

# Lake and Peninsula Borough Comprehensive Plan Update 2025

# **Core Plan**



Draft for Planning Commission Review - August 18, 2025

# **Acknowledgements**

Thank you to all Lake and Peninsula Borough residents, Tribes, businesses, organizations, and other local, regional, state, and federal partners who contributed to the Lake and Peninsula Borough Comprehensive Plan 2025 development process, including Lake and Peninsula Borough staff and Lake and Peninsula Assembly and Planning Commission members.

Agnew::Beck Consulting and Alaska Map Company supported Lake and Peninsula Borough in the development of this plan.







Scenery near Igiugig, fishing boat in Chignik Lagoon, Kokhanok, 2024.

# **Ordinance**

To come in final document when adopted.

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# Introduction

# Lake and Peninsula Borough Mission and Core Values

Developed by the Lake and Peninsula Borough Assembly in November 2024.

#### **Mission**

To be a community directed borough that enhances quality of life through supporting education, celebrating one's history and tradition and empowering self-sustaining independent communities.

History	Celebration/Pride	Self- sustaining	Collaboration	Tradition
Diversity	Community- directed	Enhance	Respect	Support

Core Values			
Integrity	<ul> <li>Honesty</li> <li>Fairness</li> <li>Transparency</li> <li>Doing the right thing even when it is hard</li> <li>Respectfulness</li> </ul>		
Stewardship	<ul> <li>Responsible use and maintenance of our land and resources</li> <li>Ethical and sustainable use of our resources</li> <li>Have a respectful relationship with the land</li> </ul>		
Empowerment	<ul> <li>Putting people and families first</li> <li>Enabling academic and cultural education</li> <li>Supporting Elders</li> <li>Promoting youth and future leaders</li> </ul>		
Economic Development	<ul> <li>Understanding what it takes to live here</li> <li>Invest in our communities</li> <li>Improving livability through lowered cost of living</li> <li>Renewable/sustainable energy sources</li> <li>Energy is the building block</li> <li>Lowered transportation costs</li> <li>Promoting independence and creativity in decision making</li> <li>Focus on community led initiatives</li> </ul>		
Accountability	<ul> <li>We are a bottom up government</li> <li>We are fiscally responsible and balance usefulness with independence</li> <li>We are a nimble government</li> </ul>		

# **Purpose**

The 2025 Lake and Peninsula Comprehensive Plan Update is a community-driven tool that serves as both a guiding framework and a resource for shaping the future of the Lake and Peninsula Borough. It covers key areas such as Land Use and Environment, Community Facilities and Utilities, Transportation, Housing, Economic Development, and Culture and Wellness, and outlines goals and priorities that support both daily operations and long-term decision-making. It reflects the values and priorities of residents and is intended to enhance quality of life for current and future generations. The plan provides a framework for coordinated action and fulfills the Borough's legal responsibility to maintain a comprehensive plan, as defined by the State of Alaska (AS 29.40.030). Last updated in 2020, it is recommended the plan be updated every 5–10 years or when significant population changes occur. The plan also supports efforts to secure funding by meeting common requirements of grantors and empowers communities, leaders, and individuals with a shared vision and greater control over the future of the region.







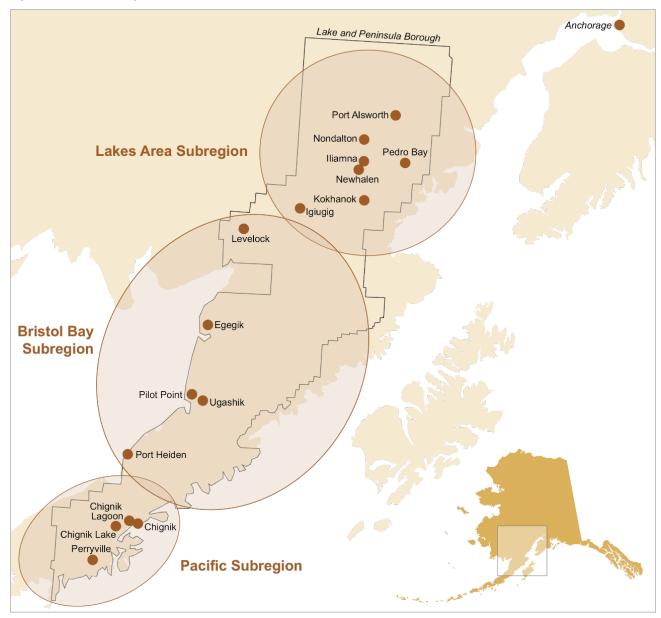


Comprehensive Plan community meetings in Igiugig, Iliamna, Pedro Bay, and Port Alsworth, 2024.

# Project Area

The Lake and Peninsula Borough encompasses approximately 23,782 square miles of land and 7,125 square miles of water extending 400 miles from Lake Clark in the north to Ivanof Bay in the south. The Borough is home to 18 communities; sixteen are active communities that the Borough works with (Pope-Vannoy is not technically a recognized village and is only inhabited by one family, and Ivanof Bay is uninhabited but has a Tribal council). These communities are located within three distinct areas: the Lakes Area, the Bristol Bay, and the Pacific subregions.

Figure 1. Map of Subregions



### **Lakes Area Subregion**

Igiugig, Iliamna, Kokhanok, Newhalen, Nondalton, Pedro Bay, Port Alsworth

### **Bristol Bay Subregion**

Egegik, Levelock, Pilot Point, Port Heiden, Ugashik

# **Pacific Subregion**

Chignik Bay, Chignik Lagoon, Chignik Lake, Perryville

# Plan Process

The Lake and Peninsula Borough oversaw this effort with help from Agnew::Beck Consulting, with additional subcontractor support from Alaska Map Company.

In-Person and	l Outreach Activities
Community Visits	An essential part of outreach for the Lake and Peninsula Comprehensive Plan Update was in-person engagement with each active community in the Borough. The project team, including representatives from Agnew::Beck, Borough staff, and occasionally Assembly Members or Planning Commissioners, traveled to communities to host public meetings and share a meal with residents. These gatherings created space for residents to voice what they value most about their communities and the region, as well as the challenges they face and the opportunities they see for building a more resilient, sustainable future. These conversations were vital to shaping the goals and priorities of this comprehensive plan.  As of April 1, 2025, the project team had not yet visited Nondalton (due to two weather-related delays) or Egegik. Both visits are scheduled to occur during the public review draft phase of plan development in May 2025. Additionally, the team met virtually with residents of Pilot Point after weather conditions prevented inperson travel. The team met with Ugashik community members during an inperson meeting in Anchorage.
	A complete list of community meetings and notes from each meeting are included in the appendices.
Borough Meetings	The project team facilitated a Joint Assembly and Planning Commission Work Session in November 2024 to review the overall purpose and legal basis for comprehensive plans and update the Planning Commissioners, Assembly Members, and staff for the Comprehensive Plan process. Borough staff provided regular written and verbal updates at Lake and Peninsula Borough Assembly meetings and Planning Commission meetings.
Interviews and Survey	The project team invited, and followed up several times, with all Assembly Members and Planning Commissioners to participate in a one-on-one interview to learn about community challenges and priorities, and to collect suggestions for the plan. Four interviews were conducted.
	The Regional Survey was aimed at engaging residents and gathering feedback, especially from those not able to attend the community meetings. The survey was open from December 13, 2024, through January 27, 2025 and received 23 responses. The survey was distributed online through email outreach to contacts in each community, available in hard copy in each community, and advertised via social media and by Assembly Members. A detailed summary of the survey is available in the appendices and on the website.
Project Website	The project website provided a place for residents to easily find background information about the project, downloads of past presentations and draft files, announcements of upcoming meetings, links to the Regional Survey, and a form to sign up for project updates.  Visit the project website at <a href="https://lakepencompplan.com">https://lakepencompplan.com</a>

Research Tas	ks
Mapping	The project team developed community and subregional maps for the plan.
Secondary Research	The project team collected information from local, state, and federal sources to tell the story of the Lake and Peninsula Borough: how it is changing and how the population, housing, economy, and land use characteristics compare to statewide trends. Most data used to develop key trends in the plan was collected in 2023.
Plan Review	The project team reviewed many existing borough and community plans to provide a foundation of community projects and priorities, including three regional plans and 16 community-specific documents. In addition to summaries for each plan, this review identifies themes, strengths and challenges that were shared by two or more plans and highlights key documents and plan excerpts organized by focus area.

