



Kenai Peninsula Borough Comprehensive Plan 2019 Update

Public Hearing Draft September 2019



This plan is available to download as a PDF at www.KPBCompPlan.com.

Hardcopies are also available at Borough offices:

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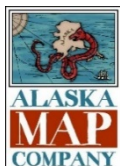
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Mayor Charlie Pierce, Kenai Peninsula Borough
Kenai Peninsula Borough Planning Commission
Kenai Peninsula Borough Assembly
Kenai Peninsula Borough Planning Department

Project Team

This plan was produced by Agnew::Beck Consulting with support from Alaska Map Company, ASRC Energy Services, Alaska Survey Research, Casey Planning & Design, Northern Economics and PDC Inc. Engineers.



PLAN ADOPTION

NOTE: The final version of this plan will include information about the Assembly ordinance adopting the plan, including a copy of the ordinance and the date adopted.

Executive Summary

OUR VALUES



OUR VISION: WHAT IS OUR FUTURE KENAI PENINSULA?

Keep the Kenai Peninsula a unique, prosperous, vibrant and attractive place to live.



Expand and diversify economic opportunities



Support local food, agriculture and industry



Balance economic benefits of tourism with residents’ quality of life



Protect our most important natural resources



Promote fiscally responsible government



Maintain our infrastructure and services

GOALS AND OBJECTIVES

Goal 1. Diversify and grow the Kenai Peninsula Borough economy.

Focus Area: Oil and Gas

- Objective A. Continue support for the oil and gas industry, one of the primary economic sectors in the borough.
- Objective B. Anticipate the workforce development and training needs related to employment demand and qualifications from the oil and gas sector's exploration, development, and production and refining activities and from the potential Alaska LNG liquefaction facility and marine terminal.
- Objective C. Plan for the housing, public services and transportation infrastructure that would be needed to support the Alaska LNG project liquefaction facility in Nikiski.
- Objective D. Encourage efficient use of land, infrastructure and services in areas already supporting the oil and gas sector.

Focus Area: Tourism and Recreation

- Objective A. Support outdoor recreation and tourism opportunities for a wide range of users, to create a strong, enduring borough economy and support resident health and quality of life.
- Objective B. Improve recreational trails, recreational access and mobility.
- Objective C. Protect the quality of recreation and tourism destinations and resources.
- Objective D. Expand the recreation and tourism appeal of borough communities.
- Objective E. Expand recreation and tourism marketing, education and job training opportunities.
- Objective F. Actively build partnerships needed to maintain, improve or expand recreational and tourism facilities and amenities in the borough.

Focus Area: Sportfishing

- Objective A. Support opportunities for sportfishing, including personal use fishing, while protecting the resource.
- Objective B. Protect and enhance the natural systems that support healthy sustainable sportfish habitats and populations.
- Objective C. Support continued sportfish research, monitoring and education efforts.

Focus Area: Commercial Fishing and Seafood Harvesting

- Objective A. Encourage development of seafood industry job opportunities that provide good income and benefits to borough residents.

- Objective B. Support a diverse mix of pre-employment education and training, on-the-job training and ongoing educational programs to improve the employability of borough residents in commercial fishing.
- Objective C. Strengthen development of the borough's commercial fishing industry.

Focus Area: Agriculture and Mariculture

- Objective D. Support a more sustainable and resilient Kenai Peninsula by increasing production and distribution of quality, healthy agricultural products for local, state and export markets.
- Objective E. Sustain and create new agriculture-related jobs and businesses.
- Objective F. Encourage greater local and regional self-sufficiency.
- Objective G. Develop a sustainable mariculture industry and create new opportunities for exports.

Focus Area: Mining

- Objective A. Strengthen the investment climate to support mining in the Kenai Peninsula Borough.
- Objective B. Encourage development of mining and resource development job opportunities that provide income and benefits to borough residents.
- Objective C. Support a diverse mix of pre-employment education and training, on-the-job training and ongoing educational programs to improve employability of borough residents in mining.
- Objective D. Strengthen development of the borough's mining industry.

Goal 2. Proactively manage growth to provide economic development opportunities on the Kenai Peninsula Borough while preserving what residents and visitors value about the area's natural features.

Focus Area: Land Use and Changing Environment

Access to Public Lands, Community Planning, Borough Land Management, Land Use Regulations and Preserving Natural Systems

- Objective A. Establish policies that better guide land use to minimize land use conflicts, maintain property values, protect natural systems and support individual land use freedoms.
- Objective B. Develop a stronger local voice in decisions on uses of federal and state lands.
- Objective C. Guide land use at the regional scale to promote economic development, improve public roads and other services and facilities, and maintain environmental quality.
- Objective D. Maintain quality of the borough's natural environment, including protecting visual quality, minimizing development in hazardous

areas, and developing strategies that help reduce and respond to impacts of changing environmental conditions.

Objective E. Actively work with interested communities outside of the incorporated cities to help develop locally-driven community plans.

Objective F. Actively manage Borough-owned lands to meet short and long-term regional goals.

Objective G. Manage beneficial and deleterious effects of climate change impacts.

Focus Area: Hazard Mitigation

See Land Use Focus Area and KPB All-Hazard Mitigation Plan for specific objectives.

Objective A. Implement recommendations and policies outlined in the Borough's 2019 All-Hazard Mitigation Plan.

Goal 3. Preserve and improve quality of life in the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.

Focus Area: Energy and Utilities

Objective A. Encourage coordination of residential, commercial, and industrial development with extension of utilities and other infrastructure.

Objective B. Assist communities and residents in generating financing plans for utility extensions.

Objective C. Support residential, community and regionwide renewable energy initiatives and projects.

Focus Area: Public Safety and Emergency Services

Objective A. Work with community and agency partners to increase police protection and community safety in the borough.

Objective B. Support efforts to reduce crime and recidivism, increase successful reentry of ex-offenders, and promote community-based justice.

Objective C. Continue working with agency and community partners to provide coordinated emergency services to prepare for, mitigate, respond to and recover from natural and human-caused emergencies throughout the borough.

Objective D. Establish or improve water supply systems to support firefighting operations in areas without central water systems.

Focus Area: Health

Objective A. Support the health and wellness of all Kenai Peninsula Borough residents and communities.

Objective B. Encourage seniors to remain active, healthy members of the community.

Objective C. Support the health care industry as an important economic sector and service provider in the community.

- Objective D. Promote local education and workforce development opportunities in the health care sector.
- Objective E. Support efforts to reduce and prevent deaths and other harms related to substance misuse and addiction.

Focus Area: Housing

- Objective A. Increase supply and variety of affordable housing options in the borough, while managing impacts of growth in communities.
- Objective B. Encourage options for seniors to age in place, maintain affordability of their home, and other options for remaining in the community.
- Objective C. Encourage creation and expansion of a continuum of services to reduce homelessness and prevent risk of homelessness in the borough for youth, families, individual adults and seniors.
- Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.

Focus Area: Solid Waste Services

- Objective A. Provide convenient, cost-effective, environmentally-sound disposal of solid waste generated by residents, businesses and visitors.
- Objective B. Update the *Kenai Peninsula Borough Solid Waste Management Plan*.
- Objective C. Increase awareness of and opportunities for waste reduction and landfill diversion, including “Reduce, Recycle, Reuse.”
- Objective D. Encourage safe handling and disposal of toxic and hazardous waste.
- Objective E. Investigate existing and emerging technologies for safe and efficient long-term waste disposal.
- Objective F. Explore new revenue sources to help finance the solid waste management system operations, capital improvements and innovation projects.

Focus Area: Historic Preservation

- Objective A. Support efforts to identify, document, protect, interpret, and celebrate cultural history and resources in borough communities.
- Objective B. Support efforts to maintain the character of historic towns, districts, and properties while encouraging commercial, tourist, and cultural development.

Goal 4. Improve access to, from and connectivity within the Kenai Peninsula Borough.

Focus Area: Transportation

- Objective A. Proactively engage with State of Alaska DOT&PF on planned projects, project prioritization, policies and studies.

- Objective B. Ensure new roads are developed in alignment with existing and planned growth and development.
- Objective C. Improve and maintain existing infrastructure.
- Objective D. Work with communities to expand public transportation options and ensure the long-term sustainability of public transportation for all residents.
- Objective E. Develop non-motorized pathways to connect communities with each other and with trails connecting to natural areas and open space.
- Objective F. Support expansion of public and private marine ferries and routes to expand access to borough communities.
- Objective G. Support expansion of dock facilities to support marine repair and maintenance, cruise ship, freight, and ferry operations, and for resource extraction.
- Objective H. Encourage safe, responsible expansion of aviation options for private, commercial, and recreational use.

Goal 5. Create more active and engaged Kenai Peninsula Borough residents, local communities, and a more effective and efficient Borough government.

Focus Area: Education and Workforce Development

- Objective A. Provide high-value, quality educational services to school-age borough residents.
- Objective B. Expand educational and training opportunities that tie directly to anticipated growth industries.

Focus Area: Fiscal Health

- Objective A. Develop a sustainable fiscal plan for funding Borough operations that reduces dependence on uncertain State funding.
- Objective B. Diversify Borough revenues to reduce exposure to single industries or sources.
- Objective C. Develop and apply new fiscal strategies that better link growth in demand for services with revenues needed to pay the cost of those services.

IMPLEMENTATION MATRIX: NEAR-TERM PRIORITY STRATEGIES

NOTE: “Near-Term” strategy indicates a priority to focus on and/or accomplish in the next three years.

Strategy	Lead + Partners
Goal 1. Diversify and grow the Kenai Peninsula Borough economy.	
Focus Area: Oil and Gas	
Objective A. Continue support for the oil and gas industry, one of the primary economic sectors in the borough.	
Strategy 1. Near-Term: Support economic development legislation and programs for the oil and gas industry.	
Strategy 2. Near-Term: Coordinate with Kenai Peninsula Economic Development District and communities to determine the optimum best use for the 630 acres assembled for the Alaska LNG gas liquefaction facility, should the project not move forward.	
Strategy 3. Near-Term: Identify sufficient and contiguous parcels of land suitable for industrial uses to support current offshore activities and proposed Alaska LNG facility.	
Strategy 4. Continue to make available a current list of lands available in the borough at market rent/lease rates for facilities related to the oil and gas sector.	
Objective B. Anticipate the workforce development and training needs related to employment demand and qualifications from the oil and gas sector’s exploration, development, and production and refining activities and from the potential Alaska LNG liquefaction facility and marine terminal.	
Strategy 1. Near-Term: Coordinated outreach by the Borough, Kenai Peninsula College, and Alaska Vocational Technical Education Center to the oil and gas sector to help match employment prospects with educational, workforce development, and training resources.	
Strategy 2. Work with the KPEDD to provide information on the Alaska Education Tax Credit and Work Opportunity Tax Credits for prospective oil and gas operators.	
Objective C. Plan for the housing, public services and transportation infrastructure that would be needed to support the Alaska LNG project liquefaction facility in Nikiski.	
Strategy 1. Near-Term: Coordinate with the Municipal Advisory Gas Project Review Board to provide information on Alaska LNG project impacts on the borough.	
Strategy 2. Near-Term: Use U.S. Army Corps of Engineers as a source of funding for harbor design and construction.	
Strategy 3. Seek Economic Development Administration funding to complement USACE port and harbor projects with potential for local job creation.	
Strategy 4. Provide Borough input to proposed Kenai Spur Road improvements related to the Alaska LNG project.	

Strategy	Lead + Partners
Objective D. Encourage efficient use of land, infrastructure and services in areas already supporting the oil and gas sector.	
Strategy 1. Near-Term: Encourage KPEDD to explore an industrial park to aggregate oil and gas support services near Nikiski. The industrial park could include: office space, commercial office buildings, and industrial buildings.	
Strategy 2. Near-Term: Request the Alaska Department of Environmental Conservation provide annual updates on air, soil, and water quality monitoring in Nikiski marine and uplands areas.	
Strategy 3. Consider planning and platting standards conducive to industrial park facilities.	
Strategy 4. Work with state and federal regulatory agencies to protect public health and environment in the borough.	
Focus Area: Tourism and Recreation	
Objective A. Support outdoor recreation and tourism opportunities for a wide range of users, to create a strong, enduring borough economy and support resident health and quality of life.	
Strategy 1. Near-Term: Work with partners to better meet demand for outdoor recreation opportunities across a wide spectrum of interests and markets.	
Strategy 2. Support opportunities for the “missing middle” of the outdoor recreation spectrum.	
Strategy 3. Support improved opportunities for winter and the spring and fall “shoulder seasons” as a strategy to expand tourism’s local economic benefits.	
Objective B. Improve recreational trails, recreational access and mobility.	
Strategy 1. Near-Term: Support improved access to borough public lands.	
Strategy 2. Near-Term: Implement existing strategies and recommendations in the <i>Kenai Peninsula Borough Trails Plan</i> (1998).	
Strategy 3. Look for partnerships to improve the full array of transportation infrastructure that makes it easier and safer to enjoy borough recreational resources.	
Objective C. Protect the quality of recreation and tourism destinations and resources.	
Strategy 1. Be good stewards of natural places: waters, landscapes, habitats. <i>See Land Use section.</i>	
Strategy 2. Manage tourism to minimize impacts on communities and residents.	
Objective D. Expand the recreation and tourism appeal of borough communities.	
Strategy 1. Near-Term: Create concentrated and walkable mixed-use town centers with policies that encourage and support density.	
Strategy 2. Invest in quality public spaces and public space amenities: sidewalks, benches, street art, plazas, parks and gathering places.	

Strategy	Lead + Partners
Strategy 3. Support incentives, such as façade improvement programs for private businesses to create more attractive buildings.	
Strategy 4. Provide different ways to conveniently, safely get from downtown cores to natural areas and open spaces.	
Objective E. Expand recreation and tourism marketing, education and job training opportunities.	
Strategy 1. Near-Term: Improve marketing of Kenai Peninsula Borough as a destination.	
Strategy 2. Partner with education and workforce development entities to increase available workforce training and entrepreneurial support, including skills needed for the visitor industry and coaching for starting a new business.	
Strategy 3. Engage in education and advocacy about the benefits of the recreation and tourism economy for residents, landowners, businesses and policymakers.	
Objective F. Actively build partnerships needed to maintain, improve or expand recreational and tourism facilities and amenities in the borough.	
Strategy 1. Near-Term: Build stronger partnerships with public land managers to guide plans for use of public land, and infrastructure improvements.	
Strategy 2. Near-Term: Explore the possibility of mini-grants or other public funding to local community and non-profit user groups, that can be used to incentivize local fundraising, volunteer work and partnerships, and provide matching funds leveraged in other grants.	
Strategy 3. Near-Term: Find ways to match growing demand for recreation services with comparable increases in local resources and local funding.	
Focus Area: Sportfishing	
Objective A. Support opportunities for sportfishing, including personal use fishing, while protecting the resource.	
Strategy 1. Near-Term: Improve access to fishing opportunities, both freshwater and marine, by participating in a cooperative sportfishing strategic plan with Alaska Department of Fish & Game, Alaska Department of Natural Resources, federal land managers, private land owners, Native Corporations, Kenai River Sportfishing Association, and other partners.	
Strategy 2. Near-Term: Work with Alaska Department of Fish & Game to seek options to bolster sportfish populations.	
Strategy 3. Work with Alaska Department of Fish & Game and tourism and marketing groups to better promote the wide array of fishing opportunities in the region.	
Objective B. Protect and enhance the natural systems that support health sustainable sportfish habitats and populations.	
Strategy 1. Near-Term: Protect the uplands, floodplains and headwaters of anadromous waterways.	
Strategy 2. Protect wetlands and similar watershed features that contribute to the flow and quality of waters necessary for healthy fish habitat.	

Strategy	Lead + Partners
Objective C. Support continued sportfish research, monitoring and education efforts.	
Strategy 1. Near-Term: Work with public land managers to develop new approaches to collect sportfish-related data.	
Strategy 2. Near-Term: Advocate for expanded and diversified funding for the Alaska Department of Fish & Game and other organizations and agencies to collect sportfishing data over time.	
Strategy 3. Collaborate on public education tools that increase resident and visitor awareness of the value of the sportfishing industry.	
Focus Area: Commercial Fishing	
Objective A. Encourage the development of seafood industry job opportunities that provide income and benefits to borough residents.	
Strategy 1. Near-Term: Support the creation and expansion of high-value, year-round, skills-based employment (such as value-added fish processing) by promoting education and investment in basic and support industry sectors that facilitate processing seafood for high end markets.	
Strategy 2. Work with the State of Alaska Workforce Investment Board or other public or private entities to develop seafood worker training programs to meet the needs of borough residents.	
Objective B. Support a diverse mix of pre-employment education and training, on-the-job training and ongoing educational programs to improve the employability of borough residents in commercial fishing.	
Strategy 1. Work with the school district to present vocational opportunities in the commercial fishing and value-added fish processing industry. Partner with local fishermen and processors to develop appropriate curricula to educate students about the industry.	
Objective C. To the extent allowed by law strengthen development of the borough's commercial fishing industry.	
Strategy 1. Near-Term: Encourage the State's support for commercial fisheries.	
Strategy 2. Near-Term: Strive for an equitable balance among the needs of the commercial and sport fishing industries when supporting these sectors, recognizing that both provide important benefits to the borough's economy.	
Strategy 3. Near-Term: Support provision of infrastructure, land and facilities needed for commercial fish processing.	
Focus Area: Agriculture and Mariculture	
Objective A. Support a more sustainable and resilient Kenai Peninsula by increasing production and distribution of quality, healthy agricultural products for local, state and export markets.	
Strategy 1. Near-Term: Identify land with high agricultural potential; plan and develop roads and other infrastructure to support its development.	

Strategy	Lead + Partners
Strategy 2. Near-Term: Improve policies that allow farm land to remain agricultural and incentivize productive use. Consider using mechanisms such as easements and deed restrictions favoring agriculture and conservation tax incentives; and land use policies to minimize conflicts between agriculture and adjoining uses.	
Objective B. Sustain and create new agriculture-related jobs and businesses.	
Strategy 1. Near-Term: Working with partners, encourage expansion of agricultural support services and infrastructure.	
Strategy 2. Near-Term: Encourage Kenai Peninsula Borough School District to adopt policies and programs that help students develop food skills and knowledge of local agriculture.	
Objective C. Encourage greater local and regional self-sufficiency.	
Strategy 1. Working with partners, identify and protect wild-harvested food resources.	
Objective D. Develop a sustainable mariculture industry and create new opportunities for exports.	
Strategy 1. Near-Term: Support expanding education workshops and forums to inform the maricultural community on new opportunities and research.	
Strategy 2. Engage in the Governor's Mariculture Task Force.	
Strategy 3. Encourage local political leaders to become informed regarding the mariculture industry.	
Strategy 4. Work with Kenai Peninsula Economic Development Division (KPEDD) to inform political leaders and the public about the mariculture industry. Encourage KPEDD to report on specifics of mariculture and new ventures.	
Strategy 5. Support shellfish enhancement projects to mitigate the loss of native shellfish populations.	
Strategy 6. Encourage local agriculture groups to include information on mariculture in their outreach.	
Strategy 7. Work with local groups and organizations to ensure the Kenai Peninsula is recognized as part of the developing statewide interest in mariculture.	
Focus Area: Mining	
Objective A. Strengthen the investment climate to support mining in the Kenai Peninsula Borough.	
Strategy 1. Near-Term: Inventory and classify lands in the borough suitable for mining development.	
Strategy 2. Establish standards for sustainable and responsible development, including reclamation and clean-up, that is compatible with and does not adversely impact other natural resources.	
Strategy 3. Support land development with clear and efficient public processes (e.g., streamlined permitting, published procedures, web-based application forms, etc.).	
Objective B. Encourage development of mining and resource development job opportunities that provide income and benefits to borough residents.	

Strategy	Lead + Partners
Strategy 1. Near-Term: Support the creation and expansion of high-value, year-round, skills-based mining industry employment by promoting investment in basic and support industry sectors.	
Strategy 2. Work with the State of Alaska Workforce Investment Board or other public or private entities to develop mining exploration and development worker training programs to meet the needs of borough residents.	
Objective C. Support a diverse mix of pre-employment education and training, on-the-job training and ongoing educational programs to improve the employability of borough residents in mining.	
Strategy 1. Near-Term: Work with the school district to develop and present mining-related education, training, and vocational opportunities. Partner with local mining and support organizations to develop an appropriate curriculum.	
Objective D. Strengthen development of the borough's mining industry.	
Strategy 1. Near-Term: Encourage the State to increase its efforts to better manage its resources for economic development opportunities.	
Strategy 2. Near-Term: Support environmentally responsible and sustainable mining development.	
Goal 2. Proactively manage growth to provide economic development opportunities on the Kenai Peninsula Borough while preserving what residents and visitors value about the area's natural features.	
Focus Area: Land Use	
Objective A. Establish policies that better guide land use to minimize land use conflicts, maintain property values, protect natural systems and support individual land use freedoms.	
Strategy 1. Near-Term: Adopt limited development standards for specific areas and uses to reduce potential off site impacts of development on adjoining uses and the natural environment.	
Strategy 2. Near-Term: Update the Borough's existing conditional use regulations for gravel extraction and other uses to better address reoccurring land use conflicts.	
Strategy 3. Near-Term: Improve subdivision standards, such as road and access standards and trail easements.	
Strategy 4. Improve Borough planning staff capacity to effectively and efficiently implement the comprehensive plan and enforce related codes.	
Objective B. Develop a stronger local voice in decisions on uses of federal and state lands.	
Strategy 1. Strengthen the relationship between Borough leadership and staff and clarify whether and how both groups can actively engage with federal and state land managers, on day-to-day, shared land management issues.	
Strategy 2. Take strong, informed Borough positions on updates to long range land management plans, such as the U.S. Forest Service Chugach National Forest Plan revision process.	
Strategy 3. Expand mutually-beneficial partnerships, particularly for improving local infrastructure such as trails and other recreational amenities.	

Strategy	Lead + Partners
Strategy 4. Support locally-driven community plans, particularly in communities embedded in surrounding public lands, such as Hope and Cooper Landing.	
Objective C. Guide land use at the regional scale to promote economic development, improve public roads and other services and facilities, and maintain environmental quality.	
Strategy 1. Near-Term: Develop a generalized land use map, illustrating broad intentions for future development, growth and conservation priorities.	
Strategy 2. Identify and target desired economic development in promising, appropriate locations, including, for example, for mining, agriculture, industrial uses, tourism and recreation.	
Strategy 3. Coordinate public service and facility improvements with land use and growth policies and trends.	
Strategy 4. Continue to make available authorizations for temporary use of Borough-owned land to support economic development and growth.	
Strategy 5. Partner with incorporated communities and affected land owners and businesses to manage rapid development on land just outside city boundaries.	
Strategy 6. Increase the capacity of the Borough to provide matching funds for state and federally funded capital projects that support local land use and economic development.	
Objective D. Maintain quality of the borough's natural environment, including protecting visual quality, minimizing development in hazardous areas, and developing strategies that help reduce and respond to impacts of changing environmental conditions.	
Strategy 1. Near-Term: Take actions to help preserve the borough's scenic beauty.	
Strategy 2. Near-Term: Identify and protect the critical natural systems of the Kenai Peninsula Borough, its rivers, watersheds, floodplains and fish and wildlife habitats and resources.	
Strategy 3. Support programs to clean up large stockpiles of junk cars, buildings and other materials where this has impacts on the visual quality of neighborhoods or commercial areas regularly used by visitors.	
Strategy 4. Guide growth to minimize exposure to the risk of natural and human-made disasters.	
Objective E. Actively work with interested communities outside of the incorporated cities to help develop locally-driven community plans.	
Strategy 1. Near-Term: Set a basic template for community plans that promotes the uniqueness each location; helps address boroughwide goals; provides guidance for the plan process and plan framework; and that promotes efficiency in preparation and approval of plans.	
Strategy 2. Near-Term: Where there is clear interest in guiding growth and community planning, provide staff support and/or funding for locally-driven plans.	
Strategy 3. Near-Term: Investigate options for local communities to have more capacity to achieve their priority goals and projects, including utilizing existing mechanisms like service areas and advisory planning commissions.	

Strategy	Lead + Partners
Strategy 4. Near-Term: Encourage unincorporated communities to engage with their established local Advisory Planning Commission (APC) and encourage establishment of new APCs for communities not currently represented.	
Strategy 5. Near-Term: Support existing or in-progress community planning efforts.	
Objective F. Actively manage Borough-owned lands to meet short and long-term regional goals.	
Strategy 1: Clarify and provide more specificity in the existing goals for Borough-owned lands.	
Strategy 2: Define and apply explicit criteria for the final round of land selections.	
Strategy 3: Refine Existing Borough Land Management Code and improve and revise select sections of the Borough Land Management code (KBC Chapter 17).	
Strategy 4: Inventory and classify all Borough Lands.	
Objective G. Manage beneficial and deleterious effects of climate change impacts.	
Strategy 1: Near-Term: For a Kenai Peninsula Borough Commission on Sustainability.	
Strategy 2: Near-Term: Develop a climate change action plan that includes a framework for selecting, monitoring and sharing indicators that track environmental changes associated with climate change; impacts of climate change at the neighborhood level; and, adaptation measures and their effectiveness. After identification of areas that are experiencing change and are likely to continue, outline explicit adaptation and mitigation strategies.	
Strategy 3: Near-Term: Working with state and federal partners, update floodplain maps to reflect climate-change related changes in boundaries of flood prone areas, starting in most developed areas where consequences of flooding would have the greatest potential for impact on human life and property.	
Focus Area: Hazard Mitigation	
Objective A. Implement recommendations and policies outlined in the Borough's 2019 All-Hazard Mitigation Plan.	
Goal 3. Preserve and improve quality of life in the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.	
Focus Area: Energy and Utilities	
Objective A. Encourage coordination of residential, commercial, and industrial development with extension of utilities and other infrastructure.	
Strategy 1. Near-Term: Maintain existing easements (especially section line easements) in addition to establishing adequate utility rights of way or easements to serve existing and future utility needs.	
Strategy 2. Near-Term: Maintain regular contact with utility operators to coordinate and review utility easement requests that are part of subdivision plat approval.	

Strategy	Lead + Partners
Strategy 3. Near-Term: Identify potential utility routes on Borough lands.	
Objective B. Assist communities and residents in generating financing plans for utility extensions.	
Strategy 1. Near-Term: Provide information and technical guidance on the Borough's Utility Special Assessment Districts.	
Strategy 2. Near-Term: Stay current on development patterns through the platting process and assist residents in identifying opportunities for potential utility extensions.	
Strategy 3. Near-Term: Provide technical assistance to unincorporated communities in identifying grants or other funding sources for water and wastewater treatment needs.	
Objective C. Support residential, community and regionwide renewable energy initiatives and projects.	
Strategy 1. Near-Term: Form a Kenai Peninsula Borough Commission on Sustainability.	
Focus Area: Public Safety and Emergency Services	
Objective A. Work with community and agency partners to increase police protection and community safety in the borough.	
Strategy 1. Near-Term: Work with government agency partners to increase police protection on the Kenai in currently underserved areas: small communities, rural areas, and Seward and Sterling Highway corridors.	
Strategy 2. Near-Term: Work with federal and state agencies (National Park Service, U.S. Forest Service, Alaska Department of Natural Resources) to provide law enforcement on public lands.	
Strategy 3. Near-Term: Explore the feasibility and estimated costs of the Borough adopting police powers and establishing a Kenai Peninsula Borough Police Department, to determine whether this is a realistic option for meeting the public safety needs of communities and areas outside incorporated cities and public lands.	
Strategy 4. Advocate for increased Department of Public Safety funding to restore Alaska State Trooper presence on state highways.	
Strategy 5. Promote development of Neighborhood Watch programs and similar community-based policing models where appropriate, including training and protocols for citizen-led public safety initiatives.	
Strategy 6. Promote or develop local initiatives for neighborhood improvement as a crime prevention strategy: encourage property owners to remove debris, inoperable vehicles and dilapidated buildings that can attract illicit activity, monitor and report activities at abandoned properties, and organize volunteer cleanup and beautification efforts to address littering and vandalism.	
Strategy 7. Explore ways for partners to extend police services through cooperative agreements between jurisdictions, such as the existing agreement between Homer and Seldovia Police Departments.	
Objective B. Support efforts to reduce crime and recidivism, increase successful reentry of ex-offenders, and promote community-based justice.	

Strategy	Lead + Partners
Strategy 1. Support the work of the Kenai Peninsula Reentry Coalition and partners who provide or fund housing, employment, education, and mental health and addiction treatment services.	
Strategy 2. Support continuation and potential expansion of alternative and rehabilitative justice models for youth, adults with substance use disorders, and Alaska Native tribal members, including the Kenaitze Henu' Community Wellness Court and Kenai Peninsula Youth Court.	
Strategy 3. Support programs that prevent or reduce substance misuse and addiction, including opioids and heroin, alcohol, marijuana and other drugs, as a strategy to reduce drug-related crimes.	
Objective C. Continue working with agency and community partners to provide coordinated emergency services to prepare for, mitigate, respond to and recover from natural and human-caused emergencies throughout the borough.	
Strategy 1. Near-Term: Continue to use coordination, mutual aid agreements, and long-range planning to avoid unnecessary duplication of services, equipment and facilities.	
Strategy 2. Near-Term: Evaluate current mutual aid and interjurisdictional agreements and collaborate to amend these agreements where they are insufficient.	
Strategy 3. Near-Term: Assess needs and current capacity of emergency food storage and distribution system in the region, and ability to maintain food security for the population in an emergency.	
Strategy 4. Coordinate Comprehensive Plan goals and objectives with Local Hazard Mitigation Plans.	
Strategy 5. Consider use and development of alternate sources of funding, such as user fees, grants and local fundraisers to support emergency medical services.	
Strategy 6. Work with partners in agriculture, food distribution, retail, food pantries, institutions and other sectors of the food system to incorporate plans for food security into emergency planning and the All-Hazard Mitigation Plan.	
Strategy 7. Maintain a boroughwide street addressing and mapping system, including consistent assignment of street addresses to assist emergency responders in locating properties.	
Strategy 8. Identify funding sources for maintenance and operation of E-911 emergency communication improvements.	
Strategy 9. Develop incentives and other means to help recruit and retain volunteers, such as low-cost insurance, stipends and pooled insurance policies.	
Strategy 10. Encourage provision of training programs in remote areas of the borough.	
Strategy 11. Evaluate current emergency vehicle routes and access throughout the borough and create appropriate criteria to ensure adequate emergency vehicle access when considering variances or modifications to road standards.	
Strategy 12. Collaborate with partners in all Fire and Emergency Medical Services Areas, the Kenai Peninsula Borough School District and other agencies to educate residents about emergency preparedness, fire prevention and fire safety, first aid and CPR, early response procedures, and other important emergency response skills to increase community resilience and capacity to provide immediate support.	

Strategy	Lead + Partners
Objective D. Establish or improve water supply systems to support firefighting operations in areas without central water systems.	
Strategy 1. Develop cisterns under fire stations or in strategic locations to support service areas, such as those installed in Ninilchik, Kalifornsky Beach Road and other areas.	
Strategy 2. Encourage placement of high-pressure hydrants at schools, public facilities and industrial sites with sufficient well capacity.	
Strategy 3. Assist fire departments to identify lakes or flooded gravel pits with sufficient capacity to supply large water withdrawals for fire protection and support them to obtain necessary withdrawal equipment and permits.	
Focus Area: Health	
Objective A. Support the health and wellness of all Kenai Peninsula Borough residents and communities.	
Strategy 1. Near-Term: Consider residents' health when making local policy decisions, including land use, transportation and economic development.	
Strategy 2. Near-Term: Explore the feasibility of adopting areawide health powers, including provision of services outside the boundaries of the current hospital service areas and the authority to implement local ordinances and policies to protect the public's health. <i>Recommended by 2016 KPB Health Care Task Force.</i>	
Strategy 3. Near-Term: Support efforts to remove or reduce barriers to health care and improve access to health care for all borough residents, including underserved communities. <i>Recommended by 2016 KPB Health Care Task Force.</i>	
Strategy 5. Support the work of public and community health providers to respond to and manage disease outbreaks and educate the public about promoting health and prevention of injury and disease.	
Strategy 6. Support community-level efforts to promote and improve health, such as local health fairs and community wellness events.	
Strategy 7. Increase residents' protection against disease by encouraging preventive health services such as immunizations and screenings for cancer and chronic disease.	
Strategy 8. Raise awareness of the causes and long-term negative impacts of adverse childhood experiences (ACEs), as a long-term preventive strategy to improve young generations' health.	
Objective B. Encourage seniors to remain active, healthy members of the community.	
Strategy 1. Near-Term: Explore ways to meet demand for senior-friendly public transportation, including CARTS, for seniors to complete daily errands, attend medical and other appointments, and participate in community events.	
Strategy 2. Encourage development of housing options for seniors, from smaller units closer to services, to retrofitting existing housing to improve accessibility, to independent and assisted living options according to level of need for supports, to skilled nursing facilities for those with intensive needs.	
Strategy 3. Encourage health care providers to offer or expand services for seniors, to help older residents remain in the community and have more health care needs met locally.	

Strategy	Lead + Partners
Strategy 4. Promote volunteer, education and employment opportunities for seniors to remain involved in civic and social life, contribute to improving the community, and maintain a high quality of life.	
Strategy 5. Support development and improvement of infrastructure and facilities to promote physical activity, using a universal design approach to ensure there are amenities suitable for all ages and abilities, and multi-use or flexible facility design for to meet a variety of needs.	
Objective C. Support the health care industry as an important economic sector and service provider in the community.	
Strategy 1. Near-Term: Work cooperatively with Central Peninsula Hospital and South Peninsula Hospital to ensure that both facilities continue to provide high-quality care while remaining financially sustainable, as well as working with Providence Seward Medical and Care Center and other health providers to improve the continuum of care. <i>Recommended by 2016 KPB Health Care Task Force.</i>	
Strategy 2. Support continued state funding of public health nursing services, availability of Medicaid for low-income families and adults, and other important health resources.	
Strategy 3. Continue to work with local partners to explore creative solutions for the long-term sustainability of health care in the borough. <i>Recommended by 2016 KPB Health Care Task Force.</i>	
Objective D. Promote local education and workforce development opportunities in the health care sector.	
Strategy 1. Near-Term: Promote vocational programs such as apprenticeships, trainings and other opportunities to provide career pathways in the health industry for residents.	
Strategy 2. Work with hospitals, clinics and providers, the Kenai Peninsula Borough School District, and other educational partners to promote health care as a career path for youth and young adults.	
Strategy 3. Promote the Kenai Peninsula as an attractive place to live and work for skilled health care workers and their families, within Alaska and through programs like the Washington-Wyoming-Alaska-Montana-Idaho (WWAMI), a multi-state medical education program that provides opportunities for Alaskans to attend medical school.	
Objective E. Support efforts to reduce and prevent deaths and other harms related to substance misuse and addiction.	
Strategy 1. Near-Term: Collaborate with health care providers to establish medication and syringe disposal sites throughout the borough, to reduce availability and distribution of these medications for misuse.	
Strategy 2. Near-Term: Encourage ways to improve the community's mental health and wellness through social events, public dialogue about mental health, building stronger connections within the community, developing improved infrastructure for active lifestyles, and other health promotion activities.	
Strategy 3. Explore ways to increase availability of and funding for a continuum of behavioral health services, from routine to intensive to acute care, throughout the borough. <i>Recommended by 2016 KPB Health Care Task Force.</i>	
Strategy 4. Collaborate with the state and other partners to develop local-level responses to the opioid crisis to reduce overdose-related deaths, connect people with treatment resources, and supports for individuals and families struggling with the consequences of addiction.	

Strategy	Lead + Partners
Focus Area: Housing	
Objective A. Increase supply and variety of affordable housing options in the borough, while managing impacts of growth in communities.	
Strategy 1. Near-Term: Conduct a Housing Needs Assessment for the region to better understand the current inventory of housing, and what types of housing are in highest demand.	
Strategy 2. Near-Term: Identify Borough lands that are most suitable for residential development and update the land management plan to reflect this as a planned future use.	
Strategy 3. Support options for housing that best meets the needs of seasonal populations, particularly rental housing in areas with the most seasonal activity.	
Strategy 4. Encourage innovative strategies for new housing types that may be attractive for price and lifestyle: examples may include tiny homes, co-housing and shared land ownership, accessory dwellings for existing homes, and pre-fabricated construction.	
Strategy 5. Encourage in-fill housing on lots that have already been developed or are already being served by infrastructure and utilities, to maximize use of existing resources and maintain character of existing residential neighborhoods.	
Objective B. Encourage options for seniors to age in place, maintain the affordability of their home, and other options for remaining in the community.	
Strategy 1. Near-Term: Encourage ways for seniors to age in place, including participation in home rehabilitation and modification programs.	
Strategy 2. Encourage new housing developments to be senior-friendly or support residents of all ages: accessibility features, one-story units, accessory dwellings, safe walking options within a neighborhood and to nearby shopping and services.	
Strategy 3. Increase availability of services across the continuum of care, from assistance with daily living and in-home services, to more intensive care such as skilled nursing facilities.	
Strategy 4. Encourage ways to increase and diversify opportunities for seniors to maintain their health through social interaction, physical fitness, and continuing education.	
Objective C. Encourage creation and expansion of a continuum of services to reduce homelessness and prevent risk of homelessness in the borough for youth, families, individual adults and seniors	
Strategy 1. Near-Term: Participate in the Kenai Peninsula continuum of care (CoC) coalition, and the statewide CoC Alaska Coalition on Housing and Homelessness.	
Strategy 2. Near-Term: Support the work of housing organizations like Kenai Peninsula Housing Initiatives to develop and manage new affordable housing for individuals and families.	

Strategy	Lead + Partners
Strategy 3. Support the continuation of the Kenai Peninsula Borough School District's Students in Transition program and identify additional funding sources to supplement federal grant funding.	
Strategy 4. Support development of more permanent supportive housing in the borough.	
Strategy 5. Support programs and services that help stabilize families and prevent homelessness.	
Strategy 6. Support programs and services that help youth and young adults find safe housing.	
Strategy 7. Support opportunities for homeownership.	
Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.	
Strategy 1. Near-Term: Collaborate with Alaska Department of Transportation, incorporated cities within the borough, utility providers, other agencies overseeing local services, and existing communities located adjacent to undeveloped areas that are appropriate for future growth, to align plans for future expansion of services to serve future residential development and manage growth.	
Strategy 2. Near-Term: Reserve Borough lands adjacent to existing infrastructure for future housing.	
Strategy 3. Coordinate timing and location of new residential developments and subdivisions with the planned expansion or upgrade of local services.	
Strategy 4. Encourage small housing developments with shared green spaces, maintenance and parking.	
Strategy 5. Encourage infill development or redevelopment of properties on good soils that already have access to roads, utilities, or are located near town centers or commercial areas.	
Focus Area: Solid Waste Services	
Objective A. Provide convenient, cost-effective, environmentally-sound disposal of solid waste generated by residents, businesses and visitors.	
Strategy 1. Continue to make improvements at facilities to improve appearance, convenience and operation such as measures to address wildlife access to garbage, buffering and screening to minimize impacts on surrounding uses, and easier access to dumpsters by seniors and people with physical limitations.	
Strategy 2. Identify specific sites and/or time periods that transfer stations and waste facilities are routinely over capacity and implement strategies to proactively manage these areas or times of peak demand for waste disposal.	
Objective B. Update the <i>Kenai Peninsula Borough Solid Waste Management Plan</i>.	
Strategy 1. Near-Term: When updating the plan, evaluate the capacity and efficiency of the existing solid waste management system.	
Strategy 2. Near-Term: When updating the plan, evaluate the existing administrative and financial structure of the system and identify any areas of concern.	

Strategy	Lead + Partners
Strategy 3. Near-Term: Develop an implementation plan and schedule of proposed changes and improvements to facilities, services and processes.	
Objective C. Increase awareness of and opportunities for waste reduction and landfill diversion, including “Reduce, Recycle, Reuse.”	
Strategy 1. Develop a plan of landfill diversion strategies including waste reduction, reuse and recycling opportunities, and other programs.	
Strategy 2. Encourage local reprocessing of paper, glass, aluminum, or other materials collected at Borough recycling centers.	
Strategy 3. Encourage greater household, commercial and institutional use of recyclable or compostable materials, and replace non-recyclable materials used at Borough facilities with recyclable or biodegradable products where feasible.	
Strategy 4. Explore opportunities for recycling a broader range of materials, including wood debris.	
Strategy 5. Utilize pilot projects to evaluate the potential use of new programs such as coordinated composting of organic materials.	
Strategy 6. Encourage residents and businesses to reduce the amount of solid waste they produce that enters the landfill, including programs to encourage recycling, educate households about composting onsite or at a community garden, and conserve resources.	
Objective D. Encourage safe handling and disposal of toxic and hazardous waste.	
Strategy 1. Maintain ongoing collection of household hazardous waste at selected Borough facilities and annual collection in rural/remote areas. Consider expanding opportunities for local disposal of household hazardous waste.	
Strategy 2. Work with state agencies to develop and distribute informational materials to inform residents and businesses about safe, legal disposal of toxic and hazardous materials.	
Objective E. Investigate existing and emerging technologies for safe and efficient long-term waste disposal.	
Strategy 1. Pursue permanent implementation of the Research Development and Demonstration Project at the Central Peninsula Landfill.	
Strategy 2. Identify promising technologies and conduct feasibility studies to evaluate each option.	
Objective F. Explore new revenue sources to help finance the solid waste management system operations, capital improvements and innovation projects.	
Strategy 1. Investigate the feasibility of revenue generation using gas produced at the landfill at local energy producing facilities.	
Strategy 2. Evaluate the current fee structure for commercial waste disposal and whether current revenue is sufficient for current operations costs.	
Strategy 3. Monitor, and pursue as appropriate, grant opportunities to fund capital projects at waste management facilities.	
Focus Area: Historic Preservation	

Strategy	Lead + Partners
Objective A. Support efforts to identify, document, protect, interpret, and celebrate cultural history and resources in borough communities. <i>Note: Strategies apply to both Objectives A and B.</i>	
Objective B. Support efforts to maintain the character of historic towns, districts, and properties while encouraging commercial, tourist, and cultural development.	
Strategy 1. Near-Term: Compile a comprehensive inventory of cultural resources in the borough by coordinating with Kenai Peninsula College, local historical societies, tribal entities, Alaska Office of History and Archaeology, and other knowledgeable resources.	
Strategy 2. Coordinate cultural resource goals with other Borough planning efforts.	
Goal 4. Improve access to, from and connectivity within the Kenai Peninsula Borough.	
Focus Area: Transportation	
Objective A. Proactively engage with State of Alaska DOT&PF on planned projects, project prioritization, policies and studies.	
Strategy 1. Near-Term: Participate in the Statewide Transportation Improvement Program (STIP) process, the Community Transportation Program (CTP) and the Alaska Federal Lands Long Range Transportation Plans to provide information and perspective on Borough needs.	
Strategy 2. Administrative Order No. 287, issued September 7, 2017, established a Governor's Advisory Board on Roads and Highways. The Borough should actively work to have at least one Kenai Peninsula resident on the board.	
Objective B. Ensure new roads are developed in alignment with existing and planned growth and development.	
Strategy 1. Near-Term: Update the 2003 Kenai Peninsula Borough Transportation Plan <i>Note: updating this plan is also identified as a priority in Objectives C, F, G and H with actions specific to objectives.</i>	
Strategy 2. Near-Term: Establish subdivision codes that dictate road construction standards to accommodate future interconnectivity and/or public safety.	
Strategy 3. Near-Term: Identify areas of anticipated growth to determine future access needs.	
Strategy 4. Near-Term: Develop a long-term financial strategy for new road construction.	
Strategy 5. Near-Term: Establish categorical agreements with DOT&PF regarding new access points to arterial highways and other major road corridors.	
Objective C. Improve and maintain existing infrastructure.	
Strategy 1. Near-Term: Update the 2003 Kenai Peninsula Borough Transportation Plan to provide decision makers updated information on conditions, needs, and new technologies for all transportation modes.	
Strategy 2. Follow-up with the current DOT&PF proposal to reallocate specific road maintenance responsibilities in the interest of increased efficiency and mutual reduction of cost.	

Strategy	Lead + Partners
Objective D. Work with communities to expand public transportation options and ensure the long-term sustainability of public transportation for all residents.	
Strategy 1. Near-Term: Take the lead to coordinate public transportation planning with partner organizations, including tribal, non-profit, and healthcare-related transportation providers.	
Strategy 2. Near-Term: Provide direction and governance of public transportation services for the borough.	
Objective E. Develop non-motorized pathways to connect communities with each other and with trails connecting to natural areas and open space.	
Strategy 1. Near-Term: Reestablish the Kenai Peninsula Borough Trails Commission, per Borough Code, KBC §2.75.	
Strategy 2. Near-Term: Reevaluate and update the <i>1998 Kenai Peninsula Borough Trails Plan</i> .	
Strategy 3. Develop specific criteria for applicable State, Borough and Kenai Peninsula Borough Road Improvement Assessment District (RIAD) road projects to require separated shared use bike and pedestrian side paths or, when appropriate, right-of-way for future paths be included in project design or right-of-way acquisition.	
Strategy 4. Develop policy to designate priority areas in communities for paving and unpaved pathways in rural areas.	
Strategy 5. Work with communities to designate and enforce pathways for non-motorized use.	
Objective F. Support expansion of public and private marine ferries and routes to expand access to borough communities.	
Strategy 1. Near-Term: Update the 2003 Kenai Peninsula Borough Transportation Plan.	
Strategy 2. Work closely with the State of Alaska DOT, and communities served by the Alaska Marine Highway System (AMHS) to maintain and expand service.	
Strategy 3. Explore incentives and promotion of private marine ferries and taxi services to facilitate residents' and tourists' ability to access areas of the borough not on the road system.	
Objective G. Support expansion of dock facilities to support marine repair and maintenance, cruise ship, freight, and ferry operations, and for resource extraction.	
Strategy 1. Near-Term: Update the 2003 Kenai Peninsula Borough Transportation Plan.	
Objective H. Encourage safe, responsible expansion of aviation options for private, commercial, and recreational use.	
Strategy 1. Near-Term: Use the update process of the 2003 Transportation Plan to assess the need for a Kenai Peninsula Aviation System Plan.	
Strategy 2. Support expansion of commercial air service across the Kenai.	
Strategy 3. Ensure increased aviation activity is responsible and aligned with community values. Increasing use of lakes for floatplane activity and the development of private airstrips across the Borough increases the potential for conflicts and safety concerns.	

Strategy	Lead + Partners
Goal 5. Create more active and engaged Kenai Peninsula Borough residents, local communities, and a more effective and efficient Borough government.	
Focus Area: Education and Workforce Development	
Objective A. Provide high-value, quality educational services to school-age borough residents.	
Strategy 1. Near-Term: Improve access to education for all borough residents.	
Strategy 2. Near-Term: Manage budget issues to ensure consistent and reliable funding for education.	
Strategy 3. Near-Term: Maintain high quality education.	
Objective B. Expand educational and training opportunities that tie directly to anticipated growth industries.	
Strategy 1. Near-Term: Support the expansion of opportunities for training and education to meet workforce needs in emerging industries.	
Strategy 2. Near-Term: Support recruitment efforts for students attending schools on the Peninsula.	
Focus Area: Fiscal Health	
Objective A. Develop a sustainable fiscal plan for funding Borough operations that reduces dependence on uncertain State funding.	
Strategy 1. Near-Term: Develop a long-term fiscal plan that is proactive, sustainable, and responsible to weather short term external fiscal challenges.	
Strategy 2. Identify programs that could assist economic development and growth opportunities to diversify the Borough's industries and revenue sources.	
Strategy 3. Seek efficiencies to decrease the cost of the Borough's public services. Provide a submission form on the Borough's website so that residents can provide ideas about how the Borough can cut costs and improve its services.	
Objective B. Diversify Borough revenues to reduce exposure to single industries or sources.	
Strategy 1. Near-Term: Research and develop appropriate broad-based taxes.	
Strategy 2. Near-Term: Research and develop appropriate taxes and fees associated with existing and new industries.	
Objective C. Develop and apply new fiscal strategies that better link growth in demand for services with revenues needed to pay the cost of those services.	
Strategy 1. Near-Term: Diversify the revenue base to respond to changing demographics and growth in property tax exemptions.	

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Strategy	Lead + Partners
Strategy 2. Near-Term: Expand use of local service areas to create locally managed, low overhead, focused funding streams for specific, locally requested services.	
Strategy 3. Near-Term: Identify opportunities to coordinate with organizations including city governments, Native organizations and corporations, and non-profits, to leverage resources and provide services more cost-effectively.	
Strategy 4. Near-Term: Advocate for Borough priority capital improvement projects identified in the appendices of this plan that directly contribute to increased revenue and economic opportunity for the Borough and their community and regional partners.	
Strategy 5. Develop partnering agreements that clearly delineate roles and responsibilities, including committing the Borough to be responsible for ultimately achieving the goal.	

COMPREHENSIVE PLAN THEMES: WE ARE AT A TURNING POINT



An Opportune Moment for Collaboration. Based on the many hundreds of conversations that went into the creation of this plan, there is a strong sense that borough residents are ready to move energetically and collaboratively into the next chapter of the Borough's history. There is a shared awareness of new economic realities, such as decreased state funding, and motivation to use the shift in resources and sources of revenue to create a new, more economically resilient Kenai Peninsula.

Economic, Fiscal and Environmental Health. The borough has an abundance of natural resources, wild landscapes, diverse economy, and a range of resident entrepreneurs and workers committed to long-term positive change. While the future borough economy may be different than that of the past, there are new opportunities in several traditional and emerging sectors, including oil and gas, tourism, health and agriculture. One key element of any economic strategy will be sustaining the health of the Kenai Peninsula's watersheds, forests and ocean waters that support so much of our way of life and economy.

Landscape- and Neighborhood-Compatible Development. While most borough residents express satisfaction with the current level of limited land use regulations, there is also a clear desire to sustain what residents (and visitors) value most about the borough. There is also shared support for the types of development and change that will bring more year-round jobs, more local retail, and the revenues needed for quality schools, roads and other services.

Partnerships and Leveraging Resources. Any one entity in the borough cannot achieve the ambitious list of goals and strategies outlined in this plan. However, the Kenai Peninsula Borough, with its many local, regional, state, federal, private and non-profit sector partners, can expand its capacity to achieve a shared set of priorities, and ultimately, longer-term goals. As the catalyst and convener of their partners, the Kenai Peninsula Borough can make strategic investments to leverage resources that result in the completion of priority projects that benefit all residents.

Need for Clear Priorities. The work that led to this plan needs to continue over the coming months and years, with more conversations with a wide range of residents, businesses, land owners, agencies, non-profits and other partners. Out of all the strategies proposed, this plan also specifies a subset of highest priorities for action that reflect projects and programs that can be achieved, that provide greatest public benefit, and have strongest public support.

COMPREHENSIVE PLAN PRIORITIES AND POLICIES

Priorities outlined below emerged through the planning process, and present a sample of related policies (objectives, strategies or actions) the Borough, Kenai Peninsula communities, and many other regional, state and federal partners can take over the next five years to make the Kenai Peninsula an even better place to live.

A note to the reader: This is a sampling of a robust list of policies contained in this plan. Each section has additional context, data and specific strategies to achieve the objectives laid out by topic area.

- Sustain and make the most of the Kenai's assets.

Example policy: Identify and protect the critical natural systems of the Kenai Peninsula Borough, its rivers, watersheds, and fish and wildlife habitats and resources. Actively support actions to sustain healthy fish habitats and populations in a way that preserves and enhances land values. *See Land Use sections for details.*



Workforce Development

- Promote economic growth and innovative businesses.

Example policy: Produce quality, healthy agricultural products for local, state and export markets. *See Agriculture and Mariculture section for details.*



Transportation Options

- Improve education and workforce development opportunities, especially for upcoming generations.

Example policy: Assist continuing and vocational educational institutions in identifying opportunities to expand programs and facilities by providing technical assistance; additional sites for facilities; and high demand jobs for which vocational and technical training is required. *See Education and Workforce Development section for details.*



Land Use and Climate Change



Community Health

- Address crime and public safety issues.

Example policy: Work with cities, Alaska Department of Public Safety, and other partners to increase police protection and community safety in the borough. *See Public Safety section for details.*



Trails and Recreation

- Improve transportation systems to meet local needs.

Example policy: Work with communities to expand public transportation options and ensure the long-term sustainability of public transportation for all residents. *See Transportation section for details.*

- Encourage development of quality, affordable housing for people of all ages.

Example policy: Increase supply and variety of affordable housing options in the borough, while managing impacts of growth. *See Housing section for details.*

- Maintain the quality of our residential neighborhoods.

Example policy: Develop policies that will minimize conflicts between adjoining uses, maintain property values, and maintain and improve neighborhoods, communities and natural systems. *See Land Use section for details.*

- Improve and manage access to important public resources, including land, water, fish and game.

Example policy: Improve access to public lands and waters by working with state and federal land managers to evaluate potential new, low impact and resource intensive access points for resident recreation and subsistence use, and for economic benefit. *See Tourism and Recreation and Sportfishing sections for details.*

- Provide more services and amenities for a growing senior population.

Example policy: Encourage health care providers to offer or expand services for seniors, to help older residents remain in the community and have more health care needs met locally. *See Health section for details.*

- Promote ways to improve the health and well-being of all.

Example policy: Promote healthy behaviors for borough residents, such as supporting transportation infrastructure for safe non-motorized transportation, parks and recreational opportunities, community events, availability of healthy foods, cooperative agreements to use Borough facilities for health events, and building more connections between community members. *See Health section for details.*

- Clearly define what services the Borough can provide, what level of services is appropriate across the region, and how to pay for services we need and want.

Example policy: Develop a sustainable fiscal plan for funding Borough operations that reduces dependence on uncertain State funding. Identify programs that could assist economic development and growth opportunities to diversify the borough's industries and increase revenue sources. *See Fiscal Health section for details.*

- Collaborate with unincorporated communities to improve representation, engagement and self-determination on important local issues.

Example policy: Actively work with communities outside of the organized cities in developing locally-driven community plans. *See Land Use section for details.*

WHAT IS A COMPREHENSIVE PLAN?

A comprehensive plan is a policy document created by a community, with a combination of big vision goals and practical short-term strategies. The new Kenai Peninsula Borough Comprehensive Plan is an update to the 2005 Kenai Peninsula Borough Comprehensive Plan that:

- Guides planning, funding and development efforts in the Borough over the next 20 years.
- Accurately reflects community needs, goals and priorities.
- Effectively directs resources toward community priorities.
- Identifies roles for the Borough in addressing region-wide or community-specific issues.
- Improves understanding of community businesses, organizations and other resources.
- Guides and orients existing and future leaders in the community.
- Provides broad policy direction for future planning in specific topics or geographic areas.
- Describes how the plan will be implemented, amended and updated.



Alaska municipalities (cities and boroughs) must create and update comprehensive plans.

The comprehensive plan is a compilation of policy statements, goals, standards, and maps for guiding the physical, social, and economic development, both private and public. It may include, but is not limited to, the following: statements of policies, goals, and standards; land use; community facilities; transportation; and recommendations for implementation.

Alaska Statutes, §29.40.030

RELATIONSHIP TO THE 2005 KENAI PENINSULA BOROUGH COMPREHENSIVE PLAN

Upon adoption by the Borough Assembly, this plan replaces the previous Comprehensive Plan adopted in 2005. In practice, however, the new plan builds on the guiding principles and policy direction in the 2005 plan. Many of the 2005 plan's objectives and strategies have been adapted or further refined in the current plan. This reflects continuity in the community's values and desired future, and ongoing need for the Borough and their regional partners to more strategically address longstanding challenges and issues by working together to leverage the region's many assets and opportunities.

Unlike the previous plan, the new comprehensive plan does not include an exhaustive inventory of data, trends, or community facilities and services. This plan focuses on the most relevant and current information to help the Borough and community leaders make sound policy decisions. The 2005 plan can be a useful reference document about the Kenai Peninsula, along with other plans and documents, including other Borough plans, individual city comprehensive plans, community plans, Comprehensive Economic Development Strategies (CEDS) plans produced by Kenai Peninsula Economic Development District, and management plans for the federal, state and Borough-owned public lands within the borough.

HOW TO USE THIS PLAN

The community's plan serves as a legal basis and rationale for other community policies and actions, including site-specific and neighborhood plans; specialized plans addressing transportation, economic development, housing and other topics; ordinances and other policies carrying out the goals of the comprehensive plan; projects carried out by Borough staff; and communicating priorities and funding requests to state and federal government or other funders, such as the Capital Improvement Projects (CIP) list or special legislative appropriations.

The goals of this plan give the Borough, and the community at large, a broad vision and direction to work toward in the coming years. Under each goal, there are more concrete objectives to achieve these goals, and specific strategies for the Borough and its partners to pursue. The objectives will also serve to measure progress toward achieving the plan goals and can be evaluated by the Borough and partnering entities in the future. Priority strategies will be identified in the plan, either as the most important issues for the Borough and their partners to address, or areas where the Borough and their partners can have immediate impact and accomplish early wins.

Most importantly, the 2019 plan should serve as a key tool for community leaders and residents in their short and long-term planning and decision-making. The comprehensive plan, in conjunction with more detailed plans, such as the Borough's Trails Plan and All-Hazard Mitigation Plan, and current information, should be the backdrop and foundational reference for every Borough Planning Commission and Assembly meeting and ruling, and for Borough departments in their daily operations.

A note to the reader: Throughout this plan, Kenai Peninsula Borough is referred to in shorthand as either “the borough” or “the Borough.” When used in lowercase, “the borough” means the region generally, or the geographic area and communities inside the boundaries of Kenai Peninsula Borough. When capitalized, “the Borough” refers specifically to the local government, including elected leadership (Assembly and Mayor) and staff who oversee day-to-day operations and administer services. Additionally, “the Kenai Peninsula” is also used throughout this document to generally refer to the geographic area of the borough, as well as being the most common name used by residents to refer to the region where they live, but the geographic feature with this name only includes the populated areas of the borough east of Cook Inlet. The borough also includes lands and some population west of Cook Inlet, which should not be overlooked as part of the Kenai Peninsula Borough. The term “the borough” is therefore preferred when describing the overall area, and “the Kenai Peninsula” for describing the location of most of the borough's population, communities, facilities and infrastructure.

