority (19 %) of Alaska's municipalities implement land use regulation. In contrast, the majority of communities (81%) may or may not engage in community planning, but do not regulate land use. These communities engage in community planning for the purpose of prioritizing grant funding, developing a shared community vision, community development strategy, and improving overall quality of life; however, they are not authorized to implement land use regulation. One of the major motivations for rural communities to engage in community planning has been to fulfill a government requirement in order to receive financial and technical assistance for physical infrastructure projects and local public services.

Of Alaska's 162 municipalities, nearly half (47%) do not exercise planning and zoning powers. In contrast, slightly over half (53%) either independently exercise planning and zoning powers (40%) or are part of a borough that has responsibility for area wide planning and zoning (13%). Of noteworthy importance, the wide majority of Alaska's communities and nearly half of Alaska's municipalities do not exercise planning and zoning authority; local residents are without land use regulation services. These communities do not have the authority to regulate development in the floodplain and are not candidates for the NFIP. In short, only 86 Alaska municipalities have planning and zoning authority or are in a borough with planning and zoning authority and are subsequently eligible to join the NFIP.

By 1900 the United States Army had mapped Alaska's prominent mountain ranges and larger rivers. The United States Geological Survey (USGS), which began topographic mapping in 1882, took over from the Army and became the primary mapping and exploration agency in Alaska. Each year the USGS collaborated with geologists working around the territory to make maps, develop photographs, keep field notes, and write reports. This information increased the ability of the miners and others to locate and expedite the development of resources in Alaska. Today, remote sensing techniques are commonly used for mapping. Photogrammetry and LiDAR (Light Detection and Ranging) are two of the common remote sensing mapping techniques. They are sophisticated techniques and technology that require skilled technicians and cartographers. The drastically improved technology allows for increased and diversified map uses including mineral exploration, transportation design, and urban planning. The expense of this type of technology and Alaska's large land mass, combined with the limited local and regional government budgets, make the adoption of this technology for Alaska problematic for many communities.