### What's in the Plan

Executive Summary	Core Plan	Community Plans, Inventories, and Maps	Appendices	Capital Improvement Project List
Lists the key background data, issues that informed the plan policies, and provides a snapshot of the goals and strategies.	Includes information on the process, project area, and how to use the plan. Provides detailed goals, strategies, and actions for each focus area.	Includes priorities and information specific to each community in the Borough grouped by subregions, including shared priorities across subregions.	Includes detailed background information used to develop the comprehensive plan.	The 2025 list of Capital Improvement Projects and priorities submitted to the Borough and approved by the Borough Assembly.

### How to Use this Plan

The goal of this plan is to give the Borough and communities a broad vision and direction to work toward in the coming years. This plan serves as a basis and rationale for Borough policies and actions, including specialized plans addressing housing and other topics; ordinances and other policies carrying out the goals of the Comprehensive Plan; projects carried out by Borough staff; and a tool for communicating priorities and funding requests to state and federal government or other funders.

Most importantly, this plan should serve as a key tool for community leaders and residents in their short-term and long-term planning and decision-making. In conjunction with more detailed plans and current information, the plan should be the backdrop and foundational reference for all Borough Planning Commission and Assembly meetings and rulings regarding the project area, and for Borough departments in their daily operations. See below for a specific breakdown of how different stakeholders might use the plan.

#### How to Use this Plan if You are a...

Resident	Borough Staff	Regional Representative
Use as a tool to protect or improve the things you love about the tregion and community; for example, to learn about where future Borough development might occur and preservation take place.	Guide decision-making on borough-wide policy and as a reminder of community- specific values, challenges, projects, and goals.	Official guiding document for Planning Commissioners and Assembly Members when making decisions, rulings, and creating policy in the project area.
Housing Authority	Business Owner	Grantwriter
Identify areas where different types of growth are encouraged/discouraged and as a summary of housing, transportation, and commercial needs.	Use to understand where your type of business may be best located or what community priorities could inform a business idea and plan.	Use to demonstrate Borough and community support for key priorities in the project area when applying for funding from state, federal and other sources.

# Plan Amendments and Updates

The steps for amending and/or updating the Lake and Peninsula Borough Comprehensive Plan are outlined below:

- A minor change is a change that does not modify or add to the plan's basic intent, and
  that serves only to clarify the plan, make it consistent, facilitate its implementation, or
  make technical corrections. Such changes can be made administratively and do not
  require additional approval.
- An amendment permanently changes the plan by adding to or modifying the basic intent. Such changes can be recommended by the administration or public and approved by the Planning Commission and Borough Assembly.
- A more detailed update of the Comprehensive Plan should be conducted every five to ten
  years, starting with a thorough review by the Planning Commission and key Borough
  staff to determine which goals and strategies have been accomplished, and which may
  need to be revised, added, or deleted. Residents and other key stakeholders should also
  be engaged during the update process.

# About the Federal Landscape

Many of the strategies in this plan depend on support from federal agencies, programs, and funding that have long played an important role in supporting rural communities in Alaska to achieve their priorities. The current federal administration (as of early 2025) has signaled possible changes to how the federal government is structured and how its programs are managed. At this time, it's unclear how these changes might affect regulations, funding opportunities, or program requirements that communities like those in the Lake and Peninsula Borough rely on.

# Chapters in the Core Plan



Land Use and Environment



Community Facilities and Utilities



Transportation



Housing



Economic Development



Culture and Wellness



Curly Dock in Chignik Bay, 2024.



### Land Use and Environment

#### Introduction

Spanning over 23,700 square miles and encompassing 18 communities (the Borough actively works with 16 of these communities¹), the Borough faces complex challenges in managing land and natural resources across a vast, remote territory. Emerging issues – such as declining fisheries, the impacts of climate change, and the need for stronger coordination with Tribes, major landholders, and communities – require a proactive and integrated planning approach. By advancing collaborative planning, improving data and mapping tools, and supporting locally driven land management, the Borough aims to reduce land use conflicts and enhance community resilience.

### Themes and Key Issues

**Land Use Guided by Salmon and Subsistence:** Salmon are central to the identity, economies, and ways of life for communities across the Lake and Peninsula Borough. As fish populations become increasingly vulnerable to the effects of climate change – including warmer waters, altered stream flows, and shifting migration patterns – residents have emphasized the need to protect critical habitat and uphold access to traditional fishing areas.<sup>2,3</sup> Communities like Levelock, Iliamna, and those in the Pacific Subregion have called for stronger coordination between landowners, Tribes, and the Borough to ensure that future land use decisions actively support salmon habitat health and long-term watershed integrity.

**Climate Impacts and Legacy Hazards Spur Local Stewardship:** In 2024, the Southwest Alaska region recorded a mean annual temperature of 0.6°F above the 1991–2020 normal, with monthly deviations in King Salmon peaking at +12°F in December.<sup>4</sup> At the same time, precipitation levels were slightly below average, with just 93-94 percent of normal precipitation, raising concerns about stream flows critical to salmon migration and spawning.<sup>5</sup>

"Climate change is affecting everything important to us – fish, berries, hunting. It's hard." ~Interview participant

Communities across the Borough report noticeable climate-related impacts such as differing

<sup>&</sup>lt;sup>1</sup> Pope-Vannoy and Ivanof Bay are the two communities the Borough does not "actively" work with. Pope-Vannoy is not a recognized village with only one resident family; Ivanof Bay is uninhabited but has a Tribal Council.

<sup>&</sup>lt;sup>2</sup> See Literature Review in Appendix A.

<sup>&</sup>lt;sup>3</sup> Alaska Center for Climate Assessment and Policy. (2021). Climate Change Impacts in Southwest Alaska. Retrieved from https://uaf-accap.org

<sup>&</sup>lt;sup>4</sup> Alaska Climate Research Center. (2024). 2024 Annual report. University of Alaska Fairbanks.

<sup>&</sup>lt;sup>5</sup> Note: In 2024, NOAA, ADF&G, UAA, and USGS each identified concerns that climate-driven variability in stream flows - both low water and flooding - threatens salmon migration, spawning success, and juvenile survival in the Bristol Bay region (NOAA, 2024; ADF&G, 2024; UAA, 2024; USGS, 2024).

freeze-thaw periods, coastal erosion (Levelock, Port Heiden, the Chigniks, Ugashik), and shifts in subsistence patterns, while also facing legacy environmental issues like abandoned fuel tanks (Newhalen) and derelict vessels (Ugashik). These conditions underscore the need for proactive habitat protection and land stewardship that reflects local values and supports long-term resilience.

**Growing Interest in Local Planning:** Some communities in the Lake and Peninsula Borough are interested in establishing local land use plans, service areas, or zoning ordinances to better manage growth, protect subsistence resources, and guide development. While the Borough has authority under state law to implement zoning, it has historically maintained a limited role, providing subdivision platting, flood, and development permitting rather than region-wide land use regulations. This approach respects the diversity of perspectives across communities – some of which are not interested in land use controls. The Borough can support interested communities by offering templates or technical assistance to help them take the lead on locally tailored planning efforts.

Strengthening Partnerships to Protect Traditional Lands Access: Nearly half of land within the borough is federally and state-managed parks, refuges, and wild rivers. Iconic areas like Lake Clark National Park, Katmai National Park, and large state game refuges draw visitors and are integral to the region's identity. Residents from the Pacific Subregion, Igiugig, Pedro Bay, and Port Alsworth have emphasized that access to these lands is not merely a convenience, but a matter of cultural survival, food security, and identity. Borough residents want to see federal and state land managers work more closely with communities to ensure that conservation and tourism goals also uphold local values, support self-determination, and protect access to traditional use areas. The Borough can play a constructive role in facilitating these relationships and advocating for community-led stewardship of shared lands and waters.

**Expanding Capacity Through Ongoing Mapping Efforts:** The Borough's ability to support informed land use decisions is currently limited by gaps in available planning tools and spatial datasets. The communities of Igiugig, Chignik Lagoon, Newhalen, and Port Alsworth have highlighted that existing data – such as utility layouts, land ownership boundaries, and environmental features – are incomplete or inaccurate. To address resident support for ongoing spatial digitization efforts and emphasize the value of updated, accessible data for local decision-making, the Borough has begun implementing an online parcel viewer and addressing system. Strengthening these tools will allow the Borough to better coordinate development, pursue funding opportunities, and support community-led projects with accurate, site-specific information.