TIMELINE FOR THE PROCESS

The comprehensive planning process launched in February 2017, beginning with a thorough review and evaluation of the 2005 comprehensive plan to understand what has been accomplished to date, and where the new plan should stay on the same path or consider new direction for the Borough. In general, Borough leadership and staff felt the previous plan had many broad goals that are still important to the community, but implementation of the plan had been limited. The goal for the 2019 plan was develop more targeted priorities, identify areas where the

Borough can play a role in as leader or supporter, and ensure the plan's recommendations take into consideration the Borough's capacity to act and the need to be fiscally sustainable.

Figure 1 illustrates the overall timeline and phases of the planning process. The project team framed each phase with the big questions that have guided the process and summarize what has been asked of the community throughout the year.

Figure 1. Kenai Peninsula Borough Comprehensive Plan Timeline



A COMMUNITY AND RESIDENT-DRIVEN PLAN

The values, vision, goals, objectives and strategies in this plan have been developed through an extensive public engagement process, including input and ideas from residents, businesses, tribes, non-profit and community organizations, associations, and government agencies including

cities within the Kenai Peninsula Borough. The process of creating a comprehensive plan enlists and energizes the community to work together to achieve collective goals, not just during the planning process but in future years as the plan is implemented.

Connecting directly with residents, businesses, and other stakeholders is central to the planning process: the project team traveled to communities across the borough to invite people to participate, gather thoughts and ideas about what the plan should include, and share how and why the plan is relevant to the entire community. Figure 2 illustrates a sample of these events.

At each meeting or event, participants were encouraged to answer three questions:

1. **Values:** What do you like best about living on the Kenai Peninsula?
2. **Vision:** What do you want life on the Kenai Peninsula to be like in 20 years? What is your future Kenai Peninsula Borough?
3. **Priorities:** What issues and opportunities should the Borough, residents and their partners focus on as part of this plan?

Selected Public Engagement Activities in Spring, Summer and Fall 2017

- Over **2,000** residents shared their ideas with the project team
- More than **50** interviews and small group discussions with local organizations, including:
 - Chambers of Commerce
 - Change 4 the Kenai coalition
 - Cities of Homer, Kenai, Seward, Soldotna
 - Kenai Peninsula Borough School District (KPBSD)
 - Kenai Peninsula Community Care Center
 - Kenai Peninsula Economic Development District (KPEDD)
 - Kenai River Sportfishing Association
 - Kenai Soil and Water Conservation District

Figure 2. Public Engagement Events, Summer 2017



Clam Gulch & Kasilof Community Meeting, July 2017



Nikiski Family Fun Days, June 2017



Funny River Festival, July 2017



Anchor Point Chamber of Commerce, July 2017

- Senior centers and local senior groups
- Tribes and Alaska Native corporations
- Multi-sector focus groups about education and workforce development, agriculture, public transportation, housing and homelessness, and others
- Over 600 telephone survey responses
- The project team had a booth or other presence at 20 public events, including:
 - Kenai Peninsula Sport & Recreation Trade Show (April 28-30, 2017)
 - Sterling Spring Craft Fair (May 6, 2017)
 - Kenai River Festival (June 9-11, 2017)
 - Nikiski Family Fun Days (June 17, 2017)
 - Sterling Community Summer Fun Carnival (June 17, 2017)
 - Moose Pass Solstice Celebration (June 17-18, 2017)
 - Funny River Festival (July 29, 2017)
 - Kenai Peninsula State Fair (August 19-21, 2017)
 - Industry Appreciation Day (August 26, 2017)

Online Engagement

Throughout the process, the project team communicated updates and relevant information on a project website, www.KPBCompPlan.com. The website invited residents to participate in local events, take an online survey and share written feedback directly with the project team. The website (illustrated in Figure 3) included an overview and purpose of a comprehensive plan, a summary of the “State of the Kenai” data highlights, and a calendar of upcoming events. The website was updated regularly to reflect the status and focus of the planning process and included multiple ways to contact the project team or sign up to receive project updates.

Figure 3. Kenai Peninsula Borough Comprehensive Plan Project Website



Source: Project website, www.kpbcompplan.com, retrieved December 12, 2017.

The team also coordinated with Kenai Peninsula Borough staff to post information to the Borough's Facebook page, encouraging users to visit the project website and get involved in the process. Posts highlighted upcoming events, new information available on the website, and provided notice about key milestones such as the release of the draft plan for public review.

Resident Surveys

As part of the project, the Borough commissioned a statistically valid telephone survey to be conducted in June 2017 and collect responses from 600 residents. Respondents were randomly selected by phone number, with half responding on residential landlines and the other half on cell phones. The survey is considered statistically valid because of its sampling method, including selection and weighting to ensure responses are proportional to the borough's actual population, measured both by geographic distribution and demographics such as age and race. The resulting sample of residents is comparable to and representative of the population. The survey included questions about:

- Benefits and challenges of living on the Kenai Peninsula
- Letter-grade assessment of several measures of quality of life such as job security, cost of living, housing, health care, education, public services and utilities, the natural environment, and other topics
- Overall satisfaction with services in the borough
- Attitudes and perceptions toward planning and policy issues such as land use regulation, taxation and public services
- Long-term plans to remain in or leave the borough, and major factors in that decision
- Demographic information such as age, family size, household income, and length of residency in Alaska and in the borough

In addition to the telephone survey, an online version of the survey questions was available on the website for anyone to respond. Results were not combined with the telephone survey, as they were not collected via the same statistically valid method but were made available to the project team as input about what the plan should address.

Survey results, including all open-ended responses documented during the call, were reviewed by the project team and incorporated into each section of the draft plan, along with the significant body of notes and comments collected throughout the year. Survey responses and direct quotes from residents are included throughout the plan to give voice to the many perspectives shared throughout this process.

Public Review of Draft Plan

The draft Kenai Peninsula Borough Comprehensive Plan was released for public review and comment on December 15, 2017, with written comments accepted through March 31, 2018. The project team received formal written comments from 56 individuals and organizations, as well as gathering feedback through meetings of Advisory Planning Commissions (APCs), work sessions with Borough staff, the Borough's Planning Commission, and staff or officials from the incorporated cities within the borough. The project team reviewed all comments and other feedback received during the winter and spring and incorporated these revisions into the formal review draft of the plan in June 2018. Overall, the comments received were supportive of the plan's general direction and goals, and commenters identified many specific objectives or policies

throughout the plan that they felt should be priorities during the implementation phase. Several comments also expressed a concern that, while the plan identifies many different important policy directions for the Borough, the limited capacity or political will to implement these policies will constrain its ability to carry out the plan's intent. This indicates the need for the community to prioritize which policies to pursue and build a region-wide commitment to achieving these goals.

WHAT IS IN THE PLAN?

The plan is structured as follows:

- **Executive Summary:** Includes the community's values and vision for the future, a summary of the plan's goals, objectives and priority strategies, the purpose of the comprehensive plan, how the plan will be used, the process used to develop the plan, the adoption process, and how the plan will be updated in the future.
- **Introduction:** Provides general information and context about the Kenai Peninsula Borough including geography, population, communities within the borough, services provided, and the current economic, demographic and social trends that inform the need for the policy direction set out in the plan.
- **Comprehensive List of Goals, Objectives and Strategies:** This is the most substantive section of the plan. It includes a series of broad goals, objectives grouped by topic area, and specific strategies to achieve the objectives. Also included are relevant highlights, trends and key facts about each topic area that inform the objectives and strategies for that topic.
- **Implementation Matrix:** Identifies priority strategies for the Borough and their partners to focus on over the next few years (2019-2021). See Table 1 for an example.

Table 1. Example of an Implementation Matrix

Strategy		Lead + Partners
Goal. Goal Name		
Objective A. Objective Name		
Strategy 1. Strategy Name		Borough and/or other partners

- **Appendix:** Provides maps featured in this plan, materials used during the public engagement process, survey questions and results.

PROCESS FOR FINALIZING, ADOPTING, AMENDING AND UPDATING THE PLAN

Following the public review and comment period through spring 2017, the project team revised the plan based on a summary of feedback received, including development of an implementation matrix of priority strategies that reflects priorities expressed by the community during the review process, and prepared the comprehensive plan for formal adoption.

In 2018, the draft plan underwent extensive review by the Kenai Peninsula Borough Mayor's Office, Legal Department and Planning Department. The revised draft comprehensive plan will

be presented to the Kenai Peninsula Borough Planning Commission in summer 2019 for review and a recommendation to the Borough Assembly adopt the plan. The public will have the opportunity to testify about the plan before the Planning Commission in a public hearing.

Once supported by the Planning Commission, and with further revisions incorporated into the draft plan, the comprehensive plan will be presented to the Kenai Peninsula Borough Assembly for formal adoption. The public will again have an opportunity to testify about the plan before the Assembly in a public hearing.

Upon formal adoption, the new Kenai Peninsula Borough Comprehensive Plan replaces the current plan adopted in 2005 and will guide future decisions and actions by the Borough.

Outlined below are the processes for making changes to the Comprehensive Plan in the future:

- A **minor change** does not modify or add to the plan's overall intent. Examples include clarification of intent, making sections or recommendations consistent with each other, a minor change that assists with practical implementation, and technical corrections. Minor changes can be recommended by the Borough or the public and must be reviewed by the Planning Commission approved by the Kenai Peninsula Borough Assembly.
- An **amendment** makes a permanent change to the plan by adding to or modifying the basic intent. Examples include addition of a new goal or set of objectives or making substantive changes to objectives or strategies. Amendments can be recommended by the Borough or the public and must be reviewed by the Planning Commission approved by the Borough Assembly.
- A **substantive review and update** of the Comprehensive Plan should be conducted annually, beginning with an evaluation by the Borough of progress made toward the existing goals and objectives. Residents, businesses, organizations and other stakeholders should be engaged in the update process to ensure that the updated plan still reflects the community's priorities. The update may include revision and/or deletion of existing goals, objectives and strategies; addition of other goals, objectives and strategies; or a new prioritization according to current needs.

Kenai Peninsula Borough at a Glance

LOCATION AND GEOGRAPHY

Figure 4. Kenai Lake, Cooper Landing

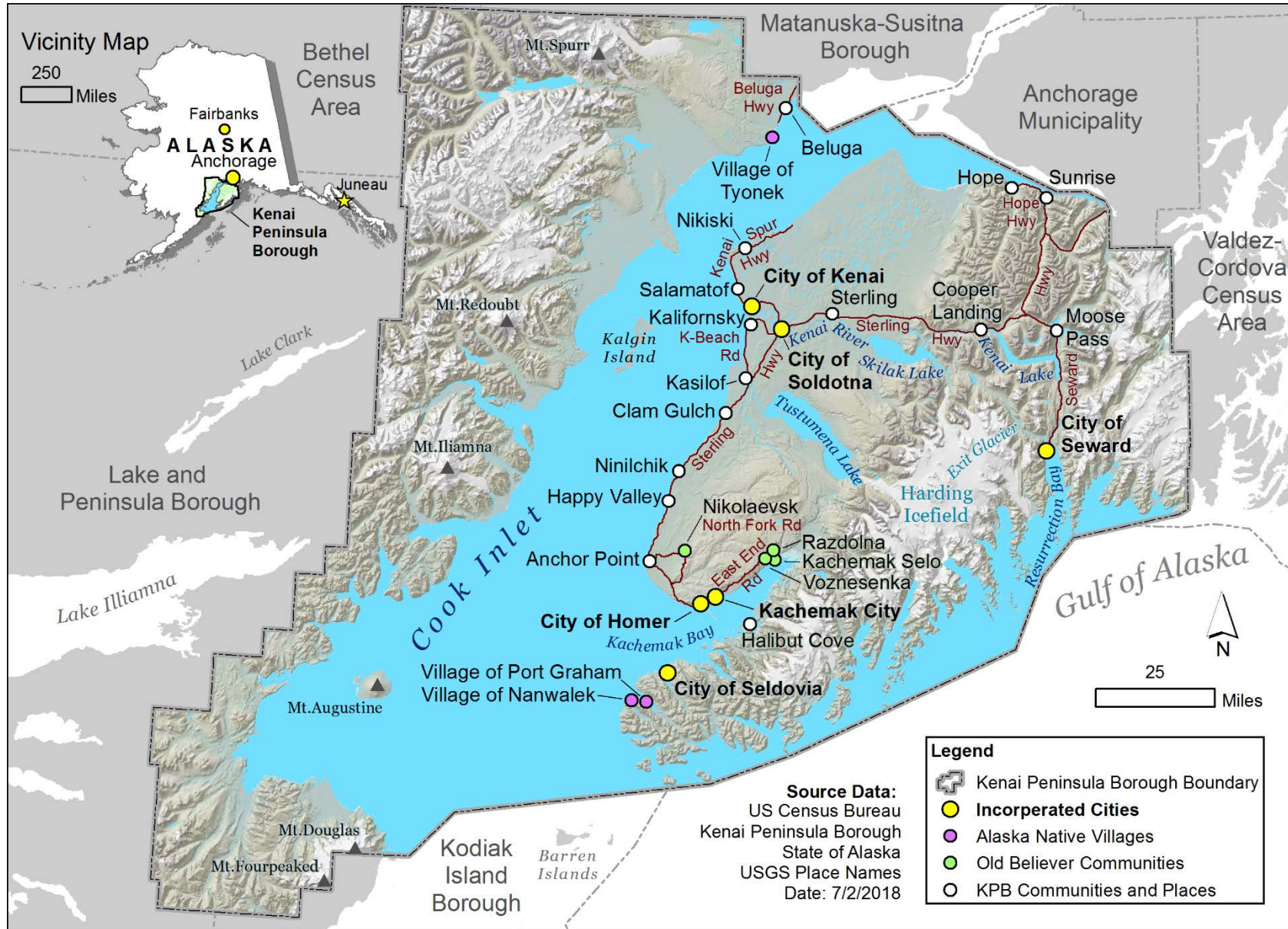


The Kenai Peninsula Borough is in Southcentral Alaska and encompasses the Kenai Peninsula and lands west of Cook Inlet (Map 1). At approximately 24,754 square miles in area, the borough is comparable in size to the state of West Virginia. Sixty-five percent of this area, or 16,013 square miles, is composed of land area and fresh waterbodies; the remaining 35 percent, or 8,741 square miles, includes Cook Inlet and coastal areas of the Gulf of Alaska. While the Kenai Peninsula comprises approximately half of the borough's total land area, it is home to most of the region's population and is directly connected to Alaska's road system. The western area of the borough includes the small communities of Beluga and Tyonek, two of the region's three national parks, and other protected state-owned lands. The Borough currently owns and manages approximately 117,000 acres of land, most of which has been officially conveyed through the Municipal Land Entitlement process.

Much of the land within the borough land is publicly-owned. Over 87 percent of lands within the borough are owned by federal (65 percent), state (21 percent) or local governments (1 percent), including the six incorporated cities. The remainder of lands within the borough are owned by Native corporations (9 percent) or other private owners (3 percent), with Cook Inlet Regional Corporation (CIRI) being the largest private landowner with over 330,000 acres of surface lands and more in subsurface rights. Much of these public lands have protected status and are managed as parks, refuges, wildlife habitat, and other designations, including:

- Kenai Fjords National Park
- Lake Clark National Park and Preserve
- Katmai National Park and Preserve
- Kenai National Wildlife Refuge
- Chugach National Forest
- Kachemak Bay State Park and Wilderness State Park
- McNeil River State Game Refuge and Sanctuary

Map 1. Incorporated Cities and Census Designated Places, Kenai Peninsula Borough



The Kenai Peninsula Borough's waterways are major ecological and economic assets.

The diverse list of watersheds within the borough include the saltwater Cook Inlet, Resurrection Bay, Kachemak Bay and the coastline of the Gulf of Alaska; freshwater lakes Tustumena, Kenai Lake and Skilak Lake; and several major rivers with vast networks of tributaries. The Kenai River and others in the region are world-famous for salmon fishing, providing harvest and recreational opportunities for residents, businesses and tourists. The McNeil River is also famous and has become a destination for bear-viewing during the annual salmon runs. The borough is also home to several large glaciers, including Exit Glacier, Harding Icefield, glaciers along the coast of Kachemak Bay and Kenai Fjords, and others west of Cook Inlet.

Climate change and large-scale ecological impacts will continue. Global climate change and accelerated Arctic warming are affecting Alaska in a variety of ways, and these changes are likely to continue into the foreseeable future, even as mitigation and adaptation measures are being put into place across the state. The effects of climate change are complex and wide-ranging, and continue to be monitored by researchers, government agencies and communities. Known impacts to the Kenai Peninsula Borough include warmer temperatures, unpredictable and more severe weather particularly along the coasts, later winter freezing and earlier spring thawing, increased risks of flooding and erosion, increased risk of fire due to receiving less rain, and threats to vegetation by invasive species, and environmental shifts that change behavior patterns and availability of resources for native plants and wildlife. While more efforts are needed to address the impacts of climate change in the future, this plan addresses actions that can be taken by the Borough and its partners to mitigate known hazards and guide future development toward less-vulnerable areas.

The borough's rich natural resources and landscapes are a source of strength but also pose planning challenges. The natural environment is one of the borough's greatest qualities, universally valued by residents, and they present many opportunities for the region's businesses. Visitors are drawn to the region for fishing, scenic and wildlife viewing, outdoor recreation and other activities; resource extraction activities such as oil, natural gas, mining and forestry are an important part of the region's economy.

At the same time, however, the large proportion of protected public lands and the physical constraints of the region's geography make land use planning complicated. The small share of privately-owned land, primarily concentrated in areas that have already been developed, creates limited opportunities for future growth, requires more compact development in existing communities, or necessitates significant infrastructure investments in currently undeveloped areas. Parks, wildlife refuges and other public land designations have varying degrees of regulation and restriction on use of these lands. Areas along waterways and other sensitive ecological features are also often regulated to minimize potential negative impacts of adjacent development, as well as the potential threats to life and property in these areas posed by flooding, rapid erosion, avalanches and landslides.

Throughout the planning process, a major theme of discussion has been attempting to find a balance between protecting the natural assets that are central to life and work in the Kenai Peninsula Borough and creating opportunities to take advantage of these assets and allow for

future growth and prosperity. Many of the policies laid out in this plan address the need to find and sustain this balance over the next twenty years.

OUR PEOPLE

The Kenai Peninsula Borough experienced steady, modest population growth over the last several years. Components of population change are summarized below in Table 2. Migration into and out of the borough has fluctuated, while natural increase (the net effects of births and deaths in the region) has slightly contracted since 2011. The modest increase between 2015 and 2016 was unusual among Alaska's regions, most of which lost population in the same period. This trend suggests some degree of resilience against the impacts of Alaska's current recession, and potential for continued modest growth depending on the state and region's economic outlook in future years. Within the borough, some communities are growing while others are shrinking: the largest population increase occurred in Kalifornsky, Homer, Nikiski and Soldotna; the largest decreases were in City of Kenai and Seward. The population is 84 percent white, eight percent Alaska Native, and eight percent all other races, including people identifying as two or more races.

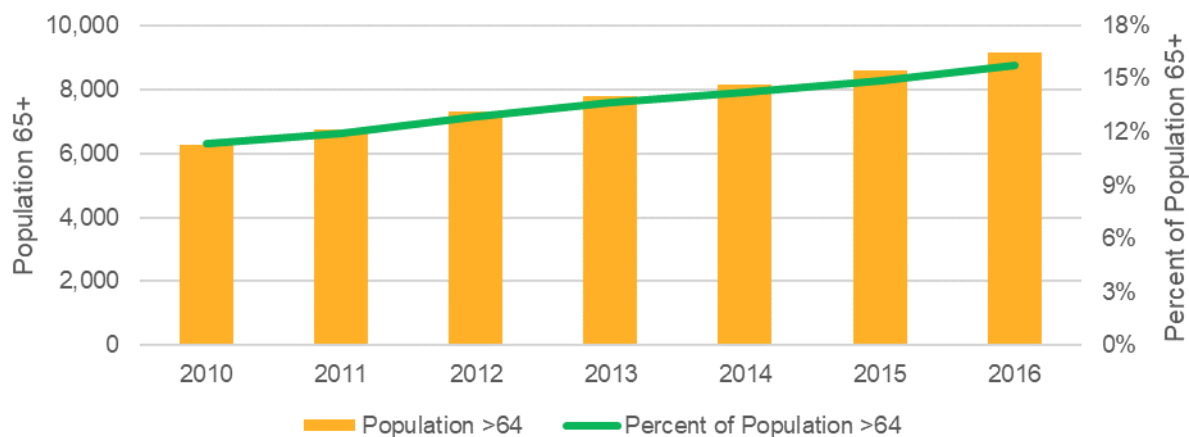
Table 2. Kenai Peninsula Borough Components of Population Change, 2011-2016

	2011	2012	2013	2014	2015	2016
Population	56,578	56,658	56,868	57,429	57,684	58,060
% Growth	2.1%	0.1%	0.4%	1.0%	0.4%	0.7%
Natural Increase	334	379	327	327	267	282
Net Migration	520	-299	-117	234	-12	94

Source: Alaska Department of Labor and Workforce Development

The borough has a large and growing senior population, a trend likely to continue for the next decade or more. Alaska has one of the fastest-growing senior populations of any state, and this trend is magnified on the Kenai Peninsula: between 2010 and 2016, the region's population age 65 and older increased by almost half, representing 16 percent of all residents (Figure 5). Discussions with residents, real estate professionals and others indicated that some of this growth is due to existing residents aging in place, as well as the Kenai Peninsula's popularity as a retirement or second-home destination.

Figure 5. Senior (Age 65+) Population Growth in Kenai Peninsula Borough, 2010 to 2016

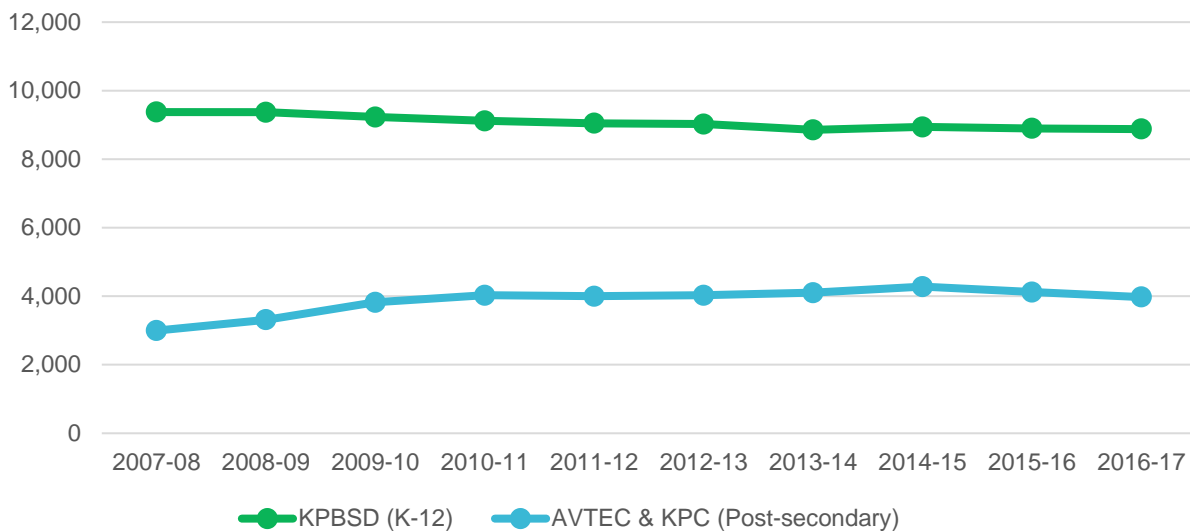


Source: Alaska Department of Labor and Workforce Development

A large, and growing, senior population has many implications for community planning; aging residents will have different needs for housing, medical care and other services, such as transportation options when they are unable to drive, and ways to stay active and connected in the community. The plan identifies many of these needs for the borough's current and future senior residents, and provides ways in which seniors, and the community overall, can maintain a high quality of life.

Kenai Peninsula Borough School District enrollment is declining, while postsecondary education remains steady. After peaking in 1998 with over 10,000 students, the Kenai Peninsula Borough School District (KPBSD) has had declining enrollment over the last two decades, with approximately 8,800 K-12 students enrolled in the 2016-2017 academic year, illustrated in Figure 6. This trend is likely to continue given the current demographic trends described above, but KPBSD may experience significant enrollment increases if new economic activities such as oil and gas projects attract more workers and families to the region.

Figure 6. Kenai Peninsula Borough, School District and Secondary School Enrollment, 2008 to 2017 Academic Years



Source: Kenai Peninsula Borough School District, AVTEC and Kenai Peninsula College enrollment data. Adapted from Kenai Peninsula Economic Development District, *2017 Situations and Prospects Report*.

Postsecondary and vocational education enrollment in the region's two primary institutions, Kenai Peninsula College (KPC) and the Alaska Vocational Technical Center (AVTEC), has increased over the past decade. Enrollment in postsecondary programs has decreased slightly in the last two years, attributed to the economic downturn, state funding cuts in postsecondary education programs such as AVTEC, and students' reluctance to commit their limited resources to tuition and classes when faced with uncertain job security.¹ Workforce development, training opportunities, and stronger connections between workers, vocational programs and employers have been identified as high priorities for Kenai Peninsula Borough's economic and employment prospects. Workforce development programs can provide skill-building opportunities for entry level employees, help experienced employees build qualifications to work in a new industry, and

¹ Boettger, Ben. "Education, employment agencies see shrinking funds, usage." *Peninsula Clarion*, January 12, 2017. <http://peninsulaclarion.com/news/2017-01-12/education-employment-agencies-see-shrinking-funds-usage>

connect high school students and young adults with practical learning opportunities in fields relevant to the local economy.

OUR COMMUNITIES

The Kenai Peninsula has been home to Alaska Native peoples for several thousand years, including the Dena'ina and Aleut cultures. Today the borough has diverse communities and lifestyles that share deeply-held values such as connection to the land and water, appreciation for rural and small-town life, and strong family and community connections.

Figure 7. Homer Harbor



Six communities are incorporated cities: Homer, Kachemak City, Kenai, Seldovia, Seward and Soldotna. Approximately 35 percent of the borough's population live within the boundaries of an incorporated city. Each city has some degree of autonomy and provides services such as police and fire protection for its residents. See the following section for additional information about the Borough and cities' planning authority.

Some communities are Alaska Native villages, and Alaska Native peoples live throughout the borough. As noted above, the region was first populated by the Dena'ina and Aleut peoples. There are several federally recognized Alaska Native tribes located in the borough: Kenaitze Indian Tribe, Ninilchik Village Traditional Council, Qutekcak Native Tribe (based in Seward), Seldovia Village Tribe, Village of Nanwalek, Village of Port Graham, Village of Salmantof, and Village of Tyonek. Cook Inlet Regional Incorporated (CIRI) and Chugach Alaska Corporation are regional Native corporations whose area include the Kenai Peninsula Borough, as established under the Alaska Native Claims Settlement Act (ANCSA).

In addition to these communities, the borough has several sites of cultural and archaeological significance, representing the deep history of human settlement and activity in the region. See the Historic Preservation section for more information.

The region is also home to several Russian Old Believer communities and settlements. Russian fur traders were the first European group to settle in Alaska, arriving in the 18th century and establishing communities throughout the Kenai Peninsula, Kodiak Island, and Southeast Alaska. Russian influence can be seen in place names throughout the borough, Russian Orthodox

churches and other historic buildings on the peninsula. There are several Russian Old Believer communities on the southern peninsula including Nikolaevsk, Razdolna, Voznesenka and Kachemak Selo.

Most borough residents live in established communities, but many are not incorporated.

Almost two thirds (65 percent) of Kenai Peninsula residents do not live within the boundaries of the six incorporated cities, but there are many established communities in the region. One of the oldest is Hope, a former gold mining community that reached its peak population in the late 19th century. Other established communities with distinct identities include Cooper Landing, Moose Pass, Nikiski, Ninilchik, Sterling, Anchor Point, and Halibut Cove. Apart from the Borough, there is no official local government representing these communities, but several of these communities are officially recognized by the Borough through the creation of Advisory Planning Commissions (APCs), and two have community councils that provide mechanisms for self-governance and representation to the Borough. Additionally, most service areas within the borough are generally centered around these communities and serve residents within them.

In recent years there have been multiple discussions within established communities about incorporation or annexation to a nearby city, in order to increase services available to residents and self-determination about how resources are collected and allocated. Many residents in these communities desire more services, more control over the services they receive, and a stronger, organized voice on their behalf to advocate for their interests. At the same time, residents appreciate the relative lack of government presence in their community and are wary of creating a new structure or being absorbed into an existing local government. Effective representation and collaboration between the Borough and unincorporated communities was a common theme in residents' comments during the planning process, and potential solutions for increasing community engagement and self-determination are laid out in this plan.

OUR ECONOMY

The Kenai Peninsula Borough's economy is more diverse than most Alaska communities, with a mix of emerging and established industries. Top-performing industries by total employment, average employee annual wage, total wage earnings, and growth in business sales over the last five years are summarized in Table 3; sectors with multiple rankings are color-coded.

Table 3. Top Performing Industries, Kenai Peninsula Borough, 2016

Total Employment	Employee Wage	Total Earnings	5-Year Growth
Health Care & Social Services	Utilities	Local Government	Land & Water Guiding
Local Government	Oil, Gas & Mining	Health Care & Social Services	Storage & Warehouse Rental
Retail Trade	Securities & Investments	Fishing, Agriculture, Forestry & Hunting	Health Care & Social Services
Accommodations & Food Service	Heavy Construction	Oil, Gas & Mining	Residential Property Rental
Commercial Fishing	Federal Government	Construction	Finance & Insurance

Source: Kenai Peninsula Economic Development District, *2017 Situations and Prospects Report*.

Notably, some industries have high employment but relatively lower wages, such as many jobs associated with retail and tourism, which may be seasonal or lower-skilled jobs than those in industries such as resource extraction, construction or professional trades.

Kenai Peninsula workers earned over \$3 billion in wages in 2016, but overall business activity declined 10 percent and self-employment earnings decreased. Wages for workers in the borough have increased year over year, with median household income also rising slightly in 2016. Table 4 summarizes key data about earnings. Workers earn slightly less than the state average, partly reflecting the relatively lower cost of living than some areas of the state, but income rose at a faster rate: per capita income increased 24 percent in the last five years.

Table 4. Kenai Peninsula Borough Income, Wage and Employment Data, 2016

Total Personal Income	\$3.06 billion
Per Capita Income	\$52,639
Median Household Income	\$63,684
Average Annual Wages	\$46,962
Average Annual Employment	19,993
Self-Employed Proprietors*	6,622
Self-Employment Earnings*	\$284.6 million

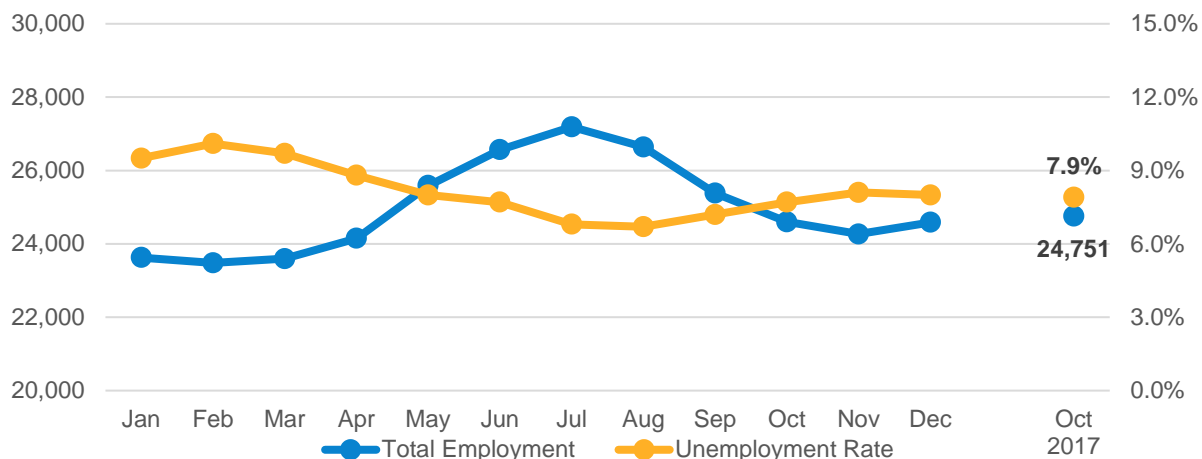
* Self-employment data from 2015.

Source: Alaska Department of Labor and Workforce Development.

Approximately 10 percent of borough residents have incomes below the poverty level, including 6.4 percent of families, and many more are above this threshold but struggle to make ends meet. KPBSD reported in the 2016-17 school year that 43 percent of students qualified for a free or reduced-price school lunch; children from households earning less than \$56,888 qualify for some level of subsidy.²

Many industry sectors provide steady year-round employment, while others are primarily seasonal. The borough has a somewhat seasonal economy, illustrated in Figure 8 with the monthly fluctuations in employment and the unemployment rate. Total employment increases during the summer months, reflecting increased activities in tourism and hospitality, commercial fishing, construction, and other industries that operate seasonally. Unemployment, which represents individuals in the labor force actively seeking work, drops during the same months.

Figure 8. Monthly Total Employment and Unemployment Rate, January to December 2016 and October 2017



Source: Alaska Department of Labor and Workforce Development. Most recent data available is October 2017.

² Kenai Peninsula Economic Development District, 2017 *Situations and Prospects Report*.

Overall decline in business activity has driven some of the borough's traditionally strong industries, but others performed well in 2016. The oil and gas industry, typically a strong employer of skilled, high-wage workers, accounts for much of the overall decline in economic activity on the Kenai Peninsula, as did declines in construction and wholesale trade. These sectors will continue to face uncertainty in Alaska's recession, as well as long-term uncertainty in oil and gas prospects and ability to invest in new infrastructure to support extraction. Oil and gas properties account for the top five assessed properties within the borough.³

The borough's other major industries have fared better, particularly with increasing and more diverse activities related to tourism and outdoor activities. Businesses have reported more interest in guided sightseeing or river tours, outdoor recreation and other activities not directly associated with the Kenai Peninsula's primary attraction, fishing on the Kenai River and other waterways. Health care services is the largest employment sector, with jobs for a range of skill and education levels, from medical providers to administrative support staff. While there will continue to be opportunities for growth to meet the senior population's health care needs, rising health care costs and the challenges of providing affordable care in small communities impacts the long-term sustainability of this sector and employers' ability to offer competitive wages and benefits. See the Health section for more discussion of this sector.

Other established and emerging industries in the borough show promise for future growth.

Agriculture on the Kenai Peninsula has grown rapidly in recent years. There were 260 farms in the borough in 2017. Up from 162 in 2012. Fifteen of those farms were aquaculture operations. Most farmed were operated by the owners, but 65 employed worked in 2017.⁴ Demand for local agriculture and food has rapidly grown nationwide, and organizations such as the Alaska Food Policy Council, the Alaska office of the U.S. Department of Agriculture (USDA), and Kenai Soil and Water Conservation District (KSWCD) have focused on implementing policies that support further growth of the agricultural sector and support for independent farmers. The Kenai Peninsula has several areas with high-quality agricultural soils, and programs such as High Tunnel Initiative (2010 to present) have helped extend the growing season. While many farmers focus on producing crops and livestock for local markets, other growers are focused on higher-value specialty crops for local and export markets, such as peonies or marijuana cultivation.⁵

Other opportunities for economic growth may emerge from within existing sectors. Several industries can be characterized as maritime activities, from commercial fishing to transport vessels to marine support services. While the collective employment and sales of these sectors was down in 2016, these industries employ 3,300 people and represent large and small businesses across the Kenai Peninsula.⁶ The success of the commercial fishing industry relies on the abundance and effective management policies of the Kenai Peninsula's salmon and other

³ 2017 Census of Agriculture.

⁴ Kenai Peninsula Economic Development District, *2017 Situations and Prospects Report*.

⁵ Per the Borough Sales Tax and Accounting Supervisor, the Kenai Peninsula Borough collected \$212,041.95 in marijuana sales tax in FY18. In FY19, the Borough collected \$368,807.43 in marijuana sales tax.

⁶ Kenai Peninsula Economic Development District, *2017 Situations and Prospects Report*.

fish populations, but other services such as leisure travel and vessel maintenance and repair remain in demand.

OUR BOROUGH GOVERNMENT

The Kenai Peninsula Borough was incorporated in 1964 as a second class borough, granting some powers by state law (AS Title 29) and making others available if authorized by public vote. The Borough is governed by a nine-member assembly and administrative functions are carried out by staff, who are overseen by an elected mayor. The Borough provides a variety of services within its jurisdiction, with some services provided boroughwide and others through localized authority known as a service area. A service area has distinct geographic boundaries, and revenue is generated locally through a property tax assessment within that service area.

Figure 9. Kenai Peninsula Borough Seal



The Borough has areawide planning powers but delegates some specific functions to incorporated cities. One of the Borough's primary authorities is to exercise planning and land use regulation powers within its boundaries. The Borough is the local platting authority, including subdivision approval, and can enact land use regulations such as zoning. The Borough has delegated land use regulation powers to the cities, including the power to update their land use plans and create and enforcement of their zoning codes. Comprehensive platting powers for the cities are exercised by the borough with significant cooperation and participation through plan development and the adoption of platting standards by the cities. In practice, the Borough coordinates with each city and generally grants broad discretion over land use planning matters. Additionally, many lands within the borough are owned by the federal, state or tribal governments; the Borough has some degree of regulatory authority over these lands depending on applicable local, state and federal regulations.

The Borough's operations are primarily funded by local taxes and spent on local services. The Borough's annual budget is approximately \$136 million (FY18), 73 percent of which is from property and sales taxes. This revenue funds local services, including:

- *Areawide powers:* Tax assessment and collection, education, planning and zoning, solid waste disposal, 9-1-1 emergency communications, emergency management, senior citizen grant funding, postsecondary education funding, and general administrative services
- *Service Area powers:* Hospital, fire protection, emergency medical and ambulance services, recreation, senior citizen, and road maintenance and construction
- *Non-areawide powers:* Ports and harbors, tourism promotion, and special assessment authority for utility line extensions.

Among the Borough's responsibilities include maintaining 645 miles of road within a road service area, overseeing the school district and its 43 schools on an areawide basis, overseeing operations of two hospital service areas, and operating other facilities including fire stations within fire service areas, landfills and solid waste transfer facilities. Staff carry out many other functions emergency management, managing Borough-owned lands and facilities, processing platting and

other land use applications, review of permit applications and administration of ordinances regarding development in the Habitat Protection District and regulatory floodplain, property assessment and tax collection, financial management, administering contracts and formal areawide operating agreements with other agencies, and general administrative functions.⁷

The state's uncertain fiscal future and rising costs will impact the Borough's budget and ability to provide services that residents need and want. The full impacts of the State of Alaska's \$3.5 billion annual budget shortfall are yet to be seen, but many Alaska communities, especially those that have deeply relied on state resources, are already experiencing a decreased level of state programs and services. The Borough's FY18 budget predicts a 10 percent decrease in state revenue from the FY17 funding level. Declining community revenue sharing and other cuts have created, and will continue to create, a higher burden on local governments, who are charged with maintaining a state-mandated, specific level of service, including the education of future generations.

⁷ *Kenai Peninsula Borough FY18 Annual Budget*, adopted June 7, 2017, by the Kenai Peninsula Borough Assembly.

Goal 1. Diversify and grow the Kenai Peninsula Borough economy.



FOCUS AREA: OIL AND GAS

HEADLINES

The oil and gas sector provides significant employment and revenue to the Borough, though its property tax revenue contributions are variable (See the Fiscal Health section for more detail). The oil and gas industry in the Kenai Peninsula Borough has a legacy dating to 1958 and is still one of the key economic drivers in the borough. With a swell of offshore exploration and development in the late 1960s, oil production peaked in 1970 with 82 million barrels of oil produced. Gas production peaked in 1994 with 311 billion cubic feet/year. With the decline in oil production, major oil companies Chevron and Marathon sold their lease interests and facilities in 2012 and 2013 to several smaller, independent oil and gas companies. These smaller incoming oil and gas operators are utilizing technologies for enhanced recovery of existing oil and gas reservoirs. By 2017, with increased production and additional independents in Cook Inlet, the Borough's oil and gas property tax revenue rose from just under \$7 million in Fiscal Year (FY) 2012 to over \$14 million in FY2017. This equates to 21 percent of all property taxes collected by the Borough in FY2017, which ended June 30, 2017.

The State, through the Alaska Gasline Development Corporation (AGDC), took over the Alaska Liquefied Natural Gas (LNG) project in January 2017 after BP, ConocoPhillips, and ExxonMobil divested themselves from the project. The Alaska LNG project plan encompasses a gas treatment plant on the North Slope; an 807-mile gasline; and, an LNG production facility, LNG storage, and marine facility in Nikiski. Now a State of Alaska-driven project, in April 2017, AGDC filed an application with the Federal Energy Regulatory Commission (FERC) to obtain a Natural Gas Act Section 3 permit for the pipeline project. FERC authorizes the siting, construction and operation of LNG export projects and will lead the national Environmental Protection Act (NEPA) review process of the Alaska LNG project. As of an October 2017 permitting update the state had submitted their FERC application. In late 2017, the State of Alaska reported an agreement that would allow Chinese investment in the Alaska LNG project. Employment at the Nikiski facilities is projected to be 3,500 to 5,900 jobs at peak construction.

Highway, port, and harbor infrastructure improvements should be considered in the Borough's long-range plans to be ready for the growth and development associated with an Alaska LNG project.

ConocoPhillips' export license at the Kenai Liquefied Natural Gas (LNG) Plant in Nikiski expires in early 2018. The Nikiski LNG facility has been put on standby, meaning that ConocoPhillips will no longer keep tanks cold, a requirement for storing liquefied gas. ConocoPhillips has marketed the sale of the LNG facility, but has not come to terms with a buyer. AGDC has expressed interest in the plant, in addition to proposed plans to construct an adjacent large liquefaction plant. However, a deal between ConocoPhillips and AGDC has not materialized. The LNG facility employs 30 persons, 18 of whom are ConocoPhillips employees.

Map 2 on the following page depicts the oil and gas operators and facilities in Cook Inlet Basin.

Map 2. Cook Inlet Oil and Gas Activity, December 2016



Source: Alaska Department of Natural Resources Division of Oil and Gas, accessed December 4, 2017.

Agrium's fertilizer plant was projected to restart but has been hampered by lack of gas supply contracts. The plant relies on natural gas feedstock for production processes. Prior to closing in 2007, the Agrium plant employed 200 workers and was the largest property taxpayer in the borough. With increased supply of natural gas from Cook Inlet, or via a pipeline from the North Slope, plant operations could be feasible.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Since commercial development of the Cook Inlet region's hydrocarbons began in 1958, there have been more than 1.3 billion barrels of oil, 7.8 trillion cubic feet of gas, and 12,000 barrels of natural gas liquids produced. As a partially explored petroleum province, there are 28 producing oil and gas fields in the Cook Inlet basin. Since 2008, expiration of long-term natural gas contracts and a range of new incentives have invoked several changes affecting exploration and production activity. There has been the acquisition and reworking of legacy assets by independent companies such as Hilcorp, Cook Inlet Energy LLC, XTO Energy, Furie, and others. These independents acquired leases and assets shortly before a global drop in oil prices. A few of the companies are now gone, but others such as Hilcorp are upgrading aging infrastructure and extending the life of the Cook Inlet Basin's oil and gas fields. This has provided substantial property tax revenues to the Borough. Although depressed oil prices and aging infrastructure seemed to signal an ebb in the flow of renewed activity, Hilcorp announced in summer 2017 plans to renovate an aging pipeline from the Tyonek platform to the west side of Cook Inlet.

There are three downstream oil and gas facilities located in the Cook Inlet basin, although two of these facilities are either closed or not operational. One of those facilities, the Agrium fertilizer plant, has not resumed operations.

What used to be known as the Tesoro Kenai Refinery, and which is now the Andeavor Kenai Refinery (Tesoro changed its name in summer 2017; and later, in November 2018, Andeavor assets were acquired by Marathon Petroleum Corporation⁸), processes up to 72,000 barrels of oil per day. The Andeavor Refinery produces gasoline, jet fuel, diesel fuel, heating oil, propane and asphalt. Double hulled tankers deliver crude oil through Cook Inlet, as do pipelines. A pipeline transports jet fuel, gasoline and diesel fuel to the Port of Anchorage and the Ted Stevens International Airport. The refinery employs 225 people.

Prior to the November 2018 Marathon acquisition of Andeavor's Kenai Peninsula assets, in January of 2018, ConocoPhillips sold their LNG facility at Nikiski, a liquefaction plant and marine terminal, to Andeavor.⁹ The LNG plant in Nikiski had operated for almost 50 years as the only LNG export plant of domestic production in the United States. Its LNG was marketed to East Asia, but spot market prices per BTU are less than the wholesale price for Cook Inlet natural gas in local utility contracts.¹⁰ At full production, the facility had output of 240 million cubic feet per day

⁸ Associated Press, "Marathon Petroleum acquires outstanding shares of Andeavor," *Anchorage Daily News*, November 2018.

⁹ Alex DeMarban, "ConocoPhillips sold LNG plant for \$10M 'bargain price,' borough mayor says," *Anchorage Daily News*, February 2018.

¹⁰ Brehmer, Elwood, "ConocoPhillips putting LNG plant in deep freeze," *Alaska Journal of Commerce*, July 2017.

and employed 60 workers. The facility has been idle almost two years, with its last export shipment in the fall of 2015. At the time of the 2018 acquisition, Andeavor representatives were evaluating potential options for future plant operations, including providing low-cost fuel for the Kenai refinery.

Low oil prices and declines in production have affected State revenues and the fiscal outlook. These same factors affect the level of activity in the Cook Inlet Basin and in turn affect the oil and gas property tax revenues coming to the Borough. Understanding the variability of oil and gas sector contributions to the borough economy can be explained via several indicators, including gross business sales. Gross business sales are the grand total of all sale transactions reported in a period, without any deductions. The Kenai Peninsula Economic Development District (KPEDD) utilizes gross business sales as an indicator of business activity. In its 2017 *Situations and Prospects Report*, KPEDD reported that overall business activity declined 10 percent in 2016. Gross business sales on the Peninsula totaled \$3.3 billion- a drop of \$387 million (10 percent) between 2015 and 2016. Two high wage sectors, oil and gas and construction, along with wholesale trade, were responsible for the declines in business activity. According to the same KPEDD report, the number of Kenai Peninsula employees fell by two percent and total wages to workers dropped five percent. Alaska's Department of Labor and Workforce Development in its 2014 to 2024 projections, forecast that oil and gas extraction will experience a 10 percent reduction in employment over this period.

Figure 10. Randolph Yost Rig, Nikiski



Property Tax Revenues to the Borough

As explained in the Fiscal Health section, the oil and gas sector's contribution to Borough property tax revenues is variable. There is a bar graph in the Fiscal Health section that depicts oil and gas property tax revenue from 2010 to 2017. Oil and gas property tax revenues account for almost a quarter of the Borough's total property tax revenues. According to the Kenai Peninsula Borough FY2018 Proposed Budget, oil and gas property tax revenues are forecast at \$14,798,475 out of a total property taxes of \$74,353,816. Over a five-year period, from FY 2013 to FY2018, oil and gas property valuation increased 80 percent (\$660 million) to \$1.473 billion. The increase in valuation reflects the increase in activities and investment by the independent oil and gas operators.

OIL AND GAS OBJECTIVES AND STRATEGIES

What We've Heard

The 2005 Comprehensive Plan included a broad overriding policy on the oil and gas Industry; it stated continued support for the industry was important to the borough's economy. Supplementing this high-level policy was resident input stipulating that support for the oil and gas industry was predicated on environmentally-responsible gas and oil development.

Oil and gas, commercial fishing, and tourism are the Borough's main industries and are interdependent. The borough's natural resources draw many visitors and should be protected and promoted.

2005 Kenai Peninsula Borough Comprehensive Plan

Continued support for the oil and gas industry is important to our local economy.
Kenai Peninsula Borough staff member, 2017

The comprehensive planning process included extensive public outreach, including a telephone survey of a diverse sample of 600 borough residents. When asked "How important do you think the following industries are when it comes to creating future economic growth on the Kenai Peninsula?" residents responded as follows (Table 5):

Table 5. Comprehensive Plan 2017 Survey Responses, Importance of Major Industries

Industry	"Very Important" Responses
Commercial Fishing	344
Tourism	337
Oil and Gas	314
Agriculture	150
Manufacturing	115

Workforce development and training are critical components to economic development. The oil and gas industry generates higher wage jobs with a diverse range of job qualifications and requirements. Ideally, these jobs are filled by year-round residents of the borough. The State of Alaska has education and training incentives for industry. One of these is the Alaska Education Tax Credit; it provides a tax credit to businesses that make contributions to Alaska universities and accredited non-profit Alaska two and four-year colleges. For the oil and gas industry, the Alaska education tax credit can be applied to the Alaska corporate income tax, the oil and gas production and transportation tax, and the oil and gas property tax.

Another education and training incentive is the Work Opportunity Tax Credit. This is a federal tax credit program that incentivizes employers to hire persons with significant barriers to employment. These tax credits encourage employers to hire from nine targeted groups such as Temporary Assistance for Needy Families (TANF) recipients, veterans, designated community residents, vocational rehabilitation referrals, qualified summer youth hires.

Creating an environment where economic development can flourish is a facet of the Borough services that are part of the quality of life. Workforce development and training are a critical component of the Borough's strategy to meet its economic development goal. Higher education opportunities and vocational training are fundamental to workforce development and training. The Kenai Peninsula Borough Comprehensive Plan Opinion Survey asked respondents to grade higher education and vocational training in the borough. Results are shown in Table 6. The survey question responses indicate that residents think higher education and vocational training opportunities are above average or average. There is room for improvement, particularly in outreach on vocational training opportunities.

Table 6. Comprehensive Plan 2017 Survey Responses, Grade for Higher Education and Vocational Training

Grade: Education	Count	Percent
A	87	14.5%
B	208	34.7%
C	135	22.5%
D	69	11.5%
F	42	7.0%
Not sure	59	9.9%

Grade: Vocational Training	Count	Percent
A	96	16.1%
B	133	22.2%
C	128	21.3%
D	71	11.8%
F	44	7.4%
Not sure	128	21.3%

Note: “**Near-Term**” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Continue support for the oil and gas industry, one of the primary economic sectors in the borough.

Expanding natural gas would do wonders. We need more exploration, drilling, and refining.

2017-2018 KPB Comp Plan Survey Participant

Strategies

1. **Near-Term:** Support economic development legislation and programs for the oil and gas industry.
2. **Near-Term:** Coordinate with Kenai Peninsula Economic Development District and communities to determine the optimum best use for the 630 acres assembled for the Alaska LNG gas liquefaction facility, should the project not move forward.
3. **Near-Term:** Identify sufficient and contiguous parcels of land suitable for industrial uses to support current offshore activities and proposed Alaska LNG facility.
4. Continue to make available a current list of lands available in the borough at market rent/lease rates for facilities related to the oil and gas sector.

Objective B. Anticipate the workforce development and training needs related to employment demand and qualifications from the oil and gas sector’s exploration, development, and production and refining activities and from the potential Alaska LNG liquefaction facility and marine terminal.

Recommend the Borough Comprehensive Plan outline a goal or strategy for education and training to get people ready for the next big oil and gas boom.

AVTEC (Alaska Vocational Technical Education Center) has a great school and they’re placing most of their graduates.

Kenai Peninsula Borough Assembly member, 2017

Strategies

1. **Near-Term:** Coordinated outreach by the Borough, Kenai Peninsula College, and Alaska Vocational Technical Education Center to the oil and gas sector to help match employment prospects with educational, workforce development, and training resources.
2. Work with the KPEDD to provide information on the Alaska Education Tax Credit and Work Opportunity Tax Credits for prospective oil and gas operators.

Objective C. Plan for the housing, public services and transportation infrastructure that would be needed to support the Alaska LNG project liquefaction facility in Nikiski.

There are plans to widen the Kenai Spur Highway between Soldotna and Kenai to four travel lanes in summer 2018. The other half of the Spur Highway improvements are in the State Transportation Improvements Program (STIP). As part of the Alaska LNG project there are proposed plans to re-route the Spur Highway north of Kenai.

Strategies

1. **Near-Term:** Coordinate with the Municipal Advisory Gas Project Review Board to provide information on Alaska LNG project impacts on the borough.

2. **Near-Term:** Use U.S. Army Corps of Engineers as a source of funding for harbor design and construction.
3. Seek Economic Development Administration funding to complement USACE port and harbor projects with potential for local job creation.
4. Provide Borough input to proposed Kenai Spur Road improvements related to the Alaska LNG project.¹¹

Objective D. Encourage efficient use of land, infrastructure and services in areas already supporting the oil and gas sector.

Strategies

1. **Near-Term:** Encourage KPEDD to explore an industrial park to aggregate oil and gas support services near Nikiski. The industrial park could include: office space, commercial office buildings, and industrial buildings.
2. **Near-Term:** Request the Alaska Department of Environmental Conservation provide annual updates on air, soil, and water quality monitoring in Nikiski marine and uplands areas.
3. Consider planning and platting standards conducive to industrial park facilities.
4. Work with state and federal regulatory agencies to protect public health and the environment in the borough.

REFERENCES

- Alaska Department of Labor and Workforce Development. *Alaska Oil and Gas Workforce Development Plan 2014-2018*. 2014.
- Alaska Department of Labor and Workforce Development. *"Forecast for Industries and Occupations 2014 to 2024*. October 2016.
- Anchorage Daily News. *"ConocoPhillips moves toward shutting down Kenai LNG facility that once blazed trail."* DeMarban, Alex. July 16, 2017.
- Kenai Peninsula Borough. *Kenai Peninsula Borough Comprehensive Plan*. 2005.
- Kenai Peninsula Borough community and Economic Development Division. *Nikiski Industrial Park Feasibility Study*. 2002. Prepared by Northern Economics, Inc. in association with Tryck Numan Hayes, Inc.; Shannon & Wilson; Caren Mathis Associates; HDR Alaska, Inc.; RISE Alaska.
- Kenai Peninsula Borough Economic Development District *"2016 Kenai Peninsula Situations and Prospects Executive Summary"*. May, 2016.
- Personal interview with Kenai Peninsula Borough Chief of Staff Larry Persily. ASRC Energy Services, Alaska, Inc. April 7, 2017.
- Alaska LNG Project, Permitting Status. <https://www.permits.performance.gov/permitting-projects/alaska-lng-project>. Accessed December 4, 2017.

¹¹ Interview with DOT Planner Joselyn Biloan,



FOCUS AREA: TOURISM AND RECREATION

HEADLINES

Tourism is a key growth sector of the region's economy.

Out-of-state travel to Alaska continues to grow following the 2008 national recession, with record numbers of statewide visitors in 2015 and 2016, and tourism in the borough increasing faster than the state in 2015 (Table 7). Visitor spending is responsible for 25 percent of the Borough's collected sales tax. Gross sales from visitor-industry related business in the borough increased ten percent between 2012 and 2016, rising to \$276 million in 2016, and visitor industry employment and wages had a sixth consecutive year of growth in the borough in 2016.¹²

Visitor interests and local opportunities continue to evolve. King salmon runs fell sharply earlier in the decade, impacting resident harvests and businesses catering to sportfishing enthusiasts.¹³ At the same time, local businesses are shifting to serve alternative and new visitor interests and activities, such as wildlife viewing and biking. Flexibility on the part of businesses and public lands managers will be critical going forward. Table 8 summarizes economic growth and impact in the Kenai Peninsula Borough economy.

The Kenai Peninsula Borough is ideally positioned to further increase regional tourism and recreation opportunities. Known as "Alaska's Playground," the Kenai offers a remarkable array of tourism and outdoor recreation experiences.

The Kenai Peninsula Tourism Marketing Council, local chambers and individual businesses continue to actively promote local attractions. While strong today, much more could be done to expand the region's outdoor recreation amenities. Local improvements are important as competing destinations around the globe continue to upgrade their attractions, and Alaska's statewide marketing budget, which increased in FY17 from \$1.5 to \$3.0 million, remains near the bottom of all U.S. states. Expanding visitation outside of the busy summer season is key to creating more tourism-related jobs that pay a living wage.

Table 7. Growth in Annual Visitors to Alaska, 2010 to 2016

Year	Numbers
<i>Summer Visitors</i>	
2010	1,532,000
2013	1,694,000
2014	1,660,000
2015	1,780,000
2016	1,858,000
<i>Year-round Visitors</i>	
2015-16	2,070,000

Source: Alaska Visitor Statistics Program VII

Table 8. Tourism Economic Indicators, 2015

Tourism Jobs	
Monthly Average	2,600
Summer Peak	3,700

Tourism Spending Growth	
Guided land tours	+26%
Guided water tours	+7.8%
Accommodations	+7%
Food and drink	+10%
Sales tax revenue	+8.6%

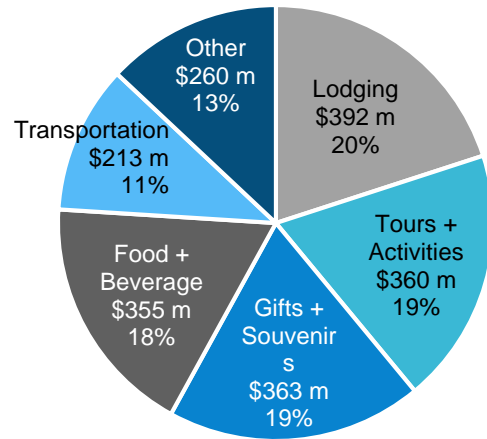
Source: KPEDD, 2015 Situations and Prospects Report

¹² Source: State of Alaska, *Economic Impact of Alaska's Visitor Industry*, 2014-2015 Update; Kenai Peninsula Economic Development District, *2017 Kenai Peninsula Situations and Prospects Reports*.

¹³ Kenai River Sportfishing Association, "Save our Kenai Kings" fact sheet, January 2014. Accessed April 2017.