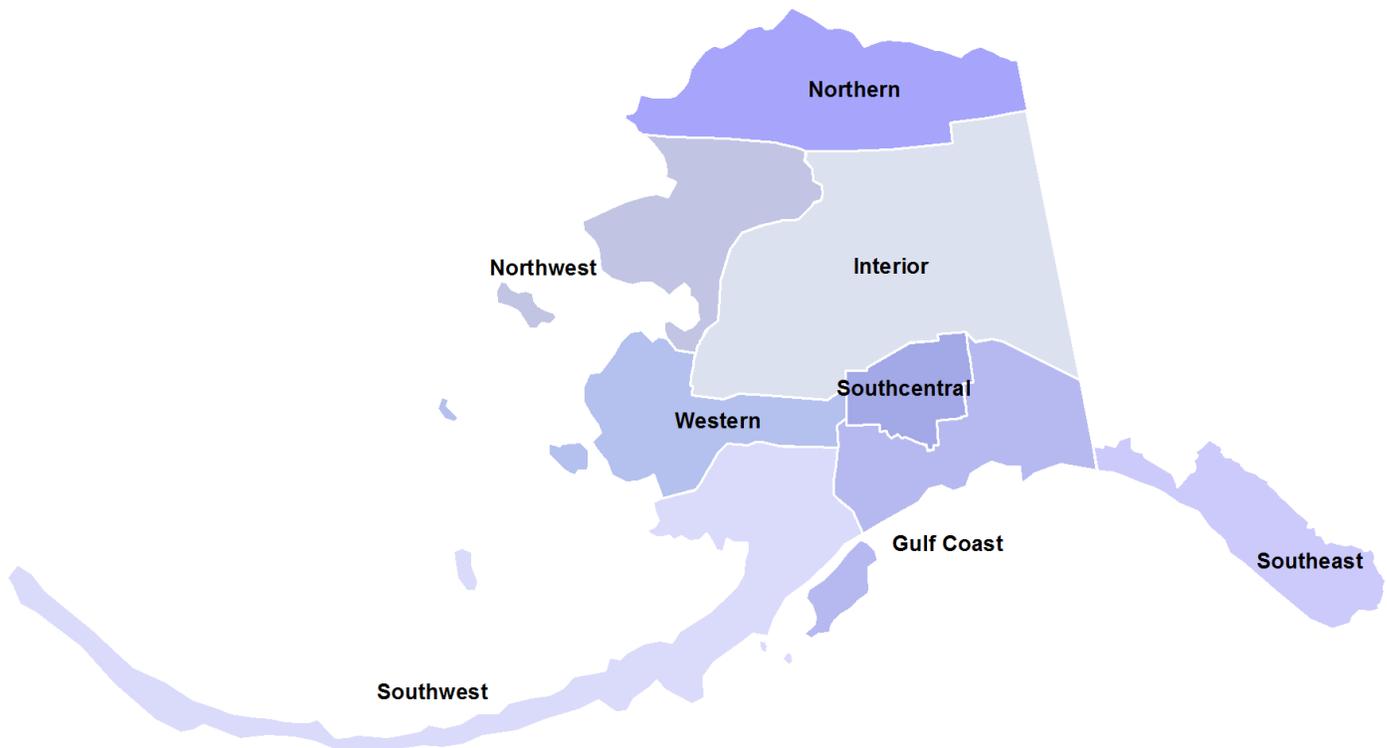
## ALASKA'S REGIONS

In Alaska, the majority of municipalities are not connected to the road system (86%). Only a minority are connected by road to other places (14%). Historically, urban and rural communities located either along the coast or on a river as waterways served as the primary means to transport people and goods. Today, nearly all of Alaska's municipalities are located either on a river (41%), on the coast (36%), or both (24%).

Communities are unequally distributed across eight Alaska regions including northern (2%), northwest (8%), western (15%), Southwest (13%), interior (21%), Southcentral (10%), gulf coast (20%), and Southeast (11%) regions (Figure 3). In geographical terms, non-Native communities are mainly concentrated in Southeast, Southcentral, and Southwest Alaska while Native communities are largely located in northern, western, and interior Alaska.

What makes life challenging for many Alaskans is not Alaska's extreme geography and topographical features, it is what is absent from everyday life on the frontier — essential community infrastructure, and easy access. This is especially true for Alaskans residing in rural or semi-rural regions.

**Figure 2: Alaska's Regions**





Most Alaska communities cannot be reached by road; movement of goods and people is not only difficult, but costly. Mountain ranges, waterways, and distance make a statewide electric system prohibitively expensive. Consequently, the majority of rural villages are not connected to a major power grid. Many communities still lack basic indoor plumbing, including running water, flush toilets, and showers, resulting in higher incidence of hygiene-related childhood disease.

Jobs are scarce and small population centers oftentimes do not have hospitals. However, the difference between rural Alaska and “any other rural area” is that in other states, people can drive to the nearest large town to obtain essential services. Commuting is generally not an option for the people of rural Alaska; there are fewer miles of road in Alaska than in any other state. For most communities, supplies must be transported by boat or airplane. To obtain advanced education, training, medical, or other services, residents must travel by air to the nearest regional hub community or Anchorage – the state’s largest service center.

For all its size, Alaska’s total population is the nearly the smallest in the nation at approximately 710,231 people (Alaska Department of Labor and Workforce Development, 2010). Alaska Natives comprise nearly 14.8% of Alaska’s total population, the largest percentage in the United States (U.S. Census Bureau, 2000). A “frontier” is defined as a region that contains six or fewer persons per square mile; Alaska has only two persons per square mile.

## ALASKA’S POPULATION AND ITS DISTRIBUTION

In 2010, the population in Alaska’s 163 municipalities ranged from 12 (Bettles) to 291,826 (Anchorage) residents. The average municipal population was 4,236 residents. Of noteworthy importance, with a total population of 291,826 residents (2010), Anchorage is the largest municipality in Alaska and an outlier in regards to population. Consequently, Anchorage skews the mean; median is a more appropriate representation of the general size of Alaska’s municipalities.