Port Heiden, Pedro Bay, and Igiugig, 2024.

<sup>&</sup>lt;sup>6</sup> Lake and Peninsula Borough Code of Ordinances.

<sup>&</sup>lt;sup>7</sup> Note: 39 percent of Community Survey respondents listed "Maintaining and/or expanding access to the land and subsistence resources" as at top priority.

#### Goals

Goal A	Goal B
Advance land use planning initiatives that preserve resources and reflect local priorities.	Facilitate partnerships that strengthen community roles in land access and development.

### **Strategies and Actions**

Strategy 1: Support land use practices that preserve salmon habitat and promote climate resilience.

- a) Incorporate salmon habitat and subsistence considerations into Borough development permits and subdivision guidance, where applicable. *Note: The Borough's Development Permit Application includes an anadromous stream proximity section for these considerations.*
- b) Work with communities, Tribes, and other partners to identify and prioritize watersheds affected by erosion, runoff, or land disturbance.
- Inventory and prioritize cleanup of abandoned fuel tanks, derelict vessels, and other environmental hazards.
- d) Participate in relevant fisheries and land management forums to support alignment between land use practices and salmon recovery goals.
- e) Support community-led adaptation projects that address erosion, changing harvest patterns, and infrastructure vulnerabilities.

See the Economic Development chapter for related recommendations on fisheries management.

**EXAMPLE:** In response to sharp salmon declines, the Chignik Bay, Chignik Lagoon, Chignik Lake, Perryville, and Ivanof Bay communities formed the Chignik Intertribal Coalition. The coalition has coordinated regional food relief, advocated for subsistence protections, and pushed for long-term salmon recovery funding. Their collaboration demonstrates how aligned land use, subsistence access, and climate adaptation can support community resilience. It also highlights the importance of unified regional voices in state and federal decision-making.

#### Strategy 2: Strengthen local capacity for land use planning and decision-making.

- a) Support communities in developing local land use plans, including service areas, that reflect subsistence needs and development priorities.
- b) Provide templates, technical assistance, and peer learning to help communities guide growth, designate conservation areas, and assess land suitability.
- c) Maintain a shared planning resource library with updated GIS maps, land status data, and case studies from across the region. *Note: This action supports continued maintenance and upgrades of the Lake and Peninsula Parcel Viewer and Addressing System that the Borough has recently begun to build.*

**EXAMPLE:** Iliamna residents have explored forming a service area to manage development pressure related to future mining activity. This approach would allow the community to create a localized tax base and land use framework without incorporating as a city. This model could help other communities adopt tailored governance tools to reflect local priorities. As development interests grow, these frameworks can ensure that land use decisions remain community led.

# Strategy 3: Collaborate with land managers to ensure access and local benefits from public lands.

- a) Establish a regular communication forum between the Borough, Tribes, municipalities, and federal/state land managers to elevate community priorities.
- b) Support efforts to map traditional access routes such as trails, waterways, and seasonal corridors in ways that respect Tribal data sovereignty and community consent.
- c) Advocate for park plans and public land decisions to protect access for subsistence, travel, and local economic use.
- d) Leverage cultural knowledge and land-based skills to support local jobs in guiding, education, and stewardship activities.

See the Economic Development chapter for related recommendations on job growth and workforce development.

**EXAMPLE:** In Nondalton, Iliamna, and Newhalen, the proximity to Lake Clark National Park creates both opportunities and challenges for community members. While Park presence supports jobs and tourism, residents have expressed concern about access restrictions and land management decisions made without local input. Establishing stronger coordination channels between Park staff, the Borough, and local leaders could help align visitor access, resource protection, and community benefit. This model could be applied across the Borough where parks and protected areas overlap with traditional use lands.



Windmills in Kokhanok, 2024.



# **Community Facilities and Utilities**

#### Introduction

Reliable utilities and public facilities are foundational to the health, safety, and long-term viability of communities in the Lake and Peninsula Borough. Yet delivering these services across communities is often limited by geography, weather, and cost and requires a collaborative approach. Communities across the borough manage much of their infrastructure locally, often relying on state and federal grants to fund critical systems like water, sanitation, energy, and emergency response. As aging infrastructure meets rising costs, climate-related risks, and workforce shortages, the Borough is leveraging opportunities to invest in subregional capital projects, expand broadband and renewable energy access, support shared equipment and technician networks, and coordinate emergency services. The strategies in this chapter reflect a commitment to both local responsiveness and regional efficiency – building a future where public services are reliable, affordable, and adaptable to change.

### Themes and Key Issues

Leveraging Subregional Capital Improvements: The Lake and Peninsula Borough invests in subregional and regional capital projects that benefit multiple communities while continuing to support individual villages in meeting their specific needs. These shared investments help address the high cost of living by improving access to public goods and services, reducing utility costs through shared infrastructure, and enabling economic development through transportation links and industrial projects. By consolidating facilities and services - such as schools, ports, or power systems – communities can pool resources and expand access to funding opportunities. Community members emphasize the importance of maintaining strong oversight during planning, construction, and implementation to ensure these projects deliver long-term, high-quality outcomes.<sup>8</sup>



Chignik Bay Hydroelectric Project, 2024

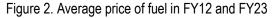
#### **High Energy Costs and the Shift Toward Renewables:**

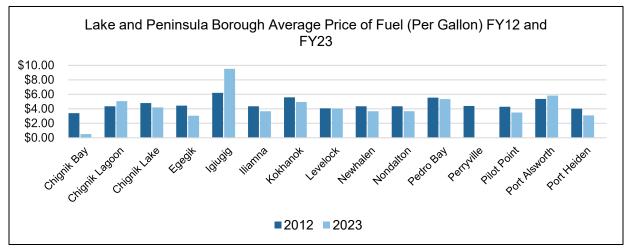
Energy expenses – especially from diesel fuel – remain a major burden on Borough communities, driving up the cost of living. While the Power Cost Equalization program helps offset residential electricity costs, communities are increasingly investing in renewable

<sup>&</sup>lt;sup>8</sup> Alaska Energy Authority. (2025, February 28). FY2024 Power Cost Equalization Statistical Report by Community (Final Optimized). Retrieved from

https://www.akenergyauthority.org/Portals/o/Publications%20and%20Resources/2025.02.28%20FY24%20PCE%2 oStatistical%20Report%20by%20Community%20%28Final%20Optimized%29.pdf?ver=CyfB5GvhamjStLJhU-UodQ%3D%3D

technologies like hydro, wind, and solar to stabilize prices and reduce environmental impacts<sup>9</sup>. Cooperative bulk fuel strategies, energy efficiency upgrades, and better connectivity (e.g., roads, broadband) also support local energy goals.









Fuel tanks in Chignik Bay and Kokhanok, 2024.

**Frail Sanitation and Water Infrastructure:** Water, wastewater, and solid waste systems are essential but difficult to maintain in small, remote communities. For decades, communities have largely been responsible for managing their own systems— often relying on temporary grants from state and federal agencies to fund upgrades, operations, and emergency fixes. This model is increasingly strained. In Kokhanok, for example, households not connected to the piped system still rely on private wells. In Perryville, a new water treatment plant is planned, but the existing system has already experienced disruptions. In Chignik Bay, water pipes made of aging wood are beginning to fail, even as the community works with the Borough on dam upgrades. Many systems are aging or incomplete, and changes in environmental conditions—such as lower lake levels and delayed freeze-ups—are affecting water pressure, contamination risks, and access to repair sites. With few local technicians available and limited resources to hire help, communities struggle to keep systems functioning day to day, let alone plan for the long-term.