Outdoor recreation industry is a sleeping giant in the U.S. economy. States around the U.S. are increasingly seeing the reality of outdoor recreation as one of the nation's most important industries, encompassing manufacturing, marketing, retail sales, restaurants, construction, as well as direct spending on tourism activities like a tour or cruise. Nine US states have now established cabinet level outdoor recreation advocates to help build bridges between outdoor recreation sectors and provide high level advocacy for outdoor recreation industry projects and programs. Recent research by the Outdoor Industry Association documented that the outdoor recreation in the U.S. generates \$887 billion in consumer spending and 7.6 million jobs.¹⁴ Figure 11 summarizes visitor spending in Alaska for 2014-2015.

Figure 11. Visitor Spending by Category in Alaska, 2014-2015



Source: Alaska Visitors Statistics Program VII

Managing tourism growth to benefit visitors and residents. The same recreation improvements that can make the Kenai more attractive to tourists (such as improvements like better access to public lands, better trails, more winter recreation options, attractive and walkable communities with year-round activities) can also bring real quality of life and health benefits to residents. At the same time, guiding the intensity and locations of tourism activities can reduce the occasionally less desirable side effects of tourism.

WHERE HAVE WE BEEN, WHERE ARE WE NOW? WHERE ARE WE HEADED?

Tourism and hospitality are major parts of the Kenai region's economy, and represent the second-largest private employment sector after healthcare. While supporting many jobs, tourism operations are highly seasonal, and many jobs are relatively low paid. On a positive note, average monthly wages to Kenai Peninsula tourism/hospitality workers increased by \$92 or 5.2 percent in 2016, a year when inflation was 2.1 percent.¹⁵

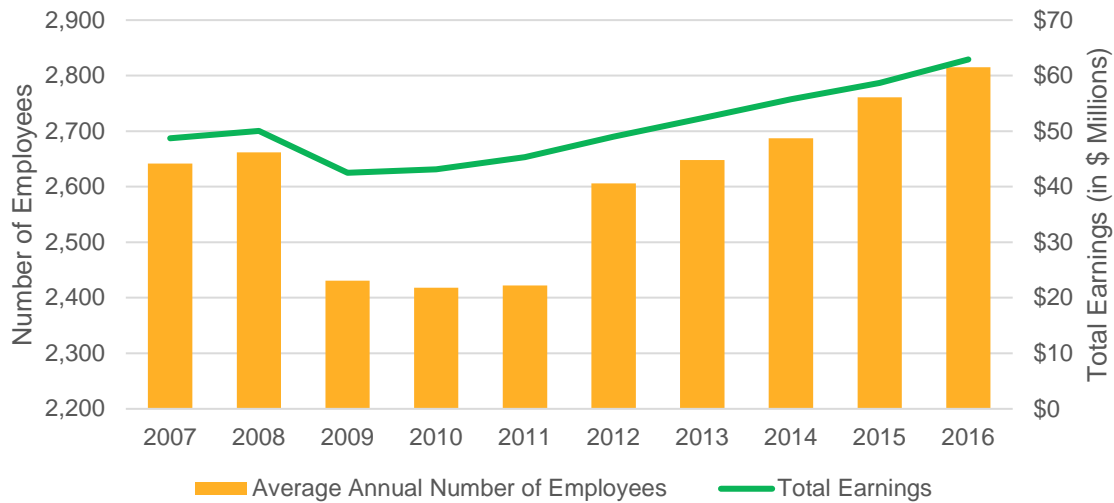
Tourism: Mature industry, new opportunities. The Kenai Peninsula Comprehensive Economic Development Strategy (CEDS) identifies tourism as a "mature" industry in the region, defined as an economic sector with large positive impacts but modest or negative overall growth. More recent data convey a different story: the tourism sector grew around Alaska in recent years, and in 2015 grew faster in the borough than Alaska overall.¹⁶ Similar growth occurred in 2016, as the U.S. economy grows and more vacationers choose Alaska. The KPEDD 2016 and 2017 Kenai Peninsula Situations and Prospects Reports also show significant recent year-to-year growth in Kenai tourism spending and jobs and wages (Figure 12).

¹⁴ Outdoor Industry Association, "Outdoor Recreation Economy by State." <https://outdoorindustry.org/advocacy>.

¹⁵ Kenai Peninsula Economic Development District, *2017 Kenai Peninsula Situations and Prospects Reports*.

¹⁶ Kelly Sullivan, "Trends 2016: Kenai Peninsula tourism outpaces state." *Peninsula Clarion*, March 29, 2016. <http://peninsulaclarion.com/trends/2016-03-29/trends-2016-kenai-peninsula-tourism-outpaces-state>.

Figure 12. Growth in Kenai Visitor Industry Employment and Wages, 2007 to 2016



Source: Alaska DOLWD QCEW, 2007 to 2016, from KPEDD, *2017 Situations and Prospects Report*

Subcategories within tourism activity. The Kenai attracts a healthy, balanced mix of in-state and out-of-state visitors. Most Kenai Peninsula visitors are independent travelers, or travelers who are not on a package tour. While summer dominates, winter activities are increasing, including snowmachining, backcountry skiing, biking, and dog sledding. Summer activities range from independent fishing, hiking, shopping and sightseeing, to full-service packages such as cruise travel and guided trips, to organized day activities such as wildlife viewing tours, fishing or flightseeing. A year-round calendar of festivals and events attract statewide and even international attention.

Cruise passenger volume increased slightly in 2015 from the previous year, due in part to major operators using larger-capacity vessels. In 2015 the communities of Homer and Seward together received 201,540 visitors, or one-fifth of Alaska's total cruise passengers. In 2016, the number of cruise ship passengers on the Kenai Peninsula was very slightly down with approximately 2,100 fewer passengers (a decline of 1 percent) compared to 2015. Cruise

Figure 13. Kenai Peninsula Fair



Figure 14. Skiing in Turnagain Pass



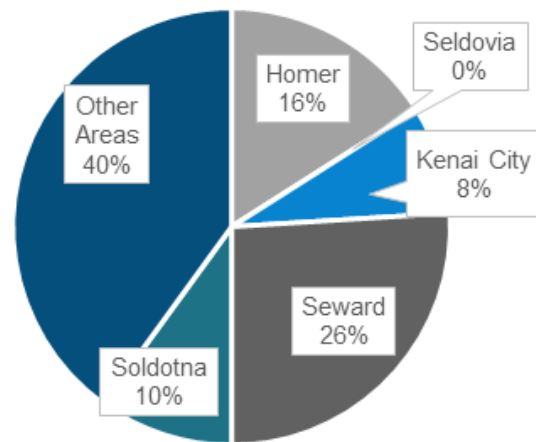
passenger numbers were steady in Seward, which receives higher visitation. In Homer, cruise passengers dropped from approximately 12,000 in 2015 to 9,700 in 2016.¹⁷

Uncertainty around the future of Kenai king salmon. Fishing remains the dominant tourist activity and the Kenai River is the most popular fishing destination in the state. Sportfishing licenses purchased by non-residents increased in 2015, despite an overall downward trend in Kenai sportfishing, for king salmon in particular, as poor returns in recent years have impacted the region.¹⁸ In 2013, central peninsula businesses reported big revenue declines (20 to 60 percent), and over the last decade many fishing businesses have closed.¹⁹ Facing less demand, local businesses have begun to diversify their offerings, expanding guiding tours and other attractions for visitors.²⁰ King salmon runs have been slowly recovering from those low years. See *Sportfishing section*.

Important local revenue source. Tourism brings money to governments as well as businesses, primarily in the form of taxes and fees. The Borough levies a three percent sales tax, with approximately \$30 million in revenue collected annually; some cities in the borough also collect local sales tax.²¹ About one quarter of total sales tax revenue is attributed to tourism and visitor spending, or \$7.5 million annually. Figure 15 illustrates where this money is spent locally. The Borough does not currently levy a bed tax.

Since the State's cruise passenger vessel (CPV) excise tax was enacted in 2007, the Borough is one of 17 local governments that receive a portion of the revenue, generated from cruise ship dockings in Seward and Homer. The total tax is \$34.50 per passenger per voyage, of which local governments receive \$5 for vessels docking in their communities. The Borough receives approximately \$475,000 in annual excise tax revenue but redistributes funds to the two cities as grants for port-related capital improvement projects.²²

Figure 15. Estimated Visitor Spending (Gross Sales Revenue) in Kenai Peninsula Borough, 2015



Source: KPEDD, *Kenai Peninsula Borough Economic Development Strategy (CEDS)*, 2016

¹⁷ Alaska Department of Commerce, Community and Economic Development, *Commercial Passenger Vessel Excise Tax: Community Needs, Priorities, Shared Revenue, and Expenditures, FY 2007 – 2016*. February 2017.

¹⁸ McDowell Group, *Alaska Visitor Statistics Program VI: Summer 2015*.

¹⁹ Kenai River Sportfishing Association, "Save our Kenai Kings" fact sheet, January 2014.

²⁰ Kelly Sullivan, "Trends 2016: Kenai Peninsula tourism outpaces state." *Peninsula Clarion*, March 29, 2016. <http://peninsulaclarion.com/trends/2016-03-29/trends-2016-kenai-peninsula-tourism-outpaces-state>.

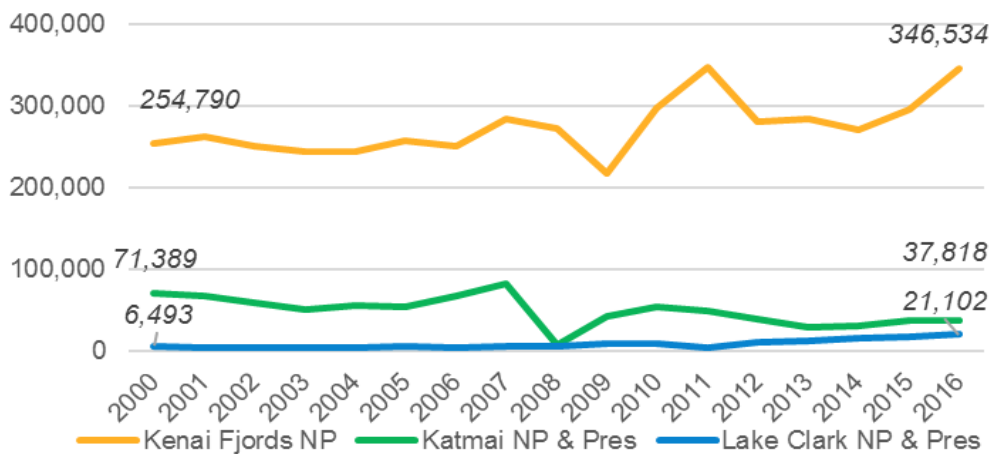
²¹ Alaska Department of Revenue, *Alaska Taxable* 2014, 2015, 2016.

²² Communities located within boroughs receive half, or \$2.50 of the per-head tax, with the borough receiving the other half. Alaska Department of Commerce, Community and Economic Development, *Commercial Passenger Vessel Excise Tax: Community Needs, Priorities, Shared Revenue, and Expenditures, FY 2007-2016*, Feb. 2017.

Kenai Peninsula Borough attractions have remarkable diversity. Visitors and residents alike seek out the Kenai Peninsula for its amazing variety of activities, destinations and environments, from small, rural towns on and off the road system, to wilderness fiords, remote mountain lakes, and world-renown fishing. Few areas in Alaska, or the country, can offer such a rich and accessible mix of alpine and coastal wilderness, most of which is held in public ownership. Common amenities on public lands include day use areas, maintained trails or recreation areas, overnight camp sites for tents and RVs, and rental cabins.

Specially-designated lands are big attractions in the Kenai Peninsula Borough. All three national parks in the region (Kenai Fjords, Katmai and Lake Clark) are seeing growth in annual visitation (Figure 16). Kenai Fjords had a record year in 2016, a 14 percent increase over 2015, and has become a major economic engine in Seward since its formation in 1979.

Figure 16. Growth in Visits to National Parks in Kenai Peninsula Borough, 2000 to 2016



Sources: U.S. Department of Interior, National Park Service, Annual Park Visitor Statistics.

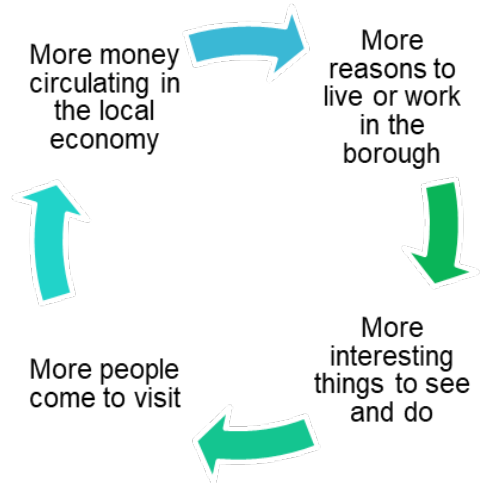
In addition to National Parks, the borough is home to a group of state-owned, legislatively designated special areas. These parks, refuges and critical habitat areas have been set aside for their unique habitat, hunting, fishing and recreational characteristics. They are managed for specific purposes under individual management plans, working with local advisory boards. These areas provide important contributions to the borough's environmental quality, recreational opportunities, and the regional economy.

- Kachemak Bay State Park, Kachemak Bay State Park and Wilderness Park, as well as the cooperatively-managed Kachemak Critical Habitat Area.
- McNeil River State Game Refuge and Sanctuary; Kamishak Bay Special Use Area
- Redoubt and Trading Bay Game Refuge and Critical Habitat Areas
- Kalgin Island

Tourism and recreation: measurable and intangible benefits. Tourism is often measured by its economic benefits, while recreation is usually associated with resident quality of life, but both are important contributors to a community's economy (Figure 17). Tourism and outdoor recreation generate a wider range of economic benefits than has been recognized in the past. Direct

economic impacts include spending by out-of-state travelers, but other economic impacts of outdoor recreation can also be measured, including activities like manufacturing and sales of recreation gear; construction and maintenance of visitor lodging and shops; costs to purchase and maintain boats, vans and aircraft serving visitor travel needs; and the support for hospitality services, from laundry to printing. Amenities like trails, parks and recreational facilities enhance the life of a community, which in turn makes it a more desirable place to live, work or visit. Many of the region's natural assets and existing facilities contribute to tourists' experiences during their short stays, but also attract residents who value the Kenai's lifestyle options. Similarly, tourism spending supports restaurants and shopping that in turn are enjoyed by residents. Increased recreation activities generate direct and indirect economic impacts for the whole region.

Figure 17. Cyclical Benefits of Tourism in the Local Economy



TOURISM AND RECREATION OBJECTIVES AND STRATEGIES

What We've Heard

General satisfaction with tourism and recreation opportunities in the borough. Public views about recreation and tourism were captured through a range of outreach actions that took place during the preparation of this plan. Results are summarized below in Table 9, with a focus on feedback from the 2017 Comprehensive Plan resident survey.

What is the best thing about living in the Kenai Peninsula Borough?

Probably the setting and environment the scenery the activities the clean air, wildlife, fishing and the bay.

I would have to say the fishing, you can go out to the creek, catch a king salmon and have dinner for 10 days.

The reason we're on the Kenai Peninsula is for sportfishing.
If it wasn't for that, we wouldn't be here.

Best aspect is access to outdoor activities.

I like that my kids can enjoy the outdoors.

Hiking and camping, and in the winter you can ski.

Off-roading, ATV, and street bikes.

It's peaceful here and we do what we want.

The wildlife and the beautiful scenery, it's why I'm so happy with where I live.

2017-2018 KPB Comp Plan Survey Participants

What is the most challenging thing about living in the Kenai Peninsula Borough?

There is a lot of summer work that shuts down in the fall. There is not much work in the winter time. We need more competitive wage, higher-paying jobs so that people can live here throughout the year.

Probably during the fishing season where the traffic is super bad and the RVs act like they own the roads.

Summertime tourists, there are half a million in a two-month period, there are too many and we don't have anywhere to put them.

2017-2018 KPB Comp Plan Survey Participants

Table 9. Survey Respondents' Grade for Quality of Recreation Facilities and Other Amenities

Grade	Count	Percent	Amenity	Average Grade	Average Score (0 to 4)
<i>Recreation Facilities</i>					
A	151	25%	Clean Air	A	3.62
B	188	31%	Abundant Fish and Wildlife	A-	3.36
C	129	22%	Clean Water	B+	3.19
D	67	11%	Trail System	B+	3.12
F	41	7%	Ability to Enjoy the Outdoors	A-	3.49
Not sure	24	4%			

The amount and local benefits of tourism depend on a combination of the factors, including the quality and affordability of regional attractions (and of competing destinations), the scale and effectiveness of local and state marketing, and the condition of the Alaskan and national economics. National prosperity can greatly affect local visitation, as was shown during the 2008-2011 U.S. recession when lower spending and consumer confidence at the national level significantly reduced travel to Alaska. As the economy has recovered, visits and jobs have rebounded. Given these variables, particularly the fact that the Borough can't control the state and national economy, and that the borough competes for travelers and residents with destinations around the world, below are goals that can be addressed at the regional level.

The section below includes an extensive list of strategies for improving tourism and recreation in the borough. Priorities should include expanding local capacity to develop and maintain needed improvements such as trails, facilities and other amenities.

Note: "Near-Term" strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Support outdoor recreation and tourism opportunities for a wide range of users, to create a strong, enduring borough economy and support resident health and quality of life.

Most challenging thing? Local employment, being able to work in the borough.

2017-2018 KPB Comp Plan Survey Participant

Tourism markets continue to evolve. The average age of national park visitors continues to rise; at Yellowstone National Park it is 54 years old, at Denali National Park, 57.²³ In the past decade, the number of visitors younger than age 15 visiting national parks has fallen by half. Likewise, interest in fishing nationwide and in Alaska is changing. While out-of-state license sales are

²³ www.cnn.com/2015/03/19/us/im-national-parks-older-visitors-morgan./index.html

growing as total visits to Alaska increase, sales to in-state residents are flat or even declining. Continuing to attract visitors to the borough, and the money they spend, will require meeting these evolving market trends.

Strategies

1. **Near-Term:** Work with partners to better meet demand for outdoor recreation opportunities across a wide spectrum of interests and markets.

This may include:

- a. Diverse traveler motivations: recreation/tourism, business, visiting friends and relatives, and conference-driven travel. Work to attract both in and out-of-state visitors, independent and package travelers, guided and unguided adventures.
 - b. Provide great experiences throughout the year, with the specific objective of increasing fall/winter/spring visits.
 - c. Provide opportunities for people of all ages and abilities, including people with disabilities, and incorporate these differing needs into design of amenities.
 - d. Focus on improvements that attract visitors *and* improve quality of life for residents.
 - e. Offer a range of experiences, from intense adventure, to easy hikes and in-town walks; from luxury lodging to attractive affordable campgrounds; from busy destinations to remote wilderness.
 - f. Market to “amenity migrants.” This term describes people who pick where to live and work based on the quality of life. Examples include second home owners and retirees, as well as young residents and businesses who chose to live in the borough because of its scenery, open space and recreation opportunities.²⁴
 - g. Market to new kinds of travelers. One example, growing around the world, can be labeled “agriculture/food tourism”. Familiar examples include destinations with reputations for exceptional wine, cheese or other specialty foods. An emerging category is the opportunity to earn lodging and food in exchange for working at a small farm or ranch.
2. Support opportunities for the “missing middle” of the outdoor recreation spectrum.
This is the portion of the market looking for short-term, convenient, active and often affordable adventure but wants to end the day in comfort. While Alaska offers vast opportunities for extreme adventure and has very well-developed infrastructure for large volume package tourism (Ketchikan, Juneau, Skagway, Seward), our state is much weaker serving the strong demand for the “missing middle.” The borough offers more of these experiences than much of Alaska, but much more could be done to attract new visitors, extend stays and increase spending:
 - a. Signature trails with the widths, surfaces, signage and other amenities that makes them accessible to the less adventurous, mainstream Alaska visitors. *Example:* improvements proposed to the Iditarod Trail system.

²⁴ America's fastest growing towns are driven by amenity-based growth. For more: Headwaters Consulting, https://headwaterseconomics.org/wp-content/uploads/Rasker_2008_Managing_Amenity_Migration.pdf

- b. Hut-to-hut cabin and trail systems, preferably with huts/cabins or in-town lodges that provide food and beverages at cabins.²⁵
 - c. Further expansion of the state and federal systems of public use cabins.
 - d. More support facilities for winter recreation: better trails, cabins, warming huts, access to trails from in town lodging for skiing, snowmachines and fat tire bikes.
3. Support improved opportunities for winter and the spring and fall “shoulder seasons” as a strategy to expand tourism’s local economic benefits.
- Expanding fall/winter/spring tourism opportunities can help create more fulltime jobs. Options to pursue this goal include expanding snowmobiling, cross-county and backcountry skiing destinations, and more and better-marketed snow season events.

Objective B. Improve recreational trails, recreational access and mobility.

Keep existing trails in public use as the borough develops and land is increasingly subdivided and improved.

2005 Kenai Peninsula Borough Comprehensive Plan

Strategies

1. **Near-Term:** Support improved access to public lands.

In a borough where more than 85 percent of land is in federal or state ownership, it is not surprising that one of the strongest views expressed by the public was to expand access to public lands. Reaching this objective requires a multi-pronged approach, with partnerships between the borough and different public and private land owners, and with user groups and local businesses who can contribute volunteer labor and other resources. Specific categories of strategies to improve access:

 - a. Physical improvements: reserve and improve trails.
 - b. Legal access: working with state and federal land managers, evaluate and where possible modify rules and regulations, e.g., opening new areas to motorized access, bikes.
 - c. Improve road access to recreation trailheads as starting points for backcountry access where snow cover is available for winter recreation.
2. **Near-Term:** Implement existing strategies and recommendations in the Kenai Peninsula Borough Trails Plan (1998).
 - a. The Borough will begin taking a more active role in trail development and management, working with public agency and non-profit partners, including:
 - i. Implementing and updating (as needed) the Borough’s 1998 Trails Plan.
 - ii. Reestablishing a Trails Commission, in accordance with the 1998 plan.
 - iii. Evaluating options for the Borough to take on expanded authority to act on trail issues.
 - b. Identify a limited number of high priority/high value trail improvements, and where partners are available to help make these projects a reality. Examples:

²⁵ “Last year, nearly 120,000 people hiked New Zealand’s ‘nine great walks’; a 12.4% increase on the season before and nearly 50,000 more than a decade ago.” <https://www.theguardian.com/world/2018/jan/22/worlds-finest-walk-new-zealands-milford-track-spoilt-tourists>

- i. Iditarod Trail: a priority of many state and federal agencies and organizations.
 - ii. Hope Cutoff road side trail: a project being advocated by the Kenai Mountain Turnagain Arm National Heritage Area.
 - iii. Kachemak Bay State Park trails: work in progress by the State Department of Natural Resources.
 - iv. Other ideas identified during the planning process: fat tire bike winter trails; summer mountain bike loop trails out of Cooper Landing; snowmachine routes from community to community.
- c. Create a better-connected trail network, for motorized and non-motorized users, increasing access within and between communities, and connecting communities to recreational destinations.
 - d. Improve partnerships between agencies, non-profit trail organization and trail users/volunteers.
 - e. Protect and improve public access to rivers for fishing while protecting streambank vegetation, such as the boardwalk at the Russian River campground (Figure 18).
 - f. Resolve priority private land trespass and access issues using easements or formal agreements. Many informal trails cross private property or are otherwise unprotected. Some communities conduct trail planning within their own boundaries, and agencies are working to improve and protect access to rivers and streams for fishing. A stronger Borough role and more regional coordination could expand trail networks, increase connectivity through the region, and establish agreements with major land owners.
3. Look for partnerships to improve the full array of transportation infrastructure that makes it easier and safer to enjoy borough recreational resources. Examples include:
- a. Encourage increased water access through boat launches and harbor facilities.
 - b. Advocate to maintain quality service for the Alaska Marine Highway system.
 - c. Encourage partners in the tourism industry to develop and market new options for travel between communities, such as transportation connections from Seward to the Central Peninsula for cruise visitors.

Figure 18. Russian River Campground Boardwalk



Objective C. Protect the quality of recreation and tourism destinations and resources.

Strategies

- 1. Be good stewards of natural places: waters, landscapes, habitats. *See Land Use section for more strategies in this area.*
- 2. Manage tourism to minimize impacts on communities and residents.

Tourism can disrupt the daily lives of residents. One solution for addressing these issues is use of local tourism management plans, which identify the intensity and types of tourism activities that communities support and that create benefits, like jobs and tax revenues, while also managing the downsides of tourism growth. For example, a visitor-oriented tourism map may identify some, not all, recreational areas valued by residents.

Objective D. Expand the recreation and tourism appeal of borough communities.

The world's most popular tourism activity is strolling through concentrated, walkable areas with shops, bars, restaurants, interesting buildings and attractive sidewalks and plazas. Opportunities to expand these types of community destinations should be explored, where consistent with local goals. This strategy is relevant in both incorporated and unincorporated communities.

Strategies

1. **Near-Term:** Create concentrated and walkable mixed-use town centers with policies that encourage and support density.

These include providing sidewalks and management of visitor parking, including potential off-site parking lots, which allows buildings to be sited closer together. Demand is strong for communities where a day of fishing, biking, snowmachining or skiing starts and ends in a location that offers a walkable mix of dining, shopping and lodging, providing a warm bed, shower, internet access and good food and drink.

2. Invest in quality public spaces and public space amenities: sidewalks, benches, street art, plazas, parks and gathering places.
3. Support incentives, such as façade improvement programs for private businesses to create more attractive buildings.
4. Provide different ways to conveniently, safely get from downtown cores to natural areas and open spaces. These can include trails for walking, biking, skis and snowmachines, as well as shuttle vans and bus services.

Objective E. Expand recreation and tourism marketing, education and job training opportunities.

Strategies

1. **Near-Term:** Improve marketing of Kenai Peninsula Borough as a destination.

Regional-scale cooperative marketing serves the valuable role of attracting visitors to the region and its primary attractions, giving them a big picture view of travel opportunities, and providing valuable advice about the many attractions available beyond what individual businesses can provide. Likewise, state-scale cooperative marketing has a big impact on the number and types of visitors coming to Alaska. Alaska's marketing budget has been greatly reduced, declining 90 percent in the last 3 years, from \$16 to 18 million annually, to \$3 million in 2018. Alaska now ranks 50th among U.S. states in marketing spending.

A robust regional marketing program is needed, particularly if the state program remains underfunded. Examples include:

- a. Create more sustainable, predictable funding for borough tourism marketing.
- b. In addition to marketing fee-related activities such as purchased tours or lodging, provide information about the borough's destinations and experiences, including low cost or free public recreation attractions.

- c. Develop partnerships with other marketing entities: regional and statewide organizations, trade associations, and individual businesses.
 - d. Develop materials with themed itineraries or sets of activities, such as multi-day excursions for hiking or biking, snowmachining, or kayaking in the region.
 - e. Focus efforts on developing a single, signature destination trail, such as the proposed Iditarod system, that can draw visitors worldwide.
2. Partner with education and workforce development entities to increase available workforce training and entrepreneurial support, including skills needed for the visitor industry and coaching for starting a new business.
 3. Engage in education and advocacy about the benefits of the recreation and tourism economy for residents, landowners, businesses and policymakers.

Objective F. Actively build partnerships needed to maintain, improve or expand recreational and tourism facilities and amenities in the borough.

The Borough cannot on its own address all the tourism and recreation opportunities and challenges in the region, nor can public agencies with constrained or declining budgets, who are also looking for partnerships with communities, non-profits and businesses, to achieve shared goals. Examples of potential partnering activities for the Borough include improvement and maintenance of trails and public use cabins, sponsoring events, and shared use agreements for public facilities.

- Kenai Peninsula Tourism Marketing Council
- Kenai River Sportfishing Association
- Local Chambers of Commerce
- U.S. Department of Interior, National Park Service
- U.S. Forest Service, Chugach National Forest
- U.S. Fish and Wildlife Service
- State of Alaska Department of Fish and Game
- State of Alaska Department of Natural Resources

Strategies

1. **Near-Term:** Build stronger partnerships with public land managers to guide plans for use of public land and infrastructure improvements.
2. **Near-Term:** Explore the possibility of mini-grants or other public funding to local community and non-profit user groups, that can be used to incentivize local fundraising, volunteer work and partnerships, and provide matching funds leveraged in other grants.
3. **Near-Term:** Find ways to match growing demand for recreation services with comparable increases in local resources and local funding.

This is critical if the Borough wants to increase outdoor recreation/tourism jobs and at the same time help sustain community support and the quality of tourism destinations. Proven options include:

- a. Create local recreation improvement districts to collect revenue that covers maintenance or operations costs for facilities such as public restrooms.

- b. Consider expanding the Borough's recreation authority beyond existing service areas. There are localized recreation service areas the Borough currently does not exercise recreation powers throughout the borough. Expanding recreation powers boroughwide could set the stage for more attractions for residents and visitors, for more visitors and visitor spending, and more sales and property tax to cover these costs.
- c. Use this plan as a tool for seeking out grants from a range of sources. *Example:* the Sitka Sustainable Outdoor Recreation Plan has been leveraged for several million dollars in grant funding for local trail improvements.



FOCUS AREA: SPORTFISHING

HEADLINES

Unique resource and big value. The Kenai Peninsula Borough hosts a combination of attributes unique in Alaska and the world: major highway access from population centers and airports, coupled with extraordinarily rich, productive freshwater and marine sportfishing. Upper Cook Inlet supports Alaska's largest and most economically valuable recreational and personal use fisheries, along with a nationally significant commercial fishery. Placing a dollar value on the sportfishing industry is challenging given only one portion of that activity, gross sales from guided sportfishing-related sales, is directly measured. This guided portion of the sportfishing market has grown steadily in the last five years. In 2016, guided sportfishing generated just under \$70,000,000 in sales. The total income generated by Kenai Peninsula Borough fresh and saltwater fishing, including guided, non-guided and personal use fishing, was estimated to be just over \$100 million in a 2008 report by the Kenai River Sportfishing Association, a number that has increased since that time.²⁶

Figure 19. Cleaning Salmon, Kenai River



Watersheds, not just streams and rivers. The Kenai Peninsula encompasses 14 major watersheds and contains over 20,000 miles of stream habitat as well as more than 350,000 acres of wetland habitat. This largely intact, hydrologic and habitat system, from snow-covered peaks and glaciers, to remote upland valleys, to the runoff, rivulets and small streams from wetlands, forests, and urbanized areas, together supports the diversity of salmon and other species that makes the borough a premier, world-renown destination, for both residents and out-of-state visitors.

Proactive land and resource management in a changing world. The Kenai Peninsula, and the entire state of Alaska, stand out among competing national and global locations for healthy sportfish populations, populations that have declined dramatically in most other parts of the world. A range of factors can harm the natural systems that support healthy fish populations. These include ongoing land use and development pressures, which the borough can and already does directly affect. Other potentially more profound impacts are harder to control. These include invasive aquatic species and climate change. The Borough has a foundation and starting point for protecting fish habitat through a combination of Borough and State regulatory tools; robust educational, marketing and conservation activities; and programs supported and implemented by

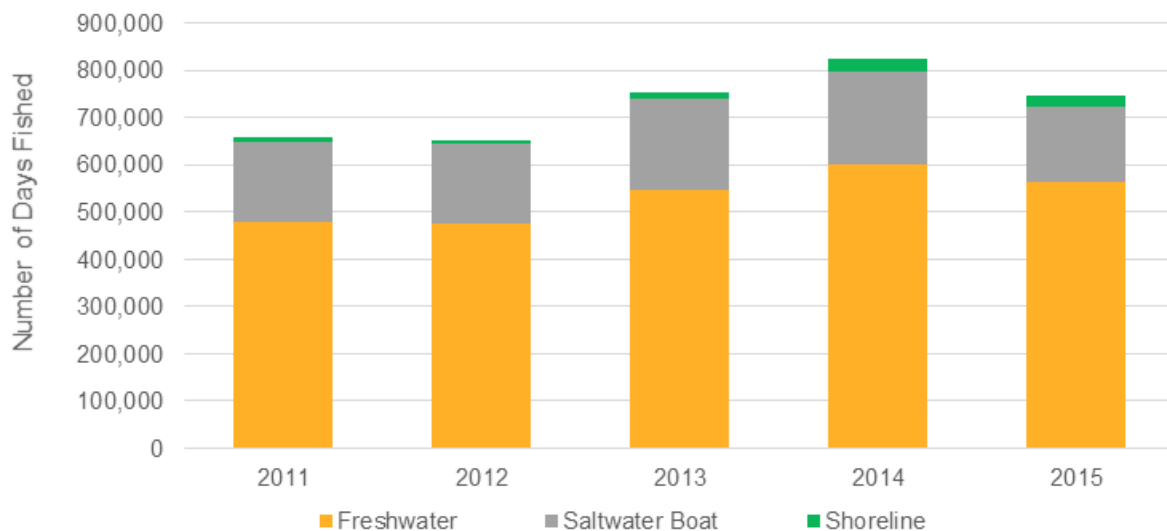
²⁶ Kenai River Sportfishing Association, *Economic Values of Sport, Personal Use, and Commercial Salmon Fishing in Upper Cook Inlet* (2008). Available at: <http://www.krsa.com/documents/KRSA%20Economic%20Values%20Report.pdf>

local and regional organizations and partnerships. These organizations and partnerships include the Kenai Peninsula Fish Habitat Partnership, Kenai Peninsula Tourism Marketing Council, Kenai River Sportfishing Association, Kenai Watershed Forum, Alaska Department of Fish and Game, and many others. Continuing active stewardship is vital to the sustainability of sportfish populations into the future. *See the Land Use section for more on habitat protection and potential regulatory tools.*

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

A shift in sportfishing trends, “Will millennials sustain sportfishing?” Nationwide and in Alaska, fewer people are fishing. The headline above is the title to a national study by the American Sportfishing Association, which concluded: “The proportion of millennials within the angler population decreased from 29 percent to 13 percent from 1980 to 2011. Without direct interaction via concerted marketing efforts by the sportfishing community, this trend might continue downward.”²⁷ Figure 20 illustrates the fluctuations in fishing activities by type. Table 10 shows a more promising trend, increasing demand for guided land and water tours in the region.

Figure 20. Kenai Peninsula and East Cook Inlet Sportfishing, Number of Days by Type, 2011 to 2015



Source: Alaska Department of Fish and Game

Table 10. Gross Business Sales from Guided Land and Water Activities, 2012 to 2016

Business	2012	2013	2014	2015	2016	1 Yr. Change 2015-2016	5 Yr. Change 2012-2016
Guiding Land	\$1,767,489	\$2,701,107	\$2,954,865	\$3,382,241	\$3,703,234	9%	110%
Guiding Water	\$57,773,657	\$60,368,575	\$59,567,601	\$65,036,445	\$67,961,054	4%	18%

Source: Kenai Peninsula Department of Finance, Tax Division

²⁷ http://asafishing.org/uploads/Technical_Report_Five_-_Millennial_Anglers_and_Cross-over_License_Buying.pdf

King Salmon: A story of the passion, big dollars and complexity of sportfish management.

Since Les Anderson landed a 97-pound Kenai king in 1985, the prized fish has been harder to find, and smaller. Today, much like the Columbia River, biologists fear we have diluted the large-fish gene pool of Kenai River kings to the point that it may take decades to recover—if it ever does.²⁸

Anchorage Daily News

Changes in numbers and sizes of king salmon returns illustrate the complexity and consequences of changes in sportfish resources. In the early part of this decade, king salmon numbers fell off sharply, with just over 1,500 fish returning up the Kenai River in 2013. For perspective, the mean average harvest of kings between 1974 and 1983 was 7,782 fish.²⁹ Opinions vary widely on the causes of these changes, ranging from sport and commercial overfishing, to climate change impacts on marine ecosystem, to disruption of habitats by human activity. The impact of declining numbers on people's freezers and the local economy is much less ambiguous. Hard numbers are not available, but according to local sources, at least 100 guides were lost due to the king salmon crisis, along with many hundreds of thousands of dollars in local spending and sales tax revenue.

Large but finite resource. Sometimes intense and consequential debates about allocations between Kenai Peninsula sport, personal use, subsistence, and commercial fisheries continue to dominate local and statewide headlines. Compared to other resource allocation issues, where conflicts can be reduced by expanding the amount of a resource available for allocation, that option is difficult with fish populations. The comprehensive plan has neither intent nor capacity to join the discussion of allocations between fisheries. This plan acknowledges the importance of these issues, and advocates for allocation decisions that build from a fact-based view of the contributions each fishery makes to borough resident livelihood (including subsistence activities), to the boroughwide economy and to local and regional food security and sustainability. Rational policy that maximizes the sustainable contributions of this finite resource will benefit residents, businesses, and visitors alike.

Partnerships and the Borough's role. The Kenai Peninsula Borough is one of many entities, including non-profit organizations, public agencies, and individuals, deeply involved in sportfishing conservation and management. Continued and strengthened partnerships will be critical in ensuring that sportfishing remains an important dimension of life on the Kenai.

²⁸ Mike Chihuly, "Alaska's mysteriously shrinking Kenai king salmon." *Anchorage Daily News*, February 25, 2017.

²⁹ Annual Performance Report for Kenai Peninsula Chinook and Coho Salmon Studies, ADF&G, 1985.

SPORTFISHING OBJECTIVES AND STRATEGIES

What We've Heard

Given the relationships between good water quality, healthy fisheries, and economic vitality related to sport and commercial fishing, protection of the borough's rivers and streams is essential and supported by most borough residents.

2005 Kenai Peninsula Borough Comprehensive Plan

Note: "**Near-Term**" strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Support opportunities for sportfishing, including personal use fishing, while protecting the resource.

Strategies

1. **Near-Term**: Improve access to fishing opportunities, both freshwater and marine, by developing a cooperative sportfishing strategic plan with Alaska Department of Fish and Game, Alaska Department of Natural Resources, federal land managers, private land owners, Native Corporations, Kenai River Sportfishing Association, and other partners.

Use the plan to develop strategies and resources for actions in the following areas:

- a. Improved freshwater stream bank fishing, particularly where this can reduce conflicts with waterfront private land owners and prevent damage to streambank habitat and vegetation.
 - b. Developed and/or improved facilities for better access, both freshwater and marine, such as boat launch ramps, parking areas, and fish cleaning stations.
Examples: a public boat launch at Funny River Road, or improvements on section lines along major rivers, Coho Loop Road, and Anchor Point beach boat launch.
2. **Near-Term**: Work with Alaska Department of Fish and Game to seek options to bolster sportfish populations.
 3. Work with Alaska Department of Fish and Game and tourism and marketing groups to better promote the wide array of fishing opportunities in the region.

Objective B. Protect and enhance the natural systems that support healthy sustainable sportfish habitats and populations.

Erosion, deposition and changes in course are natural events in a river's life cycle. However, human activities can alter the rate at which these events occur. Erosion in particular can cause problems when it occurs more rapidly than it would in an undisturbed system. Landowners can lose valuable property, fish lose critical habitat, and sediments deposited in river bottoms can prevent fish eggs from hatching.

Kenai River Center

The Land Use section presents actions for protecting and enhancing the ecosystems the support healthy sportfish populations. Key strategies include:

1. **Near-Term**: Protect the uplands, floodplains and headwaters of anadromous waterways.

2. Protect wetlands and similar watershed features that contribute to the flow and quality of waters necessary for healthy fish habitat.

Objective C. Support continued sportfish research, monitoring and education efforts.

Strategies

Commercial, sport and personal use fisheries are actively managed, and subject to difficult allocation decisions, which require access to the best possible data. This includes primary data about escapements, harvest, and participation, but also broader information. Examples include trends in habitat conditions and the economic impacts of fish-related activities. Budget reductions at the local, state and federal levels have led to significant cutbacks in spending to collect, compile and share this kind of information.

1. **Near-Term:** Work with public land managers to develop new approaches to collect sportfish-related data.
 - a. Meet with federal and state agency partners to develop a shared plan for compiling and sharing good information on topics including environmental changes, fishing activity days, economic impacts by recreational activity.
 - b. Support “citizen science” tools that provide quantitative data on changes in water flows, temperatures and other factors affecting fish resources.
2. **Near-Term:** Advocate for expanded and diversified funding for the Alaska Department of Fish and Game and other organizations and agencies to collect sportfishing data over time.
3. Collaborate on public education tools that increase resident and visitor awareness of the value of the sportfishing industry.
 - a. Expand information about conservation programs and incentives available to landowners in the borough, e.g., the Kenai Peninsula Borough Habitat Protection Tax Exemption Program, and Habitat Protection Tax Credit Program.³⁰
 - b. Gain greater support for a range of conservation and enhancement programs through clear explanation of the cultural, economic, and quality of life value of sportfishing for Kenai Peninsula and statewide residents.

³⁰ <http://www.kenairivercenter.org/river-center/restoration/funding-for-restoration>



FOCUS AREA: COMMERCIAL FISHING AND SEAFOOD HARVESTING

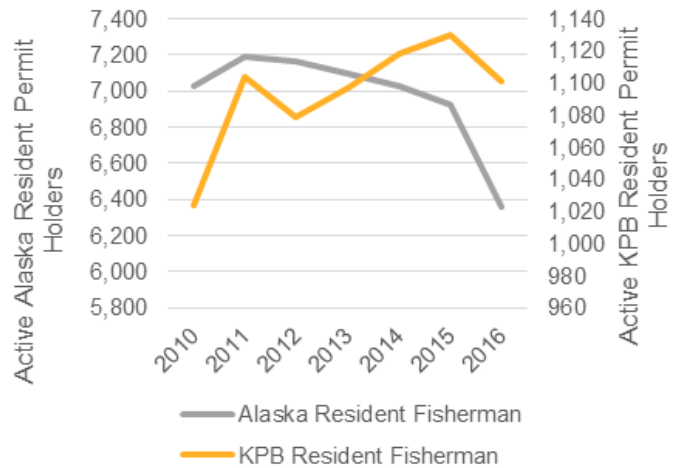
HEADLINES

The number of Kenai Peninsula resident fishermen has steadily increased as statewide resident figures have declined. Between 2010 and 2016, resident fishermen in the Kenai Peninsula Borough accounted for nearly 16 percent of all active Alaska resident permit holders. On average since 2010, the number of active Alaska resident permit holders decreased nearly 1.6 percent per year, which includes a decrease of 8.2 percent in 2016. Conversely, the number of active Kenai Peninsula Borough resident permit holders has increased 1.3 percent on average, notwithstanding a small decrease (2.6 percent) in 2016 (Figure 21).

Fishery earnings have been declining since 2013. Between 2010 and 2016, resident Kenai Peninsula fishermen accounted for 18 percent of all revenue generated by Alaska's active resident fishermen. Since 2013, revenue generated by residents of Alaska, including Kenai Peninsula Borough, have steadily fallen, reaching lows of \$517.7 million and \$90.2 million, respectively (Figure 22). The steady decline in earnings is largely due to fluctuations in commercial salmon fisheries.

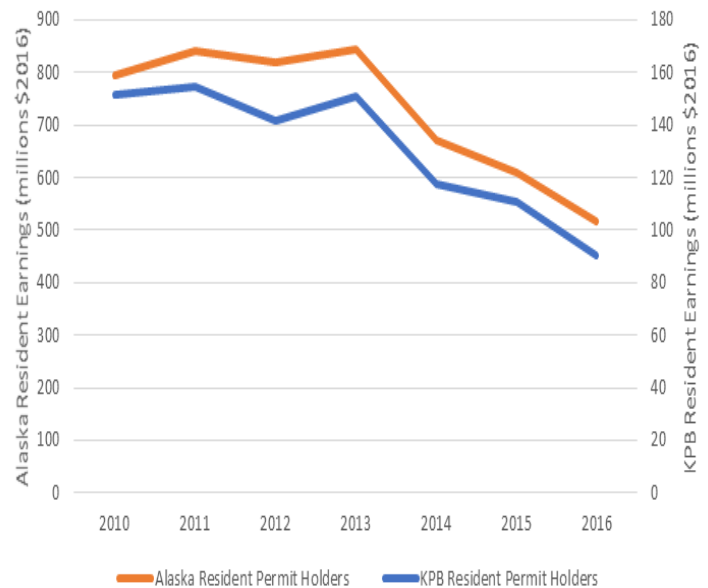
Seafood processing in the Kenai Peninsula Borough on downward trend. The number of establishments reported to be engaged in seafood product preparation and packaging in the Kenai Peninsula Borough was down to 20 in 2016, its lowest point since 2010.

Figure 21. Active Fishing Permit Holders, Kenai Peninsula Borough and State of Alaska, 2010-2016



Source: CFEC (2017b)

Figure 22. Revenue Generated from Active Fishing Permit Holders, Kenai Peninsula Borough and State of Alaska, 2010-2016



Source: CFEC (2017b)

Homer falls out of top 50 highest-valued ports of landing in the U.S. The City of Homer was listed as having the 47th highest-valued port of landing in 2012 and 2013. Homer did not make the list in 2014 or 2015.

Seafood processing employment and wages in the Kenai Peninsula Borough represent approximately four percent of seafood processing in the State of Alaska. Seafood processing employment and wages represent a similar proportion of all economic activity within the Kenai Peninsula Borough's private-sector economy.

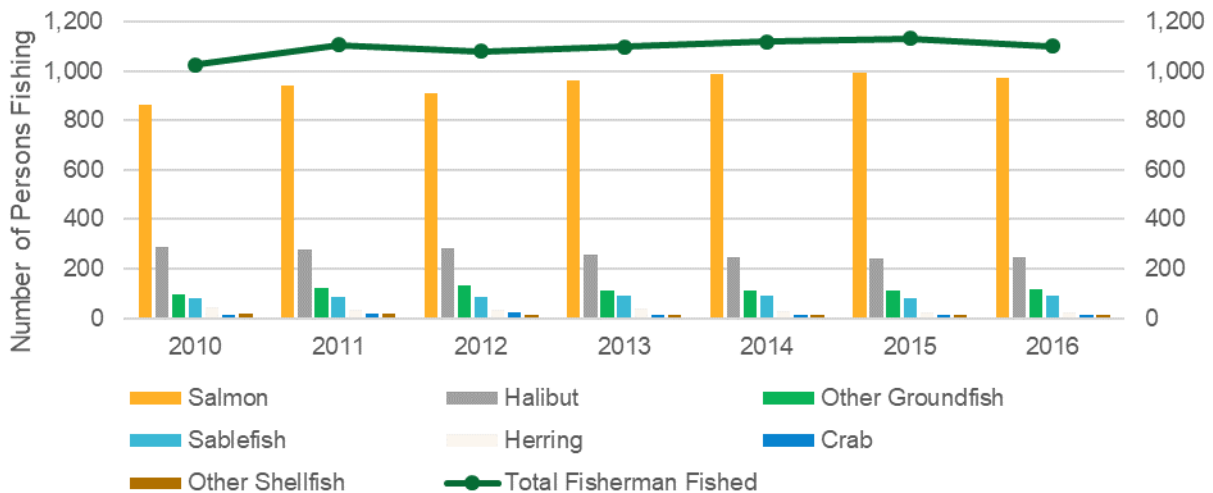
WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Commercial Fishing

Employment³¹

Resident fishermen of the Kenai Peninsula Borough actively participate in the fisheries of all five salmon species, halibut, groundfish, sablefish, herring, crab, and shellfish. The salmon fisheries combined represent the single largest fishery in which active resident Kenai Peninsula fishermen participate. Figure 23 summarizes the number of active fishermen residing in the Kenai Peninsula Borough by fishery, along with the total number of unique fishermen. The number of active resident fishermen in the Kenai Peninsula Borough has remained relatively steady since 2010, reaching a high of 1,130 in 2015. It should be noted the number of unique fishermen is not the sum of all fisheries, as many fishermen participate in multiple fisheries. For example, active resident fishermen participating in the salmon fisheries are also participating in one or more additional fisheries.

Figure 23. Active Fishing Permit Holders, Kenai Peninsula Borough, by species, 2010-2016



Source: CFEC (2017b)

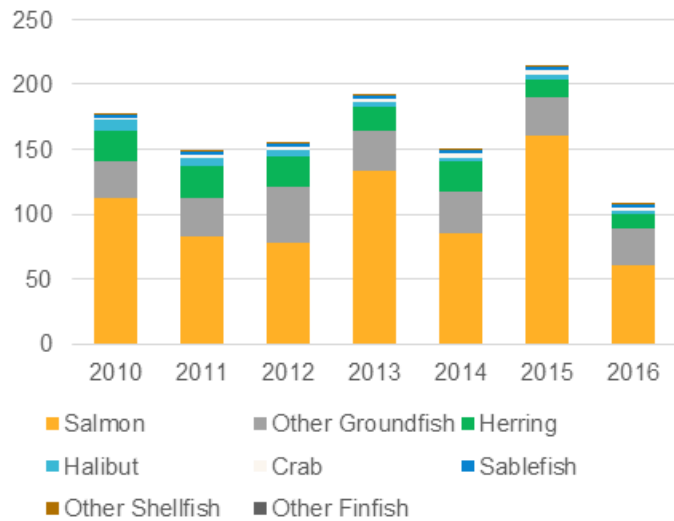
³¹ Does not include crew employment.

Landings

Between 2010 and 2016, active Kenai Peninsula fishermen accounted for 16 percent of all landings made by Alaska residents. However, the percentage of landings made by Kenai Peninsula residents of all Alaska resident fishermen has steadily declined since 2010, when Kenai Peninsula resident fishermen landed 22 percent of all landings made by Alaska residents.

Salmon, other groundfish, and herring represent about 95 percent of landings made by Kenai Peninsula resident fishermen. Figure 24 summarizes total landings made by Kenai Peninsula resident fishermen, by species.

Figure 24. Landings by Active Kenai Peninsula Borough Fishing Permit Holders, by species, 2010-2016

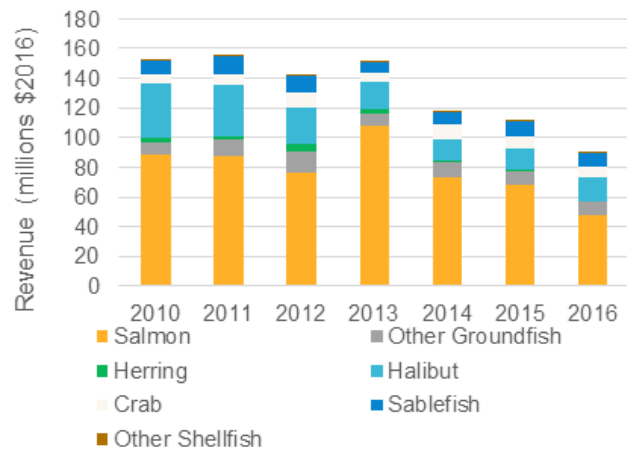


Source: CFEC (2017b)

Revenue

Between 2010 and 2016, active Kenai Peninsula fishermen accounted for 18 percent of all revenue generated by Alaska resident fishermen. Revenue generated by Kenai Peninsula fishermen comes primarily from salmon fisheries, with halibut the second largest revenue generating fishery (Figure 25). On average, the combination of salmon and halibut fisheries accounted for over 65 percent of revenue generated by Kenai Peninsula fishermen.

Figure 25. Revenue Generated by Active Kenai Peninsula Borough Fishing Permit Holders, by species, 2010-2016



Source: CFEC (2017b)

Total revenue generated from salmon fisheries has experienced recent declines. Total revenue generated by salmon fisheries in 2016 (\$48.1 million) was over 55 percent less than the peak in 2013 (\$108 million). Halibut also experienced rapid decreases in total revenue between 2011 and 2014 – also decreasing by over 57 percent. Revenue from halibut fisheries stabilized after 2014 but remains at less than half the amount generated in 2010.

Figure 26. Kachemak Gear Shed, Homer



Figure 27 summarizes price trends for Sockeye salmon and halibut since 2010.³² Sockeye salmon prices decreased over 57 percent from their high in 2013 (\$1.94/lb.) to \$0.84/lb. in 2015. The decrease in price, as well as harvest, have exacerbated the loss in total revenue generated by sockeye salmon fisheries. The price of halibut, on the other hand, has remained relatively stable, suggesting decreases in revenue are strictly a result of decreases in harvest levels.

Vessels

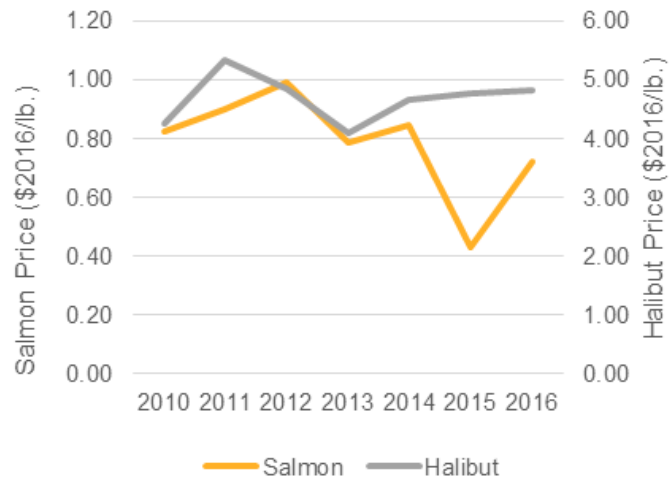
The number of registered commercial fishing vessels reporting the Kenai Peninsula Borough as their homeport is summarized, by length, in Figure 28. As shown, the total number of registered vessels has increased since 2010, reaching a high of 1,110 in 2016. In addition, the average age of those vessels has decreased from 48.7 years in 2010 to 38.2 years in 2016. Of the vessels reporting the Kenai Peninsula Borough as the homeport, 90 percent are between 25 and 49 feet. Of these vessels, roughly one-third are reported being 32 feet.

Fish Processing

Employment

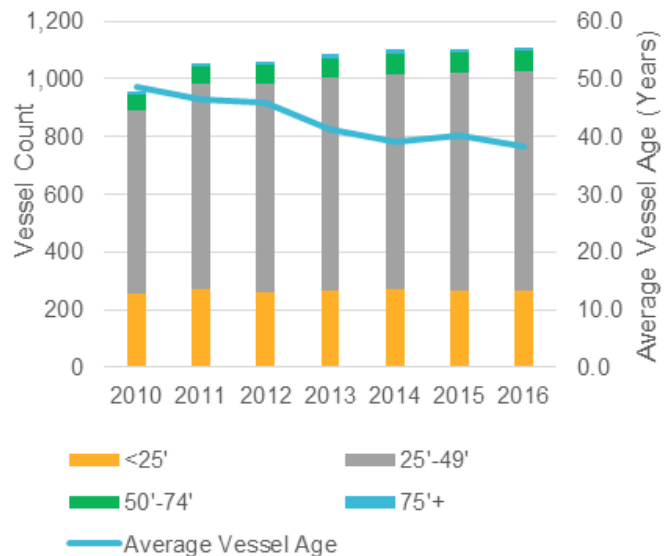
The Kenai Peninsula Borough is home to two of the top-50 largest ports in the United States in terms of value of landings. Seward and Kenai ranked 15th and 28th, respectively, in 2014 and 2015. The value of Seward landings reached \$53 and \$59 million in those years, while Kenai reached \$34 and \$30

Figure 27. Statewide Salmon and Halibut Prices, 2010-2016



Source: Northern Economics analysis using CFEC (2017b)

Figure 28. Count and Average Age of Registered Fishing Vessels, Kenai Peninsula Borough, 2010-2016



Source: CFEC (2017a)

³² Sockeye salmon prices are reported as sockeye represent the clear majority of salmon species harvested in Cook Inlet.

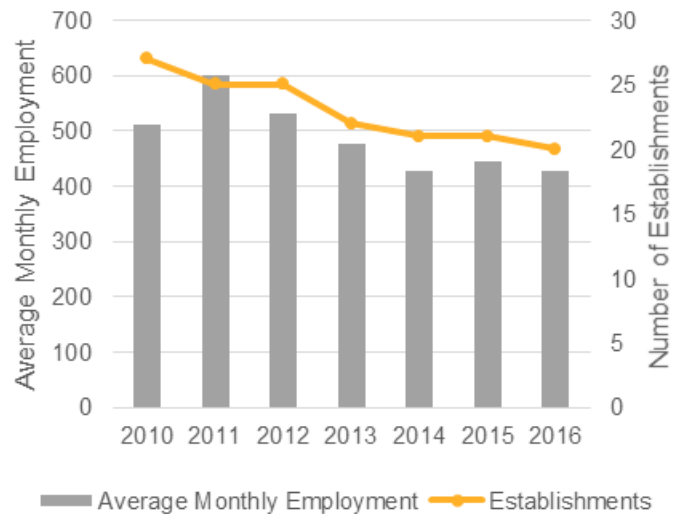
million, respectively. In addition, Homer was a top-50 port (47th) by value in 2012 and 2013 with \$30 and \$26 million in landings value, respectively.³³

Seafood processing employment has fallen in the Kenai Peninsula Borough, with the average monthly number of fish processing jobs decreasing from a high of 600 in 2011 to 428 in 2016. During this same time, seafood processing employment as a percent of all private employment in the Kenai Peninsula Borough decreased from 4.2 percent to 2.9 percent. This coincides with an overall decrease in the number of fish processing establishments, from 27 to 20, over the same period (Figure 29).

Earnings

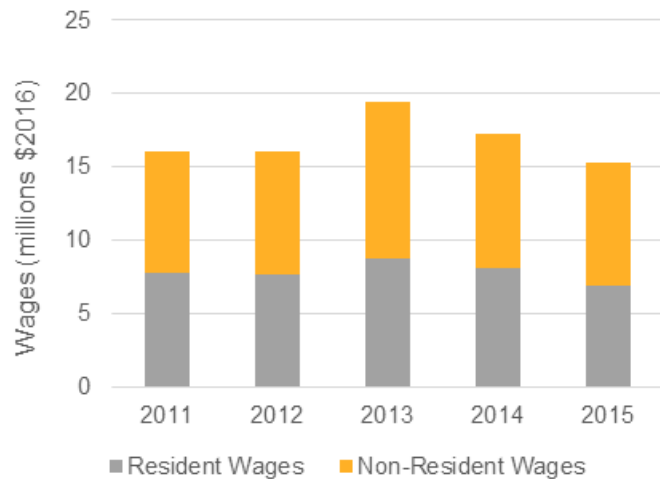
Between 2011 and 2015, total wages paid by seafood processors located in the Kenai Peninsula Borough to seafood processing employees averaged \$16.8 million annually, with the highest amount being paid in 2013 (\$19.4 million) (Figure 30). The percentage of wages being paid to seafood processing workers that are Kenai Peninsula residents averaged 47 percent over the same period.