Similar to all Alaska’s communities (e.g., incorporated and unincorporated communities), the majority of Alaska’s municipalities are small. One hundred and twenty-eight (128) municipalities (79%) are considered “rural”, with populations less than 1,500 residents. Over half (55%) of municipalities are extremely small with populations less than 500 residents; 13% are less than 100 residents. In contrast, only six municipalities (4%) are 30,000 residents or more including the City and Borough of Juneau, City of Fairbanks, Fairbanks North Star Borough, Kenai Peninsula Borough, Mat-Su Borough, and the Municipality of Anchorage.

In total, 32 municipalities are also active NFIP participants including 21 cities and 11 boroughs; three cities are suspended including Kenai, Soldotna, and Wrangell. Municipalities enrolled in the NFIP program are generally the larger municipalities. Specifically, NFIP municipalities range from 88 (Koyukuk) to 284,994 (Anchorage) residents. The NFIP community mean population is 19,450; the median population is 2,328.



Unlike most Alaska communities or municipalities, NFIP municipalities are generally more urban or semi-urban in nature. Only a minority (41%) are considered “rural” with populations less than 1,500 residents. Over half (59%) are considered urban or semi-urban with populations greater than 1,500 residents; 19% are greater than 10,000 residents. Five municipalities (16%) are 30,000 residents or more including the City and Borough of Juneau, Fairbanks North Star Borough, Kenai Peninsula Borough, Mat-Su Borough, and the Municipality of Anchorage.

Alaska’s population (approximately 710,231) resides in over 300 distinct communities, each with its own unique history, culture, and organizational structure. Alaska’s communities are the most remote and rural in the nation, scattered across vast tracts of undeveloped land and separated by challenging topographical features. To overcome access challenges, many rural communities are located along coastal shorelines and rivers that serve as transportation corridors needed to move supplies and provide access to important subsistence resources. Other communities were settled at present day locations due to proximity to subsistence resources, availability of services, natural resource development, and other unique regional opportunities. Communities are mainly concentrated in the southern half of Alaska; only nine villages exist along the Arctic North Slope.

### POPULATION CHANGE IN ALASKAN COMMUNITIES

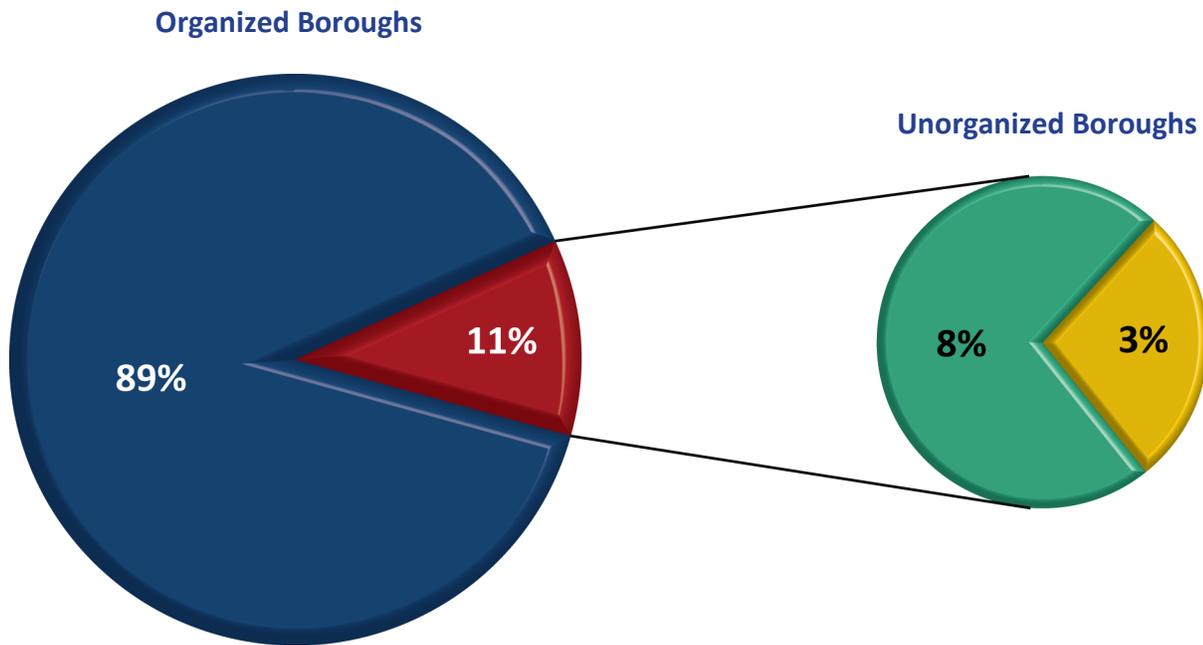
Population change in Alaska is a complex issue. While the state as a whole is growing, with the largest growth rates experienced in the Southcentral region, many other regions of the state are experiencing overall population declines. Many suggest differential population growth is best described as a rural versus urban divide. Generally speaking, Alaska’s rural population is decreasing due to out-migration, lower birth rates, and an aging population. The southeast region, in particular has lost the most residents, absorbing 69% of the total statewide rural population decline from 2000 to 2008 (DCRA, 2009).