Gaps in Public Safety and Emergency
Facilities and Management: Many Lake and
Peninsula communities face persistent gaps in
public safety and emergency services. Most
villages do not have a stationed Village Public
Safety Officer (VPSO), and those that do – such
as Newhalen – often serve large areas with
minimal backup. The majority rely on Alaska
State Troopers dispatched from hubs like King
Salmon or Anchorage, creating long response
times during emergencies. At the same time,
communities lack the basic infrastructure and
staffing for emergency fire or disaster response.
Chignik Lagoon, for example, still needs a fire



Levelock fire truck, 2024.

suppression wagon and a dedicated emergency shelter. In Port Heiden, residents identified the need for a fire truck as a top priority. Communities are also calling for emergency shelters, equipment, and staff to respond to fires, natural disasters, and health crises - especially as extreme weather and outmigration stretch limited resources.<sup>9</sup>

**Aging Infrastructure Undermined by Workforce Gaps and Environmental Strains:** Much of the Borough's essential infrastructure – such as docks, fuel storage, sanitation systems, and airports – is aging, under-maintained, or vulnerable to environmental hazards like erosion, thawing permafrost, and shifting riverbanks. Deferred maintenance and funding shortfalls are regional trends, compounded by a lack of skilled local labor to operate and repair facilities, increasing reliance on outside contractors and limiting local control over essential services.<sup>10</sup>

**Limited Broadband and Cellular Access:** Although improvements are underway, many communities in the Borough are still considered unserved or underserved by broadband standards<sup>11</sup>. Satellite internet (e.g., Starlink) fills some gaps, but inconsistent coverage and affordability remain challenges. Connectivity issues limit access to education, emergency services, economic opportunities, and daily communications.<sup>12</sup>

(More details about infrastructure in each community is located in the Community Plans.)

#### Goals

Goal A	Goal B	Goal C
Support safe, reliable, and locally manageable infrastructure and utilities that meet community needs and adapt to changing environmental and economic conditions.	Invest in subregional infrastructure and shared facilities that reduce longterm costs, strengthen service delivery, and improve quality of life across the Borough.	Expand access to essential public services – including emergency response, public safety, broadband, and clean water - through collaborative investment and local capacity building.

<sup>&</sup>lt;sup>10</sup> Southwest Alaska Municipal Conference. (2020). Comprehensive Economic Development Strategy 2020–2024.

<sup>&</sup>lt;sup>11</sup> National Telecommunications and Information Administration. (2020). *National Broadband Availability Map:* FCC Form 477 provider-reported terrestrial broadband footprint in Alaska (January–June 2020)

 $<sup>^{12}</sup>$  Note: The Alaska Broadband Office lists several Lake and Peninsula Borough communities as priorities for investment  $^{12}$  to ensure unserved and underserved locations gain access to reliable broadband. See Appendices for more information.

### **Strategies and Actions**

Strategy 1. Support capital projects that have subregional and/or regional benefit, following the current Capital Improvement Projects (CIP) list.

- a) Prioritize projects that reduce the cost of living, improve access to essential services, or support economic development across multiple communities.
- b) Encourage shared infrastructure such as docks, bulk fuel facilities, or renewable energy systems that can serve multiple villages efficiently.
- c) Maintain robust oversight and quality-control checks on Borough-led capital projects to ensure long-term value and functionality.

See the Economic Development chapter for related recommendations on cost of living.

#### **EXAMPLE: Iliamna Dock and Breakwater Project**

Identified as a subregional priority in the Borough's Capital Improvement Project (CIP) list, the project is designed to improve maritime access for freight and fuel deliveries, serving not only Iliamna but also neighboring communities like Newhalen, Pedro Bay, and Igiugig. By investing in this shared infrastructure, the Borough aims to reduce barge and air freight costs, consolidate logistics, and expand opportunities for regional collaboration. Community leaders have emphasized that improved docking facilities will make it easier to deliver fuel and construction materials in bulk, helping lower the cost of living and support energy and housing development.

Strategy 2. Assist individual communities with the provision of public facilities and services that meet local needs and support one or more of the other goals in this plan.

- a) Support sharing agreements for heavy equipment among entities (e.g., city, Tribe, DOT&PF) to reduce redundancies and costs.
- b) Develop a circuit-rider or mobile technician program to provide regular maintenance and troubleshooting for community facilities and explore feasibility of other types of utility collaborations.
- c) Strengthen the local skilled workforce by coordinating technical training and supporting a technician knowledgeable in state regulations.
- d) Prioritize infrastructure projects that address climate-related threats such as shoreline erosion, permafrost thaw, or shifting river courses and support relocation or retrofitting of vulnerable facilities.
- e) Advocate for continued federal and state funding to upgrade aging energy and sanitation infrastructure, including bulk fuel storage, diesel generation, landfills, HAZMAT cleanup, and water/wastewater systems.

See the Economic Development chapter for related recommendations on job growth and workforce development.

#### **EXAMPLE: Chignik Bay Utility Support and Infrastructure Challenges**

Chignik Bay has an incinerator sitting idle on the dock because no one has the technical expertise or equipment access to move it safely to its final location. At the same time, aging infrastructure - including failing wooden water pipes - is putting pressure on the community's ability to provide basic services. The Borough is coordinating with the community on larger infrastructure projects, such as upgrades to the dam, but day-to-day maintenance remains a challenge due to the lack of trained local technicians and logistical coordination. This example highlights the need for a circuit-rider technician program, improved workforce training, and sharing agreements for equipment which could reduce service interruptions and help communities respond more effectively to routine maintenance and emergency repairs.

#### Strategy 3. Support improvements to public safety, fire, and emergency response.

- a) Provide technical assistance for communities to hire VPSOs, purchase fire suppression equipment, and recruit volunteer responders.
- b) Support community access to emergency shelter facilities, especially in villages exposed to erosion, climate events, or seasonal influxes of visitors.
- c) Advocate for more efficient coordination with state agencies to address drug and alcohol trafficking and seasonal law enforcement needs.
- d) Support integration of behavioral health and substance use response into emergency planning and community safety strategies.

#### **CASE STUDY: Northwest Arctic Borough's VPSO Program Enhancements**

The Northwest Arctic Borough has strengthened its Village Public Safety Officer (VPSO) program through the **Regional Public Safety Officers** (RPSOs) program to provide backup and shared support across multiple villages. To improve recruitment and retention, the Borough increased wages and expanded training opportunities for VPSO. They also implemented regular audits and additional training to maintain program quality and statutory compliance. <sup>13</sup> This approach has led to a more stable and effective public safety presence in remote communities across the borough.

# Strategy 4. Integrate renewable energy technologies into existing infrastructure to decrease reliance on fossil fuels and stabilize energy costs.

- a) Advocate for continuation and expansion of the Power Cost Equalization (PCE) program to maintain affordability in small communities.
- b) Encourage cooperative fuel purchasing strategies to reduce costs and improve supply reliability.
- c) Support energy efficiency measures, including weatherization programs and upgrades that capture waste heat from diesel generators.
- d) Assist communities in identifying and implementing locally appropriate renewable energy sources (e.g., hydro, wind, solar) and funding sources for installation and maintenance.

See the Housing chapter for related recommendations on energy efficiency and housing.

 $<sup>^{13}</sup>$  Alaska Department of Public Safety. (2024, March 15). Three new Regional Public Safety Officers begin work in Northwest Arctic Borough.

#### **Example: Igiugig's Integration of Renewable Energy Technologies**

Igiugig has successfully integrated renewable energy technologies to reduce reliance on fossil fuels and stabilize energy costs. The community partnered with the Ocean Renewable Power Company to install a river-based hydrokinetic generator that harnesses the kinetic energy of flowing water to produce electricity. This system has significantly decreased the village's diesel fuel consumption, leading to lower energy costs and reduced environmental impact.

# Strategy 5. Expand access to reliable, high-speed broadband and cellular services throughout the Lake and Peninsula Borough.

- a) Partner with state and federal broadband initiatives to close access gaps in unserved and underserved areas.
- b) Assist communities in applying for funding through NTIA, USDA ReConnect, and the Tribal Broadband Connectivity Program.
- c) Support digital infrastructure that can also serve emergency communication, health, and education needs, especially in isolated locations.

#### CASE STUDY: Akiak's Broadband Expansion as a Model for Iliamna

The village of Akiak, in the Yukon-Kuskokwim Delta, successfully secured funding through the Tribal Broadband Connectivity Program to build out high-speed, affordable internet across the entire community. By deploying a Tribally owned fiber-optic network, Akiak dramatically improved internet access, enabling virtual schooling, telehealth, and digital workforce participation. This example offers a clear model for communities like Iliamna, where providers such as SalmonNet are partnering with local leaders to bury fiber lines and expand broadband capacity. While Iliamna's efforts are still in progress, Akiak demonstrates the transformative potential of combining federal funding, Tribal initiative, and community-scale infrastructure to close the digital divide in remote Alaska.