Figure 29. Average Monthly Employment and Number of Seafood Processors, Kenai Peninsula Borough, 2010-2016



Source: BLS (2017)

Figure 30. Total Seafood Processing Wages, by Residency, Kenai Peninsula Borough, 2010-2015



Source: ADOLWD (2017)

³³ U.S. Department of Commerce, 2015.

COMMERCIAL FISHING AND SEAFOOD HARVESTING OBJECTIVES AND STRATEGIES

What We've Heard

Commercial fishing represents one of the three main sources of economy in the Kenai Peninsula Borough (the other two being oil and gas mining and tourism). To better support these main industries, there needs to be a much stronger support system for workforce development.

The Kenai Peninsula Borough should be doing more to facilitate value-added fish businesses (i.e., fish processing).

The Kenai Peninsula Borough could help market fish to Lower 48 states and other areas.

2017-2018 KPB Comp Plan Survey Participants

Note: "**Near-Term**" strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Encourage development of seafood industry job opportunities that provide good income and benefits to borough residents.

Strategies

1. **Near-Term:** Support the creation and expansion of high-value, year-round, skills-based employment (such as value-added fish processing) by promoting education and investment in basic and support industry sectors that facilitate processing seafood for high end markets.
2. Work with the State of Alaska Workforce Investment Board or other public or private entities to develop seafood worker training programs to meet the needs of borough residents.

Objective B. Support a diverse mix of pre-employment education and training, on-the-job training and ongoing educational programs to improve the employability of borough residents in commercial fishing.

Strategy

1. Work with the school district to present vocational opportunities in the commercial fishing and value-added fish processing industry. Partner with local fishermen and processors to develop appropriate curricula to educate students about the industry.

Objective C. Strengthen development of the borough's commercial fishing industry.

Strategies

1. **Near-Term:** Encourage the State's support for commercial fisheries.
2. **Near-Term:** Strive for an equitable balance among the needs of the commercial and sport fishing industries when supporting these sectors, recognizing that both provide important benefits to the borough's economy.
3. **Near-Term:** Support provision of infrastructure, land and facilities needed for commercial fish processing.

REFERENCES

- Alaska Department of Fish and Game (ADFG). 2018. Statewide Salmon Gross Earning by Species. Available at: http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyfisherysalmon.salmon_grossearnings_byspecies. May 2018.
- Alaska Department of Labor and Workforce Development (ADOLWD). 2017. Research and Analysis, Fishing and Seafood Industry in Alaska. Available at: <http://live.laborstats.alaska.gov/seafood/>. November 2017.
- Commercial Fisheries Entry Commission (CFEC). 2017a. Commercial Vessel Database. Available at: <https://www.cfec.state.ak.us/index.htm>. November 2017.
- Commercial Fisheries Entry Commission (CFEC). 2017b. Fishery Statistics: Participation and Earnings. Available at: https://www.cfec.state.ak.us/fishery_statistics/earnings.htm. November 2017.
- U.S. Department of Commerce. 2015. Fisheries of the United States. Available at: <https://www.st.nmfs.noaa.gov/commercial-fisheries/fus/fus15/index>. November 2017.
- U.S. Department of Labor Bureau of Labor Statistics (BLS). 2017. Quarterly Census of Employment and Wages. Available at: <https://www.bls.gov/cew/>. November 2017.



FOCUS AREA: AGRICULTURE AND MARICULTURE

HEADLINES

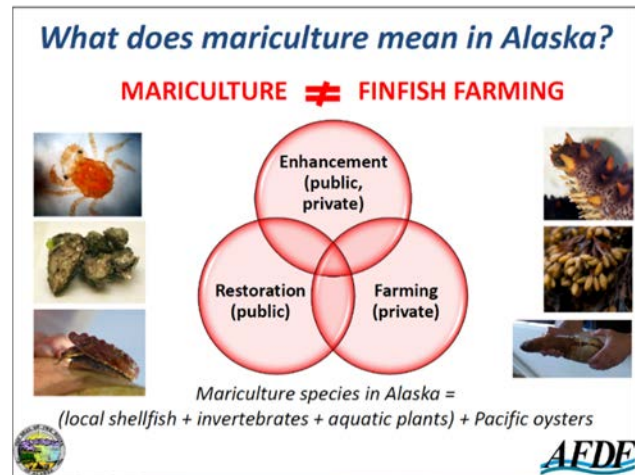
Agriculture has had a long and difficult history in Alaska. Historically, many Alaskan households had successful summer vegetable gardens, and some people have operated larger farms, growing hay and food for personal use and sale. The development of Alaskan agriculture is thwarted by high costs, short growing seasons, small markets and the availability of inexpensive food grown outside the state.

Mariculture is not fish farming. Finfish farming is specifically prohibited by Alaska statute 16.40.210. Mariculture (defined in Figure 31) is the aquatic farming of marine shellfish and aquatic plants in a natural saltwater environment utilizing natural food sources. Finfish farming is the industrial production of fish, which are raised in tanks or enclosures and artificially fed commercially produced food.

A New Dynamic: Small Operation Agriculture Is Growing. The prospects for agriculture in Alaska and the Kenai Peninsula are changing. While large grazing and haying operations have declined in the borough, the number of small farms, less than 50 acres in size, has grown substantially. Many factors are driving this evolution:

- *High Tunnels:* Inexpensive, climate-controlling structures made of steel frames and polyethylene plastic sheeting, also called “hoop houses”, allow farmers to grow a wide array of high-value agricultural products. High tunnels help extend growing seasons and make agriculture viable on smaller plots of land.
- *New Local Demand:* Interest is increasing, in Alaska and around the US, in locally-produced, high quality, healthy food.
- *Exports Opportunities are Expanding:* Alaska’s climate advantage is making peony and *rhodiola* cultivation a growing export. The borough is home to a small but growing shellfish farming industry, mostly along Halibut Cove and Peterson Bay, producing Pacific oysters, geoduck clams, blue mussels, and littleneck clams year-round.
- *Interest in Local Self Sufficiency:* Risks associated with climate change, terrorism and other calamities that could disrupt shipping and food supplies concern many Kenai Peninsula Borough residents, resulting in an interest in agriculture for community and family food security.

Figure 31. Presentation slide Mariculture Task Force created by Governor Walker in 2016



Source: Alaska Department of Fish & Game

- **New Products:** Along with new products such as shellfish, peonies and *rhodiola*, there has also been recent legalization and regulation of commercial cannabis, resulting in cultivation operations booming across the Kenai Peninsula.

There are proven opportunities in mariculture. The primary shellfish raised in Alaska are Pacific oysters. Oyster farming in Kachemak Bay produced 38 percent of the Alaska aquatic farm sales in 2015.

Exports opportunities are expanding. The advantages of mariculture in the cold, pristine, nutrient-rich waters of Alaska provide opportunities to market and build relationships with high-end restaurants and seafood sellers in the lower 48 and beyond. Kachemak Bay provides an ideal environment for cold-water growth that prevents spawning and reduces bacterial contamination, extending shelf life and assuring safety, especially for raw oysters. Additionally, the State of Alaska has imposed exceedingly strict testing and regulations to ensure the safety of oysters raised in Alaska. Potential exists to increase the high-end market for Kachemak Bay oysters and help grow the industry.

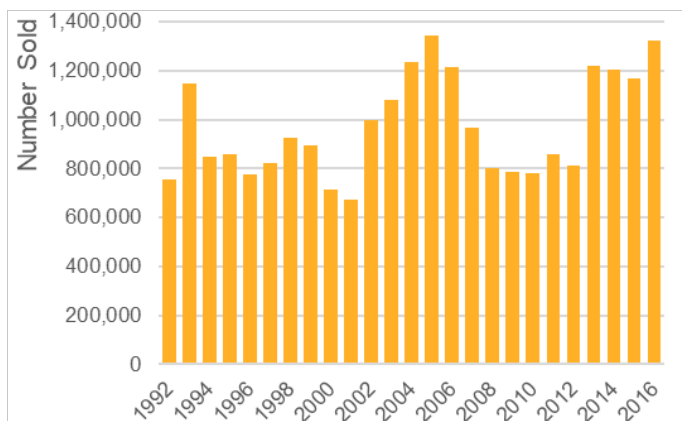
Mariculture is opening up to new markets. Developing demand for geoduck clams and various kelp may lead to new opportunities in mariculture. Local interest is increasing, and research is proceeding, but much more needs to be done to determine if this is a viable industry for Southcentral Alaska.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Alaska agriculture is on the upswing. The challenges that have held Alaska back in the past are not gone. The state still has a challenging climate, high costs and a small population. Nevertheless, new opportunities are opening up, and the Borough can play a helpful role in nurturing this growing movement.

Oyster farming is not new to Alaska. First attempted in the 1900s, the industry failed and then restarted in the 1970s. Inspired by the quality of cold-water seafood and the desire to create a sustainable industry with low environmental impact, the mariculture industry has slowly expanded into additional shellfish species, sea cucumbers and kelp (Figure 32). The Aquatic Farm Act became law in 1988, allowing the construction and operation of aquatic farms and hatcheries to supply aquatic plants or shellfish to aquatic farms. The intent of the program was to create an industry that would contribute to the state's economy and strengthen the competitiveness of Alaska seafood in the world marketplace, broadening the diversity of products and providing year-round supplies of premium quality seafood.

Figure 32. Aquatic Farming, Statewide Oyster Production Data, 1992 to 2016



Source: Alaska Department of Fish and Game

Shellfish mariculture offers the opportunity to take advantage of our pristine and productive marine environment for shellfish and utilize enhancement tools to maintain our natural shellfish populations with wise stewardship.

Jeff Hetrick, Alutiiq Pride Shellfish Hatchery, Seward

One big variable likely to affect prospects for agriculture and mariculture is climate change. Average temperatures in Alaska are rising faster than in much of the world and precipitation patterns are changing. Over the last 10-20 years, average growing seasons around Alaska have extended warmer summer weather by several weeks in both spring and fall. On the Kenai Peninsula, the average May-August temperature has increased nearly two degrees Fahrenheit over the last 50 years, prompting the change of USDA plant hardiness zones throughout the area. Rising ocean temperatures and increasing acidity in Alaskan waters are changing the marine ecosystem with the potential to disrupt the seafood industry. Extensive research is currently being conducted throughout the region to determine long-term impacts and viable strategies.

Mariculture is heavily regulated. One federal and three state agencies, including Alaska Department of Natural Resources (ADNR), the Alaska Department of Fish and Game (ADFG), and the Department of Environmental Conservation (ADEC), jointly administer the statewide aquatic farming program. The US Army Corps of Engineers (USACE) issues permits for Aquatic Farm Structures once State agency authorizations are complete. Current regulations prohibit farming of finfish and ensure the protection of Alaska's natural stocks. Pacific oysters are the only nonnative species allowed into the state, and its imports face strict size and acceptable disease history requirements. The State of Alaska through the ADFG and the ADNR provide extensive information, resources and dedicated personnel to assist the public to prepare applications and understand regulation and permitting processes. The Kenai Peninsula Borough actively supports a variety of public/private partnerships to support fisheries, habitat and mariculture.

- *Alutiiq Pride Shellfish Hatchery and Ocean Acidification Lab* is operated by the Chugach Regional Resources Commission (CRRRC), a non-profit Alaska Native organization representing seven tribes. Located in Seward, the hatchery is at the forefront of developing technologies for raising shellfish to mitigate the loss of native populations and conduct research to enhance and repopulate areas that have suitable habitat. Razor clams, littleneck clams, cockles, and purple hinged rock scallops are a few of the species currently under study for out planting. Additional species like geoducks, California sea cucumber, red king crab, butter clams, pinto abalone and blue king crab are also part of the research studies for potential reseeding and enhancement. The lab works with NOAA and the University of Alaska on projects to research and monitor ocean acidification and impacts to the marine ecosystem.
- *Cook Inlet Aquaculture Association (CIAA)* actively works to rehabilitate salmon stocks and habitat. Incorporated in 1976, CIAA operates hatcheries to supplement or rehabilitate the salmon resource in Cook Inlet.
- *Kenai Peninsula Fish Habitat Partnership (KPFHP)* works to create and foster effective collaborations to maintain healthy fish, healthy people, healthy habitat, and healthy economics in the Kenai Peninsula Borough.
- *Kenai Watershed Forum (KWF)* works to identify and address the needs of the region by providing high-quality education, restoration and research programs.

Figure 33. Award-winning Produce on Display, Kenai Peninsula Fair, 2017



Relevant facts in favor of agriculture in the Kenai Peninsula

- The Kenai Peninsula has more high tunnels per capita than anywhere in the country. The Kenai had more than 400 high tunnels as of early 2017, and increasing numbers are used for commercial agriculture each year.³⁴
- The number of Kenai Peninsula farms selling food directly to consumers increased from 27 in 2007, to 56 in 2012, to 74 in 2017.³⁵
- New agricultural-support businesses are on the rise including irrigation/hydroponics supplies, composting and vermiculture (worm castings), and farm labor and construction services (such as high tunnel construction and field preparation).
- The Kenai Peninsula is home to 30 percent of the state's peony farms.³⁶
- Alaskans spend about two billion dollars each year on food purchases and most of that food is imported. Kenai Peninsula residents spend an estimated \$31 million on fresh produce alone each year. Assuming every dollar spent on locally grown produce generates an additional \$0.34 in economic impact over purchases of products grown outside the area, even modest increases in local food purchases can generate substantial economic growth. Kenai Peninsula residents could generate an additional \$1.1 million in the local economy by purchasing 10 percent of produce from local growers.
- Seventy percent of Central Peninsula farmers surveyed increased production from 2015 to 2016. Ninety-five percent said they had the ability to further scale up their production, and 80 percent planned to increase production in 2017.³⁷

³⁴ USDA Natural Resources Conservation Service, 2017.

³⁵ USDA Census of Agriculture, 2017.

³⁶ Alaska Peony Growers Association, 2017.

³⁷ Central Peninsula Agricultural Analysis, 2017.

Data from the Agricultural Census. Every five years the USDA, National Agricultural Statistics Service conducts a census nationwide. The statistics give a general, macro-level overview of farming and mariculture in the borough (Table 11). The most recent data available on Kenai Peninsula agriculture is the 2017 census, released in spring 2019.

1. The census defines a “farm” as any operation that has sales, or potential for sales, of agricultural products valued at \$1000 or more. While land in farms, including cropland, pasture and forest, decreased from a high of 98,035 acres in 1982 to 31,508 acres in 2017, the amount of cropland and harvested cropland has remained relatively stable. What has declined is the number of acres devoted to pasture as the population has grown and large parcels were converted to subdivisions.
2. In 2017, the census identified 260 farm operations managing 31,508 acres of land; this represents a 60 percent increase in the number of farms and an 8 percent increase in the acreage of farm land since 2012. Of these, 176 farms sold crops (including greenhouse and nursery crops, like peonies) up from 101 in 2012, and 70 farms sold vegetables, up from 32 in 2007. Thirty-nine farms sold other crops, primarily hay, and 105 sold livestock, up from 63 in 2012.

Table 11. Land in Farms (acres) and Market Value of Agricultural Products Sold, 1978-2017

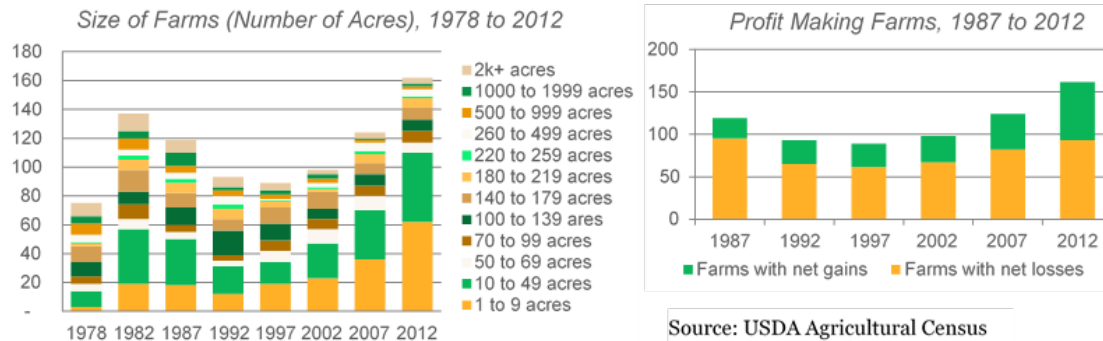
Kenai Peninsula Farm Lands (acres)	1978	1982	1987	1992	1997	2002	2007	2012	2017
Land in Farms	67,455	98,035	85,712	50,810	56,289	36,289	38,289	29,140	31,508
Cropland	3,876	5,733	5,295	5,750	7,588	6,263	5,253	4,459	3,796
Harvested Cropland	3,478	3,418	2,818	2,812	2,660	2,681	2,219	2,359	(D)
All Pasture	57,994	84,896	72,896	36,085	42,606	(D)	30,874	16,975	23,609
Pasture % of all land	86%	87%	85%	71%	75%		81%	58%	75%
Cropland % of all land	6%	6%	6%	11%	13%	17%	14%	15%	12%
Market Value of Agricultural Products Sold (\$1000s)									
Kenai Peninsula	659	1,078	665	812	1,259	2,056	(D)	(D)	5,423
Aleutian Islands	180	241	666	452	1,352	329	(D)	(D)	2,980
Southcentral	5,910	7,423	13,132	10,069	15,851	27,512	31,752	30,019	37,536
Interior	1,446	2,620	3,489	3,968	5,822	5,285	7,075	9,140	10,392
Southeast	30	37	19	50	366	10,962	11,770	12,412	14,129
State Total	8,225	11,399	17,971	15,351	24,650	46,144	50,597	58,925	70,459

Source: USDA Agricultural Census

(D) = data is unavailable

Increase in small-operation farms on the Peninsula. From 2012 to 2017, agricultural activity increased statewide; the Kenai Peninsula region had the fastest rate of farm formation in the state. The typical new farm in the borough is less than 50 acres and almost half are less than 10 acres (Figure 34). Many of these small-scale operations utilize intensive growing methods and season extension techniques like high tunnels to produce high-value crops and value-added products for local consumption.

Figure 34. Number of farms by size and number of profit-making farms per year, 1978 to 2012



Increase in profitable farms on the Peninsula. More farms are earning more profits than any year since 1987 (Table 12). In 2017, the average profitable farm earned \$15,477 profit and 50 percent of farms reported a profit, an increase of 43 percent of farms in 2012. The average loss-making farm had a net loss of \$15,702 in 2017, less than the \$23,152 reported in 2012.

Table 12. Number of farms, farms with net gains, and total value since 1987

	1987	1992	1997	2002	2007	2012	2017
Farms	119	93	89	98	124	162	260
Farms with net gains	24	28	28	31	42	69	130
Value of land and buildings	\$49.9M	\$32.8M	\$42.5M	\$51.2M	\$50.8M	\$70.6M	\$79.9M

Source: USDA Agricultural Census

Renewed interest in the cultivation of industrial hemp. Industrial hemp is a multipurpose crop, related to the cannabis plant but containing little or no psychoactive compounds, that can be used for food, forage, fiber and other industrial uses. The Alaska Legislature passed Senate Bill 6 in 2018, legalizing industrial production of hemp in the state and allows use of hemp in food products; production will likely begin in spring 2019, following development of a registration system and regulations for growers. The federal government has guidance for cultivation that requires registering, keeping buyer records and demonstrating that crops have THC levels at or below 0.3 percent. There is also legislation in Congress that would identify industrial hemp as an agriculture commodity instead of a controlled substance.

Opportunity for cannabis farming. With the passage of Ballot Measure 2 in 2014, Alaskan farmers can apply for licenses to grow cannabis for commercial uses and sell cannabis-derived products within state lines. The State Marijuana Control Board has approved several standard cultivation facilities, limited cultivation facilities and retail stores. A Marijuana Local Option allows a local government to prohibit the sale or importation of cannabis and any cannabis product and the operation of any cannabis establishment through the enactment of an ordinance or by a voter initiative.

Farming is cyclical in nature, although there has been a resurgence in farming recently, it is unlikely the exponential growth will continue. Farmers invested in operations, such as peony farming, shellfish farming, diversified high-tunnel farming, fruit and berry farming, are entrepreneurs exposing themselves to huge risks and potential awards. There are bound to be both successful and unsuccessful operations, and the long-term economic sustainability of these agricultural markets is indeterminable.

There is a movement on the Peninsula towards agriculture and gardening for community and family food security. These types of food operations produce food for the household, sell their surplus products in local farmers' markets, or give them away for free to the community. This practice of agriculture is less influenced by global market forces and thus more likely to stay in operation during hard times. Many of the farms under 10 acres likely produce products primarily for personal use, although a growing number are successful commercial operations.

Potential for Farming and Land Use Conflicts. The Natural Resources Conservation Service (NRCS) recognizes certain soils in the Kenai Soil and Water Conservation District as "Soils of Local Importance" (SLI). Extrapolating these soil types to the remainder of the borough, we estimate that 300,000 to 390,000 acres of land could be classified as SLI (Map 3). These soils could produce the highest yields when cultivated. Less than 30,000 acres of land are currently utilized as cropland, woodland or pasture. Growth potential for agriculture is large by Alaska standards.

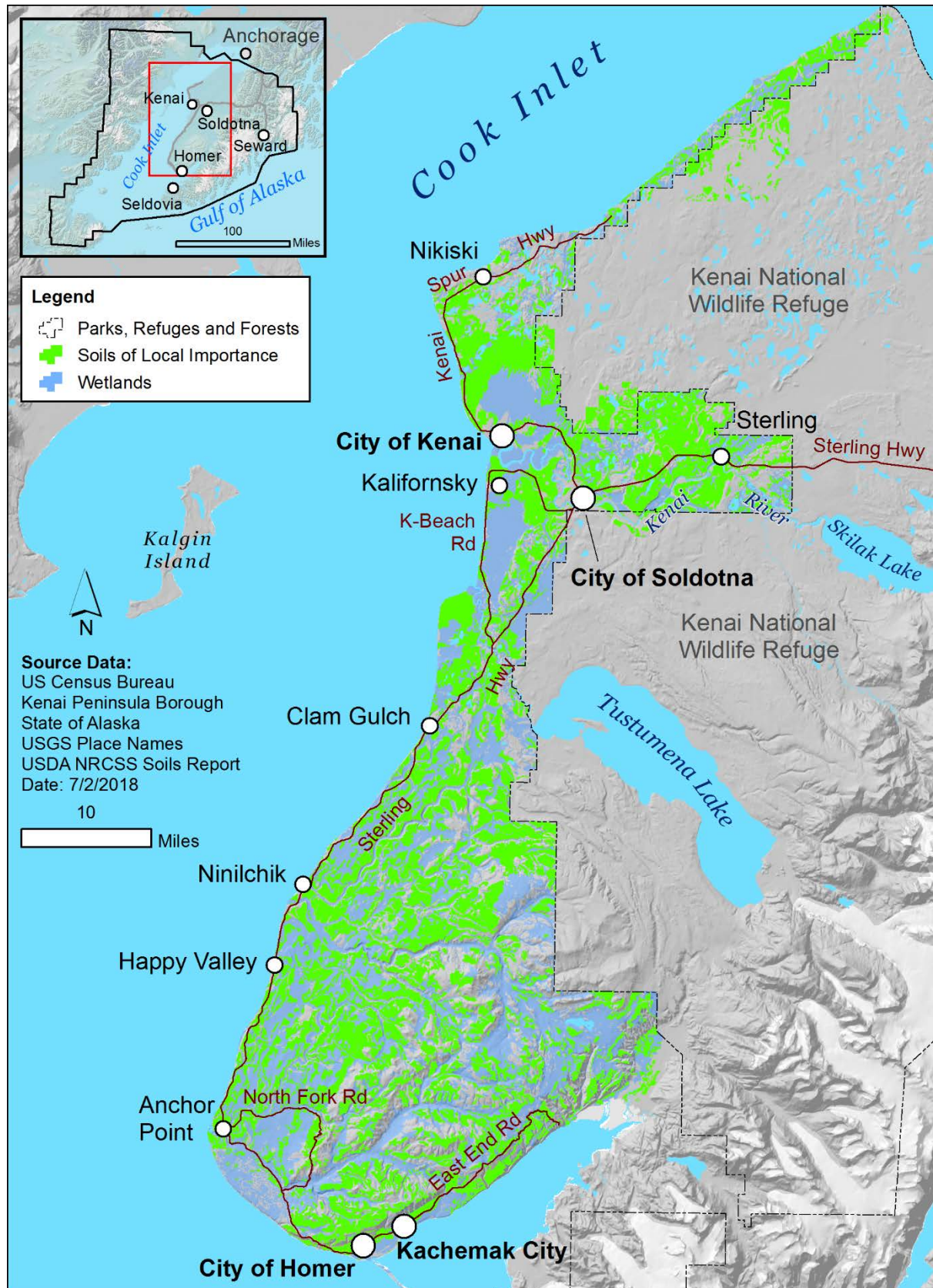
Land suitable for development and agriculture tend to correlate. Agricultural land tends to be easily convertible to land for building structures and often lies over potential sources for sand and gravel. This land use conflict may become a problem as the Peninsula grows in population.

Around 80 percent of land in Census Designated Places (CDPs) are potentially SLI. Ninety-seven percent of estimated SLI land is undeveloped. Twenty percent of land within city boundaries are SLI, of which only three percent is undeveloped. Seventy percent of SLI land is appropriate for development. This land use conflict will inevitably result in loss of potential SLI land unless adequate land use planning regulations are adopted.

The majority of SLI land is isolated and inaccessible. Public access roads to SLI intensive areas and prohibitions on non-agricultural uses could greatly increase the propagation and success of new farming communities.

One of the greatest sources of local food is our local salmon runs. Agencies that educate and support farmers to understand best practices for farming land in Alaska will play a large role in protecting salmon streams from potential agriculture impacts, as will clear and enforceable stream protection ordinances. In addition, the Borough should consider distance from anadromous streams when prioritizing Borough land for agricultural use.

Map 3. Soils of Local Importance (or “Soils Suitable for Agriculture”) on the Kenai Peninsula Borough



Alaskan shellfish farmers face many challenges including the high cost of operations in Alaska with resulting higher market costs. Although pristine cold water and strict sanitation standards place Alaska products in a competitive position on the world markets, mariculture is year-round hard work and maturation of most species is measured in years. Changing ocean temperatures, acidification, naturally-occurring disease and man-made contamination all pose potential risks. Reduced funding from the State of Alaska for marketing and research also hampers growth in the industry. Additional research into the optimal magnitude and density of shellfish farms in specific areas of the borough will serve to protect the habitat and sustainability of this fledgling industry.

Mariculture represents a tremendous opportunity to grow and diversify our state's economy, strengthen our coastal communities, and provide healthy food to the world using sustainable methods that are an extension of Alaska's successful fishery management practices.

Governor Bill Walker, announcing creation of the Mariculture Task Force

There is potential for a developed mariculture industry to provide much needed job diversity and food security in the borough. The primary aquatic farm crop in Alaska continues to be Pacific oysters with blue mussel sales showing a substantial increase statewide. Pacific geoduck clams, green sea urchin, giant kelp, sugar kelp and bull kelp are also experiencing increased interest, primarily in Southeast. Projects such as those conducted at the Alutiiq Pride Shellfish Hatchery (APSH) are exploring the potential viability of these species in Southcentral along with projects aimed at helping local shellfish populations recover to the point where they support recreational, subsistence or personal use fisheries.

AGRICULTURE AND MARICULTURE OBJECTIVES AND STRATEGIES

What We've Heard

Most profitable farms raised or supported livestock. In 2005, the principal agricultural activities involved livestock ranching and raising hay for livestock such as cattle, horses, buffalo, sheep, and goats.

Commercial agricultural uses receive lower tax rates. The 2005 plan notes that 3,800 acres of land within the borough were enrolled in a state agricultural land tax deferment program.

Is there any other industry that...you think could create economic growth in the future on the Kenai Peninsula?

Legal marijuana and hemp industry.

Marijuana, agriculture and economic industries. It needs to be promoted to provide jobs and tax money for the schools.

Medical plants and plants in general, like berries.

Build more greenhouses and provide more agricultural opportunities.

Renewable resources and hemp for making lots of rope and paper.

2017-2018 KPB Comp Plan Survey Participants

Table 13 highlights the variation in community/regional views about opportunities for agriculture in the borough.

Table 13. Importance of Agriculture by Geographic Area

Response	Kenai/ Nikiski	Soldotna/ Sterling	Homer/ Anchor Point	Seward/ Rural	Total
Important	40.6%	54.3%	64.6%	37.3%	49.6%
Somewhat important	35.0%	20.0%	21.1%	24.3%	25.1%
Not important	23.8%	24.9%	14.3%	35.0%	24.2%
Not Sure	.7%	.8%	-	3.4%	1.1%

Note: “**Near-Term**” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Support a more sustainable and resilient Kenai Peninsula by increasing production and distribution of quality, healthy agricultural products for local, state and export markets.

Strategies

1. **Near-Term:** Identify land with high agricultural potential; plan and develop roads and other infrastructure to support its development. Potential factors for consideration include: type of soils, access to transportation and markets, proximity to other farms, relatively favorable microclimate and adequate distance from anadromous streams are among the factors to be weighed when prioritizing land for agricultural use.
The Borough will identify Borough-owned and State-owned lands that are most suitable for agriculture and farm business success in direct consultation with Kenai and Homer Soil and Water Conservation Districts, economic advisors (e.g., KPEDD, SBDC, UAA-Cooperative Development Center) and other stakeholders.
2. **Near-Term:** Improve policies that allow farm land to remain agricultural and incentivize productive use. Consider using mechanisms such as easements and deed restrictions favoring agriculture and conservation tax incentives; and land use policies to minimize conflicts between agriculture and adjoining uses.
 - a. Establish Borough ordinance(s) policies and systems to protect and convey identified agricultural lands via a leasing program with encumbrances providing for enforceable lease terms promoting agricultural production and farm business development.
 - b. Improve management of Borough-owned land, including initial planning, classification, and regulations for land sold or leased for agriculture.

Objective B. Sustain and create new agriculture-related jobs and businesses.

Strategies

1. **Near-Term:** Working with partners, encourage expansion of agricultural support services and infrastructure.
 - a. Support the use of Borough facilities and properties for agricultural support services.
 - b. Support the efforts of other entities to analyze and promote new and emerging agricultural trends, products and farming systems (e.g., micro farming) for both land-based and marine-based agricultural production.

- c. Support the efforts of other entities to provide training, mentoring and business planning that will enable new and beginning farmers to establish successful farm businesses, especially those producing food for Alaska markets.
 - d. Incorporate food security needs and opportunities in the Borough's All-Hazard Mitigation Plan.
2. **Near-Term:** Encourage Kenai Peninsula Borough School District to adopt policies and programs that help students develop food skills and knowledge of local agriculture.

Across Alaska, schools are taking steps like the following:

- a. Teaching students about Alaska's traditional and wild-harvested foods.
- b. Partnering with the Alaska Division of Agriculture's Farm to School program to forge connections between the classroom, school lunchroom and local farms.
- c. Utilizing lesson plans, teacher training and other resources from Alaska Agriculture in the Classroom curriculum.
- d. Involving students in growing, preparing, preserving and enjoying healthy food via school greenhouses, gardens, hydroponics systems, school kitchens and composting facilities.
- e. Incentivizing faculty sponsors for ag-based youth development programs such as 4-H and FFA.
- f. Making school kitchens available for value-added food processing.
- g. Setting goals for gradually increasing the use of locally-grown and locally-harvested items (e.g. fish) in school meals.

Objective C. Encourage greater local and regional self-sufficiency.

Strategies

- 1. Working with partners, identify and protect wild-harvested food resources.
Wild-harvested food including fish, shellfish, game, plants and fungi make up a larger part of the typical Alaskan's diet than in any other U.S. state. Kenai Peninsula Borough has a role to play in protecting and perpetuating this foundation of regional culture and food security through actions such as the following:
 - a. Maintain land use policies that protect salmon stream health.
 - b. Collaborate with tribal organizations to identify and protect wild-harvesting areas on Borough-owned land.
 - c. Encourage harvest of useful, edible and/or medicinal plants prior to any clearing of Borough-owned land.
 - d. Develop local transportation plans to inform and require Alaska DOT&PF and private developers to make fish passage a priority on all road, trail and highway projects.

Objective D. Develop a sustainable mariculture industry and create new opportunities for exports.

Strategies

1. **Near-Term:** Support expanding education workshops and forums to inform the maricultural community on new opportunities and research.
The Alaska Mariculture Task force projects a \$20,000,000 industry by 2030 and identified the need for seed to meet the statewide demand as the number one priority to achieve this goal. The Alutiiq Pride Shellfish Hatchery in Seward is the primary producer of oyster and geoduck seed for all of Alaska. Highlighting and learning from this successful venture opens additional economic opportunities in mariculture.
2. Engage in the Governor's Mariculture Task Force.
3. Encourage local political leaders to become informed regarding the mariculture industry.
4. Work with Kenai Peninsula Economic Development Division (KPEDD) to inform political leaders and the public about the mariculture industry. Encourage KPEDD to report on specifics of mariculture and new ventures.
5. Support shellfish enhancement projects to mitigate the loss of native shellfish populations.
6. Encourage local agriculture groups to include information on mariculture in their outreach.
7. Work with local groups and organizations to ensure the Kenai Peninsula is recognized as part of the developing statewide interest in mariculture.

Who is Involved? Current Programs and Initiatives

- Alutiiq Pride Shellfish Hatchery and Ocean Acidification Lab
- Kenai Peninsula Fish Habitat Partnership
- Kenai and Homer Soil and Water Conservation Districts
- Kenai Peninsula Economic Development District (KPEDD)
- Kenai Peninsula Fair Association
- Kenai Peninsula Farm Bureau
- Small Business Development Center (SBDC)
- Alaska Division of Agriculture (ADEC)
- Alaska Association of Farmers Markets
- Alaska Farmland Trust
- UAA-Cooperative Development Center
- UAF-Cooperative Extension Service (CES)
- USDA Natural Resource Conservation Service (NRCS)
- USDA Farm Service Agency (FSA)
- Kachemak Bay National Estuarine Research Reserve (KBNERR)
- Cook Inletkeeper
- Community organizations: Central Peninsula Garden Club, Fox River Cattlemen's Association, Homer Farmers Market, Homer Garden Club, Kenai Local Food Connection, Kenai Peninsula Food Hub, Matti's Farm.



FOCUS AREA: MINING

HEADLINES

The Kenai Peninsula Borough has had active mineral mining in the past, and there are many prospective resources that could be developed. Employment and earnings increased from 2010 to 2014, with average monthly employment reaching 29 jobs, and total earnings topping \$1.8 million. In 2015, average monthly employment decreased to 20 jobs, and total wages decreased to \$1.36 million, levels like those in 2013.

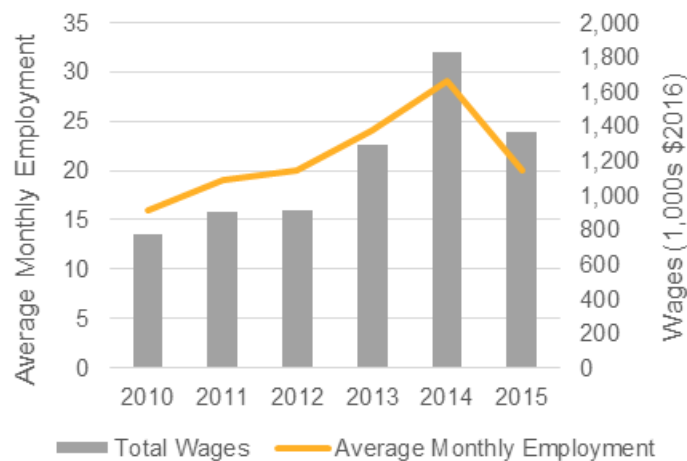
The borough is home to several mines and many more prospective mineral resources. Mineral resources in the Kenai Peninsula exist throughout the Kenai Mountains. In addition, two large-scale mines have been proposed in areas in or near the Kenai Peninsula Borough.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Non-oil and gas mining in the Kenai Peninsula Borough saw upward trends in both average monthly employment and total wages paid between 2010 and 2014 (Figure 35), with 2015 returning to levels like 2013. Currently, non-oil and gas mining represents a very small portion of economic activity in the Kenai Peninsula, with both average employment and total wages earned accounting for less than 0.2 percent of the Kenai Peninsula's total private employment and wages.

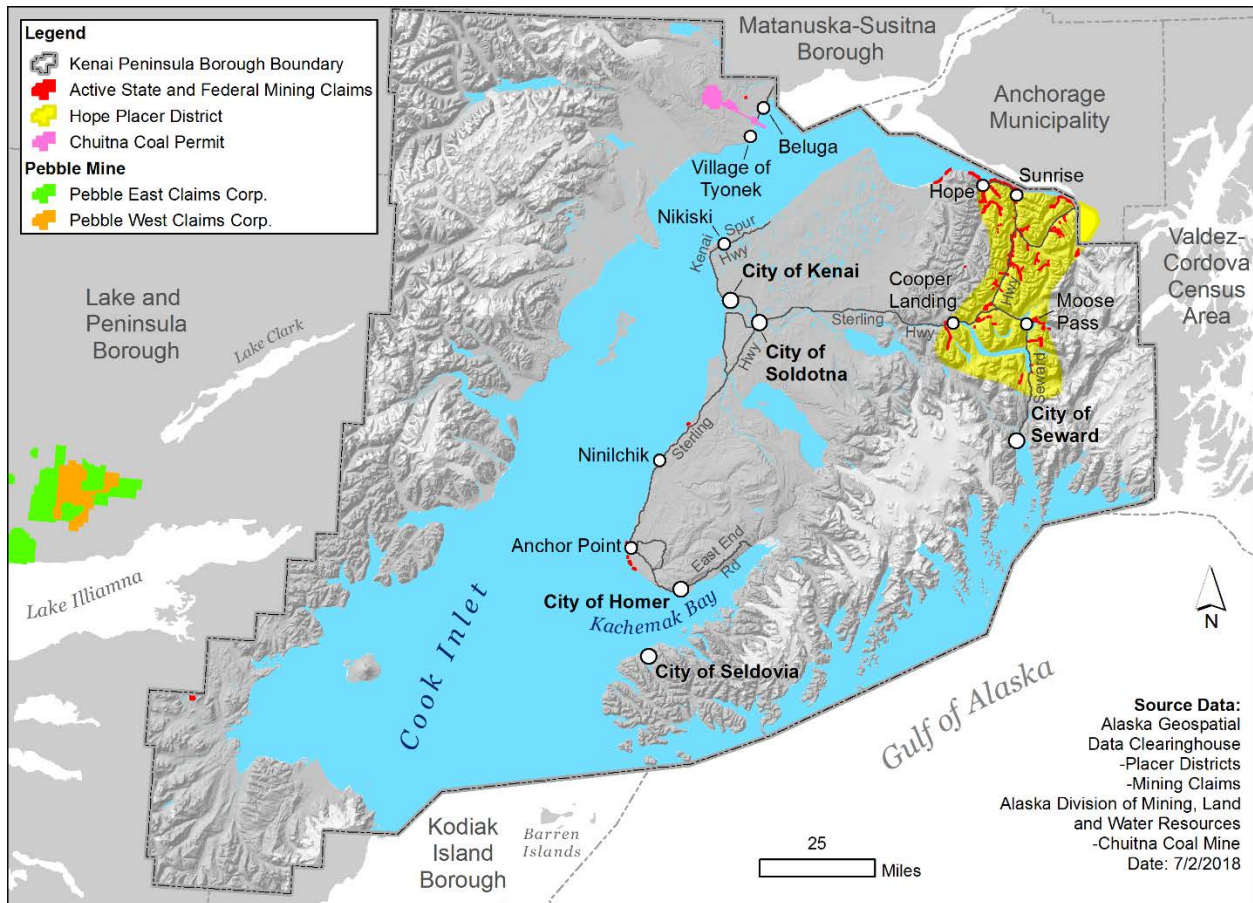
Most of the identified mineral resources run in a north-to-south line from Hope to Seward, though clusters also exist along Resurrection Peninsula, the north and west arms of Nuka Bay, and in the Kenai Mountains south of Homer (Map 4 on the following page).

Figure 35. Non-Oil and Gas Mining Average Monthly Employment and Total Wages, Kenai Peninsula Borough, 2010-2015



Source: BLS (2017)

Map 4. Mineral Resources in the Kenai Peninsula Borough



Data Source: U.S. Geological Survey, Mineral Resources Online Spatial Data

The Kenai Peninsula is located near two relatively large mining projects:

The Chuitna Coal Project, is a proposed project on the west side of Cook Inlet that would consist of a surface coal mine with an estimated production rate of 12 million tons per year, which is predicted to have a minimum 25-year life. The proposed project includes the mine, as well as associated support facilities, mine access road, coal transport conveyor, personnel housing and airstrip facility, a logistics center, and coal export terminal (Department of Natural Resources 2017). As of March 31, 2017, the developer, PacRim Coal, has suspended all permitting activities related to developing the Chuitna Coal Project.

The Pebble Project is the second mining project currently engaged in the permit application process. The Pebble Project is in the Bristol Bay region, approximately 200 air miles southwest of Anchorage. Although the proposed location of the Pebble Mine is outside the borough, the project could include infrastructure on the west side of Cook Inlet, including a proposed barge facility within the borough, and require support from companies located in the borough. The project is a copper-gold-molybdenum porphyry deposit in the advanced exploration stage (Department of Natural Resources 2017). Pebble consists of two contiguous deposits—Pebble East and Pebble West—with Pebble East's resource estimated at 3.4 billion metric tons (Department of Natural Resources 2017). The Pebble Project is in flux as the developer, Pebble

Limited Partnership, addresses challenges from past permitting efforts and modifies plans for advancing the project.

MINING OBJECTIVES AND STRATEGIES

What We've Heard

Several residents who participated in the phone survey mentioned mining as a potential growth area for the borough. Eleven residents mentioned mining or mineral wealth as a potential source of growth.

What are potential areas of economic growth in the borough?

Mining such as open pit mining or underground mining or mineral mining.

Mining, we have a mine nearby that could bring a lot of opportunity and work.

2017-2018 KPB Comp Plan Survey Participants

Asked about the negative effects of land use regulation, some respondents expressed concern that more regulation of land use would be detrimental for future use of resources, including mining activities within the borough:

Inhibits use, limits access to natural resources, whether it be mining or recreational.

2017-2018 KPB Comp Plan Survey Participant

Note: "Near-Term" strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Strengthen the investment climate to support mining in the Kenai Peninsula Borough.

Strategies

1. **Near-Term:** Inventory and classify lands in the borough suitable for mining development.
2. **Near-Term:** Establish standards for sustainable and responsible development, including reclamation and clean-up, that is compatible with and does not adversely impact other natural resources.
3. Support land development with clear and efficient public processes (e.g., streamlined permitting, published procedures, web-based application forms, etc.).

Objective B. Encourage development of mining and resource development job opportunities that provide income and benefits to borough residents.

Strategies

1. **Near-Term:** Support the creation and expansion of high-value, year-round, skills-based mining industry employment by promoting investment in basic and support industry sectors.
2. Work with the State of Alaska Workforce Investment Board or other public or private entities to develop mining exploration and development worker training programs to meet the needs of borough residents.

Objective C. Support a diverse mix of pre-employment education and training, on-the-job training and ongoing educational programs to improve employability of borough residents in mining.

Strategy

1. **Near-Term:** Work with the school district to develop and present mining-related education, training, and vocational opportunities. Partner with local mining and support organizations to develop an appropriate curriculum.

Objective D. Strengthen development of the borough's mining industry.

Strategies

1. **Near-Term:** Encourage the State to increase its efforts to better manage its resources for economic development opportunities.
2. **Near-Term:** Support environmentally responsible and sustainable mining development.

REFERENCES

U.S. Department of Labor Bureau of Labor Statistics (BLS). 2017. Quarterly Census of Employment and Wages. Available at: <https://www.bls.gov/cew/>. November 2017.

Alaska Department of Natural Resources (DNR). 2017. Large Mine Permitting. Available at: <http://dnr.alaska.gov/mlw/mining/largemine/>. November, 2017.

Goal 2. Proactively manage growth to provide economic development opportunities on the Kenai Peninsula Borough while preserving what residents and visitors value about the area's natural features.



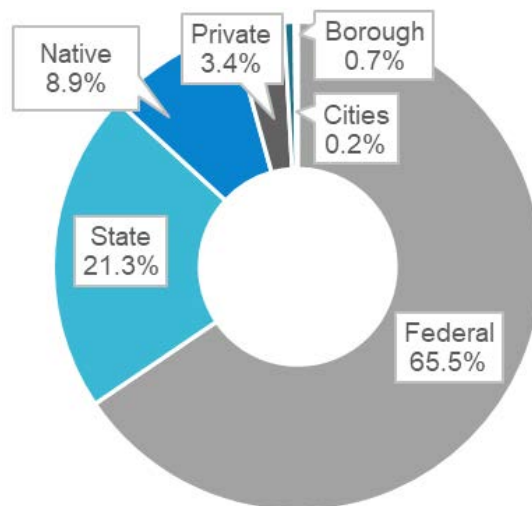
FOCUS AREA: LAND USE AND CHANGING ENVIRONMENT

Access to Public Lands, Community Planning, Borough Land Management, Land Use Regulations and Preserving Natural Systems

HEADLINES

Islands of private property in a sea of public land. As shown in Figure 36 and Map 5, private land makes up a small percentage of all land in the Kenai Peninsula Borough. Most private property is in the western Sterling Highway/Kenai Spur road corridors, a legacy of this area's relatively buildable land, and the homesteads established prior to statehood. Public land dominates the rest of the region. This ownership pattern, so different from what is typical in most of the United States, significantly shapes quality of life and planning in the borough.³⁸ Public lands are the foundation of what makes the Kenai Peninsula so distinct, including the region's exceptional scenery and healthy ecosystems, and generous public access to high quality fishing, wildlife viewing and other recreation, tourism and subsistence activities. At the same time, rules on the use of public lands, particularly on federal property, can limit some forms of access and economic development, and where public lands surround small communities, constrain the supply of lands for residential and other private uses.

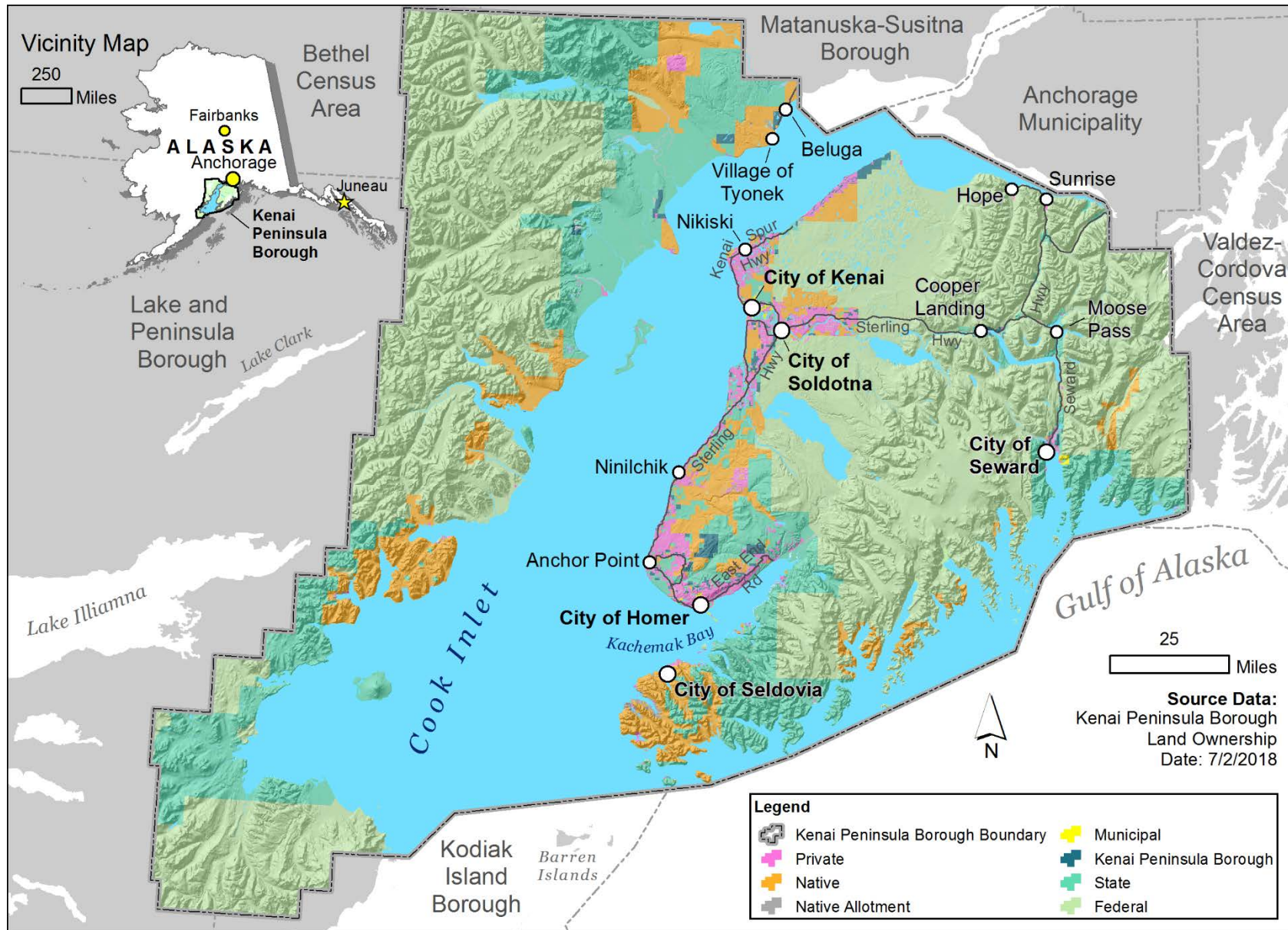
Figure 36. Land Ownership in Kenai Peninsula Borough by Major Landowner Categories



Two thirds of lands within the borough are federally owned and managed. The next largest landowners are the State of Alaska (including parks, wildlife refuges and transportation facilities), Native corporations, tribes and individuals.

³⁸ The average percentage of private land versus total land area in U.S. states is 60.2%, with median value of 84% private. As the figure above shows, this is opposite the ratio in the Kenai Peninsula Borough, where less than 15% of the land is in private ownership. While the percentage of private lands is small, *per capita* ownership of private land in the Kenai Peninsula Borough is comparable to other states. Source: <http://www.summitpost.org/public-and-private-land-percentages-by-us-states/186111>.

Map 5. Kenai Peninsula Borough Land Ownership



Finding ways to guide growth to be more economically diverse and resilient, support conservation and sustain the Kenai Peninsula way of life.

The heart of the Kenai Peninsula is its people, and a lifestyle connected to the land.
2005 Comprehensive Plan

From remote rural parcels, to riverfront properties with a view, to homes in towns and villages, borough residents treasure the area's abundant open space, access to recreation, relatively small population, and other qualities that make the borough a great place to live, visit or work. One quality many people appreciate is the limited land use rules, which are common in other incorporated Alaska communities and throughout the U.S. At the same time, this absence of regulation means most any use can happen in any location in the borough. This freedom can lead to land use conflicts, impacts on community and natural resources and other changes in the qualities people most like about life in the borough. A central land use issue going forward is setting strategies to hold onto these qualities while accepting change and supporting growth. In general terms, the way to maintain quality while accepting change and supporting beneficial growth is to take a more active role in guiding growth. One simple example is the boardwalks at the Russian River campground that allow sportfishing and sustain riparian vegetation. Another example are policies that require buffers, reclamation and other controls on gravel pits.

Opportunity to set proactive land use policies to support the borough during a time of economic transition. The Borough and state are facing profound economic and fiscal challenges. While local policies cannot alter global economic trends or energy prices, through economic development-informed land use policies, the Borough, other agencies and community leaders can take steps to grow local economic sectors, particularly sectors like agriculture and tourism. Local land use policy helps sustain and improve the kinds of places that attract businesses and residential investment, support commercial and retail services, and create places where people want to live and recreate.

Borough-owned properties are an opportunity to meet shared goals. As part of the State of Alaska's Municipal Land Entitlement process, the Borough is nearing completion of the receipt of 157,800 acres of previously state-owned land. Title 17 in Borough code provides very broad objectives for use of these properties. More work is needed to refine goals for these lands, improve the Borough's land management rules and practices, and classify these lands with appropriate uses, considering objectives for short and long-term economic development and residential, recreational and other uses.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Large Geography. The Kenai Peninsula Borough is 25,600 square miles in total, larger than ten U.S. states. Of this total area, 40 percent, about 10,000 square miles, is inland and coastal water. Lands on the peninsula make up 53 percent of the borough, with the remaining 47 percent west of Cook Inlet.³⁹

³⁹ *Kenai Peninsula Borough Comprehensive Plan (2005).*

Two of Three Borough Residents Live Outside the Area’s Incorporated Cities. Incorporated cities (Homer, Kachemak City, Kenai, Seldovia, Seward and Soldotna) together make up a very small portion (less than one percent) of total land in the borough. While recognizing the Borough and these cities face many overlapping issues, this plan focuses on land outside of incorporated cities. The Borough has adopted separate comprehensive plans in cooperation with each city.

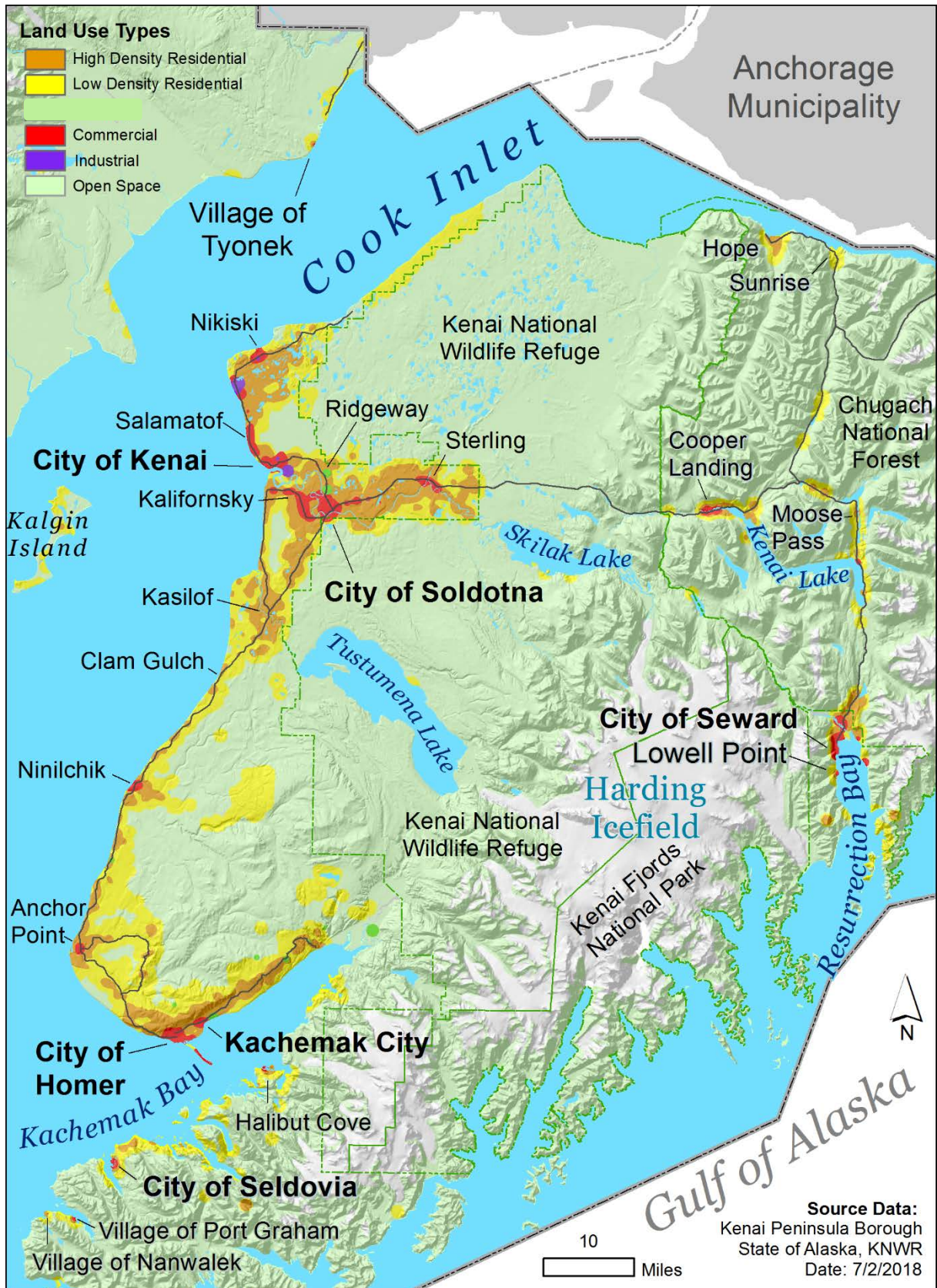
Current Land Use and Room to Grow. Map 5, depicting land ownership, provides an initial understanding of land use in the borough. Most federal and state lands in the borough are undeveloped, remote and wild, encompassing the lands and resources that support the region’s fish and wildlife. The dominant human uses over the large areas of undeveloped land in the borough are hunting, fishing, hiking, snowmachining and ATV’s, backcountry skiing and other dispersed, mostly low-impact recreation activities. Large portions of the borough, for example, the Sargent and Harding ice fields, the outer Pacific coast, and the portion of the borough on the west side of the Cook Inlet, have very little recreational use. At the same time, the Kenai Peninsula itself has relatively good access to recreational lands and activities. At least by the standards of much of Alaska, where most of the state is far removed from any road, the borough has a decent road and trail system, and good proximity to Anchorage, the state’s largest community. Evaluating options for expanding this existing road system, in a way that creates new land use and economic opportunities but also retains the wild open spaces and habitats people like, is an important issue.

Map 7 provides a generalized overview of land use in the borough. Residential use dominates, interspersed with clusters and individual areas of commercial, industrial, gravel extraction and agriculture use. Most farming occurs on relatively small parcels of five to 10 acres. These maps use assessed value to indicate the intensity of residential development. This shows that vacant or minimally developed private land is relatively abundant in the western peninsula, particularly in comparison to the tight supply of private land surrounding the communities like Seward or Hope in the eastern borough.