Alaska’s 163 municipalities generally reflect the same declining population as experienced by rural communities across most of Alaska. Although total population change between 2000 and 2008 ranged from +46% to -49%, the mean population change was -3%; the median was -2%. During the 2000 to 2008 period, Bettles experienced the greatest population loss (-49%), while Houston experienced the greatest population growth (+46%).

Considering all Alaska municipalities, the majority (57%) experienced population loss during the 2000 to 2008 period ranging from -49% (Bettles) to -1% (Napakiak, Fort Yukon, Kiana, Allakaket, Juneau, Seldovia, and Togiak). In contrast, 40% experienced population increase ranging from +1% (Sand Point, Anaktuvuk Pass, Newhalen, Noorvik, Mountain Village, and Kotzebue) to + 46% (Houston). Four municipalities (Eagle, Kobuk, Aleutians East Borough, and Fairbanks) experienced zero net loss or gain during the 2000 – 2008 period.



Figure 3: Population Distribution in Alaska's Organized and Unorganized Boroughs



Total State Population: 710,231 (2010)

- Population Organized Boroughs (632,082)
- Population Unorganized Borough (78,149)
- Population Cities in Unorganized Borough (58,528)
- Population Unincorporated Communities in Unorganized Borough (19,621)



## OTHER SOCIO-ECONOMIC CHARACTERISTICS OF ALASKA'S COMMUNITIES

### *Income*

Defying misperceptions originating in the Lower 48, most Alaskans that live in a municipality are not wealthy Americans. Alaska's municipalities (163) range in per capita income from \$6,503 to \$31,747; mean is \$15,245 (2000). Nearly half (47%) of all municipalities have a per capita income of less than \$14,000 per year; slightly over half (54%) have a per capita income greater than \$14,000 per year. Only one-third (32%) of all municipalities have a per capita income greater than \$20,000 per year.

Municipalities participating in the NFIP have slightly higher per capita income. Specifically, NFIP participants (32) range in per capita income from \$6,503 to \$27,700; mean is \$19,408 (2000). Over half (59%) report a per capita income of greater than \$20,000 per year. Less than one-quarter (22%) report a per capita income of less than \$14,000 per year.