"I think our facilities and housing should be the highest quality, operated with renewable energy. We deserve that and we should work toward that."

~Interview participant



# **Transportation**

#### Introduction

Reliable transportation is a lifeline in the Borough – linking communities to food, freight, medical care, and one another. While the Borough does not directly operate transportation systems, it plays a vital role in supporting the planning, coordination, and advocacy needed to ensure transportation investments reflect local priorities. The Borough's communities rely on small-scale trails and airstrips as much as regional roads, ports, and ferry service. From subsistence access to school transportation, every mode of travel is shaped by geography, climate, and limited funding. This chapter outlines how the Borough can champion planning efforts, elevate shared infrastructure priorities, and advocate for air, marine, and overland access that sustains life across the region.

### Themes and Key Issues

**Transportation Access Affects Cost of Living and Opportunity:** High transportation and shipping costs contribute significantly to the region's high cost of living. This stems from the Borough's remoteness, small and dispersed populations, and the resulting lack of economies of scale.

**Regional Connections Strengthen Shared Infrastructure and Access:** Communities across the Borough have identified road and bridge projects that would improve access to port facilities, reduce supply costs, and allow for greater use of shared infrastructure such as schools, airports, and health services. For example, Kokhanok and Igiugig have expressed



Pedro Bay. 2024

interest in new road or trail links between villages, and Pedro Bay has emphasized the importance of a connection to the Williamsport-Pile Bay Road to improve freight access. These connections can strengthen capital funding requests by serving multiple communities and reducing duplication of services.

**Local Roads and Trails Are Critical for Subsistence and Community Function:** 

Within communities, small-scale road and trail improvements are essential for accessing subsistence areas, landfills, community facilities, and housing sites. Chignik Lagoon, for instance, has prioritized trail improvements to safeguard seasonal access to fishing and hunting grounds from erosion and overgrowth. While some trails support recreation and tourism, their primary value lies in maintaining safe, functional, and culturally meaningful connections within and around each community.

Maritime Infrastructure Supports Subsistence, Commerce, and Connectivity: At both the regional and local level, docks, harbors, and boat landings are vital for subsistence, fishing, and marine transportation. The 2020–2024 SWAMC Comprehensive Economic Development Strategy identifies port and harbor infrastructure as a regional strength. Communities rely on these facilities for food security, delivery of goods, travel, and in some locations, tourism. Continued Alaska Marine Highway service to Chignik Bay remains a community priority.

Year-Round Air Service Saves Lives: Aviation provides essential year-round access for all communities in the Lake and Peninsula Borough. Many villages are not connected by road, and marine service is seasonal. Air travel enables the transport of passengers, freight, emergency services, and public safety personnel. The airstrips in Borough communities are maintained by the Alaska Department of Transportation and Public Facilities (ADOT&PF). High fuel prices and limited flight frequency drive up the cost of air service. The Borough plays a supporting role by identifying community priorities and helping coordinate with state and federal agencies to improve aviation infrastructure.



Kokhanok airport, 2024

"There's concerns that aviation companies are aging out or don't have succession plans. Some of the equipment is aging. That could affect not only transportation for people but also goods and fuel. There should be some long-range planning about that."

~Interview participant

#### Goals

Goal A	Goal B
Champion regional coordination and planning that connect communities and reflect shared priorities.	Support community efforts to maintain access to the land, services, and resources that sustain everyday life in the borough.

# **Strategies and Actions**

Strategy 1. Coordinate and maintain shared planning tools to support community transportation priorities.

- a) Maintain a regional Capital Improvement Project (CIP) list that identifies and elevates shared transportation priorities.
- b) Expand the Borough's planning data library, including geographic information system (GIS) data, completion of the E911 system, transportation maps, and maintenance status for airstrips, roads, trails, and marine facilities.
- c) Provide technical assistance or templates for communities preparing transportation grant applications or project justification statements and resolutions of support.

#### **EXAMPLE: Borough GIS Tools Improve Planning Capacity Across Communities**

In response to community feedback about outdated or incomplete maps, the Borough launched the Lake and Peninsula Parcel Viewer and Addressing System. This online platform is part of a broader effort to provide more accurate geographic information system (GIS) data, support e911 implementation, and give communities access to essential land status and infrastructure maps. The resource is already supporting efforts in communities like Igiugig, Chignik Lagoon, and Port Alsworth, where residents noted inaccurate utility layouts and limited access to road and trail information. By maintaining and expanding this system, the Borough strengthens emergency services and supports capital improvement project planning.

# Strategy 2. Support inter-community connections that improve access and service efficiency.

- a) Work with interested communities to explore the feasibility of regional transportation links, such as roads or trails that connect villages to shared schools, airports, or ports.
- b) Advocate for funding and planning support for projects that reduce duplication and enhance multi-community access to critical services.
- c) Promote community input into state and federal transportation planning processes for major regional corridors (e.g., Pile Bay–Williamsport Road, Lake Clark area access).

#### CASE STUDY: Denali Borough's Collaborative Trail Initiatives

The Denali Borough has actively partnered with the Alaska Department of Transportation & Public Facilities (ADOT&PF) to enhance inter-community connectivity through strategic trail projects. Notably: > Healy Area School Paths 14: This initiative focuses on creating separated paths leading to and from

the Tri-Valley School, ensuring safe and accessible routes for students and community members.

Parks Highway Separated Paths Project 15: Aimed at constructing segments of a separated path along the Parks Highway, this project enhances safety for non-motorized users and promotes alternative transportation modes.

These projects exemplify how borough-level collaboration with state agencies can lead to the development of infrastructure that not only connects communities but also promotes safety, recreation, and alternative transportation options.

# Strategy 3. Encourage local transportation improvements that enhance safety, subsistence access, and resilience.

- a) Partner with communities to document and prioritize needed improvements to local roads, trails, and seasonal routes used for subsistence and everyday travel.
- b) Assist communities in identifying funding sources for trail and road maintenance projects, especially those addressing erosion, overgrowth, or seasonal inaccessibility.
- c) Coordinate with land managers and Tribes to align transportation improvements with cultural use areas and environmental concerns.

See the Land Use and Environment chapter for related recommendations on environmental concerns.

<sup>&</sup>lt;sup>14</sup> Denali Borough. (n.d.). *Healy area school paths*. Retrieved April 17, 2025, from <a href="https://www.denaliborough.org/">https://www.denaliborough.org/</a>

<sup>&</sup>lt;sup>15</sup> Denali Borough. (n.d.). *Parks Highway Separated Paths Project*. Retrieved April 17, 2025, from <a href="https://www.denaliborough.org/">https://www.denaliborough.org/</a>

# Strategy 4. Advocate for sustained investment in air and marine infrastructure and services

- a) Support continued Alaska Marine Highway service to Chignik Bay and monitor community needs for future ferry system planning.
- b) Encourage coordination between communities and ADOT&PF to address airstrip maintenance needs, fuel costs, and service frequency.
- c) Promote interagency discussions on aviation access for medevacs, emergency services, and law enforcement in communities without year-round public safety presence.

#### **EXMAPLE: Borough Advocacy Ensures Continued Ferry Service in the Chigniks**

Recognizing the vital role of the Alaska Marine Highway System (AMHS) in connecting remote communities, the Lake and Peninsula Borough prioritized the construction of a new city dock in Chignik Bay. Previously, the state ferry, M/V Tustumena, relied on docking at a privately owned facility that required ongoing repairs, raising concerns about the long-term viability of ferry service to the region. In response, the Borough collaborated with the City of Chignik Bay to secure funding and oversee the development of a new public dock. This \$11 million project, with \$4 million contributed by local entities and \$7 million from the state, was completed in early 2017. The new infrastructure not only ensured the continuation of ferry services but also enhanced the reliability of marine transportation for the communities of Chignik Bay, Chignik Lake, Chignik Lagoon, and Perryville.





Airplane in Chignik Lagoon. Road construction in Pedro Bay, 2024.

"Transportation in our region is so expensive. Most people can't afford to go to Anchorage, much less take a vacation or go anywhere else."