Natural systems benefit residents, fish and wildlife and the local economy. The Kenai Peninsula provides a wide variety of natural habitats that support a multitude of mammals, birds, fish, and other species. Recreational fishing and the observation of wildlife and natural scenery are two cornerstones of the area’s tourism industry. Visitors come to the Peninsula from all over the world to fish for salmon in the Kenai River. Tourism and commercial fishing are two vital components of the Peninsula’s economy that rely on protection of natural habitat to support fish and wildlife species. Habitat conservation is important both to economic development and the quality of life for borough residents.⁴⁰ Preservation of natural systems also benefits public safety as stable and vegetated streambanks and functional, connected floodplains increase resilience in flood events.

⁴⁰ *Kenai Peninsula Borough Comprehensive Plan* (2005).

Map 7. Land Use on the Kenai Peninsula Borough



Healthy Real Estate Market Serving a Range of Local and Out of Region Owners.

Interviews with local real estate agents suggest there is a two-tiered real estate market. Over the last decades, prices for relatively scarce properties (e.g., high-amenity waterfront parcels, or land in highly desirable small towns like Hope) have climbed, offsetting stable or declining prices in other categories. For many buyers, including year-round residents, second home owners and retirees, one of the borough's attractions is affordability of land and housing.

Average prices of existing homes on the Kenai are moderate compared to other urban areas of Alaska.⁴¹ See *Housing* section for more on this topic.

Figure 37. Condos for Sale, Soldotna



Based on interviews with real estate agents, research on market trends and other sources, real estate demand can be divided into three broad categories:

1. *Quality of life driven purchases by second home owners and retirees.* More than a third (24,823 of the 65,552 or 37.9 percent) of parcels in the Kenai Peninsula Borough have a primary owner with an out-of-area address. This group often seeks high amenity parcels, paying \$150-\$250,000 for waterfront or view properties, more than twice the cost of standard lots. Demand for these relatively scarce, high amenity parcels is very strong throughout the peninsula, from Hope to Homer.⁴²
2. *Demand for high amenity homes within the financial reach of higher-income full-time residents, typically working professionals and families.* One example is demand from people tied to the growing local health industry. Doctors, nurses and other health related employees, including many who are relatively new to the borough and can afford high value properties, have driven real estate demand in the Soldotna "health corridor" area.
3. *Demand tied to slow but continuing population growth, frequently with a goal of affordability versus high amenities.*

Infrastructure Constraints

Private land makes up a small percentage of all land in the borough, but the total supply of private land is large relative to population and current real estate market. At the same time, most private land in the borough is "off the grid." In outlying areas, the cost of extending roads and utilities (e.g., electric lines) for one or small group of land owners equals or exceeds the cost of the land. A challenge and opportunity for the Borough is exploring fair ways to aggregate and share costs of improving utilities among groups of land owners in outlying locations.⁴³

⁴¹ Average home prices in comparable communities: Anchorage, \$375,000; Matanuska Susitna Borough, \$270,000; Kenai Peninsula Borough, \$260,000. Alaska Department of Labor and Workforce Development housing statistics. <http://live.laborstats.alaska.gov/housing/>

⁴² Correspondence with Denis Mueller, Appraisal Manager, Kenai Peninsula Borough, December 2017.

⁴³ KPB Code 5.35 provides a tool, often utilized for natural gas, which might be used for extending power lines.

Physical Capability for Development

Map 8 shows one dimension of the physical constraints on development in the borough: approximately a third to half of the private lands in the western peninsula are wetlands. Construction on these areas is costlier than on non-wetland areas and can directly impact wetland habitats and the overall watersheds supporting habitat for fish and other species.

Limited Application of Broad Land Use Powers

Federal and state law, and associated case law, grants local government broad, extensive powers to manage use of private land, in the interest of “public health, safety and welfare.” This includes authority to regulate private land use via zoning and regulating subdivision of land. The Borough is the platting authority for the entire region, including incorporated cities, and actively manages the subdivision platting process boroughwide. The Borough does not issue building permits and has chosen to apply quite limited

Figure 38. Residential Street, Soldotna

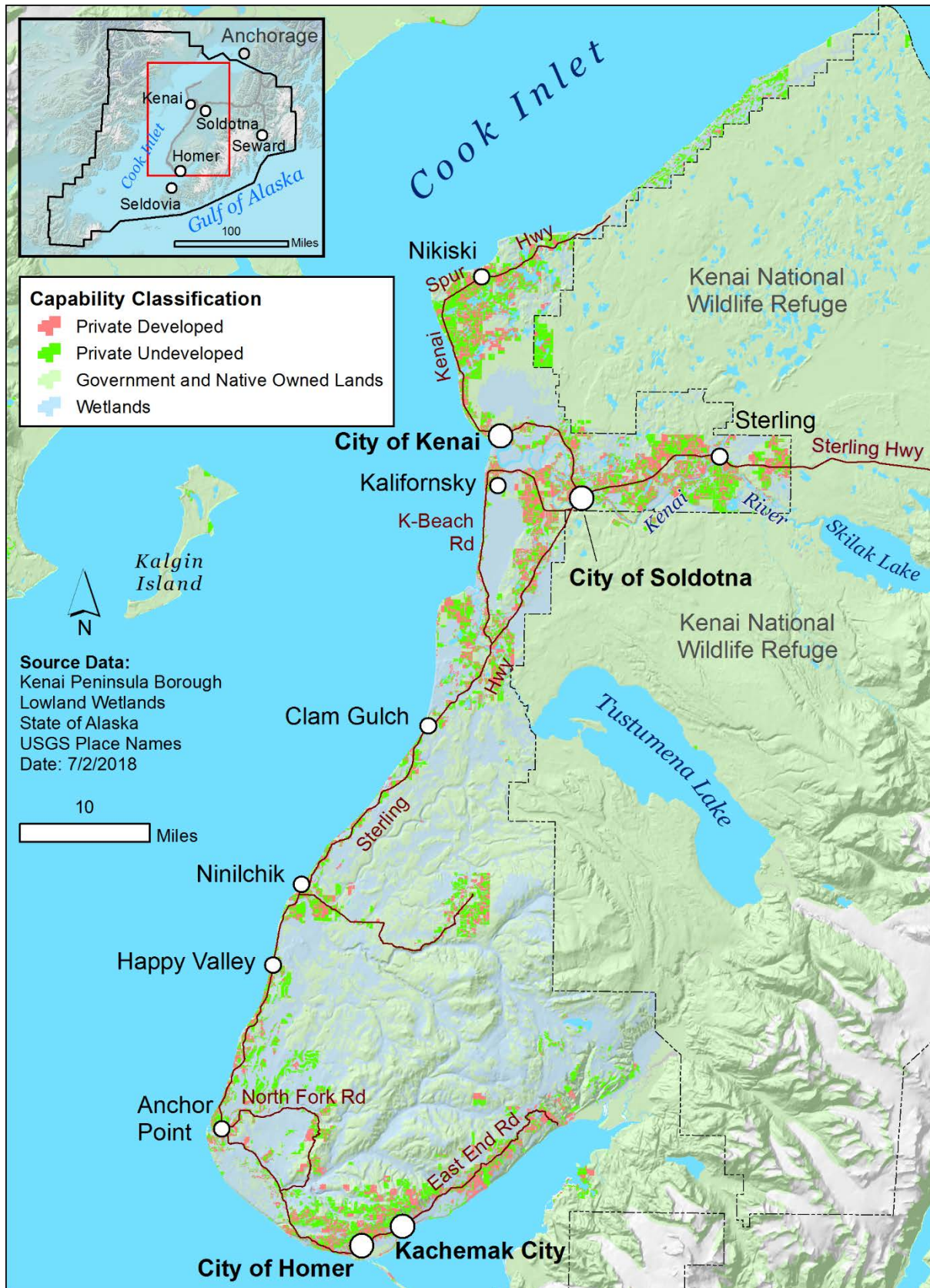


zoning authority except for structures built in the regulatory floodplain. Some uses are regulated, however, such as gravel pits and halfway houses.⁴⁴ The Borough has also adopted a local-option zoning system, recently updated in 2016, which allows property owners in a specific area to elect to apply one of the zoning districts in Title 21. The Borough owns and manages the Donald E. Gilman River Center, a multi-agency permitting facility focused on regulating development in the watersheds of the Kenai Peninsula Borough. The River Center houses three regulatory agencies that coordinate jurisdictional priorities to provide a streamlined application process for development permits. Permitting authorities housed at the River Center include the KPB Habitat Protection District, which regulates development activities within 50 feet landward of the ordinary high water line of managed anadromous streams; the KPB Floodplain Management Program, which regulates development activities in the regulatory floodplain; ADF&G, Division of Habitat, whose jurisdiction includes critical habitat areas and regulates activities below the ordinary high water line of waterbodies that contain salmon and resident fish species; and ADNR, Department of Parks and Outdoor Recreation, whose jurisdiction includes the management of activities occurring in state parks including the flowing waters of the Kenai River. The River Center is the central resource for property owners wishing to develop within the jurisdictions of these agencies, and staff provide support in the navigation of complex regulations and information on the best management practices to protect private property and public resources.

Borough planning staff and the Planning Commission currently spend a large percentage of their time on reoccurring land use conflicts, particularly regarding commercial gravel pits near residential neighborhoods. Neither the existing local option zoning nor the existing conditional use rules have significantly reduced occurrence of these common land use issues.

⁴⁴ See the 2005 Kenai Peninsula Borough Comprehensive Plan, Chapter 7 for an overview of federal, state and borough land use and environmental policy.

Map 8. Wetland (all owners) and Uplands (by owner), Central and Southern Kenai Peninsula



Wise Use of Borough-Owned Land

The Borough has received approximately 143,000 acres of Municipal entitlement land from the State of Alaska. Thoughtful use of Borough land provides unique opportunities to meet regional goals, including expanding the local housing supply and providing sites for public facilities and developed recreation. These opportunities are important in a borough where over 85 percent of all land is in state and federal ownership. Details of the status of Borough-owned lands are summarized below:

- Borough-owned land is acquired through municipal entitlement, purchase, exchange, donation or tax foreclosure. The Borough was entitled to select 156,000 acres of state land under the Mandatory Borough Act of 1964 and the Municipal Entitlement Act of 1978. Approximately 91,500 acres have been patented to the Borough, and an additional 51,000 acres have been approved for patent by the State. Approximately 27,900 acres of the land managed by the Borough has been leased or sold, including approximately 17,900 leased for grazing.
- Most Borough-owned land is vacant and unclassified. Most of the remainder (3 percent) is used for institutional or public purpose, and the remaining one percent for varied other purposes.
- Revenue generated from Borough land is held in a local land trust fund.

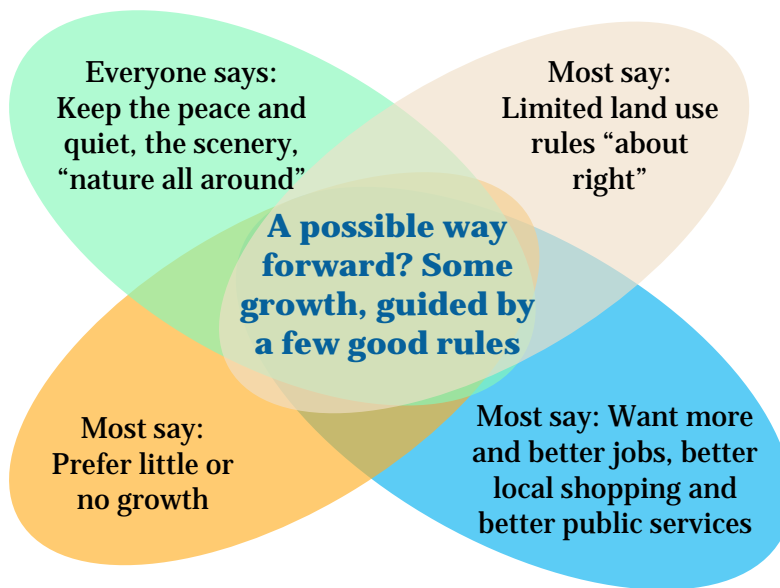
LAND USE AND CHANGING ENVIRONMENT OBJECTIVES AND STRATEGIES

What We've Heard

Local views on guiding growth, looking back, looking forward. The 2005 Plan included many thoughtful land use policies, building on a broad outreach process. However, little progress has been made on the 2005 Plan's recommendations for expanded Borough land use management. Based on input during the preparation of this current plan, including views of staff, planning commission, elected officials and others, this lack of implementation reflects a combination of the limited resources available to Borough staff, and most borough residents' overall satisfaction with the current, relatively limited approach to Borough land management.

One source of insights into the views about regulation come from the phone survey done as part of this plan, which collected the opinions summarized below and on the following page. Results show that when people were asked in general terms about "land use regulation," half feel that current regulation is about right; one in ten believes there is too little regulation and three in ten believes there is too much. Figure 39 summarizes the diverse views expressed during the planning process. Table 14 summarizes survey responses for questions related to land use regulation and Borough property tax.

Figure 39. Summary of the Public's Perspectives on Community Priorities and Future Growth



Note: Figure 39 summarizes the mixed public views about rules, growth and change in the borough, gathered through surveys, community events, and individual and small group conversations. Results suggest a possible middle ground approach, using a “few good rules” to hold on to what people most like about borough life, like scenery and nature, and to help create the positive outcomes that can come with guided growth, like more jobs, and more public and commercial services.

What is the best thing about living in the Kenai Peninsula Borough?

I can live in places where there are moose and birds flying around. It's nice to live here because I live next to a lake and there is not a lot of traffic.

It's quiet and peaceful and beautiful.

Good air, good water.

If you enjoy the outdoors, you have unlimited opportunities like hiking and hunting and fishing.

It's not overcrowded, there are not a lot of people.

Freedom, we are not overregulated; there is minimum Borough or government meddling.
2017-2017 KPB Comp Plan Survey Participants

What is the most challenging thing about living in the Kenai Peninsula Borough?

Lack of shopping/retail.

Everything is a 12-mile drive, or to Anchorage.

The winter is challenging, roads can be very slick and open to accidents.

Road maintenance is horrible.

Being able to find and keep a good job.

Work shuts down in the fall.

The isolated economy.

Lack of community health services.

High utility costs, fuel oil and gasoline.

We need to work together more.

2017-2018 KPB Comp Plan Survey Participants

Table 14. Survey Responses for Questions about Land Use Regulation and Borough Property Tax

Response	Live Within City Limits	Live Outside City Limits	Total
<i>Land Use Regulation: Mostly Positive or Negative Opinion?</i>			
Mostly Positive	43%	39%	40%
Mostly Negative	36%	38%	37%
Bit of Both	7%	12%	10%
Not Sure	14%	11%	12%
<i>Current Level of Land Use Regulation in Your Area?</i>			
Too Much	27%	35%	32%
Too Little	9%	10%	10%
About Right	50%	44%	43%
Not Sure	13%	12%	12%
<i>Support or Oppose Borough Property Tax</i>			
Support	60%	54%	55%
Oppose	27%	35%	32%
Neutral	14%	9%	11%
Not Sure	3%	2%	3%

The phone survey asked residents their views about “land use regulation”. In this broad form, the majority think the current limited land use regulation is “about right”. More think there is “too much” than think there is “too little”. Views about regulations are most positive in places with the most regulations (cities); places outside of cities are more opposed. Attitudes about property tax are strongly correlated with dislike for regulation (e.g., outside of cities, the same percentage, 35 percent, of people who think there is “too much regulation” also “oppose property tax”).

Views about regulation expressed in this survey format are helpful but do have limitation. The final views on any “land use regulation” will usually come down to the specific issue being addressed, and the specific response. Regulations that effectively achieve a widely accepted purpose, such as protection of water quality in domestic wells, or preservation of the health of salmon, are likely to have wide support; regulations that are perceived as more intrusive, interfere with private property rights, and that provide few clear benefits tend not to be supported.

With the mix of views shared above as the context, the sections that follow are specific land use and environmental objectives and strategies. Together these policies offer a restrained approach to guiding growth, aiming to retain and enhance what people like about living on the Kenai Peninsula today, including limited regulation, but also providing tools to help respond to change and shape the future.

Note: “Near-Term” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Establish policies that better guide land use to minimize land use conflicts, maintain property values, protect natural systems and support individual land use freedoms.

Without boroughwide land use regulations in place, new developments have resulted in incompatible uses and perceived threats to established residential neighborhoods. Residents have identified protection of residential character and property values as a priority, but have not supported increased regulations such as region-wide zoning. Areas of concern include high-intensity uses such as gravel pits, and noise issues from airplanes or motorized vehicle trails.

2005 Kenai Peninsula Borough Comprehensive Plan

Borough residents, businesses and leadership have shown limited appetite for land use regulations. At the same time, this planning process has made clear that many borough residents want strategies to reduce land use conflicts and to sustain environmental health. And many of the qualities that people most like about the borough may not last without action and policy that support those qualities. Considering these views, this plan sets out the following guiding principles related to this broad objective.

- Balance and integrate multiple interests in land use: the right to use land as you choose; the right to not be excessively impacted by neighbors who exercise that freedom; and the shared value in protecting the underlying health of borough natural systems.
- Develop regulations that will minimize conflicts between adjoining uses, maintain property values, and maintain and improve neighborhoods, communities and natural systems.
- Develop an improved set of Borough land use regulations to reduce reoccurring conflicts on the same narrow set of issues such as gravel pits.

Strategies

1. **Near-Term:** Adopt limited development standards for specific areas and uses to reduce potential off site impacts of development on adjoining uses and the natural environment. *Examples:* development standards for setbacks, height limits, buffering requirements and potentially lot sizes.
 - a. Vary standards depending on the type of use. *Example:* require small side/rear yard setbacks for residential parcels but larger setbacks for larger scale uses, such as large-scale commercial uses or industrial activity.
 - b. Vary standards depending on the type of adjoining uses. *Example:* Buffering requirements would be greater for industrial activities adjoining residential uses than in a generally industrial area.
 - c. Priority areas for establishing development standards include unincorporated communities, areas just outside incorporated communities, areas prone to significant erosion and/or flooding and other areas where land use conflicts already exist or are likely to arise.
 - d. Add definitions to the code to better clarify terms used in managing land use, including “residential” and “neighborhood.”
2. **Near-Term:** Update the Borough’s existing conditional use regulations for gravel extraction and other uses to better address reoccurring land use conflicts.

Land use policies used widely around the United States have two main components: rules on allowed uses, and standards guiding characteristics of uses. The policies proposed in Strategy 1, like policies used in several other Alaska boroughs, would only apply to the second of these two approaches. The result means all uses would continue to be allowed in all locations, but there would be standards applied, for example setbacks, to reduce offsite impacts of adjoining uses.

Some targeted improvements to the code include:

- a. Clarify the broad purpose of the conditional use process and clear parameters for allowable conditional uses that include reasonable, project-specific conditions that reduce impacts on surrounding uses, and if/when a conditional use permit can be denied. *Example:* Consider establishing conditions that require larger setbacks,

- safety and visual screening, control on access routes, control on hours of operation, and address environmental concerns.
- b. Consider updating the list of topics that staff and Planning Commission may consider when setting conditions of approval. Incorporate safety, visual quality, environmental impacts, and traffic impacts.
 - c. Examine the list of uses where Conditional Use Permits are required in the code and consider whether they are necessary. New uses where conditional use permits should be required include junk yards, industrial activities, and large-scale commercial developments.
 - d. Complete improvements to the rules guiding gravel extraction, with the goal of providing an appropriate balance between providing access to affordable materials for development and protecting quality of life for borough residents.
 - e. Consolidate the multiple conditional use sections in the existing Borough code.
3. **Near-Term:** Improve subdivision standards, such as road and access standards and trail easements.
- a. Require both legal and constructed physical access improvements and consider requiring other basic infrastructure as a condition of subdivision approval.
 - b. Develop a boroughwide plan to set standards for the functional classifications of the roads (e.g., width and construction materials) are set and the right of way (ROW) is platted at sufficient size to meet anticipated future needs. This plan should include:
 - i. Sizing of road rights of way to meet future needs, not just users of a single subdivision.
 - ii. Identify conceptual routes of possible future bypass roads.
 - iii. Provide for a second route in and out of communities like Homer.
 - c. Maintain the current policy of not accepting roads for Borough ownership and maintenance until they meet the Borough's defined standards.
 - d. Review and refine right-of-way, road and infrastructure standards for physical access to subdivisions, with potential for a future transfer of maintenance responsibility of rights of way to the Borough.
4. Improve Borough planning staff capacity to effectively and efficiently implement the comprehensive plan and enforce related codes.

Planning Department staff and the Planning Commission should focus on important issues currently getting limited time, such as forward-looking transportation planning, helping unincorporated communities with local planning, or leveraging Borough resources through partnerships, for example, to bring resources for better roads, trails and other needed infrastructure.

Objective B. Develop a stronger local voice in decisions on uses of federal and state lands.

Given the high percentage of the borough in federal ownership, and the fact that these land owners are often supportive of local interests, more should be done to influence management of these lands. Examples of local priorities that could be expressed to and carried out working with these agencies include:

- Improved access roads and trails, including summer and winter, motorized and non-motorized.
- Expanded recreation and tourism opportunities, including well managed commercial uses.
- Greater support for local economic development activities generally.

Strategies

1. Strengthen the relationship between Borough leadership and staff and clarify whether and how both groups can actively engage with federal and state land managers, on day-to-day, shared land management issues.
2. Take strong, informed Borough positions on updates to long range land management plans, such as the U.S. Forest Service Chugach National Forest Plan revision process.
3. Expand mutually-beneficial partnerships, particularly for improving local infrastructure such as trails and other recreational amenities.

Example: The Borough could serve as a convener of recreation user groups, volunteers, businesses and public land managers for construction and maintenance of recreational trails and cabins. *See Tourism and Recreation section.*

4. Support locally-driven community plans, particularly in communities embedded in surrounding public lands, such as Hope and Cooper Landing.

Objective C. Guide land use at the regional scale to promote economic development, improve public roads and other services and facilities, and maintain environmental quality.

We need more higher paying jobs so people can live here throughout the year.

I need a job that has a wage that can support a family.

2017-2018 KPB Comp Plan Survey Participants

There are several policy tools the Borough can use that influence land use and economic development, including mapping recommended growth patterns, working with public land managers, and coordinating infrastructure improvements to support land use goals.

Strategies

1. **Near-Term:** Develop a generalized land use map, illustrating broad intentions for future development, growth and conservation priorities.

Topics addressed on the map should include:

- a. “Target growth areas” and related needs for access and infrastructure improvements, such as areas for residential uses, agriculture, mining, oil and gas, recreation.
 - b. Key trail and trail corridor projects such as the extension of the Iditarod trail system from Seward to Anchorage, Hope corridor, and Caribou Hills.
 - c. Critical environmental areas where habitat, watershed and floodplain functions need to be improved or preserved.
 - d. Notable land use conflict areas that need additional local-level planning.
2. Identify and target desired economic development in promising, appropriate locations, including, for example, for mining, agriculture, industrial uses, tourism and recreation.
 - a. Identify lands with greatest agricultural potential. *See Agriculture and Mariculture section for details.*

- b. Identify areas with particular opportunities for tourism and recreation and related development, such as Moose Pass, Swanson Lakes canoe trails, the Kenai Refuge Visitor Center and trail system, and Spencer Glacier projects.
- c. Identify communities where there are opportunities and interest in encouraging a concentrated, walkable, mixed use and commercial development, with quick and convenient access to adjoining outdoor recreation. Cooper Landing is one example.
- d. Reserve location(s) in the borough to take advantage of opportunities for industrial projects. *See Mining, and Oil and Gas sections for details.*
- e. Push for investments by state and federal partners that help achieve plan economic development goals, for example infrastructure, recreational facilities.

Example: Identify priorities for improved boat launches, harbor facilities, and other access improvements in locations where roads, trails and docks would bring substantial economic and safety benefits. *See Tourism and Recreation and Sportfishing sections for details.*

- 3. Coordinate public service and facility improvements with land use and growth policies and trends.

The pattern and density of development influences the cost and feasibility of public services. In general, as density increases, costs of service per household go down. The Borough should consider promoting land use patterns that reduce per capita costs. *Example:* More concentrated communities, such as Hope, have reduced costs for school busing as more youth can walk to school, and bus routes are shorter.

- 4. Continue to make available authorizations for temporary use of Borough-owned land to support economic development and growth.

Mechanisms include easements, rights of way, exploration permits, and other less-than-fee ownership authorizations.

- 5. Partner with incorporated communities and affected land owners and businesses to manage rapid development on land just outside city boundaries.

These locations need new land use rules that better protect neighborhood and environmental quality, address gravel extraction, and minimize future traffic congestion (*see sidebar at right*).

- 6. Increase the capacity of the Borough to provide matching funds for state and federally funded capital projects that support local land use and economic development. Decisions on state and federal funding heavily favor projects where there is a local match. Even where the local match is modest, Alaskan municipalities have secured significant public infrastructure spending by offering more local matching funds than competing governments. The combination of effective lobbying and the ability to offer modest, local matches for state dollars is the best route for scoring high in Statewide Transportation Improvement Program (STIP) rankings.

Guiding Development

Locations like Kalifornsky Beach Road between Soldotna and Kenai are experiencing substantial “strip commercial” development. This provides business opportunities and access to goods and services for consumers, but also creates a range of well documented downsides, including congestion, unsafe streets, unattractive signage, and places that are unsafe and/or unattractive to move about by means other than the private automobile. Such areas are good candidates for land use controls that can reduce these impacts. A common method in other western states is to establish “areas of impact” adjacent to cities where some of the incorporated city’s land use and infrastructure policies could apply.

Objective D. Maintain quality of the borough's natural environment, including protecting visual quality, minimizing development in hazardous areas, and developing strategies that help reduce and respond to impacts of changing environmental conditions.

The best thing about living here on the Kenai Peninsula: absolutely beautiful scenery! It's just a beautiful place, mountains, lots of country wilderness, water.
2017-2018 KPB Comp Plan Survey Participant

The borough's waterways dynamically shape the character of the land, as well as the livelihoods and lifestyles of borough residents. The quality of the Borough's ground waters, surface waters, and marine waters is vital to the region's economy and local quality of life.

2005 Borough Comprehensive Plan

Strategies

1. **Near-Term:** Take actions to help preserve the borough's scenic beauty.
 - a. Work with federal and state partners to manage visual quality on roads passing through federal and state land while also ensuring regulatory policies that allow for targeted roadside economic development.
 - b. Consider developing standards that help maintain visual quality along other highway corridors, including signage and vegetation buffers. In addition to visual/aesthetic issues, sign codes can address safety issues, such as rules on bright, intense and/or flashing lights that can be hazards for drivers.
 - c. Consider obtaining formal U.S. Scenic Highway designation for roads within the borough where this could help with marketing, and perhaps provide funds and incentives for maintaining or improving scenic quality.
 - d. Promote concentration of commercial uses in community centers vs. extending for long lengths along highways.

2. **Near-Term:** Identify and protect the critical natural systems of the Kenai Peninsula Borough, its rivers, watersheds, floodplains and fish and wildlife habitats and resources.

The Kenai Peninsula Borough and state, federal and non-profit partners are working to further develop and implement policies to protect the borough's rivers, streams, wetlands, and other important habitats, and reduce flood risks.⁴⁵

The focus of borough environmental policies is the "continued enjoyment of the prosperity and abundance provided by anadromous fish." Specific policies are set out in KPB code (21.18. Anadromous Waters Habitat Protection). The regulations apply to 793 anadromous water bodies in the borough, which include the anadromous streams on the west side of Cook Inlet. These regulations coordinate with state and federal policies and protect water systems with policies such as requiring a 50-foot Habitat Protection District along both sides of anadromous streams, and by limiting land uses and other activities that could adversely affect salmon habitat and floodplain function.

Whereas ADF&G and AND&R jurisdiction in the anadromous waterbodies of the borough do not extend above the ordinary high water (OHW) line, Borough habitat protection and

⁴⁵ In 2010, the Kenai Peninsula Borough became a partner of the Kenai Peninsula Fish Habitat Partnership. Its purpose is to create and foster effective collaborations to maintain healthy fish, healthy people, healthy economies in the Kenai Peninsula Borough. Kenai Peninsula Fish Habitat Partnership Strategic Plan, September 2012.
https://www.kenaifishpartnership.org/wp-content/uploads/2014/03/Strategic_plan.pdf

floodplain ordinances are often the only regulations protecting the essential riverine habitat above OHW that provides shade, protection and nutrients to juvenile salmon.

In addition to existing policies, specific strategies where additional Borough resources and actions would better help maintain and enhance regional environmental systems include:

Figure 40. Classic Fishwalk, Kenai River



- a. Continued support of actions by partnering agencies, groups and organizations working to sustain healthy fish habitats and populations in a way that preserves and enhances land and recreation values.
- b. Utilize existing research and plans to anticipate, avoid and mitigate the greatest threats to freshwater habitat. The top four threats identified recently: 1) injurious aquatic invasive species, 2) a warming climate, 3) incompatible road development, and 4) residential development in riparian zones.⁴⁶
- c. Support research and monitoring programs that help to understand the changes affecting water and wetland temperatures relating to fish habitat and water quality. *See also recommendations in the Sportfishing section.*
- d. Support educational programs that promote knowledge and awareness of the importance of healthy fish and wildlife habitats, and the link between healthy habitats, healthy communities and a healthy economy.
- e. Support for resources, including direct funding, partnerships and use of volunteers, for priority ongoing fish and water resource restoration activities.
- f. Continue providing for effective and efficient permitting and enforcement for responsible development within the Habitat Protection District and regulatory floodplain.
- g. Require submittal of thorough existing natural conditions information as a reference for subdivision review and approval.
- h. While allowing for development, support natural resource designations and development standards in land management planning and infrastructure projects.
 - i. Design road and other infrastructure projects to protect water system quality and fish habitat.
 - ii. Support and strengthen design and construction review of new roads crossing or running parallel to fish bearing streams.
 - iii. Support efforts to evaluate, monitor and restore stream crossings by roads where known barriers exist.

⁴⁶ Kenai Peninsula Fish Habitat Partnership Strategic Plan – Freshwater Section; Kenai Watershed Forum, 2016 https://www.kenaifishpartnership.org/wp-content/uploads/2013/06/DRAFT-Freshwater-CAP_2014_solicitation.pdf

- i. Work with partners to minimize establishment and spread of invasive species:
 - i. Reduce the spread of aquatic invasive species, for example work to contain the spread of *Elodea*, and to eradicate Northern Pike.
 - ii. Reduce the spread of invasive plants on roads and right of ways, through landscaping and construction policies, for example by requiring weed free gravel and replanting using species native to Alaska.
3. Support programs to clean up large stockpiles of junk cars, buildings and other materials where this has impacts on the visual quality of neighborhoods or commercial areas regularly used by visitors.
 - a. Develop and enforce land use standards controlling where such visually disruptive uses are permitted and require screening.
4. Guide growth to minimize exposure to the risk of natural and human-made disasters.

Objective E. Actively work with interested communities outside of the incorporated cities to help develop locally-driven community plans.

We are overdue for a community plan that will help us manage growth and hold onto what makes this a special place.

Resident, Hope community meeting

We want the Borough to respect us and respond to our needs, but no one in the community wants a community organization or have someone speak on their behalf.

Resident, Sterling community meeting

Most of the Borough's smaller unincorporated communities are wrestling with challenges of growth and change. Through this planning process, several have made clear their desire to develop plans to guide these changes. In the past, some communities prepared plans that were completed and adopted as elements of the 2005 Borough Comprehensive Plan. The Borough will continue to actively work with unincorporated communities as they develop local plans that help them manage change, define community aspirations and priorities, and expand local capacity to make progress towards community goals.

Strategies

1. **Near-Term:** Set a basic template for community plans that promotes the uniqueness each location; helps address boroughwide goals; provides guidance for the plan process and plan framework; and that promotes efficiency in preparation and approval of plans.
2. **Near-Term:** Where there is clear interest in guiding growth and community planning, provide staff support and/or funding for locally-driven plans.
Staff can help facilitate community discussions or provide data, planning tools and other information to support creation of a practical, easy to implement local plan.
3. **Near-Term:** Investigate options for local communities to have more capacity to achieve their priority goals and projects, including utilizing existing mechanisms like service areas and advisory planning commissions.

The Borough could also make available small competitive annual borough grants to local community organizations and user groups, intended to leverage local resources. See *Fiscal Health* section for details.

4. **Near-Term:** Encourage unincorporated communities to engage with their established local Advisory Planning Commission (APC) and encourage establishment of new APCs for communities not currently represented.
5. **Near-Term:** Support existing or in-progress community planning efforts.

During the 2017 outreach process, two communities, Hope and Moose Pass, shared that they are initiating a community planning process. The Borough should prioritize supporting these processes.

Objective F. Actively manage Borough-owned lands to meet short and long-term regional goals.

Selling Borough lands near Hope or Seward could help alleviate current demand for more housing for year-round residents, but lands need to go to people who want to live and work here, not just for second homes and vacation rentals.
Residents, Hope and Seward community meetings

We need new rules for land sold by the State and Borough for agriculture purposes, rules that support rather than getting in the way of agricultural use.
Board member, Kenai Soil and Water Conservation District

If we manage our lands correctly, the Borough should never want for land to meet community needs.
Borough staff member

Approximately 117,000 acres of land are owned and managed by the Borough. This land provides opportunities to meet a wide range of near- and long-term regional goals, including selling land to expand the local housing supply, supporting economic development, protecting natural areas, and providing sites for public facilities and outdoor recreation. The Borough has clear responsibility and authority to manage its holdings to serve the interests of all borough residents.⁴⁷ New actions and new and improved systems are needed to better manage this valuable borough-owned asset.

Strategies

1. Clarify and provide more specificity in the existing goals for Borough-owned lands.

Borough code currently gives less than clear direction for the use of Borough-owned lands, with broad statements such as “promote orderly development” and “retain borough lands essential for health, safety and education needs.”

The expanded set of goals below are designed to provide better reference points for ongoing decisions about Borough owned land, noting that on any given parcel, a decision requires balancing multiple goals.

- a. Emphasize uses that serve regional interests: aim for broad public benefits, and benefit as many people as possible and the overall interests of the borough.
- b. Support Borough public service and facility needs (e.g., schools, libraries)
- c. Meet local community needs, where communities have few alternatives and where borough properties would provide high value locations for recreation or other public uses otherwise unavailable on land in other ownerships.

⁴⁷ AS 29.35.010(8) states: All municipalities have the following general powers: subject to other provisions of law, to acquire, manage, control, use, and dispose of real and personal property.

- d. Support options for regionally significant economic development, such as leases or sales for agriculture; lands retained for developed recreation, and authorizations for utilities, easements, rights of way, and/or temporary use permits, such as may be required for oil and gas related activities.
 - e. Where land supply for residential uses is constrained, particularly in and around borough communities embedded in public lands, provide land for settlement.
 - f. Actively manage allowed uses on land retained in Borough ownership, to sustain the value of these parcels into the future.
 - g. Protect valuable, sensitive natural environmental services through good planning on lands used for development, and in some areas, classification of land to be retained specifically to protect unique environmental and natural open space values.
 - h. Manage Borough land for long term economic and fiscal benefits including generating sustainable revenues that generate tax revenues and/or help support improve ongoing land management in the borough.
2. Define and apply explicit criteria for the final round of land selections.
- Preliminary criteria for selecting lands should include tracts that:
- a. Meet basic physical suitability standards such as slopes and drainage, accessibility, and access to services.
 - b. Have economic development potential, including:
 - i. Space for infrastructure, such as waterfront activities linked to commercial fishing, tourism or general industrial activities.
 - ii. Parcels directly supporting new jobs or new businesses, such as land for tourism activities, agriculture, or energy production facilities.
 - iii. Parcels with value for gravel or rock quarries.
 - iv. Properties that can play support roles for nearby development, such as access to or support facilities for hydropower projects.
 - c. Could be used as a wetlands mitigation bank to secure:
 - i. Support for public services and facilities.
 - ii. Sites for enterprise services such as power generation.
 - iii. Sites for community uses, such as gravel or rock quarries.
 - d. Alternative sites for existing public facilities currently in imperfect locations. *Example:* a road maintenance and materials facility on a high-value, waterfront property could be relocated to the outskirts of a community.
 - e. Property with high value or high amenities for residential or tourism and hospitality uses, such as lands near existing roads or well-suited for a lodge.
3. Refine Existing Borough Land Management Code and improve and revise select sections of the Borough Land Management code (KBC Chapter 17).
- Priorities for improvement include:
- a. Clarify overall objectives for land management (see *Strategy 1*).
 - b. Revise the Borough land classification system.

Currently, less than one percent of Borough-owned lands have been classified. Revising the classification system can provide more generalized and practical classification categories, with the following examples:

- i. Land sales for residential uses
 - ii. Land sales or long-term leases for commercial and industrial uses
 - iii. Land for retention for the following uses: community and public facilities, resource activities such as forestry and agriculture, and open space or habitat protection.
 - iv. Land for retention in for parcels where the best future use is complex and/or there is currently minimal pressure or opportunity for use, such as parcels with no road access.
 - c. Set up a procedure for developing management plans on parcels needing more detailed, site-specific planning, particularly for larger parcels of currently undeveloped Borough-owned land.
 - d. Develop policies or guidelines for the process of selling or leasing Borough land.
 - i. Set up a process for land sales that focuses on expanding the supply of land for year-round (vs. seasonal/second home) residents.
 - ii. Provide standards to guide use of land once it is sold, specifying uses allowed and prohibited (such as reserving land for agricultural use), and providing development standards such as setbacks.
 - iii. Set up an improved process for agricultural leases, including standards for determining basis for appraised value.
 - e. Add policies for managing commercial uses on retained lands, e.g., permits for commercial recreation.
4. Inventory and classify all Borough Lands.
- a. Provide resources to the Planning Department to complete a basic inventory of Borough-owned land, including physical characteristics, existing and possible future uses. This should be done for all Borough land but can start with a focus on lands with greatest near-term use potential. This process is underway but requires additional resources to be completed.
 - b. Prepare updated land classifications for Borough-owned land, using new code categories above.
 - c. Set up a phased, continually updated five-year implementation plan for use of Borough land to include:
 - i. Improvements, permitting on retained land.
 - ii. Access improvements.
 - iii. Schedule of proposed land disposals.
 - iv. Process for public input into these plans and policies
 - d. Increase public access to knowledge and information about land characteristics and existing land uses.
 - e. Establish and maintain an improved land information and land records system.

Objective G. Manage beneficial and deleterious effects of climate change impacts.

While not everyone agrees on the causes of climate change, there is no doubt that Alaska is seeing significant and accelerating changes in temperatures, precipitation, storm events and habitats. More work is needed to assess the specific nature and anticipated pace and intensity of these changes, and possible adaptation strategies. Some of these changes will likely be negative, like increased wildfire and flooding hazards; others may be positive, like expanding seasons for agriculture. The Borough has a large role to play in the planning for and response to climate change-related impacts on existing and future public infrastructures.

Strategies

1. **Near-Term:** Develop a climate change action plan that includes a framework for selecting, monitoring and sharing indicators that track environmental changes associated with climate change; impacts of climate change at the neighborhood level; and, adaptation measures and their effectiveness. After identification of areas that are experiencing change and are likely to continue, outline explicit adaptation and mitigation strategies.
 - a. Increase the effectiveness of a boroughwide/regional climate change action plan by ensuring alignment across routine and iterative planning process such as local comprehensive, hazard mitigation, capital improvement, coastal management, climate change and other relevant plans.
 - b. Review, revise and support climate change adaptation goals and strategies developed through climate resilience workshops. Sample strategies the Borough could play a role in include:
 - i. Diversify transportation network to improve resilience in the case of disasters and local emergencies.
 - Encourage more marine transportation from Homer to Anchorage.
 - Plan for the improvement of docks to increase capacity.
 - Encourage citizen participation in DOT&PF infrastructure decisions.
 - Site new roads and bridges and alter existing road alignments to improve resiliency in the event of disasters and local emergencies.
 - ii. Develop a plan for more effectively engaging citizens.
 - iii. Work to preserve abundant and clean drinking water sources.
 - iv. Collect geospatial data and develop a conceptual water cycle model including septic systems, wells and groundwater recharge areas within Peninsula watersheds.
 - Educate the public about conservation methods.
 - Develop a public education program and incentive program for storing rainfall in local rain barrels and green infrastructure.
 - Educate the public about storm water best management practices and how storm water runoff affects drinking water sources.
 - Identify and work with homeowners who discharge storm water into the wastewater system.
 - v. Manage a sustained salmon population in Kenai Peninsula streams.
 - Develop a salmon stewardship cost sharing program, including overall plan and associated fees.
 - Protect anadromous fish habitat with variable buffers that consider landscape support for salmon where appropriate.

- Explore Local Option Zoning code and develop guidance for salmon habitat land conservation.
 - vi. Develop a sustainable mariculture industry in Kenai Peninsula bays.
 - Maintain a boroughwide inventory of mariculture business operations, including quantity and quality of mariculture products.
 - Support a network of private businesses and encourage/facilitate transmission of skill building, marketing coordination, and best management practices.
 - Collect and analyze geospatial statistical data to support the selection of sites that are appropriate for production and environmental conservation.
 - vii. Develop a productive agricultural network that can support human resilience in the event of shortages in global food supply chains.
 - Plan, fund, and build infrastructure that strategically connects farms, processing facilities, and consumer markets.
 - Develop a system for disseminating/sharing small-scale agricultural skills and business plans.
 - Sponsor/promote community cooking class and resources particularly for preparing foods that are locally grown.
 - viii. Protect and sustain the wild harvest culture.
 - Monitor for invasive/eruptive species and develop an action-plan/process for eradicating such ecologically debilitating species.
 - Consider how the Kenai Peninsula's salmon population can strengthen food security for residents, particularly in times of disaster or interrupted food shipments from outside the state or region.
 - c. As a specific component of the adaption plan,
2. **Near-Term:** Working with state and federal partners, update floodplain maps to reflect climate-change related changes in boundaries of flood prone areas, starting in most developed areas where consequences of flooding would have the greatest potential for impact on human life and property.



FOCUS AREA: HAZARD MITIGATION

HEADLINES

The Peninsula is divided into “hazard zones.” Because of the large area and ecoregion differences in the Kenai Peninsula Borough, the Borough established four emergency response zones: Central, East, North, and South (Figure 41 and Map 9). Each zone has specific hazard risks, and associated response and mitigation plans to address those potential hazards.

Figure 41. Top Five Hazards Most at Risk, Per Hazard Zone

North Zone	Central Zone	East Zone	South Zone
<ul style="list-style-type: none"> •Earthquake •Volcano •Hazardous Materials •Energy Shortage •Weather Extremes 	<ul style="list-style-type: none"> •Earthquake •Volcano •Energy Shortage •Flood •Fire 	<ul style="list-style-type: none"> •Earthquake •Volcano •Tsunami •Flood •Hazardous Materials 	<ul style="list-style-type: none"> •Earthquake •Volcano •Energy Shortage •Tsunami •Fire

Source: *Kenai Peninsula Borough All-Hazard Mitigation Plan*, 2014.

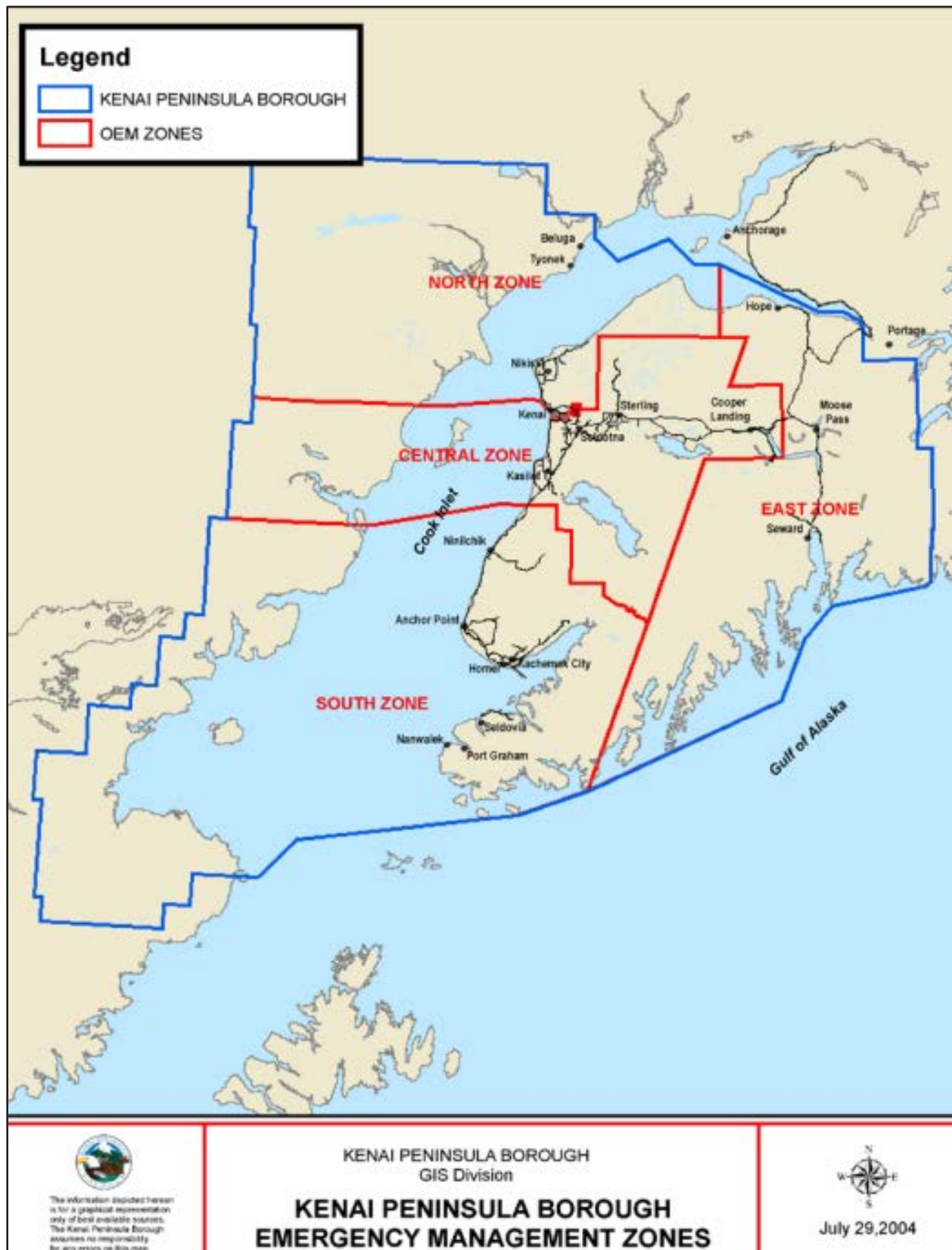
Private properties in the Kenai Peninsula Borough are vulnerable to flooding and erosion. Flooding, coastal erosion, and riverbank erosion are common occurrences and are likely to increase with a changing climate.

Avalanches are inevitable in several areas of the Kenai Peninsula Borough. Precautions and mitigating measures should be taken in property development and infrastructure planning, as well as recreational activities and related facilities, to avoid avalanche prone areas.

Bridges in the Kenai Peninsula Borough are structurally appropriate for seismic activity, but many Borough-owned buildings are not up to seismic standards. With the last 20 years, Alaska Department of Transportation and Public Facilities (DOT&PF) has retrofitted all state-owned bridges. Going forward, the Borough should address public buildings that are susceptible to structural failure during seismic activities.

Between 2006 and 2009, eighteen Community Wildfire Protection Plans were published in the borough. Kenai Peninsula Borough communities are well prepared regarding wildfire hazards.

Map 9. Kenai Peninsula Borough Emergency Management Zones



Source: Kenai Peninsula Borough All Hazard Mitigation Plan, 2014.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Between 2006 and 2017 there have been several local emergencies and declared disasters, mostly involving wildfires and flooding (Table 15).

Table 15. Recent Local Emergencies and Disasters, 2006 to 2017

Date	Type	Description
January 2017	Avalanche	Cooper Landing Avalanche
January 2016	Earthquake	7.1 Magnitude: Kenai Gas Explosion, K-Beach Road Damage
June 2015	Local Emergency	Card Street Wildfire, Stetson Creek and Juneau Lake Wildfires
May 2014	Local Emergency	Funny River Wildfire
October 2013	Disaster	Kalifornsky Beach Flooding
September 2012	Disaster	Severe Storm, Winds, Flooding and Landslides
November 2011	Disaster	Severe Storm
July 2009	Local Emergency	Shanta Creek Fire
May 2009	Local Emergency	Mile 17 East End Road Fire
March to October 2009	Local Emergency	Redoubt Volcano Eruptions
June to July 2007	Local Emergency	Caribou Hills Fire
January 2007	Disaster	Kenai River Flooding & Ice Jams
October 2006	Disaster	Seward Flooding
February 2006	Disaster	Seward Severe Winter Storm & Avalanches
February 2006	Local Emergency	Seabulk Pride Tanker Grounding

Source: Kenai Peninsula Borough Office of Emergency Management

Flooding

According to an analysis of hazards prepared for the 2014 All Hazards Mitigation Plan, although flooding and coastal erosion do not pose the greatest risk to life and property, these incidents are frequent on the Kenai Peninsula and comprise most mitigation efforts. Since 1995, there has been more than \$35 million in damages to public infrastructure and private property due to floods and coastal erosion. Most damage occurs in areas known to be susceptible to flooding, and nonetheless, development was permitted. Past flood events have not only damaged private and public properties, but have inundated and closed off major roadways, cutting off access to large areas of the peninsula.

Most communities on the Kenai Peninsula are in the watersheds of its many rivers, are near the coast, or both, resulting in a great deal of development in areas of known flood risk. For example, there is a significant amount of residential development in the regulatory floodway, which is the most dangerous part of the floodplain where flood waters are the swiftest and can carry large and dangerous debris. The efforts to address existing non-compliant development, which may pose additional public safety risks to the community during flood events, is an important priority. The Kenai Peninsula Borough and the cities of Homer and Seward are voluntary participants in the National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Administration (FEMA). The NFIP is a partnership between FEMA and individual communities; each community adopts and enforces federally established flood safety ordinances in exchange for technical support in the form of detailed studies of the location and severity of flood risks in that area.

Another benefit available to property owners in communities that participate in the NFIP is the ability to purchase federally subsidized insurance policies based on the location and elevation of their structures. FEMA supplies Flood Insurance Rate Maps (FIRM) showing where varying flood risks are in the community, represented as Special Flood Hazard Areas (SFHAs). Property

owners can contact planning departments of participating communities to receive a Floodplain Determination detailing the location of a property in relation to the regulatory floodplain. The Determination also provides information on regulations that apply to development in specific areas. Floodplain Development Permits are required for almost any type of development in the regulatory floodplain. The cities of Soldotna and Kenai currently do not participate in the NFIP.

Approximately 12 percent of properties in SHFAs within the borough have flood insurance policies (commensurate with the national average). Borough code, Chapter 21.06, Floodplain Management, provides specific regulations for development in flood prone areas.

Although the FEMA-provided flood maps provide communities with important information about flood risk probabilities based on known hydrologic factors, they do not include the risks of glacial outburst floods (“jökulhlaups”), ice jams, alluvial fans, earthquake-caused tsunamis, and other unpredictable and potentially catastrophic flood events. It is essential residents and communities consider the long-range flooding risks of vulnerable areas in the borough. Future growth and development should be planned and designed in the context of both historical events, projected events, and the impacts of climate change.

Erosion

Coastal Erosion

In 2007, the Kenai Peninsula Borough adopted its Coastal Management Plan. According to this plan, virtually the entire coast of the Kenai coastal plain is subject to erosion. Development, such as roads and gravel excavation, can contribute to the destabilization of coastal bluffs and subsequent erosion. Earthquakes can cause subsidence and ground failure, which accelerate erosion, especially in coastal bluffs composed of peat or unconsolidated granular deposits. Coastal erosion is especially problematic along Cook Inlet. Homer’s entire coastline experiences coastal erosion associated with winter storms.

According to the *Kenai Peninsula Coastal Management Plan*, “Developers shall retain existing vegetative cover in designated erosion-prone areas to the greatest extent practicable. In cases where development or other activities lead to removal of vegetation, erosion shall be prevented or, if it occurs, shall be remedied through revegetation (with native species if available) or by other suitable measures.”

Riverbank Erosion

Rivers and streams on the Kenai Peninsula, such as the Kenai River, experience significant erosion problems. Erosion and accretion are important natural processes in rivers and streams, which naturally meander and are never static. The erosion that occurs when streambank vegetation is disturbed or destroyed, however, can lower water quality and degrade fish habitat through heavy sedimentation. The loss of streambank vegetation also reduces the shade, protection, complexity and nutrients available to vulnerable juvenile salmon and other fish species. If property owners do not maintain ample riverine vegetation, the roots of which are what stabilize the bank, rapid erosion can cause loss of property and can endanger development. Staff at the Donald E. Gilman River Center provide information on erosion mitigation strategies, guidance through the permitting process authorizing bank stabilization projects, and outreach to property owners in areas of high risk.

Avalanches and Landslides

In Alaska, there are more avalanche accidents per capita than elsewhere in the nation. Avalanches commonly occur on slopes between 25 and 60 degrees. Between March 1999 and February 2014, 14 people were killed in avalanches on the Kenai Peninsula, most commonly in the Turnagain Pass area. In the winter of 2000, avalanches caused major power line damage that resulted in communities being without power for several days. In addition, several communities were cut off from road, rail and air access, and faced shortages of groceries and other supplies.

Several areas are highly susceptible to avalanche, making an occurrence inevitable. These areas should be treated with special care by reducing the number of structures, and planning infrastructure to avoid avalanches and mitigate their effects.

Figure 42. Third Avenue, Seward



Earthquakes

The Kenai Peninsula Borough has rapidly developing urban and transportation infrastructure that is vulnerable to a high level of earthquake hazard. Between 1899 and 2017 thirty earthquakes occurred between magnitude 6.0 and 7.2, with their epicenter located in the borough. Of recent significance was the Old Iliamna earthquake that occurred on January 24, 2016.⁴⁸ At 7.1 magnitude, the quake was centered approximately 162 miles from Anchorage, 65 miles from Homer. The Kenai Peninsula experienced some of the heaviest damage, including the destruction of four homes due to gas leak-related fires, and significant damage to Kalifornsky Beach Road. There were also power outages in Homer, and moderate damage to properties across the Kenai and other parts of Southcentral Alaska.⁴⁹

The longest period without a major earthquake was 23 years between 1970 and 1993. Major earthquakes can trigger landslides, avalanches, tsunamis, and seiches. The Kenai Peninsula Borough has among the highest earthquake hazard potential in the United States, according to USGS National Seismic Hazard Maps. Some communities, such as Seward (Figure 42), are built adjacent to steep slopes as well as being at high risk of a tsunami during seismic events. Factors that should be considered when assessing earthquake risk include population and property distribution, location of housing and facilities relative to potential secondary hazards, building design and construction, and disaster readiness for the region.

Most bridges are built to seismic standards. Most Borough-owned buildings, however, are not earthquake “ready” since they were built before seismic requirements were in place.

Wildfires

The Kenai Peninsula experienced an average of 66 fires per year over the past 35 years. The most recent large fire was a local emergency in June 2015, affecting Card Street, Stetson

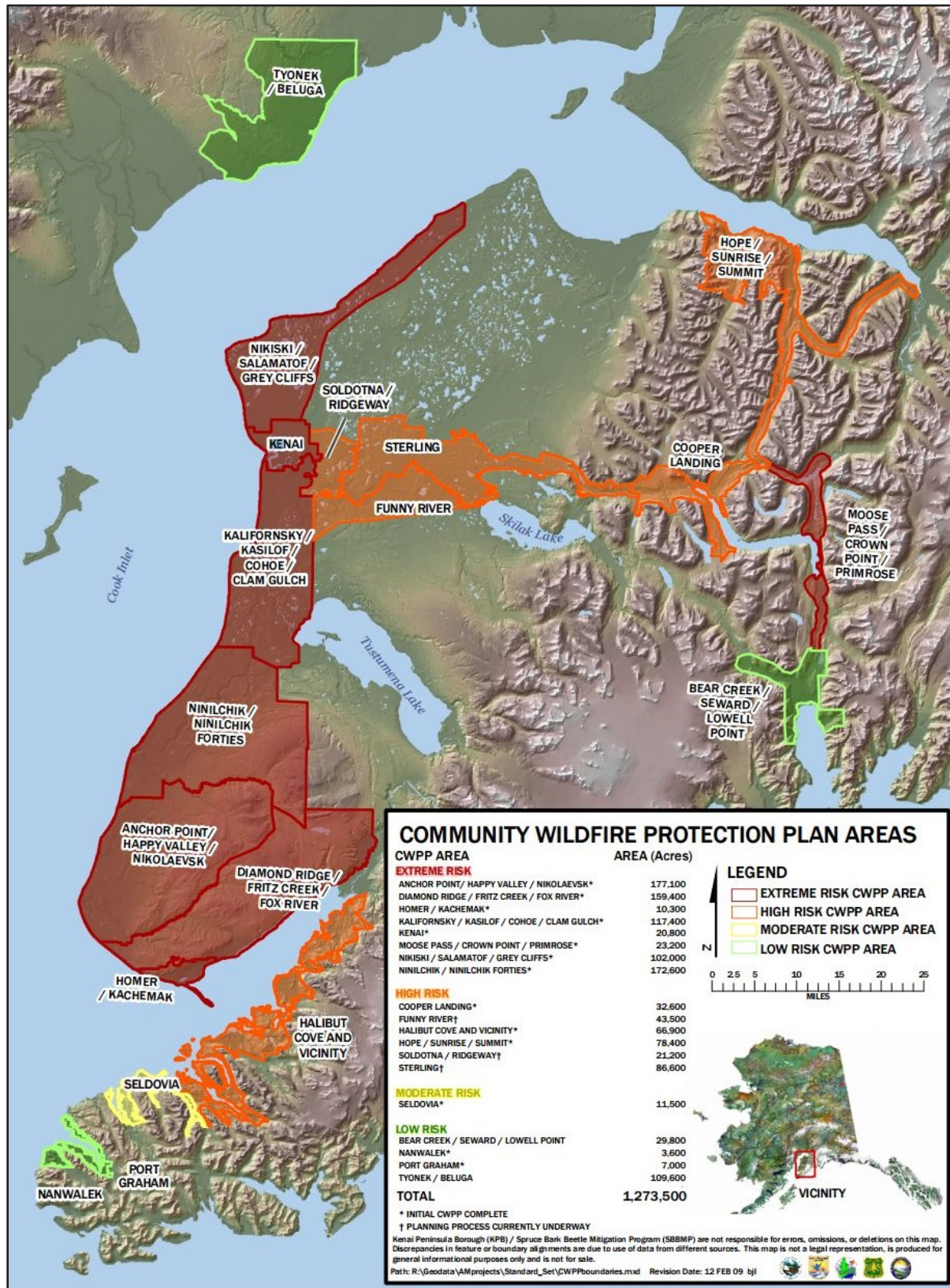
⁴⁸ <https://earthquake.usgs.gov/earthquakes/eventpage/us10004gqp#executive>

⁴⁹ <http://peninsulaclarion.com/news/2016-01-24/71-quake-rattles-region>

Creek, and Juneau Lake. The largest recent fire occurred in May 2014 at Funny River, which burned 195,858 acres. In the early 2000s a spruce bark beetle infestation killed large areas of spruce trees on the Peninsula. Dead trees were a major fire risk, prompting federal, state, and community groups to log the trees and clear fire breaks in strategic areas. This realization of the risk of wildfires prompted the Alaska Division of Forestry, Department of Natural Resources to fund, and the Kenai Peninsula Borough to support, 18 Community Wildfire Protection Plans (Map 10). All plans were drafted and published between 2006 and 2009. With the completion of these plans, communities are on their way to being better prepared for wildfire hazards.