### *Poverty*

In 2000, the percent of population in poverty in Alaska's municipalities (163) ranged from zero percent to 64% percent; mean was 18%. Nearly three-quarters (71%) of all municipalities have a poverty rate of less than 25%. In contrast, zero municipalities have a poverty rate greater than 75%. Approximately one-quarter (28%) have a 25% to 49% poverty rate. In 2000, municipalities participating in the NFIP (32) had significantly lower poverty rates. Specifically, the percent of population living in poverty ranged from four percent to 25%; mean was 13%. Of noteworthy importance, no NFIP participants had poverty rates higher than 49%. The overwhelming majority (91%) have poverty rates less than 25%.

### *Housing Units*

In 2000, the quantity of housing units in Alaska's municipalities (163) ranged from 26 to 100,368; the mean was 1764. Similar to all municipalities, the quantity of housing units in municipalities participating in the NFIP (32) ranged from 55 to 100,368 (Table 9, next page). Of noteworthy importance, average quantity of housing units in NFIP participants (7,164) is significantly greater than all municipalities (1,764).

**Table 9. 2000 Housing Units**

Housing Units	Municipalities (163)	NFIP Participants (32)
Minimum	26	55
Maximum	100,368	100,368
Mean	1,764	7,164

### *Critical Facilities*

In the United States, Alaska ranks at the very bottom in the percentage of its rural population who have adequate household plumbing facilities, including running water. In many villages, even those near urban areas, the majority of households may not have running water. Over the past twentyfive years, the federal and state government have made significant investments in critical facility infrastructure in rural communities including roads, public use buildings, medical clinics, housing water/wastewater facilities, electrical systems, schools, bulk fuel storage facilities, airports, boardwalks, and harbors.

Over the past forty years, billions of federal dollars have been spent on the most critical facility infrastructure – water and wastewater utilities. Although the capital utility projects are grant-funded for construction costs, the limited cash economies in many rural Alaska communities create a fragile economic base for ongoing operations and maintenance of infrastructure. Oftentimes, built infrastructure operation and maintenance costs far exceed the financial capabilities of a local community to pay for the local service. That is, limited local economies do not fully support the increasing operation and maintenance costs associated with critical facilities.

The current fiscal condition in rural Alaska, in combination with lack of comprehensive infrastructure policy, makes sustainability of capital project investments difficult. Local governments in the Lower 48 generally fund infrastructure projects via revenue or general obligation bonds. In comparison, community critical facility infrastructure is generally 100% grant-funded. As progress continues in constructing critical facilities, communities with new systems must be able to independently operate and maintain them. Meeting the associated operation and maintenance costs will continue to be a significant challenge for smaller communities with limited local economic bases. Furthermore, a shrinking state operating budget results in fewer grants and loans to all Alaska communities. The most challenged of Alaska’s communities are unlikely to receive resources to maintain and operate public services as state and federal government revenue declines. The development, operation, and maintenance of critical facility infrastructure are further challenged by escalating energy, materials, and labor expenses.



Many Alaska communities exist without running water and use plastic buckets for toilets, euphemistically referred to as “honeybuckets”. Despite Alaska’s abundance of water, it is often extremely difficult to obtain water for drinking and sanitation – especially in rural areas. In many communities, piped water systems do not exist inside homes and domestic water used by residents must be hauled by hand from central watering points, a water well, or a washeteria. Similarly, communities without piped wastewater generally utilize a honeybucket haul system as a principal method of sewage disposal. In those communities, the honeybucket is a five-gallon bucket with a toilet seat attached. Once filled, the bucket is hand carried and emptied into a neighborhood haul container or sewage lagoon. In these communities, honeybuckets are used in homes, commercial buildings, and even medical clinics. With government investment in critical facilities, the percentage of homes with piped water and sewer has increased; however, there are still a significant quantity of households that are hand-carrying water and employing honeybuckets for wastewater removal. In 2007, the percentage of households without adequate plumbing in Alaska’s 163 municipalities ranged from zero percent to one-hundred percent; the mean percent was 46%.

**Figure 4: Alaska's Unorganized Boroughs**

### Legend

-  Unorganized Boroughs
-  Organized Boroughs