~Survey participant



# Housing

#### Introduction

Across rural Alaska, attaining safe, affordable housing is one of the most persistent and complex challenges facing communities today. Housing is one of the most frequently raised concerns during community meetings across the Lake and Peninsula Borough. In the community survey, "addressing housing challenges" receives the most responses when participants are asked about their top priorities for the next five years. Housing issues in the region affect both the quality of life for residents and broader economic development. There is a shortage of affordable and adequate housing, driven by high construction costs in rural Alaska and limited land available for development. The lack of available contractors across the state, especially in rural areas, adds to the difficulty and cost of building or repairing homes. Many existing homes require significant improvements to meet basic health and safety standards. Emergency housing options are also limited, putting vulnerable individuals at greater risk. There is also a need for technical assistance in areas such as homeownership, loans, grants, and financial management. In most communities, water and sewer systems need upgrades to support current and future housing needs. Housing challenges also limit economic opportunities by making it harder:

- For people to return to their home communities.
- To attract a local workforce.
- For communities to house temporary or traveling workers like healthcare providers and contractors.

Addressing these issues will require coordinated action focused on housing development, infrastructure improvements, and collaboration among local and regional partners.

# Themes and Key Issues

**Housing is Top Community Priority:** Most, if not all communities within the borough have expressed priorities for developing long-term housing solutions for certain community members, including emergency housing and facilities for Elders.

**High Construction Costs and Limited Land Availability:** Building new homes is expensive due to workforce shortages and steep shipping costs. <sup>16</sup> There also is a need for land designated for new housing developments in communities across the borough.

**Need for Rehabilitation:** Many existing homes require rehabilitation to meet healthy and safe living conditions and to protect against weather and environmental conditions.

<sup>&</sup>lt;sup>16</sup> Alaska Housing Finance Corporation Construction Cost Survey

#### Goals

Goal A	Goal B	Goal C
Increase the supply of attainable, quality, housing in all communities that addresses the needs of all residents.	Ensure land is available to meet the current and future housing needs of communities.	Expand Infrastructure to support future housing.

### **Strategies and Actions**

#### Strategy 1: Strengthen Infrastructure and Land Readiness for Housing Development

- a) Develop land use plans by identifying and designating appropriate land in each community for future housing development.
- b) Plan for and extend access to essential utilities (e.g., water, sewer, electricity) in areas targeted for housing growth.
- c) Prioritize upgrades to roads, water and sewer systems, and alternative energy sources to support residential development.
- d) Address aging and insufficient infrastructure in existing neighborhoods to enable sustainable housing growth.

See the Land Use and Environment and Community Facilities and Utilities chapters for related recommendations.

**CASE STUDY:** The Denali Borough has been working to implement a land management plan to support uses that meet local needs, including assessing land across the borough for future housing development. The planning commission also conducted a survey to gauge what type of dwelling, location, and lot size residents want to see and where, emphasizing year-round housing. Through the survey and community engagement, the planning commission identified some land suitable for housing and are now undertaking a "subdivision concept planning" exercise with the public that considers various home types, lot sizes, proposed trails, utility needs, and access roads.

#### Strategy 2: Increase Housing Availability and Affordability

- a) Support the construction of diverse housing types, including affordable units and energy-efficient homes that are suitable for rural conditions.
- b) Prioritize affordable housing and focus on projects that serve low-income families and individuals, particularly in areas with high housing demand.
- c) Develop housing that supports aging in place and ensures Elders have access to safe, appropriate living environments.
- d) Encourage collaboration between neighboring communities to develop shared housing resources, such as Elder housing or workforce accommodations in subregional hubs.

"Housing continues to be a big concern and problem. People are leaving communities because they can't afford to buy materials to build or repair houses."

~Interview participant

e) Partner with local nonprofits, regional housing authorities, and Tribal entities to plan and manage development projects.

See the Cultural Wellness chapter for related recommendations.

**EXAMPLE:** The North Slope Borough convened a Housing Summit in Anchorage in January 2025 to bring together partners, community leaders, stakeholders, and community members to explore solutions for expanding housing opportunities across the North Slope. The borough published a summit report with an overview of presentations, discussions, next steps and detailed information on key topics including financing and funding, land ownership, contractors, skilled labor, and training, supplies, materials, and logistics and a tool kit of resources for residents - <a href="https://www.north-slope.org/housing-summit-2025/">https://www.north-slope.org/housing-summit-2025/</a>

#### Strategy 3: Improve and Rehabilitate Existing Housing Stock

- a) Implement rehabilitation programs and expand programs focused on repairing and weatherizing existing homes.
- b) Identify and pursue funding sources to support home rehabilitation, particularly for low-income households.
- c) Offer residents guidance and support on home repair planning, maintenance, and access to financial resources.

#### Strategy 4: Expand Emergency Housing Options and Build Local Capacity

- a) Create facilities or contingency plans for temporary shelters and emergency housing for residents facing displacement or homelessness.
- b) Involve residents in identifying needs and locations for emergency housing resources.
- c) Strengthen workforce development programs that train local residents in construction, housing maintenance, and infrastructure-related trades.
- d) Collaborate with entities such as the Bristol Bay Housing Authority and Alaska Housing Finance Corporation to secure funding and leverage technical expertise.
- e) Provide education and assistance related to homeownership, credit management, and navigating housing-related loans and grants.









Homes in Chignik Bay, Kokhanok (middle two), and Port Heiden, 2024.



# **Economic Development**

#### Introduction

The Lake and Peninsula Borough's economy is closely tied to the fishing industry, which provides a vital source of income and identity for many communities. This reliance also brings vulnerabilities, especially in the face of environmental changes, shifting regulations, and market pressures.

At the same time, the region faces broader issues that impact its economic outlook: infrastructure maintenance needs, a high cost of living, and a declining population, especially among young people and families who are moving away from their home communities for other opportunities. These factors can make it harder to attract and retain businesses or grow a sustainable workforce.

Despite these hurdles, the Lake and Peninsula Borough has strong foundations to build upon. Cultural ties and strong community networks offer opportunities to create a more diverse and resilient economy. Through targeted investments, regional collaboration, and support for innovation in traditional and emerging sectors – such as fisheries and tourism – the Borough may be able to help communities provide opportunities while preserving the values important to residents.

# Themes and Key Issues

**Skill Development and Training:** There is a strong desire from community leaders and residents for more skill building and vocational training programs to better enhance local employment prospects and support emerging industries like eco-tourism and renewable energy.

**Collaboration Among Entities:** Strong collaboration between municipalities, Tribal governments, and the Lake and Peninsula School District were widely mentioned among communities as a way to help the Borough and communities pursue economic development initiatives.

#### **Economic Dependence on Fisheries and**

**Diversification:** The Borough's economy heavily relies on the fishing industry<sup>17</sup>, which provides strong revenue streams but is vulnerable to fluctuations due to environmental changes and management challenges. There is also a desire from residents to diversify the local economies beyond traditional sectors, with potential growth areas including eco-tourism, cultural tourism, renewable energy, and value-added seafood products.

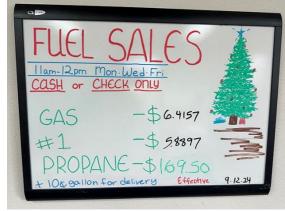
"We need to advocate for better fisheries management so that the native Chignik salmon runs actually get to Chignik!"

~Community survey participant

<sup>&</sup>lt;sup>17</sup> Alaska Commercial Fisheries Entry Commission

#### **Infrastructure Challenges and High Cost of**

**Living:** Limited infrastructure, such as lack of road connectivity and utilities, hampers economic growth by limiting access to markets and increasing operational costs for businesses. This also contributes to the high cost of living particularly related to energy and transportation, posing barriers to attracting new businesses and residents and contributing to outmigration. <sup>18</sup> For many communities within the borough, infrastructure projects account for most of the priority projects identified on community Capital Improvement Projects lists. <sup>19</sup>



Fuel sales in Pedro Bay, 2024.

**Population Decline:** The borough has experienced population decline, particularly among younger residents moving to more urb

among younger residents moving to more urban centers for opportunities, which affects workforce availability and community vitality.<sup>20</sup>

#### Goals

Goal A	Goal B
Diversify and strengthen the regional economy.	Build infrastructure and workforce capacity to support economic growth.