During the past decade, the fire regime changed from spruce-canopy-carried wildfire in mid-summer to one that includes grassland fires in spring. In this regard, the 2005 Tracey Avenue Fire, in Homer, was a milestone. It was one of the first spring grassland fires to cause serious damage to an inhabited area. This event prompted the State Forestry to change the start of the official fire season in Alaska from May 1 to April 1.

Map 10. Community Wildfire Protection Plan Areas



Source: Kenai Peninsula Borough

MANAGING THE IMPACTS OF CLIMATE CHANGE

A rapidly changing climate will cause predictable and unpredictable impacts on the environment. In 2015, the U.S. Forest Service published “Climate Change Vulnerability Assessment” for the Kenai Peninsula. The assessment predicts climate conditions up to the middle of the century, 2050 to 2060.⁵⁰

Change in Snowfall and Rainfall

Winter months are expected to shorten, with the “freeze-up” periods occurring later and the “thaw” periods occurring sooner, compared to prior years. In areas where storms historically occurred at temperatures near freezing, a small increase in temperature can result in relatively large decreases in snowfall as the form of precipitation changes to rain. As temperatures increase, precipitation will occur at higher elevations, causing more snowfall in places that historically received less snowfall. These changes may mean increased snowpack at higher elevations, and less snowpack at lower elevations. Further, precipitation rates are changing by season, meaning less rainfall in spring and more rainfall in autumn. These changes significantly alter the hydrological cycle, which may cause greater and more severe flooding. More snowpack at higher elevations may also mean greater susceptibility to avalanches. Changes in precipitation are also likely to affect stream flows, water temperatures, and salmon sustainability.

Change in Vegetation and Wildfires

With a warming climate, another probable change is vegetation dispersion. The Kenai Peninsula, and Alaska in general, experienced radical shifts in vegetative communities many times as global temperature changed during glacial and interglacial periods. One hundred thousand years ago during a glacial period, the peninsula was covered in ice and was mostly tundra. During the interglacial warm period 125,000 years ago (which lasted 20,000 years) extensive forests existed in interior Alaska where the annual average temperature was 25-30 °F warmer than today.

Historically, during the early and mid-Holocene (the Holocene period began 11,700 years before present), mean fire return intervals ranged from 77 to 138 years depending on vegetative phase. In recent history, there were several large fires in 1924, 1947 and 1969. During the end of the 20th century, an average of 66 wildfires occurred on the peninsula each year, most being very small.

In general, fire hazards will likely increase somewhat from today on all lands in the borough except for on the eastern side of the peninsula (which is expected to retain its rain forest characteristics). The western side of the peninsula is expected to continue to dry due to warming, even after considering the effect of precipitation increases. Human population growth will also increase the risk of more human-caused ignitions, except for on the western side of Cook Inlet, which will continue to have few sources of human ignition. The spatial variation of wildfire risk will be distributed largely as it is today, but future total risk will likely increase or at least remain as high as it is today.

HAZARD MITIGATION OBJECTIVES AND STRATEGIES

⁵⁰ Kenai Peninsula Climate Change Vulnerability Assessment (2015), https://www.fs.fed.us/pnw/pubs/pnw_gtr950.pdf.

What We've Heard

We should build denser, more compact developments and avoid existing wetlands to avoid future flooding. I want to see restriction on development in high-risk zones, or more regulation. Flood plain permits.
Seward Bear Creek FSA event

We need a bluff erosion plan.
Nikiski Fun Days event

Highlights from the July 2017 Resident Survey

Survey respondents were not specifically asked about hazard mitigation, but some people highlighted hazard-related priorities when answering questions about land use regulation:

When I say the words "land use regulation" to you, are your reactions mostly positive or mostly negative?

When I say the words "land use regulation" to you, are your reactions mostly positive or mostly negative?

I live in an old place. The place is getting ready to fall apart after having an earthquake about a year ago.

The way the lots are here, it's like San Francisco – hill, hill, hill, hill. It takes a lot of designing to place the houses. Which is the reason why houses are like staircases. They have to be earthquake proof.

Not being able to take dead wood from a forest, which cause wildfires. If you go anywhere in the state lands, you cannot get dead wood. You shouldn't have to get a permit to get the dead wood.

2017-2018 KPB Comp Plan Survey Participants

What would you say is the most important role of Borough government?

The most important thing is coordination of emergency services in the area during the time of a disaster; they usually are supposed to take care of that.

2017-2018 KPB Comp Plan Survey Participant

HAZARD MITIGATION OBJECTIVES AND STRATEGIES

The Kenai Peninsula Borough first adopted the All-Hazard Mitigation Plan in 2004 to meet the federal regulations in the Disaster Mitigation Act of 2000. The Plan requires a FEMA approved update every five years. The last adopted Plan Update was published in 2014. A list of specific goals, objectives and strategies are articulated in this Plan. The current Plan Update is in process and scheduled for publication in 2019. See also Objective G of the land use focus area of this plan for proposed climate change-related actions.

Objective A. Implement recommendations and policies outlined in the Borough's 2019 All-Hazard Mitigation Plan.

Goal 3. Preserve and improve quality of life in the Kenai Peninsula Borough through increased access to local and regional facilities, activities, programs and services.



FOCUS AREA: ENERGY AND UTILITIES

HEADLINES

Enstar Natural Gas Company has contracted with AIX Energy for gas supplies through 2021. The resurgence of independent oil and gas companies in the Cook Inlet Basin is providing new supplies of gas and long-term contracts.

Bradley Lake expansion via the Battle Creek diversion will add about 37,300 megawatt hours per year from the hydroelectric facility. The Alaska Energy authority owns Bradley Lake Hydroelectric Project, but contracts with Homer Electric Association (HEA) to operate it. HEA provides electricity to the southern and central portion of the Kenai Peninsula.

Ocean Renewable Power Company applied to surrender the preliminary license for a proposed East Foreland tidal energy project in Cook Inlet. FERC granted a preliminary permit in 2011 to conduct a feasibility study for constructing the East Foreland tidal energy project. Tidal energy is viable, but the strength of the conventional energy market in Alaska affects the integration of new technology, making it financially infeasible (*Marine Energy 2016*).

The Borough does not provide utilities but assists in utility provision through its platting authority and by requiring dedication of utility easements on new subdivision plats. Private utility companies, some cities, and the U.S. Public Health Service provide utilities to residents in the borough. Borough subdivision plat review is coordinated with private utilities and cities to ensure easements are adequate to serve future utilities.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Energy

Homer Electric Association (HEA) provides electricity to the southern and central portion of the Kenai Peninsula, including: Kenai, Soldotna, Nikiski, Homer, Seldovia, Nanwalek and Port Graham. HEA is a partner in the Bradley Lake Hydroelectric Project and receives approximately 12 percent of the project's electrical output. HEA operates several power generation facilities. They are listed below, along with the electrical output received from each:

- Bradley Lake Hydro: 14.8 megawatts (MW)
- Nikiski Generation Plant (fueled by natural gas and recovered heat): 80 MW; a steam turbine uses waste heat to create enough steam to produce 18 MW of power without using additional natural gas
- Bernice Lake Generation Plant (fueled by natural gas): 80 MW

- Soldotna Generation Plant (fueled by natural gas): 48 MW
- Ninety-three member-owned generators interconnected with 34 wind energy installations and 59 solar panel installations produced 216,708 KWhs of electricity in 2016

HEA also provides service to the south side of Kachemak Bay: Halibut Cove, Seldovia, Port Graham, and Nanwalek. A submarine cable crosses Kachemak Bay and comes ashore at McKeon Flats, where overhead power lines transfer power. A generation plant in Seldovia fueled by diesel provides back-up and can generate 2.4 MW of electrical output.

Renewable energy is important to reducing the cost of electricity for borough residents and fortifying the power grid for the utilities. Since 2010, some members of HEA have generated electricity through wind and solar installations that in turn have fed into HEA's grid. HEA was the State's first utility to adopt net metering standards, which were designed to encourage members to develop renewable energy systems.

Chugach Electric Association (CEA) provides service to the eastern Kenai Peninsula, including Cooper Landing, Moose Pass and Hope. CEA operates the Beluga power plant located on the west side of Cook Inlet near Tyonek and produces 381 MW of electricity. Chugach and another utility, Municipal Light and Power, purchased ConocoPhillips's one-third interest in the Beluga River Unit gas field. Hilcorp owns one third of the West Cook Inlet field and is the operator of the field on behalf of the utilities.⁵¹

The City of Seward operates its own electric utility. It purchases electricity from CEA and owns a 12 MW diesel generator for back up. Seward also owns one percent of the output of the Bradley Lake Hydroelectric Project. The City of Seward has an interesting renewable energy project. Seward utilized a grant from the Alaska Energy Authority's Renewable Energy Fund to install a seawater heat pump system at the Alaska SeaLife Center. Additional funding came from the Denali Commission's Emerging Energy Technology Grant Program and from local matching funds. The seawater heat pump system supplies space heating to the SeaLife Center and has been operational since 2012 when the fuel oil boilers were shut off. The seawater heat pump system has offset the equivalent of more than 100,000 gallons of diesel fuel.

A seawater heat pump renewable energy project is part of the Alaska Energy Authority's Renewable Energy Fund proposed for FY2019. This project-located in Seward's tidal zone- would use a ground source heat pump to capture warm subsurface ocean water inundating the gravel. The heat pump would be part of a district loop that provides heat to five public buildings. The heat pump project would displace approximately 20,020 gallons of diesel annually.

The natural gas fields on the Kenai Peninsula and west side of Cook Inlet are a resource for cleaner burning fuel and potential lower heating costs. ENSTAR extends natural gas service to portions of the Kenai/Soldotna area, including Sterling and North Kenai. There is a 33-mile natural gas transmission pipeline from the Kenai gas fields to Ninilchik and Happy Valley. The natural gas transmission line was extended in 2013 to Homer, and later a distribution system was built to include Kachemak City. Gas mains were recently extended across the Kenai River to portions of the Funny River area. Covering the cost of extending underground gas lines is challenging. Costs must be offset by density of development and customer demand.

⁵¹ Alaska Journal of Commerce. "Utilities purchase share of Beluga gas field. Elwood Brehmer. February 10, 2016.

The Borough has developed guidelines for establishing a Utility Special Assessment District (USAD). These guidelines are found in the Kenai Peninsula Borough Code of Ordinances Chapter 5.35 (KPB 5.35). The USAD is a process for financing the extension of main lines of service of public utilities or of city-owned utilities to areas outside the boundaries of the city. The utilities encompass electric, natural gas, telephone, water and wastewater systems. The allocated cost of the utility extension is assessed to each benefitted property through a special assessment lien. A property owner wanting to bring the utility to their property or neighborhood can initiate the process to implement a USAD. The initiator of the project can coordinate the project on behalf of a group of property owners. Further details can be found in KPB 5.35 Special Assessments-Public Utilities.

Water and Sewer

Public water and sewer utility service in the borough is concentrated in higher density development areas within the cities of Kenai, Soldotna, Seward, Homer, Kachemak City and Seldovia. These cities operate their own water and sewer utilities to serve residential, commercial and industrial demand. The City of Soldotna, which is experiencing increased residential and commercial growth, completed a wastewater master plan in 2015 and a water master plan in 2016. These water and wastewater master plans complement Soldotna's comprehensive plan adopted in 2011.

Many of the unincorporated communities such as Port Graham, Nanwalek and Tyonek have water and/or sewer systems funded by the U.S. Bureau of Indian Affairs through the Alaska Native Tribal Health Consortium and the State's Village Safe Water Program. The Department of Environmental Conservation administers the State's village safe water program. Many of the water and sewer improvements depend on federal funding. Nanwalek received approval in 2016 of a Masterplan Update to replace their water distribution system and solid waste landfill but the projects are pending federal funding.

ENERGY AND UTILITIES OBJECTIVES AND STRATEGIES

What We've Heard

The 2005 Comprehensive Plan addressed the need for provision of appropriate utility rights of way and easements through the subdivision plat approval process. However, the link was not established between land development patterns, existing utilities, and the cost of extending utilities to accommodate this development. Future overall satisfaction with services in the borough will entail proactive coordination of land use and extension of utilities. From the June/July 2017 telephone survey of residents, outlined below is a sample of the energy and utility-related issues that can make living in the borough a challenge:

Cost of electricity.

High utility costs, fuel oil and gasoline.

The cost of winter, energy costs.

The cost of utilities, some people have \$700 electric bills and can't afford to eat after paying their light bills.

Utilities, gas and electric are too high.

The amount that we spend on heating costs in the winter.

2017-2018 KPB Comp Plan Survey Participants

Note: “**Near-Term**” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Encourage coordination of residential, commercial, and industrial development with extension of utilities and other infrastructure.

Expansion of natural gas service would reduce heating costs and promote economic development in a number of unserved areas.

In most areas, central water and sewer systems are not practical due to low-density development or high cost.

2005 Kenai Peninsula Borough Comprehensive Plan

Strategies

1. **Near-Term**: Maintain existing easements (especially section line easements) in addition to establishing adequate utility rights of way or easements to serve existing and future utility needs.
2. **Near-Term**: Maintain regular contact with utility operators to coordinate and review utility easement requests that are part of subdivision plat approval.
3. **Near-Term**: Identify potential utility routes on Borough lands.

Objective B. Assist communities and residents in generating financing plans for utility extensions.

Strategies

1. **Near-Term**: Provide information and technical guidance on the Borough’s Utility Special Assessment Districts.
2. **Near-Term**: Stay current on development patterns through the platting process and assist residents in identifying opportunities for potential utility extensions.
3. **Near-Term**: Provide technical assistance to unincorporated communities in identifying grants or other funding sources for water and wastewater treatment needs.

Objective C. Support residential, community and regionwide renewable energy initiatives and projects.

Renewable energy is a growing sector with proven and new technologies available for generating energy at multiple scales, from an individual residence to a regional power grid. Encouraging development or adoption of renewable energy systems increases capacity for residents, businesses and institutions in the borough to diversify the energy grid and potentially lower energy costs over the long term.

Strategies

1. **Near-Term**: Form a Kenai Peninsula Borough Commission on Sustainability.⁵²
 - a. Charge the commission with developing a renewable energy strategy to investigate and make recommendations for feasible renewable energies for Kenai Peninsula (e.g., solar, wind).⁵³
2. Join cities and boroughs across the country and commit to transition to renewable energy.

⁵² See City and Borough of [Juneau Commission on Sustainability](#) as a potential model.

⁵³ See energy strategies created by [City and Borough of Juneau](#) and [Fairbanks North Star Borough](#) as potential models.

REFERENCES

Alaska Energy Authority. *Renewable Energy Atlas of Alaska*. 2016.

Brehmer, Elwood. "Utilities purchase share of Beluga gas field." *Alaska Journal of Commerce*, February 2016.

Peninsula Clarion. "Utilities favor Bradley Lake expansion."



FOCUS AREA: PUBLIC SAFETY AND EMERGENCY SERVICES

HEADLINES

Public safety is vital to a healthy community. A safe community means that neighbors do not worry about their children playing outside, or that their property will be stolen. It protects vulnerable residents, including children and seniors. It promotes positive connections within the community. It encourages all residents to be prepared in times of disaster or hardship, including keeping emergency resources on hand at home, having good communications system to spread information quickly, and clear systems for managing an emergency.

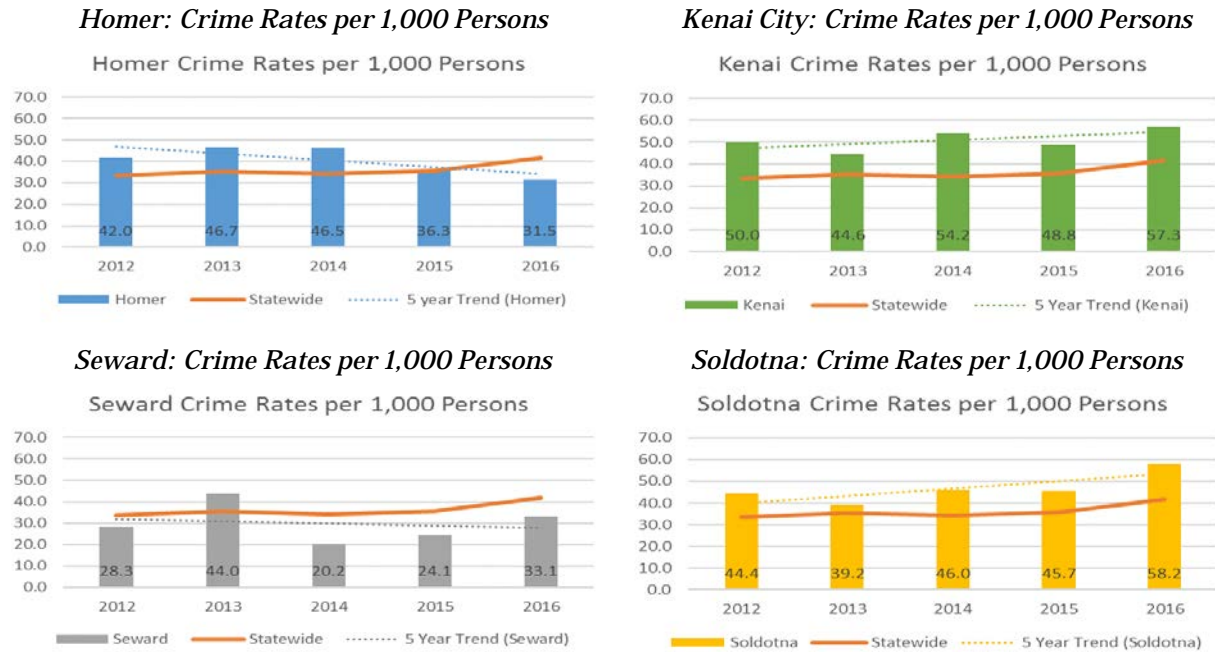
Fewer resources are available for increasing public safety needs in the borough. As more people come to the borough to live, work, recreate or visit, the need for effective emergency and safety services increases. This is particularly true in high-traffic areas in the summer and areas prone to disasters such as flooding, fire and earthquake. The Borough, individual cities and other agencies already cooperate to provide emergency response services throughout the region, within city boundaries and via Fire and EMS service areas. Some small communities have organized volunteer fire and EMS services to meet local needs. The Borough does not currently have authority to form its own police department, however, and cities with police departments are generally limited to their own jurisdictions. This authority could be granted to the Borough through a public vote. State and federal agencies maintain a presence in the borough, but most focus on issues on public lands, and State budget cuts have reduced the Alaska State Trooper postings in the region, exacerbating the challenge of responding promptly to needs across the entire peninsula. New relationships or service models may be required to fill gaps left by State service reductions.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Crime is an increasing concern across the Kenai Peninsula. Overall, the Kenai Peninsula is perceived as a safe place to live. Residents know and trust others in their neighborhood or community, and violent crimes are less common than the statewide average. However, some communities have increases in property crimes such as theft and vandalism, particularly in the Central Peninsula. Residents report that many of these incidents appear to be drug-related thefts, as drug users seek cash or valuables with which to purchase supply.

Figure 43 illustrates five-year trends in the four communities with local police departments reporting data. Small communities can see significant fluctuation in the crime rate from only a small increase in the number of incidents, but Soldotna and Kenai had rates higher than the state average in 2016, compared with Seward and Homer with flat and decreasing trends in crime, respectively, due primarily to increases in property crimes.

Figure 43. Comparison of Crime Rates in Kenai Peninsula Borough Incorporated Cities, 2002-2016⁵⁴



Sources: U.S. Census Bureau; Alaska Department of Public Safety, Uniform Crime Reporting (UCR) data

Shrinking resources for public safety, locally and statewide. Public safety is an ongoing policy discussion in Alaska, and one which will continue to be debated. In 2014, the Legislature created the Criminal Justice Commission, a 13-member entity tasked with making recommendations to improve the criminal justice system, reduce recidivism (repeat offenders), and slow the growth of the corrections population. The Commission reviewed the current system, held listening sessions throughout the state, and conducted research into best practices and similar reforms enacted in other states who have since achieved positive results in their justice and corrections systems. The Commission made several recommendations that became the basis of SB 91, the comprehensive criminal justice reform bill passed by the Legislature in 2016. Its intent was to reduce incarceration of non-violent offenders, reduce recidivism and increase successful reintegration into the community by connecting offenders with treatment for mental health and addiction, and resources for housing, employment, and education upon release. The reforms included changes to sentencing, stricter rules for pre-trial holds, and better connections to post-release supports.

The law has had significant implementation challenges, as its reforms to the court and corrections systems were rolled out concurrently with significant reductions to the state budget, including reducing the number of state prosecutors and \$10 million in cuts to the Department of Public Safety since 2015 that have resulted in many fewer Alaska State Troopers on patrol in areas without local law enforcement. Funding for treatment services is also lacking, leaving fewer options for ex-offenders returning to the community needing employment, housing, and health care. As a result, residents in many areas of the state have experienced an increase in crime and

⁵⁴ The City of Seldovia also has a small police department, but is currently receiving contracted services from the Homer Police Department; any crimes reported in Seldovia are represented in the Homer crime data.

are frustrated that SB 91 has not delivered the intended results. The state continues to consider how best to accomplish the goals of reducing recidivism, rehabilitating those with behavioral health needs, integrating offenders back in the community, reducing corrections-related costs for the state, protecting communities and reducing crime. In 2017, two bills were passed (SB 54 and SB 55) making changes to sentencing for certain crimes and other revisions to improve the original law. In October 2017, Governor Walker introduced a comprehensive Public Safety Action Plan with 68 action items addressing topics from supports for at-risk youth to addressing the opioid epidemic. In 2018, additional revisions were passed by the Legislature, including changes giving judges more discretion in pre-trial release decisions and allowing the state to quickly designate new drugs as controlled substances.

On the Kenai Peninsula, reduction of Alaska State Troopers has been keenly felt. The Borough does not have police powers and has relied on troopers and other public safety officers to meet those needs outside incorporated cities. This includes federal and state peace officers who have jurisdiction over parks and other public lands, but who have more limited jurisdiction or duties, such as enforcing hunting, fishing and subsistence harvest regulations. The 2005 Comprehensive Plan notes that there were 28 troopers on the Kenai Peninsula. There are now only two or three officers on duty at a time for the entire region, including the Seward and Sterling Highway corridors. City police departments do not have jurisdiction beyond their community boundaries, and small rural communities such as Hope do not have a local police presence. Typical response time is at least two hours, depending on whether troopers are available and their distance to the incident.

A public vote is required to authorize new powers to the Borough government, and through this mechanism the Kenai Peninsula Borough could establish its own law enforcement department. This question has come before voters in the past, most recently in proposed Ordinance 2015-11, which would have established a Nikiski Law Enforcement Service Area to provide police services within that proposed service area; the measure failed in 2015.

Many local justice and corrections facilities are in the borough. The Kenai Peninsula is home to local court offices in Homer, Kenai and Seward, as well as the Kenai Peninsula Youth Court, which provides a community-based alternative for juvenile offenders. A young person who has committed a minor offense can be sentenced and assigned a penalty by their peers, other youth who have been trained to perform court functions. There is one active tribal court in the region, the Henu' Community Wellness Court operated by the Kenaitze Indian Tribe, serving tribal members as well as non-members in the Southcentral region. In 2016, the State of Alaska and the Kenaitze Indian Tribe signed a cooperative agreement to operate the court as a joint-jurisdiction state-tribal therapeutic court, with a focus on cases involving substance use and family law, and intent to divert offenders into treatment rather than traditional incarceration. Most local cases overseen by the tribe involve domestic violence, child maltreatment and neglect, and custody disputes, often related to substance use. Alcohol remains the primary problem, but courts have seen a sharp increase in cases involving heroin and other illegal opiates.⁵⁵

There are three correctional facilities on the Peninsula, as well as a probation office in Kenai:

⁵⁵ Daysha Eaton, "Kenaitze Tribe launches joint-jurisdiction court." *Alaska Public Media*, December 28, 2016. <https://www.alaskapublic.org/2016/12/28/kenaitze-tribe-launches-joint-jurisdiction-court/>

- Spring Creek Correctional Center in Seward, a 500-bed facility for male inmates.
- Wildwood Correctional Complex in Kenai, including a 264-bed correctional facility for male inmates, a 115-bed pre-trial facility for all adult inmates, and a 95-bed transitional facility for men.
- Kenai Peninsula Youth Facility in Kenai, managed by the Division of Juvenile Justice.

These facilities provide local employment, help maintain public safety in the borough, and illustrate the need for community-based reentry services for adults and youth after release.⁵⁶

Fire and EMS services are provided widely in the borough through service areas, cooperative agreements, and ongoing coordination. The Peninsula's emergency services are guided by an all-hazard, all-risk plan based on the National Incident Management System for comprehensive management of disaster emergency relief forces and disaster emergency operations. The Kenai Peninsula Borough Emergency Operations Plan, updated in 2015, is authorized and guided by legislation from the Federal, State, and Borough levels.⁵⁷ The latest National Response Plan was signed into law in 2005, and the State of Alaska Emergency Response Plan, in 2004. Eleven mutual aid and interjurisdictional agreements have been established since 1994 to ensure cooperation and joint facility use with the incorporated cities.

Figure 44. Funny River Fire Engine 5



The Kenai Peninsula Borough maintains the Office of Emergency Management, the agency responsible for overseeing and implementing the Emergency Operations Plan. The Plan defines the following priorities for emergency management:

1. Protection of human life.
2. Protection of public health.
3. Protection of public and private property.

The Borough and the City of Soldotna have a joint-use agreement to operate the Soldotna Public Safety Communications Center, which serves as the primary 9-1-1 dispatch center for most law enforcement, medical and fire emergency response agencies on the peninsula. The cities of Homer, Seward and Kenai maintain separate emergency dispatch centers and provide additional assistance as needed through contracts and cooperative or mutual aid agreements. Additionally, the Borough has six service areas to provide fire and EMS in populated areas outside incorporated cities, and within Soldotna:

⁵⁶ Fewer staff from Spring Creek Correctional Center are locally based, compared with the other facilities, and many commute from Anchorage and other communities.

⁵⁷ Kenai Peninsula Borough Office of Emergency Management, *Kenai Peninsula Borough Emergency Operations Plan*, revised October 2015. Available at <http://www.kpb.us/emergency>

- Central Emergency Services, providing fire and EMS services to the Central Peninsula and the City of Soldotna, and additional coverage for EMS services on federal and CIRI-owned lands.
- Nikiski Fire Service Area, including fire protection for the northwest peninsula and lands west of Cook Inlet
- Anchor Point Fire and EMS Service Area
- Bear Creek Fire Service Area
- Kachemak Emergency Services
- Eastern Peninsula Highway Emergency Service Area, created in 2017 to serve the Seward and Sterling Highway corridors outside of existing service area boundaries, and the Hope Highway

The Alaska Department of Natural Resources, Division of Forestry and the U.S. Forest Service respond to issues on public lands, particularly wildfire protection, a serious threat on the peninsula. The 2005 Comprehensive Plan highlighted the potential for significant fire-related damage, due in part to a large spruce bark beetle infestation across the Kenai Peninsula that killed trees across the region and elevated the risk of a natural- or human-caused wildfire. It is probable that this significant wildfire risk will remain steady or increase in the future. This is due in part to large-scale ecological changes caused by climate change, as well as the size and variety of vegetated areas on public and private lands and agencies' limited capacity to proactively minimize wildfire risk. See the Hazard Mitigation section for more detailed discussion of climate change and disaster prevention and response.

PUBLIC SAFETY AND EMERGENCY SERVICES OBJECTIVES AND STRATEGIES

What We've Heard

People care about each other, you know your neighbors. It's an old-fashioned community, you can count on your friends.

The rise of drug use [is a challenge]. Through the last couple of years, it's become far more apparent, the hard drugs are easier to acquire, and the drug abuse is more rampant.

The area is safe. We worry more about wildlife than crime.

It's remote where we live. There is one two-lane road and maybe two flying services, so it's very easy to be stuck here and not be able to get out if the road closes because of an avalanche.

2017-2018 KPB Comp Plan Survey Participants

As highlighted earlier in this section, crime is an increasing issue on the Kenai Peninsula and can spark or exacerbate a community's fears for their safety and well-being. Despite many concerns shared by residents about increasing crime, impacts of drug use, and the region's vulnerability to natural hazards, overall feedback about local law enforcement was positive. Two-thirds of residents surveyed gave law enforcement a high grade, "A" or "B", with highest satisfaction in the areas of Soldotna, Sterling, Homer and Anchor Point. Residents in Kenai and Nikiski gave somewhat lower ratings, as did other people in outlying areas. This likely reflects the lack of local police presence, Alaska State Trooper reductions, and longer response times to outlying areas.

Fire, ambulance and emergency services were rated very highly, with 86 percent giving these services an “A” or “B” grade.

When asked what residents believe the role of the Borough government should be, protecting public safety was a common theme, including comments about safety overall, maintaining law and order, safe roads and buildings, and services such as fire protection and emergency medical services.

Part of the Borough’s job is keeping people safe; we must have safe roads, safe places to live and safe communities for the kids.
2017-2018 KPB Comp Plan Survey Participant

Note: “Near-Term” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Work with community and agency partners to increase police protection and community safety in the borough.

The Kenai Peninsula Borough does not currently have authority to establish police services. It can support other efforts to protect public safety in the region, and work with existing public safety agencies to maximize use of limited resources to ensure the region continues to have adequate coverage and protection. As noted above, a public vote is required to establish Borough police services. These services could be provided boroughwide, excluding existing police departments’ jurisdictions within city boundaries, or through one or more service areas, like the model for providing emergency services.

Strategies

1. **Near-Term:** Work with government agency partners to increase police protection on the Kenai in currently underserved areas: small communities, rural areas, and Seward and Sterling Highway corridors.
2. **Near-Term:** Work with federal and state agencies (National Park Service, U.S. Forest Service, Alaska Department of Natural Resources) to provide law enforcement on public lands.
3. **Near-Term:** Explore the feasibility and estimated costs of the Borough adopting police powers and establishing a Kenai Peninsula Borough Police Department, to determine whether this is a realistic option for meeting the public safety needs of communities and areas outside incorporated cities and public lands.

The analysis should also explore whether this service should be provided boroughwide, or through individual service areas as previously proposed.

4. Advocate for increased Department of Public Safety funding to restore Alaska State Trooper presence on state highways.
5. Promote development of Neighborhood Watch programs and similar community-based policing models where appropriate, including training and protocols for citizen-led public safety initiatives.
6. Promote or develop local initiatives for neighborhood improvement as a crime prevention strategy: encourage property owners to remove debris, inoperable vehicles and dilapidated buildings that can attract illicit activity, monitor and report activities at abandoned properties, and organize volunteer cleanup and beautification efforts to address littering and vandalism.

7. Explore ways for partners to extend police services through cooperative agreements between jurisdictions, such as the existing agreement between Homer and Seldovia Police Departments.

Objective B. Support efforts to reduce crime and recidivism, increase successful reentry of ex-offenders, and promote community-based justice.

Several communities in Alaska have taken a proactive approach to support reentry for ex-offenders, including forming coalitions and partnerships among service providers to create systems of support: transitional and permanent housing, education and employment opportunities, behavioral health services, and other important ways to help ex-offenders reintegrate into the community. The Kenai Peninsula Reentry Coalition was formed in 2016 and is working to identify gaps in existing services, build relationships among partners, and ensure that there are local resources available to prevent recidivism after someone returns from prison.

1. Support the work of the Kenai Peninsula Reentry Coalition and partners who provide or fund housing, employment, education, and mental health and addiction treatment services.
2. Support continuation and potential expansion of alternative and rehabilitative justice models for youth, adults with substance use disorders, and Alaska Native tribal members, including the Kenaitze Henu' Community Wellness Court and Kenai Peninsula Youth Court.
3. Support programs that prevent or reduce substance misuse and addiction, including opioids and heroin, alcohol, marijuana and other drugs, as a strategy to reduce drug-related crimes.

Objective C. Continue working with agency and community partners to provide coordinated emergency services to prepare for, mitigate, respond to and recover from natural and human-caused emergencies throughout the borough.

1. **Near-Term:** Continue to use coordination, mutual aid agreements, and long-range planning to avoid unnecessary duplication of services, equipment and facilities.
2. **Near-Term:** Evaluate current mutual aid and interjurisdictional agreements and collaborate to amend these agreements where they are insufficient.
3. **Near-Term:** Assess needs and current capacity of emergency food storage and distribution system in the region, and ability to maintain food security for the population in an emergency.
4. Coordinate Comprehensive Plan goals and objectives with Local Hazard Mitigation Plans.
5. Consider use and development of alternate sources of funding, such as user fees, grants and local fundraisers to support emergency medical services.
6. Work with partners in agriculture, food distribution, retail, food pantries, institutions and other sectors of the food system to incorporate plans for food security into emergency planning and the All-Hazard Mitigation Plan.
7. Maintain a boroughwide street addressing and mapping system, including consistent assignment of street addresses to assist emergency responders in locating properties.
8. Identify funding sources for maintenance and operation of E-911 emergency communication improvements.

9. Develop incentives and other means to help recruit and retain volunteers, such as low-cost insurance, stipends and pooled insurance policies.
10. Encourage provision of training programs in remote areas of the borough.
11. Evaluate current emergency vehicle routes and access throughout the borough and create appropriate criteria to ensure adequate emergency vehicle access when considering variances or modifications to road standards.
12. Collaborate with partners in all Fire and Emergency Medical Services Areas, the Kenai Peninsula Borough School District and other agencies to educate residents about emergency preparedness, fire prevention and fire safety, first aid and CPR, early response procedures, and other important emergency response skills to increase community resilience and capacity to provide immediate support.

Objective D. Establish or improve water supply systems to support firefighting operations in areas without central water systems.

1. Develop cisterns under fire stations or in strategic locations to support service areas, such as those installed in Ninilchik, Kalifornsky Beach Road and other areas.
2. Encourage placement of high-pressure hydrants at schools, public facilities and industrial sites with sufficient well capacity.
3. Assist fire departments to identify lakes or flooded gravel pits with sufficient capacity to supply large water withdrawals for fire protection and support them to obtain necessary withdrawal equipment and permits. Map the locations of these areas and make maps available on the Borough website.



FOCUS AREA: HEALTH

HEADLINES

The Kenai Peninsula has a growing senior population who will need more health services, transportation options, housing choices and other amenities to maintain active, independent lives. As more seniors age in place or move to the Kenai Peninsula, the community will have increasing demand for senior-friendly housing, transportation, public facilities, and access to quality medical care. Helping older residents maintain their independence, remain in their homes as long as possible, and stay active in the community will increase seniors' quality of life.

Healthy communities are good for business, if health care services remain affordable and accessible. Employers benefit from having a healthy, productive workforce, and can attract quality workers to communities with a strong commitment to well-being. The health care sector is also an important part of the borough's economy, providing jobs in a variety of fields and at different skill levels. Escalating costs of health care in Alaska also present a significant challenge to the economy, however, as employers struggle to offer competitive health benefits while monitoring their own bottom line. The Kenai Peninsula, along with the rest of the state, faces the challenge of maintaining a robust health care services sector while managing health care costs into the future.

Mental health and substance use disorder treatment services are needed to address the risks that alcohol, drugs and mental illness pose to the well-being of individuals, families and communities. Multiple community assessments in Central and Southern Peninsula identified mental health (depression, anxiety, suicide) and addiction to alcohol, opioids and other drugs as serious community health threats. These assessments also identified that there currently is a lack of adequate services to treat people struggling with these issues. It is important to recognize the multi-generational nature of behavioral health problems, from the influence of Adverse Childhood Experiences (ACEs) on addiction and other health issues as an adult, to impacts on a family due to intimate partner violence or child maltreatment and neglect.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Kenai Peninsula residents generally feel healthy, but data shows room for improvement. Despite ongoing health challenges like access to and affordability of care, most borough residents self-report good health for themselves and their families, and a smaller majority are satisfied with health care services in the region. However, the population continues to have high prevalence of chronic diseases such as diabetes, cardiovascular disease, and some forms of cancer, as well as significant risk factors such as tobacco use and obesity. Rates of participation in preventive services such as child and adult immunizations and cancer screenings is also lower on the Kenai than the state average, except for blood pressure and cholesterol screenings for adults, which have participation rates of almost 90 percent. Alaska Native people in the region and statewide have persistent health disparities compared with the overall population,

and more likely to have risk factors for chronic disease, poor physical and mental health, and disease-related mortality rates.

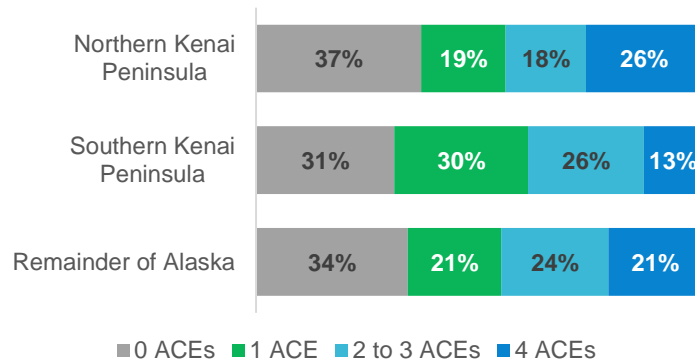
Poverty, food insecurity and other social determinants of health negatively impact physical and mental health, as do stressful experiences early in life, known as adverse childhood experiences. Examples of ACEs include: maltreatment or neglect, parents' substance use or domestic violence, poverty and homelessness, and other disruptive or traumatic

experiences. ACEs have long-lasting impacts that are as varied as risks for obesity or chronic disease, substance use disorders, depression and mental illness, and early death. The South Peninsula Mobilizing for Action through Planning and Partnership's (MAPP's) community health needs assessment identifies ACEs as a priority issue to address in the community (Figure 45), recognizing the wide-ranging impacts of ACEs on adults' health and well-being, and the importance of preventing ACEs in young children's lives to improve their long-term health.

Demand for health care and other local community services will be driven by seniors' needs. The Kenai Peninsula has become a popular place for seniors to live year-round or part-time, and demographic trends indicate that the aging population will continue to grow over the next twenty years. An aging population has changing needs and interests, particularly for health care and increasing supports to maintain independence and quality of life over time. Many organizations, including the Borough, are aware of this trend and how it will impact the future, from school enrollment to property tax revenue to demand for local public transportation. Keeping seniors engaged in the community is an important way to promote well-being and feelings of connection for older residents, as well as providing opportunities for them to give back to the community and help younger generations.

Health care is the region's largest employment sector and provides a steady base of employment and services in the borough. The 2016 Comprehensive Economic Development Strategy (CEDS) describes Health Care and Social Assistance as the region's largest employment sector, with approximately 3,500 local jobs. The three largest employers are the two Borough-owned medical facilities, Central Peninsula and South Peninsula Hospitals, and the Dena'ina Wellness Center owned by the Kenaitze Indian Tribe. Other local health care facilities include: Providence Seward Medical Center, a hospital owned by the City of Seward; community health centers in Kenai and Soldotna; tribal health centers for Alaska Native people operated by the Kenaitze Indian Tribe, Seldovia Village Tribe, Ninilchik Traditional Council, and Chugachmiut; and a variety of private practitioners. There are two state-funded public health nursing centers in Kenai and Homer that provide services such as health education, immunizations, screenings for cancer and chronic diseases, as well as contributing resources and expertise in responding to

Figure 45. Population by Adverse Childhood Experiences (ACE) Score, Kenai Peninsula and Alaska



Source: Alaska Behavioral Factor Risk Surveillance System (BRFSS), 2015. Adapted from MAPP of Southern Kenai Peninsula, *Health Status Assessment* (December 2016).

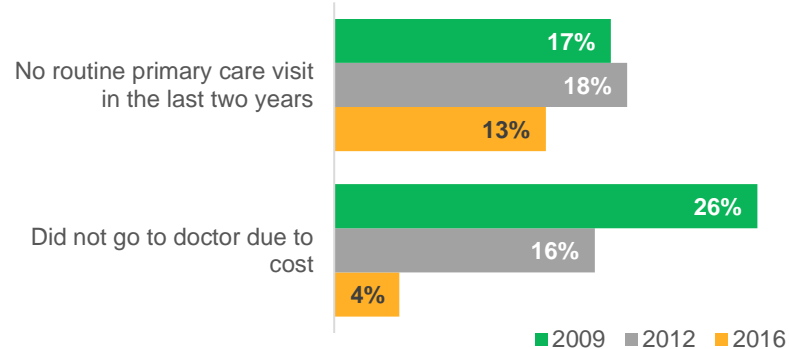
disease outbreaks and drug overdoses. Public health nurses also provide itinerant services to Seward, Hope, Cooper Landing, Tyonek, and other communities within the borough. Other small communities do not have a local health clinic and rely on nearby facilities or must travel significant distances for care.

Despite its strong performance as a major employer in the region, the health care sector also faces challenges.

While in recent years health care has been recognized as a “star” industry for continued growth, even as most other sectors are flat or declining in the region, the health care system overall is facing many uncertainties and, in Alaska, rising costs that reduce

access to and affordability of care. Federal policy changes, such as expansion of Medicaid, creation of health insurance marketplaces, and subsidies for premiums and health services, have significantly reduced the number of uninsured people in Alaska and nationwide, making health care available to more people, indicated in Figure 46.

Figure 46. Kenai Peninsula Residents' Access to Primary Care, 2009 to 2016



Source: Adapted from Central Peninsula Hospital, Central Kenai Peninsula Community Health Needs Assessment (2016)

The future of health care will continue to be debated at the national and state levels, but one trend that is likely to persist is the move toward value-based care. Value-based care means that payment for services will not be based on only services performed, but on their outcomes and improvement of overall health. This will require providers to reorient their business models to stay competitive and control costs, and to shift toward providing routine and preventive care to mitigate or avoid future, more costly health problems. Providers on the Kenai Peninsula will also continue to compete with services in Anchorage or out of state to serve the local population at affordable rates.

Regardless of what the system looks like in the future, the health care sector will continue to be an important employer in the borough and can provide a variety of local jobs, from clinicians and nurses to billing, administrative and custodial staff. Promoting health care jobs as a viable career option and providing local education and workforce development opportunities for youth and adults will be important for the long-term viability of the sector to meet local needs.

Mental health and substance use disorders have many costs, impacting individuals, families and communities throughout the Kenai Peninsula. The Kenai Peninsula and rest of the state have a critical lack of mental health and substance use disorder providers and treatment services, from routine mental health care to residential treatment beds for those with intensive needs. Organizations such as the Dena'ina Wellness Center and Peninsula Community Health Services have worked to provide these services in an integrated setting with their primary care services, but demand continues to outpace supply and there is limited funding available to make these important services financially sustainable. For acute needs such as overdoses, Central

Peninsula Hospital opened a detox facility in August 2017, providing a safe facility for patients to detox from alcohol, opioids and other drugs, and manage withdrawal symptoms under medical supervision. In December 2017, Serenity House opened a 16-bed transitional housing facility for 18 to 29-year old residents undergoing treatment for substance use disorders. This new facility adds to Serenity House's current capacity that includes space for mothers and children in smaller three to four-bed facilities. Table 16 summarizes mental health risk factors and prevalence of common mental health issues in the Kenai Peninsula Borough population.

Table 16. Mental Health and Substance Use Disorder Risk Factors, 2016

Behavioral Health Risk	% Adults
Binge drinking in past month <i>4+ drinks during single event or evening</i>	14%
Heavy drinking in past month <i>2+ drinks every day</i>	8%
Diagnosed with depression or anxiety	13%
Diagnosed with substance use disorder	2%
Needed, but did not get, mental health treatment in past year	4%

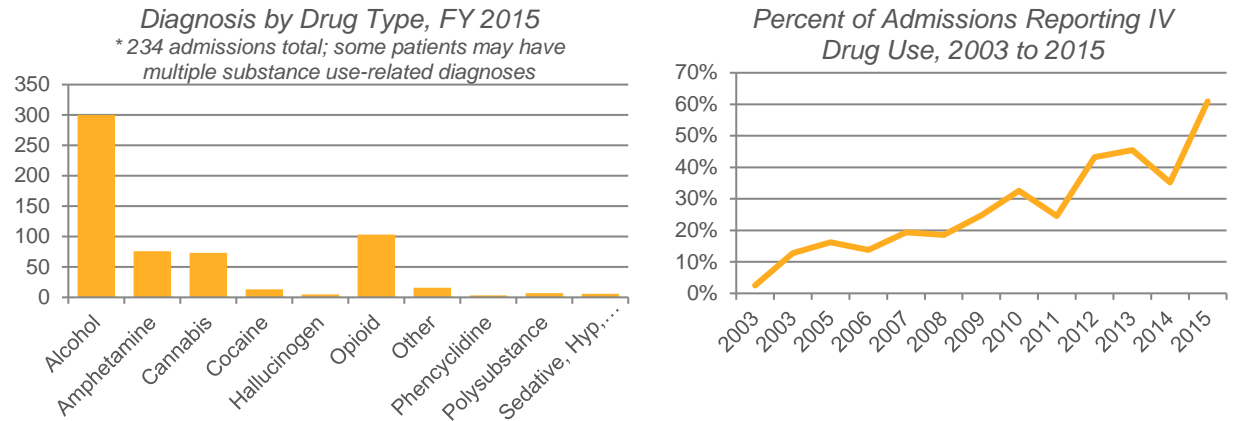
Source: Central Peninsula Hospital, Central Kenai Peninsula Community Health Needs Assessment (2016)

Recent data suggests that the need for mental health and substance use treatment may be increasing, or at least that residents perceive an increasing need. The Central Peninsula Community Health Needs Assessment compared surveys of residents in 2012 and 2016, including which services are most needed locally. Both mental health (44 percent in 2012) and substance use treatment (40 percent in 2012) were identified by a majority of respondents and ranked significantly higher on the list in 2016 (60 percent and 51 percent, respectively).⁵⁸ Shortages of treatment at all levels means that conditions go unmanaged or become worse, addiction or mental illness impacts children and family members, productivity suffers for employers, and in many cases untreated mental illness or addiction contributes to more violent and property crimes.

Alcohol remains the most widely-used and available substance. In recent years, communities in the region and across the U.S. have also seen an alarming rise in use and abuse of opiates, from legally-obtained prescription pain medications to illegal drugs like heroin, and an increasing number of overdose-related deaths from use of these drugs. In addition to documenting a marked increase in opioid-related hospital admissions over the last decade (Figure 47), Central Peninsula Hospital noted that these admissions represented approximately \$10 million of medical claims, mostly as uncompensated care.

⁵⁸ Central Peninsula Hospital, *Central Kenai Peninsula Community Health Needs Assessment* (2016).

Figure 47. Drug-related diagnoses in FY 2015 and multi-year trend in intravenous (IV) drug-related admissions at Central Peninsula Hospital, 2003 to 2015



Source: Change 4 the Kenai, *Central Kenai Peninsula Community Behavioral Health Needs Assessment* (2016)

The state has prioritized opioid abuse as a public health crisis, and in 2017 received a \$2 million federal grant to address addiction and opioid-related deaths, as well as creating a new program within the Department of Health and Social Services, the Office of Substance Misuse and Addiction Prevention. Several strategies in Governor Walker's Alaska Public Safety Action Plan, introduced October 2017, are focused on addressing the opioid crisis. The state, communities and other partners are working to raise awareness about the risks of prescription opioid use, encourage the public to restrict access to or dispose of prescription opioid medications when not medically necessary, and make life-saving interventions such as Naloxone more readily available to police, fire, and emergency staff to effectively respond in an overdose situation.

Borough leadership and health care sector partners have identified important gaps in the region's current systems, and recommended priorities to address. In 2015, the Borough appointed a Health Care Task Force to evaluate the current health care delivery system, consider alternative service delivery models within the borough, and make recommendations for changes to the three publicly-owned hospitals on the Kenai Peninsula. While much of the group's work focused on the structure and management of the hospitals, the Health Care Task Force identified six key gaps in the region's health care system in its recommendations report:

1. Emergency medical services
2. Chronic disease education and prevention
3. Substance use disorders and the need for behavioral treatment programs
4. Home health, hospice and palliative care for end of life
5. Mental health and the need for behavioral health programs
6. Non-emergency transportation to improve overall access to care.⁵⁹

Four high-priority recommendations put forward by the Health Care Task Force address the need for a better region-wide system of care and address timely issues outlined in this plan:

⁵⁹ Kenai Peninsula Borough Health Care Task Force, *Task Force Report and Recommendations* (2016).

1. Remove barriers to establishing a region-wide network of care, including working with hospitals and other health care providers to establish reciprocal relationships and other mechanisms to better work together.
2. Address legal and regulatory barriers such as the current limitation of Kenai Peninsula Borough's health powers to the current hospital service areas. This includes exploration of adopting areawide health powers, which would also give the Borough authority to enact local ordinances intended to protect public health.
3. Prioritize restructuring the current EMS system in the borough.
4. Explore the feasibility of a detox facility in the region, acknowledging that the Borough would not construct or operate this facility, but could play a role in securing funding.

As noted above, the fourth priority recommendation to establish a detox facility was realized at Central Peninsula Hospital in August 2017.

HEALTH OBJECTIVES AND STRATEGIES

What We've Heard

Overall, it's a healthy place to live, we have clean air and clean water, and healthy lifestyles.

There are limited health care services. You have to travel if you need an operation.

2017-2018 KPB Comp Plan Survey Participants

Many residents mentioned one or more issues related to health throughout the public engagement process, including how the natural environment supports healthy living, access to and quality of health care services, and many concerns about the issues of mental health and substance abuse. Health care was also identified as a very important industry to the region, and an important service that the Borough provides, via its two hospitals.

Most surveyed by phone (82 percent) reported their and their family's health as good or excellent, although those who also reported low to modest income were more likely to report their health as fair or poor, illustrating the impacts of poverty on health and well-being. Overall, a majority (55 percent) gave health care services on the Kenai Peninsula an "A" or "B" grade, but scores were highest for those in the Soldotna, Sterling, Homer and Anchor Point areas, likely reflecting that these are the locations of the two largest hospitals and many other health services. Respondents living in Seward and outlying areas tended to give a "C" or lower grade for access to care, perhaps reflecting a lack of services in their community and the need to travel within the region or to other facilities to receive care.

Several people also used the term "health" or "healthy" to describe the physical landscape and the connection between the natural environment and human health, from positively contributing to individuals' ability to stay healthy, to activities such as gravel pits posing threats to health from excessive noise, dust and potential contamination by industrial uses. Policies to address environmental quality and protect public health through management of land and other resources, are set out in other chapters of this plan.

Note: “**Near-Term**” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Support the health and wellness of all Kenai Peninsula Borough residents and communities.

Strategies

1. **Near-Term:** Consider residents’ health when making local policy decisions, including land use, transportation and economic development.
2. **Near-Term:** Explore the feasibility of adopting areawide health powers, including provision of services outside the boundaries of the current hospital service areas and the authority to implement local ordinances and policies to protect the public’s health. *Recommended by 2016 KPB Health Care Task Force.*
3. **Near-Term:** Support efforts to remove or reduce barriers to health care and improve access to health care for all borough residents, including underserved communities. *Recommended by 2016 KPB Health Care Task Force.*
4. Promote healthy behaviors for borough residents, such as supporting transportation infrastructure for safe non-motorized transportation, parks and recreational opportunities, community events, availability of healthy foods, cooperative agreements to use Borough facilities for health-related events and building more connections between community members.
5. Support the work of public and community health providers to respond to and manage disease outbreaks and educate the public about promoting health and prevention of injury and disease.
6. Support community-level efforts to promote and improve health, such as local health fairs and community wellness events.
7. Increase residents’ protection against disease by encouraging preventive health services such as immunizations and screenings for cancer and chronic disease.
8. Raise awareness of the causes and long-term negative impacts of adverse childhood experiences (ACEs), as a long-term preventive strategy to improve young generations’ health.

Objective B. Encourage seniors to remain active, healthy members of the community.

Health is the factor that will keep me here in the next ten years: if my health is good, I will still live here.

Health Care is an important local industry: we need better health care facilities to take care of our elderly.

2017-2018 KPB Comp Plan Survey Participants

Strategies

1. **Near-Term:** Explore ways to meet demand for senior-friendly public transportation, including CARTS, for seniors to complete daily errands, attend medical and other appointments, and participate in community events.
2. Encourage development of housing options for seniors, from smaller units closer to services, to retrofitting existing housing to improve accessibility, to independent and

assisted living options according to level of need for supports, to skilled nursing facilities for those with intensive needs.

3. Encourage health care providers to offer or expand services for seniors, to help older residents remain in the community and have more health care needs met locally.
4. Promote volunteer, education and employment opportunities for seniors to remain involved in civic and social life, contribute to improving the community, and maintain a high quality of life. For example, this may include opportunities for seniors to spend time with youth and build strong intergenerational relationships.
5. Support development and improvement of infrastructure and facilities to promote physical activity, using a universal design approach to ensure there are amenities suitable for all ages and abilities, and multi-use or flexible facility design for to meet a variety of needs.

Figure 48. Riverside Assisted Living Community, Soldotna



Objective C. Support the health care industry as an important economic sector and service provider in the community.

In the past, the Borough has worked closely with other entities in the health care sector to increase access to quality care throughout the region, through cooperative agreements or making land available for new facilities. An excerpt from the 2005 plan illustrates:

Central Peninsula Hospital's Kenai Health Center was built as a partnership between the hospital, the State of Alaska Division of Public Health, the City of Kenai and the Kenai Peninsula Borough. This collaboration has allowed for expansion of public health services available in Kenai and has created the opportunity for the hospital to offer diagnostic imaging and lab services closer to our friends and neighbors in Kenai.

Other providers have sought creative ways to improve care, such as the Dena'ina Wellness Center's efforts to provide many medical and behavioral health services in an integrated setting, including state-funded behavioral health services available to non-Native clients.

Strategies

1. **Near-Term:** Work cooperatively with Central Peninsula Hospital and South Peninsula Hospital to ensure that both facilities continue to provide high-quality care while remaining financially sustainable, as well as working with Providence Seward Medical and Care Center and other health providers to improve the continuum of care. *Recommended by 2016 KPB Health Care Task Force.*
2. Support continued state funding of public health nursing services, availability of Medicaid for low-income families and adults, and other important health resources.

3. Continue to work with local partners to explore creative solutions for the long-term sustainability of health care in the borough. *Recommended by 2016 KPB Health Care Task Force.*

Objective D. Promote local education and workforce development opportunities in the health care sector.

The 2016 CEDS notes that there is an anticipated wave of retirements in the next several years, especially among senior leadership and skilled providers, as well as ongoing challenges to recruit qualified staff locally or by attracting new workers; total employment in the sector dropped 23 percent between 2003 and 2013, even as total wages increased. The Alaska Department of Labor and Workforce Development's Job Centers work with local employers to place individuals in apprenticeship programs, and local colleges like the Kenai Peninsula College have nursing programs, but recruitment continues to be a challenge.

Strategies

1. **Near-Term:** Promote vocational programs such as apprenticeships, trainings and other opportunities to provide career pathways in the health industry for residents.
2. Work with hospitals, clinics and providers, the Kenai Peninsula Borough School District, and other educational partners to promote health care as a career path for youth and young adults.
3. Promote the Kenai Peninsula as an attractive place to live and work for skilled health care workers and their families, within Alaska and through programs like the Washington-Wyoming-Alaska-Montana-Idaho (WWAMI), a multi-state medical education program that provides opportunities for Alaskans to attend medical school.

Objective E. Support efforts to reduce and prevent deaths and other harms related to substance misuse and addiction.

Strategies

1. **Near-Term:** Collaborate with health care providers to establish medication and syringe disposal sites throughout the borough, to reduce availability and distribution of these medications for misuse.
2. **Near-Term:** Encourage ways to improve the community's mental health and wellness through social events, public dialogue about mental health, building stronger connections within the community, developing improved infrastructure for active lifestyles, and other health promotion activities.
3. Explore ways to increase availability of and funding for a continuum of behavioral health services, from routine to intensive to acute care, throughout the borough. *Recommended by 2016 KPB Health Care Task Force.*
4. Collaborate with the state and other partners to develop local-level responses to the opioid crisis to reduce overdose-related deaths, connect people with treatment resources, and supports for individuals and families struggling with the consequences of addiction.



FOCUS AREA: HOUSING

HEADLINES

Housing is important for a strong workforce, healthy economy and thriving community. Quality, affordable housing choices are an important part of a healthy economy and healthy community, including: options for families, singles and seniors; opportunities to live close to town or in rural areas; opportunities for renters to become home owners; and different sizes and types of homes to meet different needs and lifestyles. The Kenai Peninsula's housing market provides options that are in reach for many residents. Some communities have housing shortages or face rising prices, and some households across the borough struggle to find safe and affordable housing, from growing families to seniors who need help as they age.