### **Strategies and Actions**

#### **Strategy 1: Improve Critical Infrastructure**

- a) Prioritize investments in transportation systems (e.g., road maintenance, dock upgrades, airport enhancements), especially those that connect neighboring communities and improve access to hubs like King Salmon and Anchorage.
- b) Upgrade utility systems, including water, sewer, broadband, and alternative energy sources, to support residential and commercial growth.
- c) Plan and construct multi-use community facilities that can serve as business hubs, event venues, and/or emergency shelters.

See the Transportation and Community Facilities and Utility chapters for related recommendations.

**EXAMPLE:** In Igiugig, the community has been planning for a Community Cultural Center. It is designed as the first modern fossil fuel-free building in the region. Once built, the center will provide a venue for lifelong learning and language revitalization activities, a repository for cultural resources, and a commercial kitchen that will allow the village to integrate locally grown and locally harvested food products.

<sup>&</sup>lt;sup>18</sup> Alaska Department of Labor and Workforce Development, Research and Analysis Section

<sup>&</sup>lt;sup>19</sup> 2025 Lake and Peninsula Borough CIP Lists

<sup>&</sup>lt;sup>20</sup> Alaska Department of Labor and Workforce Development, Research and Analysis Section

#### **Strategy 2: Develop Workforce Skills and Education**

- a) Develop and support financial literacy programs and small business training for residents of all ages by partnering with Bristol Bay Economic Development Center (BBEDC) and Alaska Small Business Development Center.
- b) Continue and strengthen partnership with the Bristol Bay Region Career and Technical Education programs, the Lake and Peninsula School District, and other training providers to offer vocational programs tailored to local industries.
- c) Create internship and apprenticeship opportunities in fields such as construction, tourism, energy, and fishing.

**CASE STUDY:** The Alaska Small Business Development Center was key in establishing 13 new businesses in 2023 in rural communities across the state, including some Lake and Peninsula Borough communities. Although this number is lower than the peak of 44 businesses in 2021, it shows a significant improvement compared to 2020 and 2022. Notably, a diverse group of entrepreneurs emerged, with 38% being minority-owned businesses, 15 percent veteran-owned, and 23 percent women-owned. The top five industries advised in rural communities were accommodation and food service, manufacture/producer, service industry, agriculture, forestry, fishing and hunting, and Transportation and warehousing.

#### Strategy 3: Sustainably Increase Tourism in the Region

- a) Support development of businesses that are eco-tourism oriented, such as guided tours on waterways and trails. Develop regional tourism programs that highlight local culture and traditions. Collaborate with existing models in the state that focus on "regenerative tourism" strategies, for example, the model from the Southeast Sustainable Partnership.
- b) Work with Alaska Travel Industry Association and existing tour operators to develop agreements that honor local culture and establish practices that protect residents' access to land and water while providing positive guest experiences.
- c) Involve community members in decision-making processes related to tourism development to ensure that initiatives align with local values and needs.
- d) Develop a tourism marketing plan for the region to promote tourism offerings and improve communication about available services and attractions.

#### **Strategy 4: Increase Collaboration and Regional Planning**

- a) Establish formal partnerships between municipalities, Tribal governments, and regional organizations to align development goals and pool resources.
- b) Conduct regular public engagement sessions across borough communities to ensure development priorities reflect community needs.

#### **Fisheries**

The fishing industry is a cornerstone of the Borough's economy. Sustaining this sector requires investment in infrastructure, education, and market access, along with plans and strategies to respond to environmental change.

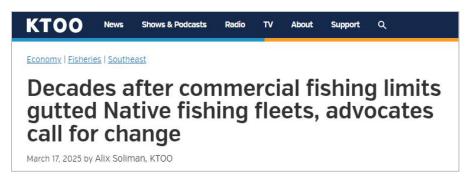
#### Goal C

Sustain and enhance the fisheries economy of Borough communities.

#### **Strategy 5: Ensure Sustainable Fisheries Management**

- a) Collaborate with state and federal agencies to establish policies that protect fish stocks and promote long-term ecological health.
- b) Involve local fishermen in policy discussions and promote community-led stewardship initiatives.
- c) Support community-level and community-owned research and data collection to monitor trends and guide fisheries decision-making.
- d) Develop an advocacy plan for the Borough to lobby and advocate for emerging issues at the state and federal level affecting commercial fisheries. For example, collaborate with BBEDC and other Tribal entities and communities across the state to push for legislative

actions that would address the challenges of limited entry fisheries and/or advocate for a federal pathway for access.



#### Strategy 6: Strengthen Local Processing and Market Access

- a) Invest in fish processing facilities that enable value-added production and create year-round jobs.
- b) Upgrade transportation infrastructure (e.g., docks, cold storage, access roads) to support efficient seafood logistics.
- c) Strengthen the Borough partnership with BBEDC and Seafood Marketing Institute to tell the unique stories of fisheries across the Borough.

See the Transportation and Community Facilities and Utility chapters for related recommendations.

#### **Strategy 7: Support Workforce Development and Cooperative Models**

a) Offer training in fishing safety, business management, and seafood handling to support modern, sustainable practices and encourage more young people to enter a fisheries career. Partner with BBEDC or Alaska Sea Grant on these actions.

b) Encourage the formation of fishermen's cooperatives to increase bargaining power and improve coordination; provide technical assistance to cooperatives for governance, financial planning, and operations.

#### **Strategy 8: Engage and Empower Local Communities**

- a) Facilitate community input on fisheries policies and economic planning through public forums and working groups.
- b) Advocate for equitable access to fisheries resources for small-scale and community-based fishermen.
- c) Align fisheries investments with broader economic development goals, including housing, education, and infrastructure.









Net mending in Chignik Lagoon, fishing boats in Chignik Bay, fishing boat in Levelock, Kokhanok fish camp, 2024.



# **Culture and Wellness**

#### Introduction

Culture and wellness are central to the strength and resilience of communities across the Lake and Peninsula Borough. Life is shaped by the seasons, the river, and the people - with families, Elders, and young ones all connected through subsistence, tradition, and everyday acts of care. These values are challenged by shifting demographics, limited infrastructure, high costs of goods and services, and the increasing impacts of climate change – yet communities continue to respond with innovation, resourcefulness, and collaboration.

Key focus areas include strengthening local food systems that prioritize subsistence harvests and community-based agriculture, addressing persistent barriers to education access and youth engagement, and expanding health services for all generations – particularly Elders. Through investment in infrastructure, regional partnerships, and support for sustainable fisheries, the Borough helps ensure that traditional ways of life continue to thrive alongside improved access to essential services.

### Themes and Key Issues

#### **Local Innovation in Food Systems:**

Communities are developing alternative approaches to local food production such as greenhouses, local gardens, and community freezers to expand food access and build local resilience.<sup>21</sup> These innovations supplement wild food sources and demonstrate the region's adaptive capacity.

**Sustaining Subsistence in a Changing Environment:** Subsistence is the foundation of food security, culture, and community in the Lake and Peninsula Borough, connecting residents across generations through shared



Greenhouse in Igiugia, 2024.

harvest traditions. However, climate change is disrupting the timing and availability of key resources like salmon and berries.<sup>22</sup> At the same time, aging equipment, and the long distances

<sup>&</sup>lt;sup>21</sup> Literature Review

 $<sup>^{22}</sup>$  Alaska Center for Climate Assessment and Policy. (2021). Climate Change Impacts in Southwest Alaska. Retrieved from  $\underline{\text{https://uaf-accap.org}}$ 

required to reach hunting and fishing areas make it increasingly difficult – especially for low-income and younger residents – to maintain these vital practices.<sup>23</sup>



Meshik School in Port Heiden, 2024.

Keeping Schools Strong as Community Anchors: Schools in the Lake and Peninsula Borough face multiple pressures, including declining enrollment due to outmigration, high living costs, and limited job opportunities. Reduced funding from outmigration and State cuts threaten core programs like student meals and building upkeep. At the same time, many school facilities are aging and in need of

upgrades to remain safe, functional, and available for broader community use. To support schools as vital hubs of community life, local leaders are exploring new revenue sources.

Youth Engagement and Cultural Relevance: In small, close-knit communities, people value strong relationships across generations and want to see young people involved in shaping the future. Right now, youth have few chances to take part in school decisions or community planning, which makes it harder for them to stay engaged. Many residents want to see more culturally grounded programs and curriculum that reflect local values, traditions, and ways of life.