Policy decisions about land use, management of Borough lands, and future development areas can help or hinder the availability, affordability and quality of housing. While the Borough does not build or provide housing, there are many opportunities to improve housing choice and affordability for all residents and be ready to meet future demand for housing as the economy grows. Objectives and strategies outlined in the Land Use section provide tangible ways to address the borough's housing needs. These strategies include increasing the supply of lands for residential use, and sensibly guiding future developments in areas where housing is appropriate and desirable. Making more places available for new housing through strategic disposal of lands, protecting existing residential neighborhoods from incompatible or nuisance uses, and increasing other opportunities for housing in the borough can all contribute to a healthier housing market to meet current and future resident needs.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Housing is affordable for most people on the Kenai Peninsula. The Kenai Peninsula is one of the most affordable housing markets in the state, with lower than average home prices in most communities (Table 17). While other household expenses, like food, gas and utilities are slightly higher than Anchorage, overall cost of living on the Kenai Peninsula is lower than Anchorage, Mat-Su or Fairbanks. Approximately 73 percent of households own their home, and 27 percent of households are renters.

Table 17. Comparing Housing Prices and Rents, Kenai Peninsula Borough and Other Alaska Markets

	Average Sale Price (All)			New Construction		Average Rent (Mar. 2017)	
	Single Family	Condo	Multi Family	Single Family	Condo		
Kenai Peninsula	\$267,395	\$185,833	\$452,000	\$272,682	\$220,000	Kenai Peninsula	\$1054
Anchorage	\$389,746	\$220,187	\$761,583	\$631,490	\$357,821	Single Family*	\$1,323
Fairbanks	\$260,821	\$146,188	\$290,000	\$325,526	N/A	2BR Apartment*	\$979
Mat-Su	\$290,053	\$238,250	\$555,684	\$343,038	N/A	Alaska Overall	\$1,245
						Kenai Peninsula	11.3%
						Vacancy Rate	
						Alaska Vacancy Rate	7.3%

Source: Alaska Housing Finance Corporation, Housing Market Indicators 2017 Q2; 2017 Rental Market Survey. Data presented for Fairbanks North Star Borough.

The rental market is also relatively affordable, with average rents increasing over recent years, but remaining lower than the statewide average. Vacancy rates have increased in the last two

years, consistent with statewide trends, but does not reflect higher seasonal housing demand in the summer. There is also increasing pressure on the rental market from the increase in short-term and vacation rentals, discussed further in this section.

Housing affordability varies by community and desired lifestyle. Most Kenai Peninsula residents are not cost burdened by their rent or mortgage, but 29 percent of households spend more than 30 percent of their income on housing and utilities.⁶⁰ Demand for in-town living makes housing more expensive in some communities, with highest rents and relatively more cost-burdened households in Homer and Soldotna (Table 18). These communities and the City of Kenai have also seen the most new housing construction in recent years, even as overall building is down (Figure 49).

Figure 49. Average Home Price and Production Rate, 2006-2015.

New home construction was down in 2015 and 2016, but the market overall was stronger. Most new units were built in Homer, Soldotna and Kenai.



Source: Kenai Peninsula Economic Development District, Kenai Peninsula Borough Comprehensive Economic Development Strategy (CEDS) 2016.

Table 18. Local Housing Markets, Median Home Price and Monthly Rent by Community

Local markets vary: costs are highest in a few communities in Central and Southern Peninsula. Small communities like Hope, Cooper Landing and Moose Pass have few available units and wide range in price.

Community	Median Home Price (List)	Median Monthly Rent
Homer	\$310,673	\$1,500
Kenai City	\$265,476	\$1,100
Nikiski	\$143,734	\$695
Ninilchik	\$176,272	\$800
Seward	\$249,432	\$995
Soldotna	\$275,546	\$1,300
Sterling	\$276,198	\$1,275

Source: Trulia.com local market data (list prices), April 2017

Stable gas prices and cheaper housing make commuting for work or shopping attractive for many, although utility and fuel costs are higher than other Southcentral communities.

Demand for retirement homes, recreational properties and vacation rentals impacts the housing market in positive and negative ways. The Kenai Peninsula is a popular choice for second homes and retirement homes, for Alaska residents and out of state buyers alike. Scenic views and waterfront properties, especially along the Kenai River, are the most valuable amenities for prospective buyers. The second home market accounts for many sales and new builds at the highest price points, as do executives and professionals living on the peninsula. Demand for luxury homes depends in part on the strength of the state and U.S. economy, as retirees consider Alaska as a destination for a seasonal or second home.⁶¹

A strong second- or seasonal-home housing market can have mixed impacts. While an active real estate market is positive and creates demand for would-be sellers as they age, move locally or out of state, an influx of buyers seeking higher-end housing with means to pay can have

⁶⁰ Kenai Peninsula Economic Development District, *Kenai Peninsula Borough Comprehensive Economic Development Strategy* (CEDS) 2016.

⁶¹ Elizabeth Earl, "Trends: Peninsula housing more affordable than most of state," *Peninsula Clarion* March 29, 2016.

negative impacts as well. These impacts squeeze the housing market and make finding an affordable place to live more difficult for others. Increased average home prices can hurt first-time buyers and generally limit affordability of homes, and replacement or expansion of modest homes into larger luxury homes can change neighborhood character.

The rental market also faces pressures common in strongly seasonal economies. Seasonal workers seeking short-term housing create competition for year-round renters, particularly in areas with already limited rental options. The rise of the vacation rentals by owner (VRBO) system and websites like Craigslist and Airbnb make it easier than ever for a property owner to market to visitors. These vacation rentals often generate more income in a month than would a full-year or part-year lease of the same space to a rental tenant. As a result, there is an economic disincentive for many landlords to maintain long-term rental housing, especially when summer demand for housing and lodging are highest. In Homer, noted by Trulia as the most expensive rental market on the Kenai Peninsula, a typical unit rents for \$1,500 per month, an average of \$50 per night. The average listing on Airbnb and VRBO.com for the same area is approximately \$175 per night.

Figure 50. Houses in Seldovia



Housing is attainable for most, but homelessness is a reality for some. Data on the number of people experiencing or at risk of homelessness on the Kenai Peninsula is limited. The most commonly-cited numbers are generated from an annual count of people who are homeless conducted statewide, which relies on local outreach in each community to produce an estimate of the total homeless population. In January 2017, the region's count identified 66 people who were currently homeless, but the Point in Time count numbers understate the need in the region, and do not include other arrangements like living with friends or family. Love INC, a faith-based organization that provides homeless prevention and permanent housing placement services, works closely with 50 local churches to provide emergency shelter locally for over 950 adults and 600 children who are homeless. Approximately 10 percent of the overall population is below the poverty level, as are more than one-fourth of households consisting of single mothers and their children. The Kenai Peninsula Borough School District (KPBSD) estimates that at least 250 students are identified as being "in transition" each academic year. This means that they or their families are homeless or do not have stable housing. Students in transition are eligible for additional assistance to keep them enrolled and engaged at their current school, even if their family moves closer to a different school in the district.

As of 2015, within the Kenai Peninsula Borough there are 56 emergency shelter beds, 14 permanent supportive housing units, 25 transitional housing units, and 67 domestic violence victim beds.⁶² The region has relatively few low-income or emergency housing options (1.64 beds per 1,000 residents), and some of the need is absorbed by networks of family and friends who

⁶² Alaska Housing Finance Corporation, *Annual Housing Inventory Count*.

provide an informal safety net for many otherwise homeless youth, adults and families. A variety of housing and social services organizations have formed a coalition, the Kenai Peninsula Continuum of Care, to better coordinate services for populations in need and to identify gaps in the current system, such as limited housing options for people with disabilities and a need for emergency and transitional housing facilities.

HOUSING OBJECTIVES AND STRATEGIES

What We've Heard

Housing was not identified as a policy priority in the 2005 Comprehensive Plan but emerged as a theme throughout the public engagement process and is of great concern to those who cannot afford safe and quality housing. Most residents surveyed by phone gave housing overall in the borough a middling grade, “B to “C”, and slightly lower grade, “C” to “D”, for overall cost of living. This is despite 82 percent of respondents grading their own housing situation much higher, “A” to “B”. Satisfaction with their own home or overall housing choices was positively correlated with overall satisfaction with life on the Kenai, as a factor only slightly less important than financial and job security and connections to the community.

Note: “Near-Term” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Increase supply and variety of affordable housing options in the borough, while managing impacts of growth in communities.

It's hard to attract and keep employees with limited housing options.

Moose Pass resident

We should consider smaller housing types, to meet different needs.

Hope resident

Many rental properties only lease from October to April. Summer is the toughest time to find housing.

Kenai Peninsula Continuum of Care member

Most housing in the region is single family homes, which may not meet everyone's needs at all stages of life. Increasing housing choices such as quality rental housing, smaller homes, smaller lots, and lower-cost building methods like pre-fabricated construction offers more opportunities for affordable living in the community.

Increasing the supply of available land for residential uses also creates more housing opportunities but can also have significant impacts on existing neighborhoods and infrastructure. Recently subdivided land in some communities, for example, has brought an influx of new residents, while other subdivisions have been built in areas that are not currently receiving local services, or will require significant infrastructure investment to be served. Future plans for borough-owned lands should consider where and how it is most appropriate to encourage new growth, including where it would be cost effective for local services and what if any impacts there would be on existing neighborhoods or communities.

Strategies

1. **Near-Term:** Conduct a Housing Needs Assessment for the region to better understand the current inventory of housing, and what types of housing are in highest demand.
2. **Near-Term:** Identify Borough lands that are most suitable for residential development and update the land management plan to reflect this as a planned future use.
3. Support options for housing that best meets the needs of seasonal populations, particularly rental housing in areas with the most seasonal activity.
4. Encourage innovative strategies for new housing types that may be attractive for price and lifestyle: examples may include tiny homes, co-housing and shared land ownership, accessory dwellings for existing homes, and pre-fabricated construction.
5. Encourage in-fill housing on lots that have already been developed or are already being served by infrastructure and utilities, to maximize use of existing resources and maintain character of existing residential neighborhoods.

Objective B. Encourage options for seniors to age in place, maintain affordability of their home, and other options for remaining in the community.

The cost of living is high, I can't live here on retirement and break even every month.

2017-2018 KPB Comp Plan Survey Participant

We need more options for senior independent and assisted living, help keep our long-time residents in the community as they age.

Seward resident

The Kenai Peninsula has a fast-growing senior population and has seen an increase in the number and types of senior housing units due to efforts by the Kenai Peninsula Housing Initiatives and other organizations to meet this demand. The need for senior-friendly homes and communities will continue to grow as the population ages, including home modification programs to help seniors age in place, and a continuum of support services from independent living to nursing homes or long-term care facilities.

Strategies

1. **Near-Term:** Encourage ways for seniors to age in place, including participation in home rehabilitation and modification programs.
2. Encourage new housing developments to be senior-friendly or support residents of all ages: accessibility features, one-story units, accessory dwellings, safe walking options within a neighborhood and to nearby shopping and services.
3. Increase availability of services across the continuum of care, from assistance with daily living and in-home services, to more intensive care such as skilled nursing facilities.
4. Encourage ways to increase and diversify opportunities for seniors to maintain their health through social interaction, physical fitness, and continuing education.

Objective C. Encourage creation and expansion of a continuum of services to reduce homelessness and prevent risk of homelessness in the borough for youth, families, individual adults and seniors.

The cost of housing is not affordable for most people.

2017-2018 KPB Comp Plan Survey Participant

Strategies

1. **Near-Term:** Participate in the Kenai Peninsula continuum of care (CoC) coalition, and the statewide CoC Alaska Coalition on Housing and Homelessness.
2. **Near-Term:** Support the work of housing organizations like Kenai Peninsula Housing Initiatives to develop and manage new affordable housing for individuals and families.
3. Support the continuation of the Kenai Peninsula Borough School District's Students in Transition program and identify additional funding sources to supplement federal grant funding.
4. Support development of more permanent supportive housing in the borough.
5. Support programs and services that help stabilize families and prevent homelessness.
6. Support programs and services that help youth and young adults find safe housing.
7. Support opportunities for homeownership.

Objective D. Encourage efficient use of land, infrastructure and services outside incorporated cities by prioritizing future growth in the most suitable areas.

As described in Objective A, making more land available for housing can increase affordability in the housing market overall. However, uncoordinated development can increase long-term costs if new developments are scattered, disconnected from existing infrastructure or in areas that are not currently planned for expansion of roads, utilities and services. *See Land Use section for more information.*

Strategies

1. **Near-Term:** Collaborate with Alaska Department of Transportation, incorporated cities within the borough, utility providers, other agencies overseeing local services, and existing communities located adjacent to undeveloped areas that are appropriate for future growth, to align plans for future expansion of services to serve future residential development and manage growth.
2. **Near-Term:** Reserve Borough lands adjacent to existing infrastructure for future housing.
3. Coordinate timing and location of new residential developments and subdivisions with the planned expansion or upgrade of local services.
4. Encourage small housing developments with shared green spaces, maintenance and parking.
5. Encourage infill development or redevelopment of properties on good soils that already have access to roads, utilities, or are located near town centers or commercial areas.



FOCUS AREA: SOLID WASTE SERVICES

HEADLINES

Solid waste management is a core function of the Kenai Peninsula Borough. Since 1974, the Borough has managed the region's solid waste facilities and services area-wide, including improving or closing several older facilities and operating landfills on and off the road system. The Borough continues to make facility and system improvements, including upgrading facilities to meet current regulations, manage leach materials, and expand capacity as needed.

Potential need for more waste management capacity if the LNG project moves forward. As described elsewhere in this plan, construction and operation of the proposed liquefied natural gas (LNG) project would bring new employees, residents and commercial activities to the area, all of which will place additional demand on the existing infrastructure and facilities like the Borough's solid waste management system. Potential impacts to local waste management infrastructure, including the capacity needed to collect and dispose of more household and commercial waste, as well as an accelerated rate of growth for landfill capacity, should be considered as this proposed project moves forward.

Recycling and diversion of waste from landfills supports efficient use of resources and improves local waste management capacity, but has economic challenges. Residents support having recycling options; some encourage expansion of this program and express interest in related opportunities, such as composting organic materials at a small or large scale. However, the global market for recyclable commodities is complex, and it can be difficult for governments with small populations to be competitive. Encouraging local processing of materials, reduction of waste into the landfill, and other strategies should be considered jointly with recycling services.

WHERE HAVE WE BEEN, WHERE ARE WE NOW? WHERE ARE WE HEADED?

The Kenai Peninsula Borough has provided solid waste services since 1974 and operates with an integrated solid waste management program including multiple facilities across the region. There are multiple landfill, transfer facilities and transfer sites within the borough, listed in Table 19, operated by the Borough or under contracts with private waste management operators. Beginning in 2005, the Borough directly operates the Central Peninsula Landfill.

Table 19. Solid Waste Facilities and Transfer Locations within Kenai Peninsula Borough

Class I Landfill	Transfer Facilities	Class III Landfills	Transfer Sites
Central Peninsula Landfill	Homer Transfer Facility*	Beluga Landfill	Anchor Point
	Kenai Transfer Facility	Nanwalek Landfill	Cooper Landing
	Nikiski Transfer Facility	Port Graham Landfill	Crown Point
	Seward Transfer Facility*	Rocky Ridge (Seldovia) Landfill	Funny River
	Sterling Transfer Facility	Tyonek Landfill	Hope
			Kasilof
			McNeil Canyon
			Ninilchik

* Note: Homer and Seward facilities are also monofill sites.

In addition to accepting household and commercial waste, the Borough also maintains programs for collecting and disposing of hazardous materials, as well as drop-off recycling for common household materials such as cardboard, glass and certain plastics. While the Borough does not offer curbside pick-up for residential or commercial users, private operators within the area, such as Alaska Waste, provide these services directly to residents with fees established in tariffs by service area; these fees must be approved by the Regulatory Commission of Alaska (RCA), similar to utility rates. Residents in the Central and South Peninsula areas may opt into this service, while residents within the City of Seward are required to pay for curbside service from the city's contracted operator.

Solid waste management services must maintain safe, responsible operations in compliance with changing federal and state regulations, while remaining cost effective and planning for the system's long-term needs. This includes monitoring current landfill capacity and rate of growth, upgrading facilities to meet current standards, and exploring new opportunities to encourage production of less waste, alternative uses for waste products, and possible monetization of waste products to incentivize diversion from the landfill, such as recyclable commodities or producing compost at commercial scale.

The Borough has made several upgrades to the Central Peninsula Landfill including expansion of the site and installation of systems to manage leachate (liquids and gas that leach from the waste into the soil or groundwater) and otherwise reduce or prevent long-term contamination. Many of these projects were made possible through state capital grants, including \$8.99 million to construct the Homer Transfer Facility (2011); \$3.47 million for initial installation of Central Peninsula Landfill's thermal leachate evaporator system (2013, Figure 51); and \$708,000 for an additional leachate evaporator unit (2014).

Figure 51. Installing Leachate Evaporation System, Central Peninsula Landfill



Source: Kenai Peninsula Borough, Solid Waste Department

Effective waste management should include strategies for conservation, waste reduction and diversion of some materials from the landfill if they can be reused or recycled into new products. Landfill capacity, as well as the overall system capacity to collect and manage waste, will continue to be an issue on the Kenai Peninsula as the population grows, and more so if large-scale projects such as the LNG facility bring many new residents to the region. Recycling programs are an important part of this effort, and residents indicate they will continue to participate. Others express interest in community-scale composting programs for organic (primarily food) waste, which some communities in the U.S. have implemented at a large scale and can produce commercial quantities of compost for sale or use. Even if large-scale composting is not feasible at a regional level, the Borough could promote household- or community-scale composting to support local food production and gardening.

However, because recycling is a globally-traded commodity, changes in the international market for recyclable materials can significantly impact local waste management systems and make increasing recycling activities difficult. In spring 2018, China announced they would no longer accept shipments of some common recyclable products from the United States and other partners. This has caused significant changes in demand and price per pound for those materials, as well as disrupting the logistics chain for major and smaller cities seeking to sell recyclable commodities. This development illustrates larger challenges within the recycling market, as governments and private companies seek buyers for these commodities at reasonable prices, while there are a limited number of buyers who can cost-effectively recycle these materials into new products. The Borough will need to continue working with partners to identify reliable markets for recyclable materials and encourage locally-based recycling industries that could process waste within the state in lieu of shipping outside.

SOLID WASTE SERVICES GOALS, OBJECTIVES AND STRATEGIES

What We've Heard

Residents value solid waste services but see room for improvement. While fewer people commented specifically on solid waste services in comparison with those who commented on road maintenance and other local services, waste management was highlighted by several residents as an important Borough function, as well as a source of localized issues during the summer months. Residents expressed frustration with transfer sites or dumpsters that become overfilled or not sufficiently managed during times or in locations where there is significant additional waste from campers and other visitors.

Homeowners pay the property taxes that pay for our solid waste services, but summer visitors leave our transfer stations overrun with garbage. We need more dump sites in the summer, or better ways to manage non-resident use during the tourist season.

Funny River Festival Attendee

Roads, schools and solid waste services are the Borough's most important functions.

Getting my garbage to the dumpster is a challenge: it's easy to go to the site, but the dumpsters are always full.

2017-2018 KPB Comp Plan Survey Participants

More opportunities for waste reduction, recycling and landfill diversion. As noted above, the Borough already has recycling services for some products, and partners with other local organizations to coordinate collection and recycling of specialty products like electronics, as well as educating residents about the value of reducing or recycling waste. When asked to grade several local services including recycling, however, telephone survey respondents were mixed across the borough, with almost 40 percent giving recycling services a high grade ("A" or "B") but another 30 percent a low grade ("D" or "F").⁶³ Residents in Soldotna, Sterling, Anchor Point and Homer were most likely to rate recycling services highly, while residents in Kenai, Nikiski, Seward

⁶³ Approximately 22 percent of respondents gave recycling a "C" grade, and nine percent were unsure.

and rural areas were mostly likely to rate recycling services poorly. This may partly reflect each community's relative proximity to the Central Peninsula Landfill or a convenient transfer site but suggests that many residents are either dissatisfied with their current services or are unaware of the Borough's existing recycling program. Because of the economic challenges of securing a market for recyclable commodities, and Alaska's distance from many major markets, increasing or improving recycling options locally may be difficult for the Borough without also finding a stable global market for those products.

Note: "Near-Term" strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Provide convenient, cost-effective, environmentally-sound disposal of solid waste generated by residents, businesses and visitors.

1. Continue to make improvements at facilities to improve appearance, convenience and operation such as measures to address wildlife access to garbage, buffering and screening to minimize impacts on surrounding uses, and easier access to dumpsters by seniors and people with physical limitations.
2. Identify specific sites and/or time periods that transfer stations and waste facilities are routinely over capacity and implement strategies to proactively manage these areas or times of peak demand for waste disposal.

Objective B. Update the *Kenai Peninsula Borough Solid Waste Management Plan*.

Strategies

1. **Near-Term:** When updating the plan, evaluate the capacity and efficiency of the existing solid waste management system.
2. **Near-Term:** When updating the plan, evaluate the existing administrative and financial structure of the system and identify any areas of concern.
3. **Near-Term:** Develop an implementation plan and schedule of proposed changes and improvements to facilities, services and processes.

Objective C. Increase awareness of and opportunities for waste reduction and landfill diversion, including "Reduce, Recycle, Reuse."

I think we should concentrate on recycling. We throw a lot in the landfill that I think could be recycled.

2017-2018 KPB Comp Plan Survey Participants

While the Borough currently offers recycling of some materials, several residents and survey respondents commented on the limited services and their desire for more options to divert materials from the landfill through recycling and composting. Several of the strategies below were also highlighted in the 2005 Comprehensive Plan, reflecting consistent interest in making efficient use of resources and reducing the flow of solid waste to the landfill.

Strategies

1. Develop a plan of landfill diversion strategies including waste reduction, reuse and recycling opportunities, and other programs.

2. Encourage local reprocessing of paper, glass, aluminum, or other materials collected at Borough recycling centers.
3. Encourage greater household, commercial and institutional use of recyclable or compostable materials, and replace non-recyclable materials used at Borough facilities with recyclable or biodegradable products where feasible.
4. Explore opportunities for recycling a broader range of materials, including wood debris.
5. Utilize pilot projects to evaluate the potential use of new programs such as coordinated composting of organic materials.
6. Encourage residents and businesses to reduce the amount of solid waste they produce that enters the landfill, including programs to encourage recycling, educate households about composting onsite or at a community garden, and conserve resources.

Objective D. Encourage safe handling and disposal of toxic and hazardous waste.

The Borough hosts 17 hazardous waste collection events each year in locations across the peninsula: Central Peninsula Landfill, Homer and Seward Transfer Stations, and Rocky Ridge Landfill in Seldovia. Hazardous waste disposal is managed by a contractor. Improper disposal, co-mingling with other waste, or illegal dumping of hazardous waste on other lands or waterways poses risks to human and environmental health and should be prevented through proper waste management and resident education.

Strategies

1. Maintain ongoing collection of household hazardous waste at selected Borough facilities and annual collection in rural/remote areas. Consider expanding opportunities for local disposal of household hazardous waste.
2. Work with state agencies to develop and distribute informational materials to inform residents and businesses about safe, legal disposal of toxic and hazardous materials.

Objective E. Investigate existing and emerging technologies for safe and efficient long-term waste disposal.

Strategies

1. Pursue permanent implementation of the Research Development and Demonstration Project at the Central Peninsula Landfill.
2. Identify promising technologies and conduct feasibility studies to evaluate each option.

Objective F. Explore new revenue sources to help finance the solid waste management system operations, capital improvements and innovation projects.

Strategies

1. Investigate the feasibility of revenue generation using gas produced at the landfill at local energy producing facilities.
2. Evaluate the current fee structure for commercial waste disposal and whether current revenue is sufficient for current operations costs.
3. Monitor, and pursue as appropriate, grant opportunities to fund capital projects at waste management facilities.



FOCUS AREA: HISTORIC PRESERVATION

HEADLINES

Historic properties not only express important elements of the Kenai Peninsula's past, but also embody a sense of history, character, and identity of its communities. These resources can manifest local, regional, and national values, and are often cherished residents.

Kenai Peninsula residents recognize value in historic properties and their preservation, and they understand that these properties contribute to other community values and goals. Evidence of this is demonstrated by the numerous historical societies and museums within the borough. The Hope Historical Society, Hope Museum, Kasilof Regional Historical Association, Kasilof Historical Museum, Seward Iditarod Trailblazers, Seward Historical Society, Soldotna Museum, and the Cooper Landing Historical Society and Museum are just a few.

Historic properties are appealing recreational and tourist attractions and can contribute to economic stability goals. The Commemorative Iditarod National Historic Trail project is one that credits local history, provides positive economic impact, and promotes a unique history for a number of the Kenai Peninsula communities. The communities of Moose Pass, Seward, Hope, and Cooper Landing claim ownership of this unique heritage.

The Iditarod standing alongside the Pacific Coast Trail and the Appalachian Trail in both its lore and its character is an obvious destination for visitors, providing great incentive to develop its starting segment from Seward to Girdwood.
Kenai Peninsula Borough staff member, 2017⁶⁴

With responsible management and compliance with historic preservation laws, historic trails like the Iditarod may be maintained and adaptively reused for continued public enjoyment.

Historic preservation is most effective not when it is left to the experts, but when the historic preservation specialists, leadership, and community or communities work together through active engagement. When incorporated into comprehensive planning efforts, historic preservation planning and implementation can be aligned with communities' larger values and goals. However, preservation of these resources can be inadvertently marginalized by planning efforts, including some previous Kenai Peninsula Borough efforts. In fact, historic preservation may not be at the forefront of the public's priorities until an historic property is at the threshold of damage or destruction, or worse yet, after damage is done. In likelihood, residents trust government and administrators to safeguard these resources along with other resources and do not raise discussion unless prompted. Governments are likely not to act unless informed of potential conflicts or problems with historic preservation.

⁶⁴ Mueller, Marcus. Land Management Officer, Kenai Peninsula Borough. Personal communication with Nancy Casey. December 12, 2017.

WHERE HAVE WE BEEN? WHERE ARE WE NOW?

The Kenai Peninsula Borough has a rich cultural history manifested in physical resources such as buildings and structures, archaeological sites, and landscapes, collectively known as cultural resources. The mouth of the Kenai River is one of the most culturally significant areas in Alaska. It is the location of at least two prehistoric native cultures, a significant Russian trading occupation and port, a still-thriving Kenaitze village, fish canneries, and a U.S. military fort.⁶⁵

Prehistoric Native Indian and Eskimo settlements and fish camps occupied several coastal areas and river channels up and down the peninsula, including several archaeological sites that were occupied as early as 6,000 B.C., perhaps earlier.

Russian fur traders arrived along the shores of the peninsula in the late 18th century; gold miners established settlements inland in the late 19th century and homesteaders arrived in the mid 1900's. Most recently, commerce and industry associated with oil development and tourism have brought people to the Kenai Peninsula.

Figure 52. Holy Assumption of the Virgin Mary Russian Orthodox Church, Kenai

The Holy Assumption Orthodox Church is the oldest standing church on the Kenai Peninsula. Built in 1895-96. Listed on the National Historic Register in 1970.



Historic and traditional resources are protected by federal and state laws, like the National Historic Preservation Act and the Alaska Historic Preservation Act. These laws direct public projects to take into consideration the effects on historic properties, and recognize that historic resources can manifest local, regional and national values and help maintain a sense of history, character and identity of a community or communities. For example, historic properties listed on, or eligible for listing on the National Register are afforded special considerations under the National Historic Preservation Act (NHPA). These laws do not specifically address local values and goals of the Kenai Peninsula, though their intentions align with local historic values. Figure 52 and Figure 53 illustrate two existing examples, a National Register listed property and a historic district in the borough.

Both the State of Alaska and the National Park Service maintain cultural resource databases that include cultural resources in Alaska. The State of Alaska, Office of History and Archaeology, maintains the Alaska Heritage Resources Survey (AHRS). The National Park Service maintains the National Register of Historic Places, a list of significant historic and archaeological places in the nation deemed “worthy of preservation.”⁶⁶ Listed properties must meet one or more of the following criteria:

⁶⁵ Borass, Alan. Professor of Archaeology, Kenai Peninsula Community College.

⁶⁶ National Park Service, “National Register of Historic Places.” Database of listings: <https://www.nps.gov/nhl/find/database.htm>.

- Associated with events that have made a significant contribution to the broad patterns of our history.
- Associated with the lives of significant persons in our past.
- Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- Have yielded or may be likely to yield, information important in history or prehistory.⁶⁷

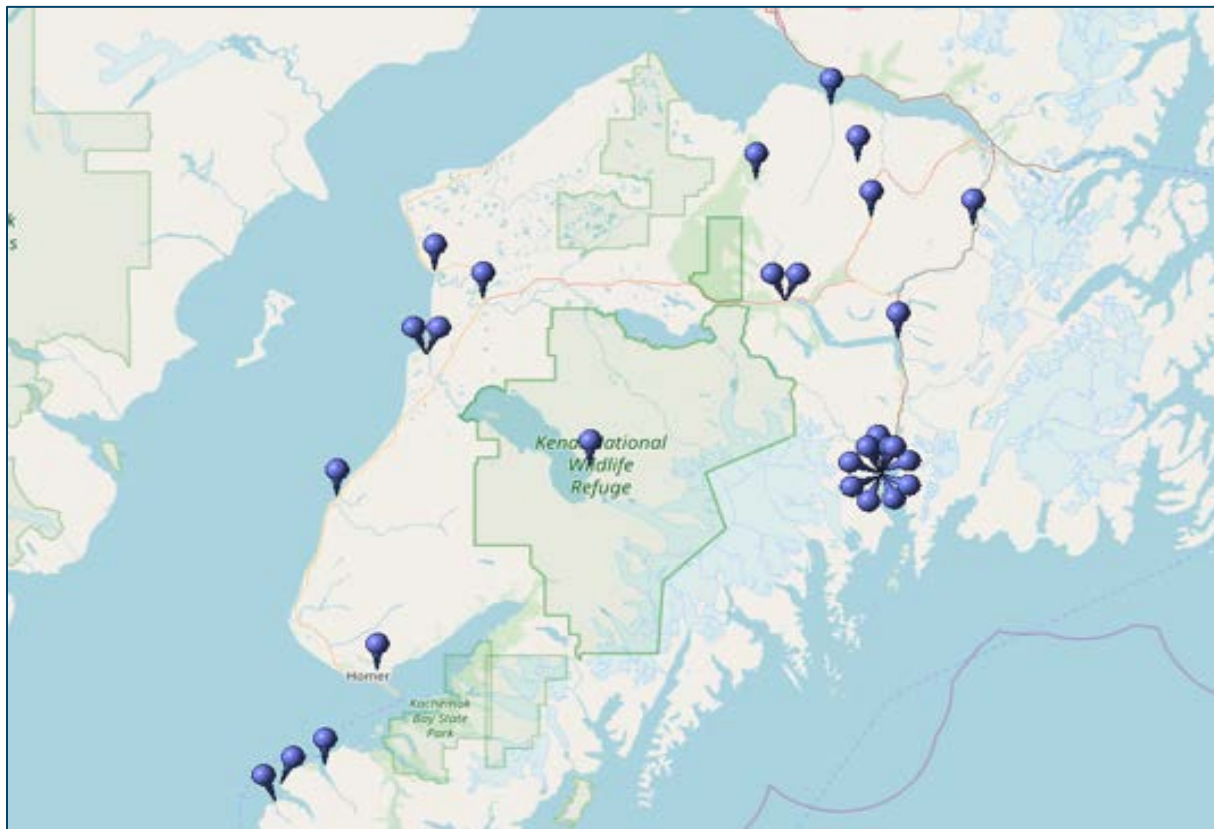
Figure 53. Hope Historic District, Hope
Listed on the National Historic Register in 1972.



Credit: J. Stephen Conn

While the two lists are maintained by separate agencies, all National Register properties listed in Alaska are also in the AHRs (shown in Map 11).

Map 11. Location of Current National Historic Listed Properties on the Kenai Peninsula



Source: National Register, 2017

⁶⁷ National Park Service. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*. Bulletin No. 15. 1990. Revised 2002.

The Alaska Historic Register lists 2,204 resources within the Kenai Peninsula Borough. These include 407 buildings, 134 structures, 78 roads and trails (including railroads), 1,558 sites, five objects, and 22 districts (Table 20)⁶⁸. Thirty-four of these properties are listed in the National Register of Historic Places. Two properties, the Holy Assumption of the Virgin Mary Russian Orthodox Church and the Yukon Island Main Site, are also National Historic Landmarks⁶⁹. Two other local historic resources are depicted in Figure 54 and Figure 55.

The Borough does not maintain a database of cultural resources within its boundaries. A geodatabase of these resources is not only essential for managing and protecting resources, but it can guide and inform other Borough goals. Location data stored in a geodatabase could also be used to generate maps and interpretative material for historical oriented tourism

We need a map of places people can visit to learn about our history. We have a remarkable story to tell that is best told on location with the wind blowing and the rain falling.

Professor of Archaeology, Kenai Peninsula Community College

Figure 54. Alaska Central Railroad Tunnel No. 1, Seward, 1906. Listed in 1977.



Figure 55. Soldotna Post Office and Cabin, built 1949. Listed in 2008.



Source: M. Scott Moon

⁶⁸ National Park Service, "National Register of Historic Places Download Center."

⁶⁹ National Park Service, "Database of National Historic Landmarks."

Table 20. National Register Listed Historic Properties in the Kenai Peninsula Borough

Location	Name	Year Listed	Type
Cooper Landing	Cooper Landing Historic District	1986	District
	Cooper Landing Post Office	1978	Building
Homer	Chugachik Island Site	1976	Site
	Thorn-Stingley House	2001	Building
	Yukon Island Main Site	1966	Site
Hope	Harry A. Johnson Trapline Cabin	2000	Building
	Hirshey Mine	1978	Site
	Hope Historic District	1972	District
	Sunrise City Historic District	1997	District
Kasilof	Victor Holm Homestead	2006	District
Kenai	Holy Assumption of the Virgin Mary Russian Orthodox Church	1970	Building
	Victor Holm Cabin	1977	Building
Lawing	Alaska Nellie's Homestead	1975	Building
Moose Pass	Lauritsen Cabin	1979	Building
Nanwalek	St. Sergius and St. Herman of Valaam Church	1980	Building
Ninilchik	Holy Transfiguration of Our Lord Chapel	1978	Building
Port Graham	Coal Village Site	1978	Site
	Selenie Lagoon Archeological Site	1974	Site
Seldovia	St. Nicholas Chapel	1980	Building
Seward	Alaska Central Railroad: Tunnel No. 1	1977	Structure
	Andrew Berg Cabin	2000	Building
	Brown & Hawkins Store	1988	Building
	Diversion Tunnel	1977	Structure
	Government Cable Office	1980	Building
	Hoben Park	2006	Site
	Jesse Lee Home for Children	1995	Building
	Seward Depot	1987	Building
	St. Peter's Episcopal Church	1979	Building
	Swetman House	1978	Building
	Van Gilder Hotel	1980	Building
Soldotna	Ballaine House	1978	Building
	Soldotna Post Office	2008	Building
Sterling	Moose River Site	1978	Site
Tuxnedi Bay	Magnetic Island Site	2015	Site

Source: National Historic Register

HISTORIC PRESERVATION OBJECTIVES AND STRATEGIES

Goals for historic preservation are notably absent from the 2005 Kenai Peninsula Borough Comprehensive Plan. These resources and the management of them are often ignored or minimized in broader planning efforts. Historic property and cultural resource planning is normally relegated to specialized historic preservation or cultural resource management plans and as a case-by-case scenario through development permitting process. Yet, historic and cultural values and properties can contribute to broader Borough goals and strategies, including strengthening community identity, improving quality of life, and economic development actions aimed at growing the region's tourism sector. The strength of Alaska's tourism market depends on the national economy and has been growing in the years following the U.S. recession.

What We've Heard

Respect history and tradition. A Comprehensive Plan needs to provide flexibility and tools that allow the decision-makers to respect history and tradition when making decisions.

Sustainability of funding. Support funding efforts and partnerships for maintenance and upkeep of existing resources.

Improve accessibility to cultural heritage. Compile comprehensive accounts of the borough's cultural history and diversity and inventory of noteworthy physical resources in the borough. Produce engaging brochures, maps, and other documents for tourists, residents, and educators.

Compatible development. Take an active role in ensuring that allowable development will not detract from, or threaten the integrity of, historic properties, districts, and buildings. Assist communities in recognizing that there is opportunity and responsibility to align cultural history with new development. Historic buildings and sites offer opportunities to enhance economic development, reveal unique community character, and improve quality of life opportunities for communities.

Coordinate cultural resource goals with Borough planning efforts. Historic and cultural resource planning tends to be isolated within specialized historic preservation or cultural resource management plans⁷⁰ and addressed on a case-by-case scenario through the development permitting process. A coordinated planning effort that recognizes how historic properties and cultural heritage can benefit Borough goals would reduce the occurrence of conflicting goals or strategies with respect to historic properties.

Honor cultural resources. Historic properties and interpretation of cultural heritage are appealing tourist attractions and can contribute to economic stability. As a popular destination for national and international tourists, the Kenai Peninsula Borough's rich history offers much potential for growing the Peninsula's tourism economy. Historic Kenai Old Town is an important tourist attraction for the City of Kenai, as is the Hope Historic District in Hope.⁷¹ Moose Pass encourages tourism through its recognition and preservation of local sites listed in the Alaska

⁷⁰ One such example is the Seward Historic Preservation Plan. City of Seward, *Seward Historic Preservation Plan*.

⁷¹ Glenn Gray and Associates, Bechtol Planning and Development, and Company, *Imagine Kenai 2030. City of Kenai Comprehensive Plan DRAFT*.

Heritage Resource Survey or in the National Register of Historic Places⁷². Moose Pass is also an historic crossroads of regional transportation routes, including The Historic Iditarod Trail. Preservation of rights-of-way, and eventual development of these historic trails is a documented goal for the Moose Pass community.

Protect important historic resources that are at risk. Historic properties can fall at risk to several impacts: impacts from development projects, natural disasters, and what is perhaps the most common source, disuse and natural decay. With over 2,000 known cultural resources within the borough, identifying and prioritizing which resources should be protected or restored/rehabilitated, can be a large task. Certainly, it is an ongoing one. However, historical societies within the borough have already identify some locally important resources. For example, the Russian Orthodox Sacred Sites in Alaska identifies as their top priorities as the Holy Ascension Orthodox Cathedral in Kenai and the St. Nicholas Chapel in Seldovia.⁷³

Note: “Near-Term” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Support efforts to identify, document, protect, interpret, and celebrate cultural history and resources in borough communities.

Note: the strategies listed below apply both Objective A and Objective B.

Objective B. Support efforts to maintain the character of historic towns, districts, and properties while encouraging commercial, tourist, and cultural development.

Note: the strategies listed below apply both Objective A and Objective B.

Strategies

1. **Near-Term:** Compile a comprehensive inventory of cultural resources in the borough by coordinating with Kenai Peninsula College, local historical societies, tribal entities, Alaska Office of History and Archaeology, and other knowledgeable resources.
 - a. As part of or as a follow up to the inventory process, effort should be made to evaluate the existing condition of these resources and prioritize the resources. Protecting over 2,000 cultural resources may not be in the best interest of the Borough, and preservation prioritization should consider not only historical significance, but also local value and the condition of the resource.
 - b. A Cultural Resource Plan or Integrated Cultural Resource Plan would build upon a comprehensive inventory, guide cultural resource planning and maintenance, and inform other Borough planning and management efforts, for example land use regulations.
 - c. Build upon existing cultural resource management plans and initiatives.
2. Coordinate cultural resource goals with Borough planning efforts.

A coordinated planning effort that recognizes how historic properties can benefit Borough goals would reduce the occurrence of conflicting goals or strategies with respect to historic properties, and lead to compatible development.

⁷² Moose Pass Advisory Planning Commission, Comprehensive Plan Moose Pass.

⁷³ Gray, Dorothy, Russian Orthodox Sacred Sites in Alaska. Personal communication with Nancy Casey.

- a. Take an active role in ensuring that allowable development will not detract from, or threaten the integrity of, historic properties, districts, and buildings.
 - b. Assist communities in recognizing there is opportunity and responsibility to align cultural history with new development.
 - c. Support the development of new design guidelines and land use policies that help maintain the character of historic towns, districts, and properties while encouraging commercial, tourist, and cultural development.
3. Produce engaging brochures, maps, and other documents for tourists, residents, and educators.
4. Align historic preservation with economic development goals through cultural heritage tourism and re-use of historic buildings and structures.
5. Support funding efforts and partnerships for maintenance and upkeep of cultural and historic resources. Actively pursue federal funding opportunities for the preservation and protection of cultural resources that support boroughwide and community economic development, education and recreation goals. For example, improvements and/or new assets such as: interpretive signs at parking areas and trailheads, protective barriers, and when appropriate, improved access to cultural and historical resources that will improve public awareness of, interest in and protection of cultural and historic properties.

Goal 4. Improve access to, from and connectivity within the Kenai Peninsula Borough.



FOCUS AREA: TRANSPORTATION

HEADLINES

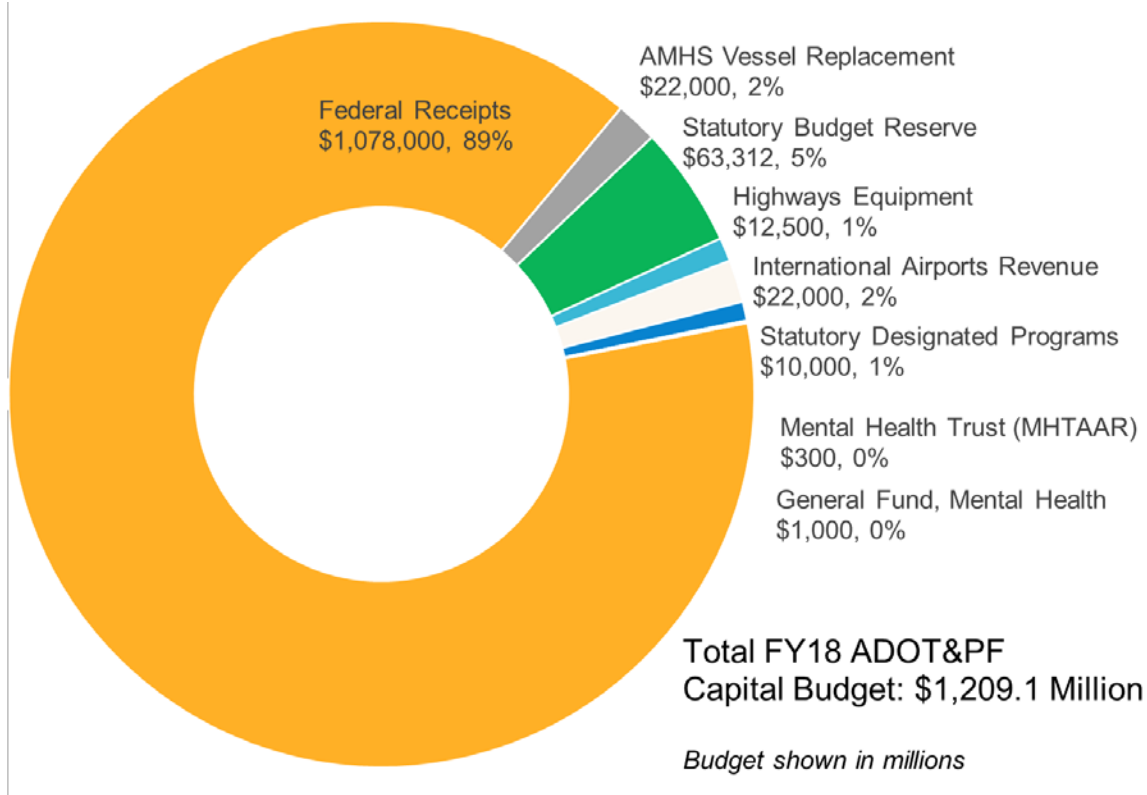
The key issue impacting all modes of transportation is decreased funding. If the Kenai Peninsula Borough wishes to open new areas for residential, industrial, agricultural, and economic development, it must recognize that State revenue is declining and will continue to push more of the financial burden for transportation to local governments.

Lack of consistent public transportation continues to plague the borough. The relatively small population and low population density on the Kenai Peninsula make public transportation programs challenging. These characteristics provide a smaller tax base for funding public transportation and create logistically challenging fixed route options. This has led to a patchwork of public transportation providers across the Kenai Peninsula providing geographically and demographically limited services. Consequently, as evidenced by a July 2017 telephone survey of residents, many Kenai Peninsula Borough residents are dissatisfied with public transportation options in the borough, giving this aspect of “life on the Kenai” a grade of “D” or “F”.

Public transportation services are isolated. Several entities provide or are developing public transportation services, including Central Area Rural Transit System (CARTS) Inc., Independent Living Center (in partnership with Alaska Mental Health Trust Authority), Kenaitze Indian Tribe, Seldovia Village Tribe, and Ninilchik Village Tribe, among others. Many of these programs receive funding to provide transportation services to specific populations including special needs and elderly residents. Tribal entities prioritize serving their tribal membership, but also provide services to non-tribal members. Services range from on-demand transit to taxi voucher programs. Many organizations compete for funding from the Federal Highway Administration and Bureau of Indian Affairs, sometimes diluting resources and hindering any one organization’s ability to fully deliver a program and/or cover a geographic region in the borough. As detailed later, cross-entity planning will be critical to the success of meeting borough resident public transportation needs.

Most State funding for transportation infrastructure construction and improvement projects (89 percent in FY 2018) comes from federal programs. If the Kenai Peninsula Borough is to remain competitive, it must adopt a proactive ranking and scoring approach with a detailed process that quickly elevates and communicates projects eligible for federal funding. The current practice of allowing State of Alaska Department of Transportation and Public Facilities (DOT&PF) employees residing in Anchorage and Juneau to develop and rank projects on the Kenai without meaningful, coordinated involvement of the KPB representing its citizens is untenable. The FY 2018 DOT&PF budget is shown in Figure 56.

Figure 56. Alaska Department of Transportation and Public Facilities FY18 Capital Budget



Source: Alaska Department of Transportation & Public Facilities

The State of Alaska Department of Transportation and Public Facilities is making significant cuts to services. Current budget projections include cuts to all transportation services including road and airport maintenance, and the Alaska Marine Highway System (AMHS) routes and schedules. See Figure 57 for an overview of cuts by department.

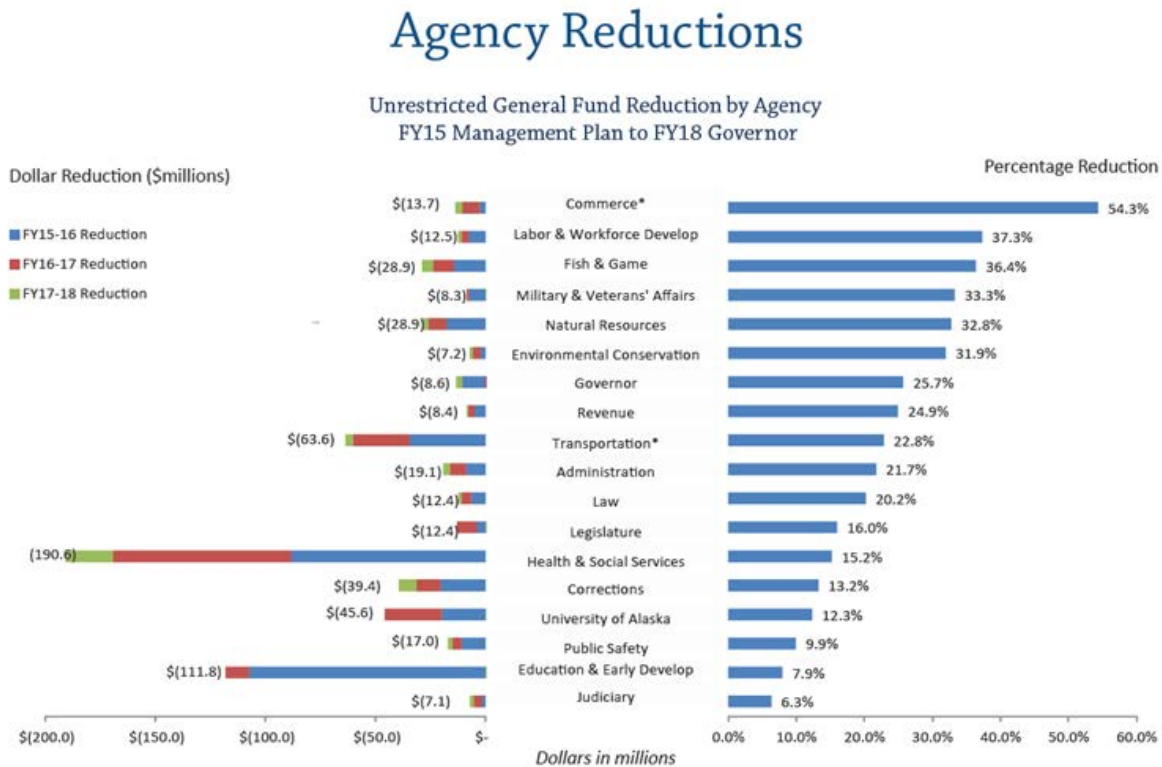
Alaska DOT&PF anticipates local municipalities, like the Kenai Peninsula Borough, and organized cities within the borough, as well as private developers, to cover financial gaps left by decreased State funding for construction and maintenance of local roads and connectors. When asked to comment on the shrinking state budget and the potential impact to the Kenai Peninsula Borough, DOT&PF Commissioner Luiken provided the following comment:

Alaskans, through their representatives in the Legislature, have continued to call for a smaller State operating budget. After years of aggressive general fund cuts, we are at a point with the size of our DOT&PF operating budget that requires we focus attention on National Highway System and major state highways. It is time for Alaska's urban communities to begin planning for maintenance and preservation of secondary and local roads that have been maintained by the State in the past.

Alaska DOT&PF Commissioner, November 2017

Figure 57. State of Alaska Department of Transportation and Public Facilities budget cuts

DOT&PF budget cuts are roughly in the middle in terms of percentage cuts to all departments (22.8%), but third highest in dollar amount: \$63.6 million. The numbers below include FY18 projections.



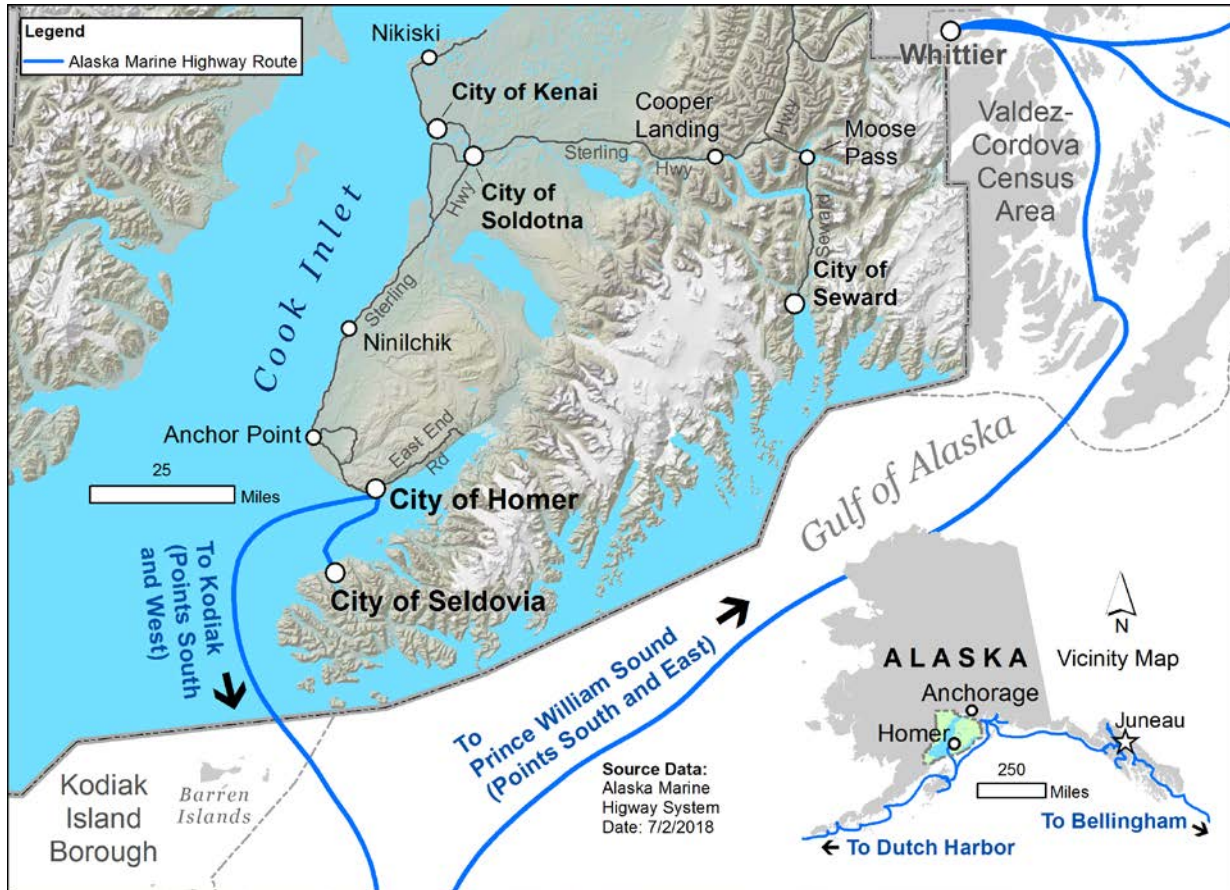
Source: State of Alaska, Office of Governor Bill Walker

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Transportation infrastructure on the Kenai Peninsula has historically developed and maintained by a variety of government entities. Starting with the Alaska Road Commission (ARC) in 1913 and later the State of Alaska in 1959, many of the roads and airports were constructed using a combination of Federal funds and taxes. In 1938, the Civil Aeronautics Authority was created and took over construction of airfields in Alaska with funding from the Federal Aid Airport Program and an aviation fuel tax passed by the Territorial Legislature. The federally funded Alaska Engineering Commission constructed the Alaska Railroad connecting Seward to Anchorage in 1917 and later to Fairbanks in 1923. The State of Alaska took over ownership of the railroad in 1984 and it is now run as a State-owned corporation, the Alaska Railroad Corporation (ARRC).

The Alaska Marine Highway System (AMHS) was authorized by the Alaska legislature in 1959. Operations began in 1963 and added Homer and Seldovia to the routes in 1964. Map 12 illustrates 2017 AMHS routes. Private ferries extend the routes in Kachemak Bay, several cruise ship companies bring seasonal tourists to Seward and Homer, and private shipping continues to bring goods to many communities not connected to the road system. Ports and harbors on the Kenai Peninsula today are primarily owned and operated by the associated cities. The Alaska Railroad Corporation owns the Alaska Railroad Dock Terminal in Seward.

Map 12. Alaska Marine Highway System Around the Kenai Peninsula Borough



The Kenai Peninsula is also home to numerous trails, primarily managed by the US Forest Service and Alaska Department of Natural Resources. Several cities have established bike and pedestrian path systems and the state highway system includes 27 miles of paths.

The Kenai Peninsula enjoys a relatively diverse transportation system given the large area and small population. Residents and visitors have several options available to access the peninsula including the Seward and Sterling Highways, several airports with commercial service, the Alaska Marine Highway, the Alaska Railroad, and private aircraft and ferries. Bike and pedestrian pathways are receiving greater attention in the more populated areas, however public transit and ridesharing is limited or absent.

Figure 58. Man Riding Bicycle on Roadway Shoulder



Table 21. Responsibility for Transportation Infrastructure in the Kenai Peninsula Borough

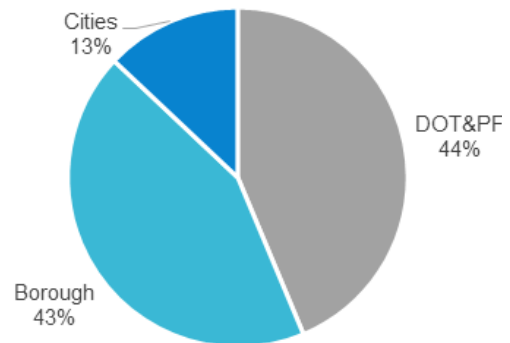
Responsibility for improvements and maintenance of transportation infrastructure in the Kenai Peninsula Borough is distributed between several branches of government and private owners.

Roads & Highways	Ports & Harbors	Airports & Airstrips	Trails & Bike Paths
State	Cities	Cities	Federal
Borough	Private Owners	State	Cities
Cities	State (Alaska Railroad)	Private Owners	State
Private Owners			

Highways and roads are the most commonly used form of transportation.

Most people, goods and services move on streets, roads and highways. The Kenai Peninsula is served by one primary highway corridor (the Seward/Sterling Highway) with several prominent branches and a developed system of streets and roads within cities and communities. The responsibility for snow removal, maintenance, and improvements to the road system is divided between the Borough, State, cities, private developers, and individuals (Table 21). DOT&PF maintains approximately 650 miles of roads and highways, the Borough through their Road Service Area maintains 645 miles of road and the Cities of Kenai, Soldotna, Seward, and Homer maintain a combined total of 193 miles of streets and roads. Dedicated rights-of-way for private owners are not tracked.

Figure 59. Road Miles in Kenai Peninsula Borough by Maintenance Responsibility



Source: Budget documents from DOT&PF, Kenai Peninsula Borough and incorporated cities

In the telephone survey of Kenai Peninsula Borough residents, a majority (73.7 percent) were “satisfied” with services in the borough. Of the 15.4 percent who were “somewhat-” or “very dissatisfied”, many specifically listed roads as the issue contributing to their dissatisfaction:

What's the main reason you're dissatisfied with Borough services?

Because they don't do enough maintenance on our roads.

Road maintenance is lacking.

I don't think they grade or fix the roads.

Just some of the ways they keep up the roads, I live on a dirt road and sometimes it is not drivable. They don't grade it as they should.

Road maintenance, they don't maintain the road that I live on, I have to plow my own snow and maintain it myself.

Roads, the construction is done but winter clearing isn't and more funding towards that is needed.

The road I live on is not graded often, and it takes forever to get graded and when it's finished it's sloppy and horrible.

They're not snow plowing properly for the roads.

Mainly the road system. They don't keep it maintained the way they should.

Wasteful on some of the road maintenance programs.