#### Clinics Are the Backbone of a Strained Health

**System:** Clinics serve as the primary access point for health care and emergency response in the borough, often doubling as community hubs. But many face staff shortages, aging infrastructure, and inconsistent funding, making it difficult to



deliver care or expand services. Geographic remoteness and limited transportation options - including weather-related delays - frequently impact emergency response times. With no hospitals in the region, residents rely on travel to hub centers – like Anchorage – for specialized or urgent care, often at high personal and financial cost.

**Growing Health Needs Across Generations:** The Borough's population of residents aged 60 and over has increased by more than 30 percent over the past decade, emphasizing the need for more Elder care, in-home support, and accessible housing. <sup>24</sup> Community members have also voiced concerns about substance abuse, mental health, and preventable diseases, calling for stronger public health outreach, education, and culturally relevant prevention programs. Behavioral health services are limited, and many residents rely on family networks or community supports to fill the gap. <sup>25</sup> These challenges affect younger generations as well, especially where schools, clinics, and local leadership are stretched thin.

<sup>&</sup>lt;sup>23</sup> USDA Economic Research Service. (2019). Alaska Food Costs and Market Access. Retrieved from https://www.ers.usda.gov

<sup>&</sup>lt;sup>24</sup> U.S. Census Bureau. (2022). American Community Survey 5-Year Estimates, 2012-2022.

 $<sup>^{25}</sup>$  Bristol Bay Area Health Corporation. (2022). Community Health Needs Assessment: Data Book. Retrieved from  $\frac{\text{https://rebuildbbahc.nonprofitoffice.com/vertical/Sites/\%7BB93FA657-01D9-48EF-864C-}{418FDF5B7513\%7D/uploads/MRGBBAHCCHNADataBookFinal10.27.22.pdf}$ 

#### Goals

Goal A	Goal B	Goal C
Prioritize access to healthy, affordable, culturally important foods.	Support our youth through quality education, cultural connection, and opportunities to lead.	Advance health, safety, and wellness across all communities and generations.

### **Strategies and Actions**

#### **Food Systems**

#### Strategy 1. Support local food production.

- a) Help communities expand small-scale agriculture and aquaculture initiatives by assisting with building or retrofitting greenhouses, high-tunnel gardens, hydroponics by identifying funding (grants, partnerships), or providing technical assistance.
- b) Invest in infrastructure that enhances subsistence activities, such as smokehouses, fish drying racks, meat processing facilities, and storage freezers.

#### Strategy 2. Strengthen local food sovereignty.

- a) Collaborate with the Lake and Peninsula School District, community Elders, BBNA, and the Bristol Bay Regional Career and Technical Education (BBRCTE) program to expand subsistence education through programs such as culture camps, curriculum integration, and seasonal scheduling aligned with harvesting cycles.
- b) Establish a borough-level food security working group with Tribal representation to coordinate regional response to shortages, facilitate resource sharing, and manage emergency food reserves.

See the Economic Development chapter for related recommendations.

**EXAMPLE:** In Newhalen, the community has proposed a subsistence processing and storage facility to support traditional harvests, improve food preservation, and ensure food security during low-harvest years - demonstrating a local model of infrastructure development that supports both cultural continuity and practical food access.

#### CASE STUDY: Innovative infrastructure in Bethel and Kotzebue.

In **Bethel**, local initiatives have focused on enhancing food security through community-driven agriculture. The Association of Village Council Presidents (AVCP) has emphasized the importance of developing local food systems to reduce reliance on imported goods and to promote self-sufficiency within the Yukon-Kuskokwim Delta region. These efforts include supporting community gardens and exploring sustainable agricultural practices suited to the region's unique environmental conditions.<sup>26</sup>

In **Kotzebue**, the Northwest Arctic Borough and partners such as the Maniilaq Association are exploring alternative food production systems in response to high food costs and limited availability. The borough's Comprehensive Economic Development Strategy outlines goals to increase access to nutritious foods, including support for community-led agriculture and innovative methods like hydroponics.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> Association of Village Council Presidents. (2018). *Yukon-Kuskokwim Comprehensive Economic Development Strategy:* 2018–2023. <a href="https://www.avcp.org/wp-content/uploads/2020/03/Y-K-CEDS-2018-2023">https://www.avcp.org/wp-content/uploads/2020/03/Y-K-CEDS-2018-2023</a> FINAL 7-31-18 FULL.pdf

 $<sup>^{27}</sup>$  Northwest Arctic Borough. (2019). Comprehensive Economic Development Strategy (CEDS), 2019 Update.  $\underline{\text{https://www.nwabor.org/wp-content/uploads/NAB-CEDS-Final-Approved-Report-8.27.2019.pdf}}$ 



Playground in Pedro Bay, 2024.

#### Education

#### Strategy 3. Seek funding and allocate resources for facilities, services, and programs.

- a) Advocate for increased state and federal school funding. Funding priorities include competitive staff pay, lunch programs, and facility maintenance/upgrades
- b) Explore and support new revenue opportunities to support long-term educational investments, such as fee-based programs.
- c) Develop contingency plans to prevent school closures, including partnerships with charter or alternative educational models (e.g., State Tribal Education Compacting).



#### CASE STUDY: Student-Led Enterprise in Igiugig.

Students in Igiugig have established a café located in the village's airport, providing them with practical experience in customer service and business operations.<sup>28</sup> The café not only serves as a community gathering place but also generates funds to support student government activities, including class trips and projects (McDermott, 2023). This initiative exemplifies how student-run enterprises can foster practical learning experiences while contributing to the community's economic and social vitality.

<sup>&</sup>lt;sup>28</sup> McDermott, C. (2023, December 22). *Bristol Bay's 2023 year in review*. KDLG. <a href="https://www.kdlg.org/community/2023-12-22/bristol-bays-2023-year-in-review">https://www.kdlg.org/community/2023-12-22/bristol-bays-2023-year-in-review</a>

#### Strategy 4. Support youth engagement and programming.

- a) Expand youth involvement in local decision-making and encourage more after-school and leadership programs for students.
- b) Cross reference with workforce development strategy in Economic Development Chapter.
- c) Invite Elders and community members to share local culture, language, and subsistence skills in schools.

#### Health

# Strategy 5: Invest in upgrading or constructing healthcare facilities and expand services in underserved communities.

- a) Offer incentives, housing support, and professional development to attract and retain providers in remote areas.
- b) Provide training for local emergency volunteers and secure critical equipment like ambulances and fire suppression tools.
- c) Improve internet and technology infrastructure; train providers and residents in telehealth use to connect patients with remote care.

# Strategy 6: Promote community wellness through local programs focused on nutrition, exercise, mental health, and substance abuse prevention.

a) Support community-led wellness programs that offer workshops, peer support, and prevention efforts focused on mental health, substance abuse, and chronic disease especially for youth and families.

# Strategy 7: Expand support for Elders through accessible housing options, in-home care, and wellness services that allow aging in place.

- a) Support the design of affordable, accessible Elder housing including the potential development of a regional Elder living facility – and expand home healthcare and daily living support services.
- b) Pursue state and federal grants and engage the community in fundraising and health-focused partnerships.
- c) Coordinate with Tribal health organizations and partners to ensure Elder needs are addressed through existing advisory structures, while exploring additional forums or community-led committees where gaps remain.

#### CASE STUDY: YKHC Elders Home in Bethel, Alaska

In 2013, the Yukon-Kuskokwim Health Corporation (YKHC) opened the YKHC Elders Home in Bethel, Alaska, to address the need for long-term care services within the region. <sup>29</sup> This 18-bed facility provides comprehensive care for Elders, allowing them to remain close to their families and communities in the Yukon-Kuskokwim Delta. The Elders Home offers a range of services, including medical care, cultural activities, and support for daily living, ensuring that residents receive holistic and culturally appropriate care. By situating the facility in Bethel, a regional hub, YKHC ensures accessibility for surrounding villages, reducing the need for Elders to relocate far from home for necessary services.

<sup>29</sup> Alaska Public Media. (2013, October 4). *Y-K Delta's first nursing home opens in Bethel*. <a href="https://alaskapublic.org/news/2013-10-04/y-k-deltas-first-nursing-home-opens-in-bethel">https://alaskapublic.org/news/2013-10-04/y-k-deltas-first-nursing-home-opens-in-bethel</a>