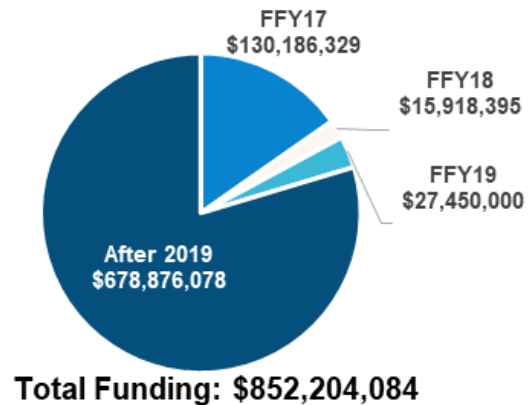
2017-2018 KPB Comp Plan Survey Participants

To put these comments in perspective, 73.7 percent of respondents were satisfied overall with Borough services. It should also be noted that many residents were not fully informed about who is responsible for road maintenance, and often confuse State, Borough, city and private maintenance responsibilities for roads in their area. The survey did not ask specific questions concerning road maintenance.

The State of Alaska Surface Transportation Improvement Program plans to allocate over \$850 million dollars in federally-funded surface transportation projects to the Kenai Peninsula Borough over the next few years.

The Alaska Statewide Transportation Improvement Program (STIP) is the State's four-year program for transportation system preservation and development. It includes: interstate, state and some local highways; bridges; ferries; and public transportation. It does not include airports or non-ferry-related ports and harbors. It covers all system improvements for which partial or full federal funding is approved and that are expected to take place during the four-year duration of the STIP (Figure 60). Community Transportation Projects (CTP) are included as part of the STIP but have a separate scoring system. The STIP does not include aviation projects as the Federal Aviation Administration (FAA) has its own similar system of project evaluation and fund distribution. State-owned airport projects are ranked using the Airport Project Evaluation Board (APEB), non-state-owned airports compete for FAA funding directly with published criteria for the Airport Improvement Program (AIP).

Figure 60. Projected Statewide Transportation Improvement Program (STIP) Spending in the Kenai Peninsula Borough



Source: Alaska 1016-2019 STIP Amendment 3, Approved June 28, 2017. Available at <http://dot.alaska.gov/stwdplng/cip/stip/assets/STIP.pdf>

Why is it important for the Kenai Peninsula Borough to understand the STIP process? The process of selecting projects for inclusion in the STIP requires the State, “as part of the planning process local, regional, statewide and modal plans ...are consulted to refine and justify the projects...” The Borough can play a more proactive role in justification and refinement of projects above and beyond the current practice of submitting a potential STIP list.

DOT&PF will now be cooperating with non-metropolitan transportation entities, like the KPB, in order to develop a joint vision of how to spend federal surface transportation dollars on non-National Highway System (NHS) projects. This cooperation is new and can be expected on Transit, Trail (ATAP, FLAP), Community (CTP) and local Highway Safety Improvement Projects (HSIP). To achieve this joint vision, some Boroughs establish a Transportation Advisory Board to work with DOT&PF to advance priorities and recommendations through the Planning Commission and Assembly. Some communities are interested in DOT reviving the practice of making a Pre-Draft STIP available, with scores and criteria for every project before they are finalized in the Statewide Transportation Improvement Program (STIP).

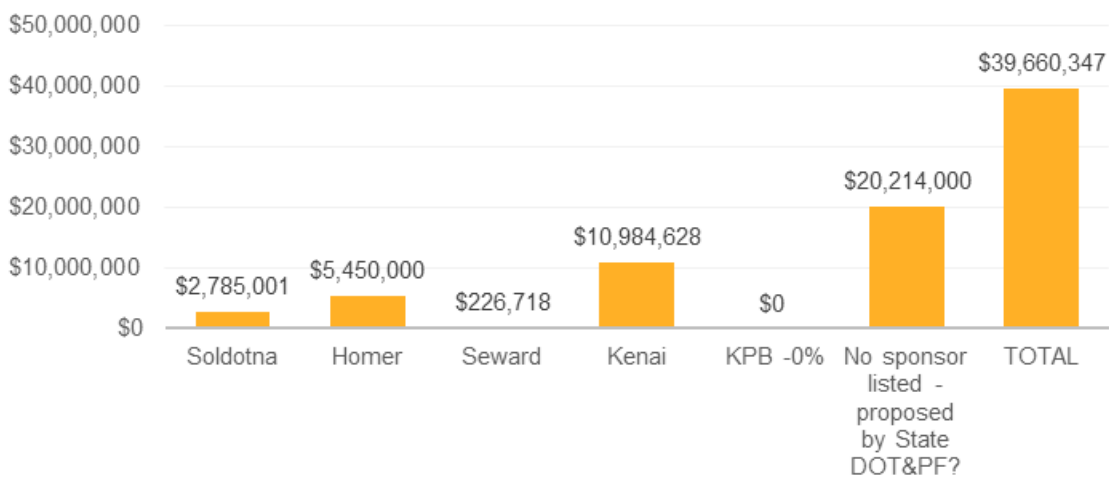
State of Alaska DOT&PF, Central Region Planner

The Kenai Peninsula Borough Transportation Plan was last updated in 2003 and the Borough does not have a Transportation Advisory Board. It is imperative that the Borough understand and engage in this process to ensure resources and projects are directed to the needs of borough residents.

What is the Community Transportation Program (CTP)? Projects that meet the Urban and Rural or Remote criteria are considered for this funding stream. Some noteworthy new requirements for CTP projects include:

- All projects submitted for consideration must have a local sponsor, like a municipality or tribal government. The Kenai Peninsula Borough qualifies as a sponsor.
- Sponsors must be prepared to assume ownership and responsibility for the completed project including maintenance and operations.
- Due to the fiscal climate, the criteria have been developed so only those projects that exceed the minimum required match and other criteria will score highly enough to be considered for funding.
- The CTP scoring is very competitive, and some towns and boroughs are currently matching 15 to 20 percent to increase their project scores. Statewide the allocation for CTP is approximately \$30 million. As shown in Figure 61, half of the current allocation in borough is for DOT&PF projects, with no sponsor identified.

Figure 61. Projects currently listed in the STIP utilizing Community Transportation Program Funding



Source: State of Alaska 1016-2019 STIP Amendment 3, Approved June 28, 2017.

State funding allocated to the Borough for road improvements has been eliminated from the budget. The current fiscal climate includes reduced funding in many areas, including roads. As noted below, the Kenai Peninsula Borough recognized the need and addressed the lack of State funding in the FY 2018 budget.

Since FY2009, the Borough has received over \$25,000,000 in funding from the State of Alaska for road improvements. These funds are being spent to upgrade numerous roads in the borough. The Road Service Area (RSA) has been redirecting funds previously appropriated for road improvements of approximately \$1,250,000 to road maintenance. The FY 2018 budget

includes funding of \$1,750,000 for the RSA Capital Project fund allowing for the Service Area to accumulate funds to support their capital projects when the grant funds are fully expended. The grants funds received from the State are expected to be fully expended in FY2019.

More people are using bike and pedestrian pathways. Public outreach during this planning process revealed that most communities desire expansion of a network of separated multi-use pathways. Several cities in the borough have recognized the need for pathways and established plans and funding streams to increase development of bike and pedestrian pathways. The City of Soldotna completed a Recreation and Trails Master Plan in 2014. The City of Seward addressed goals for construction of pedestrian and bike paths within the community in their 2017 updated Comprehensive plan. The 2016 City of Kenai Comprehensive Plan established a goal to prepare a trail plan and connect with other trail systems. The City of Homer currently maintains 5.4 miles of trails and has a *Non-motorized Transportation and Trails Plan*.

Public outreach during this planning effort documented a high level of interest in developing bike and pedestrian pathways throughout the borough (Figure 62 and Figure 63). The residents of Cooper Landing successfully advocated for the inclusion of a bike and pedestrian path adjacent to recent state road and highway projects and completed a walkable community plan in 2010. The State of Alaska DOT&PF is developing a Statewide Bicycle-Pedestrian Plan to improve bicycle and pedestrian infrastructure across the state. Kenai Peninsula Borough Code, Chapter 2.75, established a Borough Trails Commission and developed a Trail Plan in 1998; however, the Commission no longer exists. The Borough does not have the power to build or maintain trails, except within the Recreation Service Area and with Borough rights-of-way; however, through creative partnerships and collaborative fundraising, there is an opportunity to reinvigorate the commission and to reevaluate and update the trails plan.

Separate bike/pedestrian pathways are needed in our community for the safety of our residents and tourists.

Ninlichik Resident

We need pathways along roads, divided from highway, start in communities first then build connections between communities.

Anchor Point Chamber of Commerce member

Figure 62. Women walking with strollers on multi-use pathway



Figure 63. Traffic and Pedestrians, Sterling Highway



Map 13. Aviation Infrastructure in the Kenai Peninsula Borough



There are communities on the Kenai Peninsula Borough accessible only by air or water. The larger communities in this category are Seldovia, Nanwalek, Port Graham, Tyonek and Halibut Cove. The Alaska Marine Highway System, private ferries, and charter aircraft are the primary transportation modes used to connect these communities to the National Transportation System. Updating the 2003 Kenai Peninsula Borough Transportation Plan would allow a detailed analysis of these communities and how access might be improved for residents, tourism and economic development. Map 13 illustrates aviation facilities within Kenai Peninsula Borough, including State (DOT&PF) airports, other government airports, and private airstrips.

Reductions in the Alaska Marine Highway System budget are resulting in less service. When the last Kenai Peninsula Borough Transportation Plan was approved in 2003, Seward was part of the AMHS routing with year-round service. The current state budget anticipates further cuts which could negatively impact the schedule.

Lack of public transportation is of great concern to residents across the borough. Through interviews and small group discussions, including a meeting of Kenai Peninsula Borough public transportation stakeholders on May 1, 2017 and the boroughwide telephone survey, residents expressed their concerns on the limited public transportation options and the effect on specific populations. The groups most commonly mentioned were the elderly, disabled and those trying to successfully reenter society after incarceration or revocation of their driver's license. The loss of CARTS' weekend service has had direct impacts on residents who use the service to get to work.⁷⁴

We need public transit options in rural areas, currently the CARTS program only serves the Central Peninsula.

Public comment at Moose Pass Solstice Festival

Lack of transit is a problem for many groups of people, like those who need to meet with a probation officer or need to get to work but have lost their driver license or can't afford a car.

Soldotna resident

If your car breaks down, it's impossible to get groceries, there are no other transportation options.

We need public transportation, we only have cabs which are very expensive.

I am disabled and I don't have a car. It's hard to get to my appointments because cabs are so expensive.

2017-2018 KPB Comp Plan Survey Participants

Coordination of public transportation efforts have had mixed results. Effectively coordinating public transportation resources and finding funding to meet all agencies' needs is difficult, regardless of the size of the community and service area. Instead, communities can benefit from coordinated planning that fits the resource to the need.

The Central Area Rural Transit System (CARTS) was incorporated in 2000 to coordinate public transportation and develop a rides program.⁷⁵ Since then, political, financial and logistical issues

⁷⁴ Personal communication, Heather Menninger, CARTS contractor, December 2017.

⁷⁵ Central Area Rural Transit System (CARTS) website, "About Us." <https://ridecartsak.org/about/>

have challenged CARTS' ability to manage public transportation options for Kenai Peninsula Borough residents. Recently, CARTS has started moving away from the overall public transportation coordinator role and has focused on improving internal operations. CARTS is currently developing a strategic plan to assess how to improve their operations, identify service gaps and determine how to fill any service gaps with their current revenue.

Public transportation funding opportunities continuously change at state and federal levels. Each transportation bill changes the allocation formulas, eligibility, and total amount of money available to public transportation programs. The federal FAST Act has been authorized through 2020. When it expires, there will likely be several short-term extensions, all leading to a new surface transportation reauthorization process that begins with the knowledge that the federal highway trust fund is about 40 percent short of merely maintaining current programs. Any Kenai Peninsula Borough public transportation program must be adaptable to changes in funding sources, and not rely on a single revenue source.

State of Alaska budget cuts can increase the operating expense burden for the service providers since many federal programs have little or no funding for operations. Historically, most transit providers across Alaska have relied on some level of state funding for operating expenses. Using local funding to leverage state and federal funds is critical to public transportation programs.

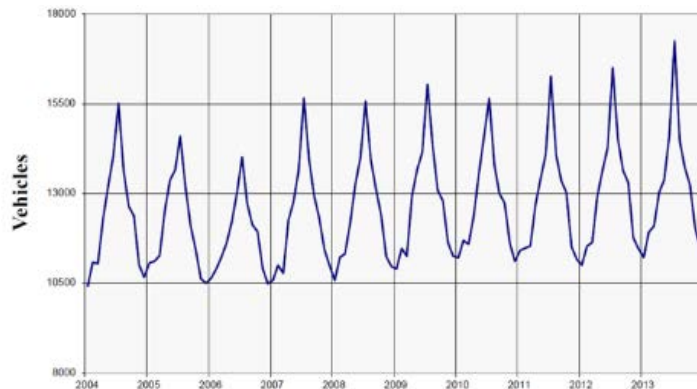
Demand for public transportation will grow as the population ages. As more of the borough's population chooses to age in place, demand for public transportation, particularly for medical appointments, will likely increase. Demand-response or flexible transit services, rather than fixed route or paratransit, will likely be the best options for meeting this need.

Public transportation must meet the needs of the users. The demand for public transportation across the borough varies and a one-size-fits-all approach will not accommodate many residents. Identifying the mobility needs and service gaps is critical in developing a public transportation network that reaches the most citizens.

The significant influx of visitors during the summer months increases use of all forms of transportation with the highway system experiencing the greatest level of congestion. The

Kenai Peninsula features three sections of highway listed as Scenic Byways: driving on the Peninsula is an attraction, and a popular tourist activity. Due to the popularity during the summer months, July and early August travelers often experience delays, heavy traffic and safety challenges on the primary highways. This upward trend of congestion has the potential to discourage visitors and economic growth.

Figure 64. Monthly Average Daily Traffic Counts, Kalifornsky Beach Road West of Sterling Highway, 2004 to 2013



Source: DOT&PF Annual Traffic Volume Report, 2004-2013

We need alternate routes in our communities for emergency services, school bus safety and to attract new business.

Public Outreach Participant

Complicating the issue is a lack of current data, illustrated in Figure 64 which depicts year-long traffic counts up to the most recent available year, 2013. The DOT&PF continues to collect annual average daily traffic counts; however, they do not record fluctuations throughout the year. Discussions with DOT&PF staff and local agencies indicate that the seasonal traffic patterns represented in Figure 65 have continued from 2013 to 2017. Table 22 shows the slightly increasing trend in annual average daily traffic (AADT). The lack of more recent data is due in part to state budget reductions, prioritizing limited resources to needs other than data collection.

Table 22. Annual Average Daily Traffic, Kalifornsky Beach Road West of Sterling Highway

Year	AADT	% change
2017	13,445	0.75%
2016	13,345	-1.6%
2015	13,565	0%
2014	13,567	2.7%
2013	13,212	1.5%
2012	13,023	N/A

Source: DOT&PF Annual Average Daily Traffic GIS

Residents in several communities have advocated for the development of alternate routes or connectors to improve safety and relieve congestion. The 2005 Comprehensive Plan used the 2003 Kenai Peninsula Borough Transportation Plan in an abridged format to create the transportation chapter.

On the subject of new roads and connectors, the plan stated:

For the most part, private development has determined the locations of new roads brought into the Borough's system. However, the Borough is now both legally and financially able to plan for the long-term development of its road system. A corridor preservation program is needed to preserve rights-of-way for future collector-level roads to connect subdivisions with highways or other arterials. In the long term, such a program will reduce right-of-way costs and potential impacts on residents and businesses.

2005 Comprehensive Plan

Much has changed since 2003, most significantly the state's funding streams and fiscal status. Full evaluation of the Kenai Peninsula Borough's specific transportation needs exceeds the scope of a comprehensive plan and should be addressed in a future transportation plan.

Current State budget projections predict further reductions to funding of all modes of transportation infrastructure. DOT&PF is stepping back from maintaining lower order, local, roads. It will be up to the Borough, cities or private entities to provide maintenance. The Alaska Marine Highway System has reduced its operating schedule and further cuts are anticipated. The Alaska Railroad Corporation (ARRC) serves the Port of Seward with seasonal passenger and freight service. Passenger traffic is trending upward while freight traffic is dropping precipitously leading to budget reductions. The State owns and operates 14 airports and landing strips in the

Kenai Peninsula Borough and all are facing maintenance budget cuts and increased pressure to transfer ownership to a local government entity.

Reduced budgets result in fewer State and KPB staff to focus on individual community transportation issues and needs. Formation of citizen advisory boards to focus on specific transportation areas will provide the KPB with experience, local perspective, knowledge and a higher level of public involvement to guide decision makers. As DOT&PF moves forward with requirements for more local involvement, the creation of transportation mode specific advisory boards will provide the KPB with a broad range of diverse experience and skill at little or no cost while giving individual communities more availability to residents who are participating in the decision-making process for plans and projects.

TRANSPORTATION OBJECTIVES AND STRATEGIES

What We've Heard

Survey respondents were generally dissatisfied with Public Transportation. Respondents from the Kenai/Nikiski area were especially critical of public transportation, with over 63 percent of respondents grading public transportation services as a “D” or “F” (Table 23).

Table 23. Comprehensive Plan 2017 Survey Responses Grading Current Public Transportation System

Grade	Kenai & Nikiski	Soldotna & Sterling	Homer & Anchor Point	Seward & Moose Pass	All Other Areas
A or B	8.5%	14.9%	24.3%	16.5%	10.2%
C	9.0%	15.9%	15.2%	21.4%	14.5%
D or F	63.8%	52.6%	44.1%	48.7%	56.2%
Not sure	18.7%	16.6%	16.4%	13.4%	19.1%

Note: “**Near-Term**” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Proactively engage with State of Alaska DOT&PF on planned projects, project prioritization, policies and studies.

Strategies

1. **Near-Term:** Participate in the Statewide Transportation Improvement Program (STIP) process, the Community Transportation Program (CTP) and the Alaska Federal Lands Long Range Transportation Plans to provide information and perspective on Borough needs.
 - a. Undertake a detailed review of current Alaska DOT&PF policies on project development and scoring for federal funding.
 - b. Review new State of Alaska CTP criteria and consider policy to implement a new fund or leverage existing capital project funds to allow for additional match required to move Borough community projects to the top of the list for Federal Highway Administration grant funding.
 - c. Report to Mayor and Borough Assembly on the process and recommend the most productive course of action for the Borough to be proactive in obtaining projects and funding.

2. Administrative Order No. 287, issued September 7, 2017, established a Governor's Advisory Board on Roads and Highways. The Borough should actively work to have at least one Kenai Peninsula resident on the board.

Objective B. Ensure new roads are developed in alignment with existing and planned growth and development.

Strategies

1. **Near-Term:** Update the 2003 Kenai Peninsula Borough Transportation Plan. *Note: updating this plan is also identified as a priority in Objectives C, F, G and H with actions specific to objectives.*

The plan should include:

- a. A map of potential connector and access roads.
 - b. A process for prioritizing transportation projects.
 - c. A list of prioritized transportation projects.
 - d. A boroughwide corridor preservation program to protect rights-of-way for future collector level roads. This was also recommended in the 2005 Comp Plan and the explained in detail in the 2003 KPB Transportation Plan.
2. **Near-Term:** Establish subdivision codes that dictate road construction standards to accommodate future interconnectivity and/or public safety.
 - a. Set and enforce road design standards.
 - b. Ensure road easements are reserved and sized appropriately.
 - c. Consider options for shared access so multiple parcels have legal, practical access.
 3. **Near-Term:** Identify areas of anticipated growth to determine future access needs.
 - a. Participate in DOT&PF highway corridor studies (e.g., Sterling, Seward, Kenai Spur) to advocate for access points that enable future growth and business opportunities.
 - b. Conduct a Consolidated Access Plan that can be used to inform DOT&PF policies regarding access to arterial highways.

Case Study: Public-Private Partnership for New Road Construction, North Road Extension

In the late 1990s, the Kenai Peninsula Borough received federal money to extend Kenai Spur Highway beyond Captain Cook State Park. However, the grant would only cover the environmental document and permits, but none of the construction. The project was then abandoned.

In 2014, Apache Corporation began exploring for oil in the area and made plans to extend the highway as part of this exploration. Low oil prices convinced Apache to give up on exploration and the road extension in 2016. Fortunately, the Borough administration was paying attention and approached Apache to see if the company would donate the environmental work to the Borough so that it could be used as the local match for the federal grant. Apache agreed and the Borough is moving ahead with the project again – construction will begin in 2018. The project is to extend just beyond Otter Creek Bridge.

In the end, this partnership of industry and local government is a win-win. Residents gain access to remote parcels, the Borough did not need to contribute additional funds (by leveraging the local match), and future oil and gas exploration will be more feasible.

4. **Near-Term:** Develop a long-term financial strategy for new road construction.

This should include:

- a. Partnerships between the Borough and one or more of the following: builders/developers, cities, private sector/industry, federal/state landowners, tribal entities. Partnerships could include joint contributions to required match Borough submissions for the CTP (as outlined above). Multi-entity support in the form of documented prioritization and/or financial contributions better position the Borough for the CTP and other competitive transportation funding opportunities.
 - b. Borough-sponsored transportation bonds for priority projects.
5. **Near-Term:** Establish categorical agreements with DOT&PF regarding new access points to arterial highways and other major road corridors.

Objective C. Improve and maintain existing infrastructure.

Strategies

1. **Near-Term:** Update the 2003 Kenai Peninsula Borough Transportation Plan to provide decision makers updated information on conditions, needs, and new technologies for all transportation modes.
 - a. Due to budget cuts, the State is not publishing traffic reports as frequently; however, a transportation plan could obtain the raw data to make assessments for the Kenai Peninsula Borough.
 - b. The State of Alaska DOT&PF central region planning office has indicated there are new, strict policies on controlled access to arterial highways being implemented soon. An assessment of these policies, when finalized, and the implications to cities, businesses, and residents of the borough is important.
 - c. Assess priorities and funding strategies for frontage roads. Public-private partnership opportunities.
 - d. Develop guidelines for development to include shared driveways and frontage roads.
 - e. Update boroughwide road functional classifications.
 - f. Consider the need for KPB road standards. Currently there is no authority for KPB to require standards in subdivisions and developments. The KPB may decline to maintain a substandard road.
 - g. Develop policies for seasonal and short-term events (e.g., Salmonfest, dipnetting season) to mitigate road congestion and improve safety.
2. Follow-up with the current DOT&PF proposal to reallocate specific road maintenance responsibilities in the interest of increased efficiency and mutual reduction of cost.

Objective D. Work with communities to expand public transportation options and ensure the long-term sustainability of public transportation for all residents.

Strategies

1. **Near-Term:** Take the lead to coordinate public transportation planning with partner organizations, including tribal, non-profit, and healthcare-related transportation providers.
 - a. Update the Coordinated Transportation Plan.

- b. Allocate funding in the Kenai Peninsula Borough budget to conduct a comprehensive Kenai Peninsula public transportation needs assessment and feasibility analysis of transportation options, including adequate transportation routes to public facilities and services.
- 2. **Near-Term:** Provide direction and governance of public transportation services for the borough.
 - a. Allocate funding in the Kenai Peninsula Borough annual budget to support public transit programs pending outcome of the needs assessment and feasibility study.
 - b. Support transit providers' applications for state and federal grants through resolutions of support that identify local matching funds.
 - c. Monitor funding opportunities outside traditional state and federal programs (e.g., Community Transportation Association of America).

Objective E. Develop non-motorized pathways to connect communities with each other and with trails connecting to natural areas and open space.

Strategies

- 1. **Near-Term:** Reestablish the Kenai Peninsula Borough Trails Commission, per Borough Code, KBC §2.75.
- 2. **Near-Term:** Reevaluate and update the *1998 Kenai Peninsula Borough Trails Plan*.
 - a. Prioritize projects that include creative partnerships and collaborative fundraising such as the Hope Cutoff road side trail, a project advocated for by the Kenai Mountain Turnagain Arm National Heritage Area that has the potential for securing significant capital if the Borough and/or other partners contribute and commit to ongoing trail maintenance. *See Recreation and Tourism Section for more details on trail development.*
- 3. Develop specific criteria for applicable State, Borough and Kenai Peninsula Borough Road Improvement Assessment District (RIAD) road projects to require separated shared use bike and pedestrian side paths or, when appropriate, right-of-way for future paths be included in project design or right-of-way acquisition.
- 4. Develop policy to designate priority areas in communities for paving and unpaved pathways in rural areas.
- 5. Work with communities to designate and enforce pathways for non-motorized use.

Objective F. Support expansion of public and private marine ferries and routes to expand access to borough communities.

Strategies

- 1. **Near-Term:** Update the 2003 Kenai Peninsula Borough Transportation Plan.
 - a. Identify areas where a marine ferry/taxi is needed and fiscally feasible.
 - b. Explore private/public partnership opportunities and provide resources such as information and support for grant funding to tribal organizations or individuals wishing to start or expand marine transportation; especially focus on those areas or communities that lack service.
 - c. Review availability of Borough owned property appropriate for future dock or marine services and preserve those lands for future need.

- d. Coordinate with the Alaska Marine Highway system to find opportunities for multi-modal connections.
2. Work closely with the State of Alaska DOT, and communities served by the Alaska Marine Highway System (AMHS) to maintain and expand service.
3. Explore incentives and promotion of private marine ferries and taxi services to facilitate residents' and tourists' ability to access areas of the borough not on the road system.

Objective G. Support expansion of dock facilities to support marine repair and maintenance, cruise ship, freight, and ferry operations, and for resource extraction.

Strategies

1. **Near-Term:** Update the 2003 Kenai Peninsula Borough Transportation Plan.
 - a. Identify communities where dock facilities are inadequate or non-existent and document potential funding sources to construct and maintain infrastructure.
 - b. Work with communities and Kenai Peninsula Economic Development District (KPEDD) to share information and funding sources; especially those opportunities to foster public-private partnerships, such as the effort to expand marine repair services in Homer, and review availability of Borough-owned lands to facilitate responsible economic development of transportation services.
 - c. Coordinate with the Alaska Marine Highway system to find opportunities for multi-modal connections.

Objective H. Encourage safe, responsible expansion of aviation options for private, commercial, and recreational use.

Strategies

1. **Near-Term:** Use the update process of the 2003 Transportation Plan to assess the need for a Kenai Peninsula Aviation System Plan.

A general Transportation Plan may not provide the needed specificity to make proactive aviation decisions. Aviation System Plans are recommended by the Federal Aviation Administration and funded through the Airport Improvement Program (AIP).
2. Support expansion of commercial air service across the Kenai.

Work closely with State DOT&PF to address any facility needs that might improve opportunity for commercial air service.
3. Ensure increased aviation activity is responsible and aligned with community values. Increasing use of lakes for floatplane activity and the development of private airstrips across the Borough increases the potential for conflicts and safety concerns.
 - a. Assess the need for voluntary noise abatement guidelines in residential areas and joint use agreements on lakes. Noise overlay zones to inform potential buyers of noise issues should also be explored.

Goal 5. Create more active and engaged Kenai Peninsula Borough residents, local communities, and a more effective and efficient Borough government.



FOCUS AREA: EDUCATION AND WORKFORCE DEVELOPMENT

HEADLINES

Reductions in education funding expected to continue for several years. Cuts to education funding are affecting how all education providers operate, boroughwide. Continued efforts to develop effective partnerships, utilize flexible and innovative education methods and control healthcare costs are key to survival. The State's current fiscal crisis, along with the borough's large geography, remoteness, dispersed population and number of underutilized facilities, create significant budget challenges. Figure 65 summarizes the region's major education trends.

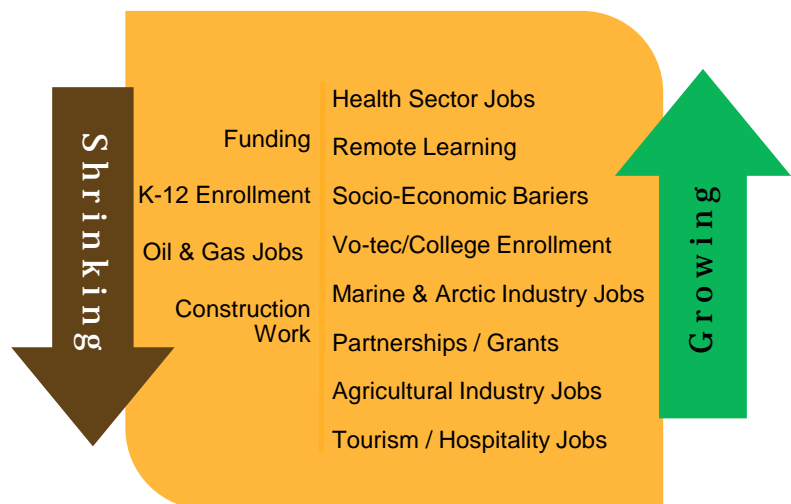
The primary role of the Borough is to maintain the school system; the Kenai offers excellent vocational training and it is important to keep that up so that the kids can grow up and get the education they need.

2017-2018 KPB Comp Plan Survey Participant

The Kenai Peninsula Borough has a reputation for high quality education. The Kenai Peninsula Borough School District (KPBSD) consistently improves graduation rates and performance with K-12 education and is an innovative leader in the state. Maintaining a high level of service is challenging with the Borough's geography and population distribution. The KPBSD continues to adapt and improve the way it delivers educational programs and services.

Meeting workforce demand in the borough requires expanded opportunities for postsecondary education. Gaps still exist for college, vocational and continuing education opportunities, boroughwide. Many new and growing industries require skilled or certified workers. Existing adult education providers struggle to keep up with the demand for workforce development to meet the needs of new industries throughout the borough.

Figure 65. Summary of Education and Workforce Trends in the Kenai Peninsula Borough



WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

Although enrollment has not increased in many years, the number of school options for K-12 education has expanded to include a wide variety of education styles, giving families many options for their children's education. The biggest area of growth for education on the Peninsula is in the number of postsecondary education providers offering courses, certifications, and degree programs for teens and adults boroughwide. Both AVTEC and UAA's Kenai Peninsula College have new facilities, training programs, and housing. Several new education providers and training facilities have become operational since 2005, and demand still outweighs supply.

The mission of Kenai Peninsula Borough School District is to develop productive, responsible citizens who are prepared to be successful in a dynamic world.

Kenai Peninsula Borough School District website

In my opinion, our diversity is an asset that all of us should embrace. While this diversity makes the management of our district challenging, it is the best thing to offer for our nearly 9,000 students.

Kenai Peninsula Borough School District Superintendent

Kenai Peninsula Borough School District

The Kenai Peninsula Borough School District (KPBSD) provides free public education for about 9,000 students, operates 44 schools and employs over 1,200 personnel in a district covering 25,600 square miles (Map 14). This very diverse school district includes traditional public schools, optional and alternative high schools, Pre-K programs, charter schools, performance-based schools, hybrid high schools, and a District homeschool program.

K-12 education is the largest Borough expenditure. As a mandatory responsibility of the Kenai Peninsula Borough, funding for the School District accounts for over 40 percent of the Borough budget.⁷⁶ The Borough contributes approximately \$55.7 million, roughly one-third of the total KPBSD budget, annually to public education. The State contributes most of the remaining revenue for K-12 education.

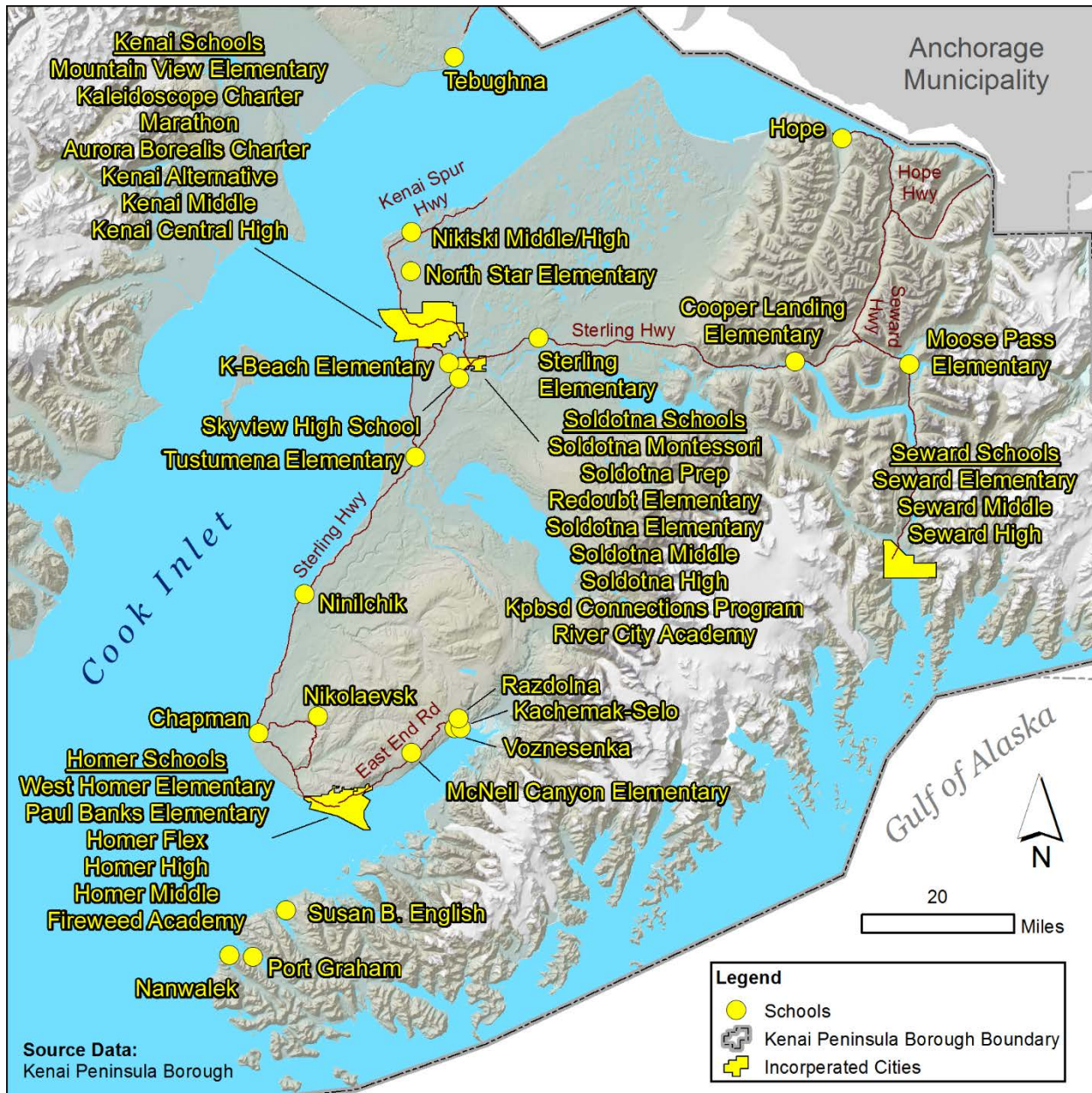
Kenai Peninsula Borough School District enrollment continues to decline. As the borough population has shifted to an older demographic, enrollment has continued to decline. As such, many schools are expecting decreased enrollment for Fiscal Year 2018 (FY18), primarily in the larger population areas.⁷⁷ However, Census projections estimate that by 2030, there may be an upsurge in the school age population.⁷⁸ Declining enrollment affects the cost effectiveness of small schools; however, the school district prefers to avoid rural school closures, as they typically cause financial and community hardships.

⁷⁶ FY 2018 Annual Budget of the Kenai Peninsula Borough.

⁷⁷ Kenai Peninsula Borough School District 2017-2018 Revised Preliminary Budget, April 3, 2017.

⁷⁸ Alaska Department of Labor, population projections: <http://live.laborstats.alaska.gov/pop/projections.cfm>.

Map 14. Kenai Peninsula Borough School District Schools



Source: Kenai Peninsula Borough School District

Consolidation of the two Soldotna area high schools in 2014 improved services in that area. Students in grades 7-12 previously attended the same school for 7-8 grade and then divided into two high schools. With consolidation of 10-12 grades into one of the high school buildings, 9th grade students have their own building on the high school campus, and the middle school students have access to more education amenities in the other high school building.

Capital improvements focus on maintenance and upgrades to existing facilities. The number of school buildings in operation in the borough has decreased by one since the 1980s. The Borough funds routine school maintenance and occasional new amenities, such as the three

artificial turf athletic facilities installed between 2010-2015. Shrinking budgets have resulted in deactivated hockey rinks, tennis courts and occasionally threaten pool closures.

Innovative education methods improve education boroughwide. Recognized nationwide and statewide for its innovative and successful approaches to education, KPBSD participates in the following programs and partnerships:

- *JumpStart*: Partnership with KPC for high school seniors and juniors.
- *Project Grad*: Kenai Peninsula Native Youth Leadership (KPNYL) Native Education partnerships.
- *ConnectEd Initiative*: Digital learning for remote communities.
- *ANSEP*: The Alaska Native Science and Engineering Program, a partnership with UAA.
- *DTi grant*: Digital Teaching Initiative 3-year grant.
- *Personalized and Blended Learning (LMS)*: Customized schedule to maximize success.
- *Hybrid High School*: Seward High School created a new education concept by offering a blended learning environment, allowing students to customize their schedule to include classroom, online and distance learning options to meet their personal education needs.
- *Early Release*: Designated time for teacher collaboration and student support.
- *Fetal Alcohol Spectrum Disorders (FASD)*: KPBSD leads nation in FASD training and family support programs.
- *Project SEARCH*: Workplace immersion program for students with disabilities.
- *CTE (Career and Technical Education) Academies*: A program funded since 2011.
- *Distance Delivery and CWOW*: Video conferencing through Classroom Without Walls.
- *Project Aware*: Behavioral and mental health awareness.
- *Connections*: District sponsored home school program.
- *Caring for the Kenai*: Nationally recognized program incorporating service learning.⁷⁹

Other Home School, Pre-K and K-12 programs

Families on the Kenai Peninsula have several alternatives to public schools:

- IDEA Interior Distance Education of Alaska, an alternative home school program
- Cook Inlet Academy in Soldotna (Pre-K, Grades K-12)
- Grace Evangelical Lutheran School in Kenai (Pre-K, Grades K-8)
- Wings Christian Academy in Kenai (Pre-K, Grades 1-12)
- Lighthouse Christian School
- Reads Primary School
- Academy of Higher Learning
- Kenaitze Indian Tribe

Higher Education Providers

University of Alaska Anchorage: Kenai Peninsula College. For over 50 years, Kenai Peninsula College has operated at the Kenai River Campus in Soldotna and the Kachemak Bay

⁷⁹ Kenai Peninsula Borough School District, 2015-2016 Annual Report.

Campus in Homer. KPC currently operates extension sites in Anchorage and Seward, with the Anchorage site scheduled for closure in 2018. Recent developments include:

- **Increased course offerings and live streaming stabilizes enrollment.** Several 2-year degrees and 1-year certificate programs are now available on campus as well as online courses and partnership programs with the Sitka Campus. Enrollment grew consistently for many years until it peaked at 3,001 students in 2011. Numbers have since dropped and held steady at approximately 2,770 students in 2017. Kenai Peninsula College awarded 37 GEDs and 118 degrees or certificates in AY 2016-17.⁸⁰
- **Annual budget and revenue challenges.** The FY18 budget of \$16.4 million is 17 percent less than FY17. Funding source is State of Alaska, which cut funding 17 percent from FY16 to FY17. The Kenai Peninsula Borough contributes roughly \$750,000 annually to the college.
- **Strong new partnerships counteract recent funding challenges.** KPBSD and other school districts, industry internships, Central Peninsula Hospital, Wildwood Correctional Facility Adult Education Program, MASST (Mature Alaskans Seeking Skills Training), several local businesses, and many other organizations statewide.
- **Infrastructure in excellent condition.** With several new facilities, a new dormitory, and recent campus-wide renovations, the overall condition of KPC infrastructure is excellent and fully equipped for future growth.

Figure 66. Event at Kenai Peninsula College Campus



University of Alaska Fairbanks. The College of Fisheries and Ocean Sciences is one of UAF's most geographically diverse schools with several facilities or partnerships in the Kenai Peninsula Borough.

- **Mining and Petroleum Training Service (MAPTS).** UAF Cooperative Extension Service provides training programs and worker certification courses statewide. The main office is located in Soldotna.
- **Kasitsna Bay Laboratory.** Located on the south side of Kachemak Bay provides classrooms, laboratories, housing, diving facilities, and boats.
- **Seward Marine Center.** UAF coastal facility with laboratories and housing for students located in Seward.
- **Alaska SeaLife Center.** Offers collaborative research, funding, and student support for UAF students in Seward.

Alaska Vocational Technical Center (AVTEC), located in Seward, is the only statewide postsecondary vocational training center operated by the state. AVTEC's primary mission is to train a diverse and effective workforce that supports the economic growth and stability of Alaska

⁸⁰ Kenai Peninsula College website/About/KPC by the Numbers; September 2017.

without undue burden of student loan debt. As a career and technical education center, AVTEC provides for Alaska's resident a means to an entry-level career in under a year.⁸¹ AVTEC offers certificates and courses from the following programs: Alaska Culinary Academy, Alaska Maritime Training Center, Applied Technologies, Energy and Building Technology, and the Information Technology Department. Students can choose to live on campus in dormitory style or family housing, with cafeteria services and recreation facilities.

Kenai Peninsula Economic Development District (KPEDD). Hosts training programs for the Alaska Petroleum Academy (founded in 2014) and Alaska Construction Academy (2006), located in Kenai.

Alaska Christian College, Soldotna. An accredited, bible-based college for Alaska Natives offering 2-year degrees and 1-year certificates. Enrollment is approximately 40 students.

Amundson Educational Center. Started in 2015, AEC is a faith-based, non-profit educational and vocational training school in Soldotna.

Community Schools. Through a partnership between the KPBSD and local parks and recreation departments, community schools programs operate in Soldotna, Kenai and Homer. City governments of Homer, Kenai and Soldotna provide for operations and the Borough provides the venues (school facilities).

Kenaitze Indian Tribe. The Kenaitze Indian Tribe has programs including Yaghanen Youth Program; Na'ini Education; Kenaitze Indian Tribe Scholarship program; Bureau of Indian Affairs Higher Education Scholarships; Tribal Youth Internship Program; Education Workforce Development program (started in 2015); partnerships with KPBSD for grants; partnerships with Cook Inlet Tribal Council.

A Combination of Old and New Challenges

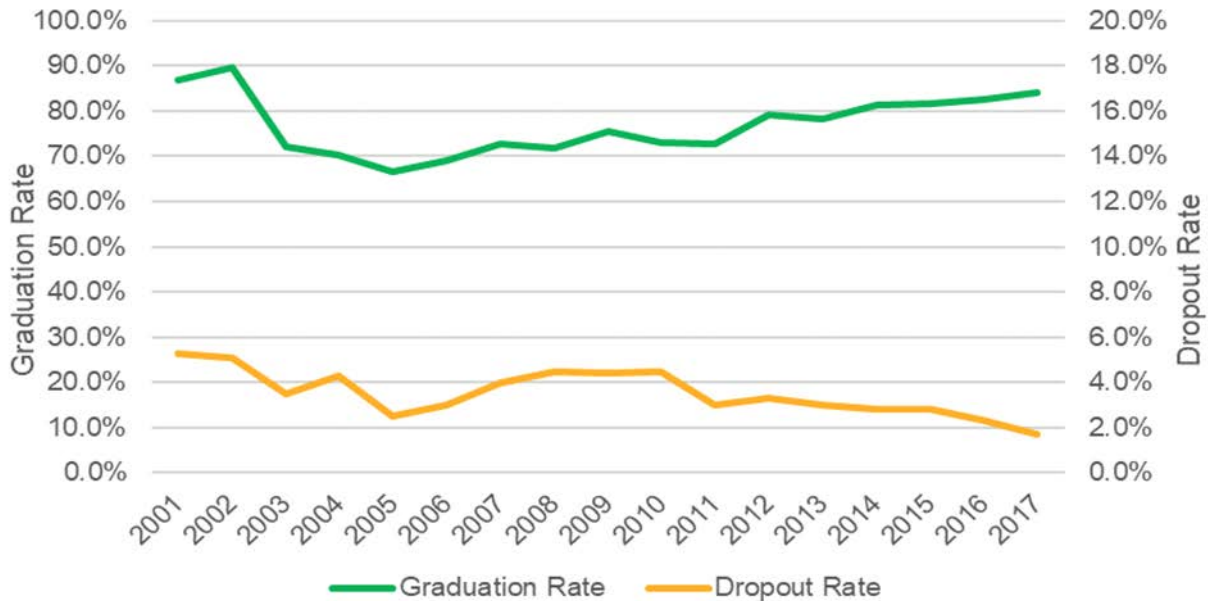
The future of education and workforce development on the Kenai Peninsula can be predicted by some very recent and several long-standing trends. Funding cuts at all levels, as needs are on the rise; this is by far, the most impactful challenge facing Peninsula educators.

Higher education increases while K-12 enrollment shrinks. Demographic trends on the Kenai have resulted in slowly declining K-12 enrollment for the past 15 years. Enrollment in postsecondary facilities was increasing, until recently, when state fiscal declines began to affect those numbers. As demographic age groups shift, K-12 enrollment may eventually rebound.

K-12 graduation rates on the rise. Residents of the Kenai Peninsula Borough enjoy a growing variety of quality public and private education opportunities. With a strong focus on youth programs and an increase in the versatility and availability of education, more residents are finishing high school and pursuing additional training. The district's 2017 graduation rate was 84 percent, with only a 1.7 percent dropout rate for students in grades 7 to 12 (Figure 67).

⁸¹ <https://avtec.edu/avtec-information/about-us>

Figure 67. Graduation and Drop-out Rates in Kenai Peninsula Borough School District, 2003-2004 to 2003-2014 Academic Years



Source: Alaska Department of Education and Early Development

Escalating Socioeconomic Challenges. The statewide fiscal crisis and the growing opioid epidemic are affecting the stability of borough communities. The increased rate of homelessness and over-burdened assistance programs stresses the school system as more students struggle with erratic attendance, under-performance, and emotional challenges.

Evolving Economy and Changing Industries. Workforce development and training are a critical component of the Borough's strategy to meet its economic development goal. Education providers strive to meet changing workforce demands as the economy shifts from oil and gas-related jobs to other industries. Alaska Vocational Technical Center has retooled some programs to focus on maintenance, rather than new construction. *See Goal 1 for workforce development within specific industries.*

The borough's education and workforce development community can offer more cross training and apprenticeship programs that help previously employed oil and gas workers augment their skills and find work in emerging industries such as marine services.

Borough communities need education providers and facilities in more locations to meet demand, prevent out-migration of residents, enable residents to obtain an education close to home, and allow employers to hire locally.

Emerging sectors that are seeking skilled workers include healthcare, arctic and marine services, hospitality/tourism, and agriculture.

EDUCATION AND WORKFORCE DEVELOPMENT OBJECTIVES AND STRATEGIES

What We've Heard

The expansion of online classes is awesome, but internet accessibility is often a limitation.

Doug Grzybowski, Alaska Department of Labor and Workforce Development

Maritime and arctic employment is a huge growth sector; AVTEC now has 38 Coast Guard approved courses.

Cathy LaCompte, AVTEC

The Registered Apprenticeship Program is a growing and important component of the Workforce Development Board and the Kenai Peninsula Job Center.

Rachel O'Brien, & Allison Biastock, AK Dept. of Labor

Providers need to share and collaborate, rather than compete.

Cathy LaCompte, AVTEC

The Kenaitze Indian Tribe has several new Education and Workforce Development programs, and their service extends beyond Tribal Members.

David Knight, Kenaitze Indian Tribe

Transportation. High costs for bussing students in remote, rural areas. Lack of public transportation for college students and adults seeking career training, job training.

Gaps in Internet service. Many areas of the borough are without access to high-speed internet, making it very difficult to provide affordable, quality education.

Demographic changes. Decreasing K-12 enrollment, which is most evident in the rural schools, strains school district budgets. Closing schools is devastating to small communities, burdens families, adds to transportation costs, travel time and safety.

Increasing healthcare costs. The Borough pays for the healthcare of all employees, including school district employees. The steeply rising cost of healthcare has made it difficult for the borough to continue to provide a consistent level of healthcare for its employees while also addressing increasing school district priorities and needs, including facility improvements. Frequent adjustments to benefits are required to respond to rising costs.

State fiscal crisis. State funding sources are greatly diminished, especially for postsecondary education and support services. Maintaining quality education opportunities for residents of all ages and preparing workforce for local employment requires investment and sustained financial support. Alternative funding is essential to the stability of borough communities.

Barriers to education. An increasing number of residents are affected by homelessness, poor mental or physical health, a need for transitional housing, a lack of personal transportation, disabilities, expensive housing, and other barriers to obtaining an education, training, and employment opportunities.

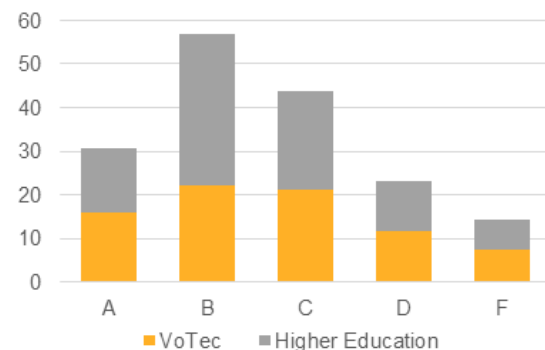
Capital improvement needs for K-12 facilities. Top KPBSD capital improvement priorities through 2021 include a new school building for Kachemak-Selo, asbestos removal and office remodel at Kenai Middle School, roof replacements district wide, several turf fields and tracks, several parking and traffic upgrades, and other maintenance work at existing schools.

Support for new and growing industries' labor needs. The Borough is experiencing an economic shift from oil and gas to other industries. New industries need training and research facilities to support the growth and profitability of businesses in these fields. Many existing industries that are experiencing growth need more training to supply enough workers to meet their growing demand. New and prospective value-added industries require education opportunities and research.

New / Growing Industry Support. The Borough is experiencing a shift in its economy from oil and gas to other industries. These new markets need training and research facilities to support the growth and profitability of the new industry. Many existing industries that are experiencing growth need more training to supply enough workers to meet their growing demand. Schools have overlooked the importance of encouraging students to seek careers in the trades, resulting in a shortfall of trained workers for industrial, marine, agricultural fields in the Borough. Many students are not introduced to non-college track careers, certifications and skills sets that would better meet industry demand.

Quality of Postsecondary Education. The 2017-2018 KPB Comp Plan Survey asked respondents to grade higher education and vocational training in the borough (Figure 68). Responses indicate that residents think higher education and vocational training opportunities are above average or average, but that there is room for improvement, particularly in outreach on vocational training opportunities.

Figure 68. Survey Results: Letter Grades for Postsecondary Education in Kenai Peninsula Borough



Encouraging students to consider careers in the trades.

KPBSD counselors and educators previously focused their efforts on promoting college track educations and careers, leaving many students without guidance or encouragement to enter skilled trades. This has contributed to the shortfall of trained workers for industrial, marine, tourism, and agricultural fields in the borough. Increasing focus and encouragement for students to seek local careers through local training and education would help meet industry demand and improve stability of borough communities and businesses.

Integrate more locally relevant topics into the K-12 education. KPBSD can improve students' preparedness for making a living in the borough by incorporating regionally applicable education topics into school curriculums, such as the fishing industry, local food production, tourism and outdoor recreation, climate change, natural hazards, and renewable energy.

Support education and outreach to borough residents. Expand the system to increase understanding and awareness of local issues and ways for borough residents to participate, such as recycling, composting and waste management, adapting to climate change, and renewable energy opportunities.

Note: “**Near-Term**” strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Provide high-value, quality educational services to school-age borough residents.

Strategies

1. **Near-Term:** Improve access to education for all borough residents.
 - a. Work with internet providers to expand broadband network coverage for all borough communities including provider subsidies of high-speed internet costs for community facilities.
 - b. Continue to provide safe, efficient, and reliable bus transportation and pedestrian access routes for school age students in all communities.
 - c. Support efforts to establish improved public transit options in the highest populated areas.
 - d. Support and assist organizations in operation of community ride-share programs.
 - e. Optimize grants and funding opportunities.
2. **Near-Term:** Manage budget issues to ensure consistent and reliable funding for education.
 - a. Work with legislature to explore all options to control the increase of healthcare costs.
 - b. Work with legislature to find the right solutions for solving today’s fiscal crisis.
 - c. Facilitate an Education Committee that oversees and facilitates agency and organization partnerships throughout the borough to improve partnerships, increase resource sharing, and improve efficiency and effectiveness of education and workforce development.
 - d. Continue to support partnerships and innovative techniques to provide high quality, high value education.
 - e. Support and encourage the expansion of volunteer programs to meet School District needs: instructors, tutors, counselors, mentors, maintenance.
3. **Near-Term:** Maintain high quality education.
 - a. Identify existing education providers and programs within the Kenai Peninsula Borough and facilitate awareness, communication and partnerships between them.
 - b. Work with Alaska Department of Education and Early Development (DEED) to develop an efficient and effective education accountability system.
 - c. Continue support for innovative methods to reach students, connect employers to workers, and improve the overall availability and quality of all levels of education in all areas of the borough.
 - d. Adopt KPBSD 2017-2022 Strategic Plan.

Objective B. Expand educational and training opportunities that tie directly to anticipated growth industries.

Strategies

1. **Near-Term:** Support the expansion of opportunities for training and education to meet workforce needs in emerging industries.

- a. Focus education, training opportunities and technical skills building on growing industries such as information technology (to include coding, computer science, etc.), renewable energy, maritime services, tourism and recreation, agriculture and mariculture.
 - b. Continue to provide financial support for KPC programs and facilities.
 - c. Assist continuing and vocational educational institutions in identifying opportunities to expand programs and facilities by providing technical assistance, identifying additional possible sites for facilities, and identifying high-demand jobs for which training is required.
 - d. Assist and advocate for new providers, programs, facilities, courses for higher education and workforce development in more communities in the borough. Support apprenticeship programs. Assist with optimization of grants and outside funding sources.
 - e. Increase KPBSD emphasis on local careers and training for the trades with school age students.
 - f. Support efforts to remove barriers to employment.
2. **Near-Term:** Support recruitment efforts for students attending schools on the Peninsula.



FOCUS AREA: FISCAL HEALTH

HEADLINES

Borough revenues and expenses over the last decade have grown faster than the population. Sales tax revenues have grown rapidly while property tax revenues have been flat. In part, sales taxes have grown with the borough's visitor industry. Though both revenues and expenses have grown, expenditure growth has outpaced revenue growth.

Outside funding is at risk due to State fiscal challenges. Over the last decade, local school funding has shrunk on a relative basis while State of Alaska funding has grown. Due to the increased share of education funding coming from the State, reductions of State spending could have a significant impact on the school district. Other State-provided services could be subject to reductions or cuts.

Property tax exemptions have been increasing as borough demographics shift. An increase in senior citizens and disabled veterans in the borough has led to growing property tax exemptions under State law. The deferred value of farm use land has increased.

Borough employment in general government functions has remained flat over the last decade. Growth in the number of Borough employees has primarily occurred in emergency functions, including 9-1-1 communication and emergency service areas.

WHERE HAVE WE BEEN? WHERE ARE WE NOW? WHERE ARE WE HEADED?

The Kenai Peninsula has grown over the last decade, both in population and in its popularity for recreation and tourism activities, resulting in changes to the Borough's fiscal situation. Total Borough revenues and expenditures have grown 4.1 percent annually from 2005 to 2015 (Table 24). The largest revenue growth for governmental activities has come from sales tax, which doubled during the period, helped in part by an increase in the sales tax rate from two percent in 2005 to three percent in 2015. Property taxes, assessed at a rate of 4.5 mills in 2015, showed a slight decline during the period. The property tax rate varies significantly, based on the whether the property is in a city and/or a special service area.

On a per capita basis, sales and property tax revenues grew 2.6 percent during the decade, with sales tax revenue growth of 71 percent offsetting a 15 percent decline in property taxes. The single largest revenue item for the Borough is the hospital, with charges for services reaching over \$200 million in 2015. However, the revenue is offset by the cost of providing care.

Table 24. Kenai Peninsula Borough Revenues in Millions of Dollars, FY 2005 to 2015

	2005	2010	2015
Charges for Services, Governmental	1.7	3.1	3.9
Charges for Services, Hospitals	74.5	119.4	201.4
Grants and Contributions	5.0	17.3	14.2
Property Taxes	46.7	54.0	54.9
Sales Taxes	15.7	25.9	30.1
Other Revenues	11.2	12.5	7.9

Source: Kenai Peninsula Borough Comprehensive Annual Financial Reports, Fiscal Years 2005, 2010, and 2015.

The Borough does not levy a tax specifically targeting the visitor industry. The Borough Assembly voted to support a proposed sales tax on temporary lodging, commonly referred to as a bed tax, in the summer of 2014, to fund tourism promotion and education. The bed tax proposal was ultimately abandoned, though an additional mechanism for taxing the visitor industry could help to support the Borough's fiscal position.

Table 25. Kenai Peninsula Borough Expenditures in Millions of Dollars, FY 2005 to 2015

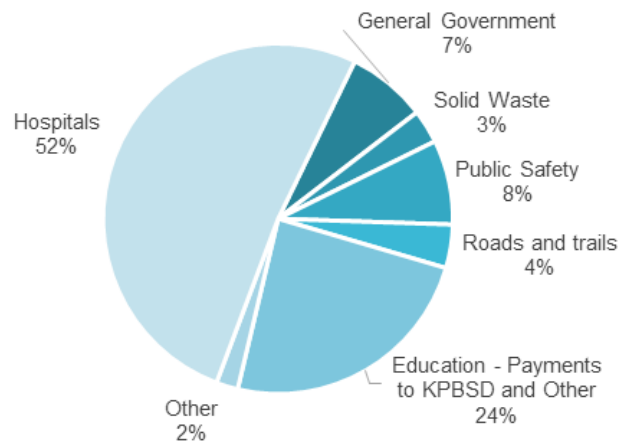
	2005	2010	2015
Hospitals	74.0	119.3	127.1
Education - Payments to KPBSD and Other	41.8	50.3	59.7
Public Safety	10.9	14.3	19.3
General Government	15.0	17.3	18.2
Roads and trails	2.4	11.1	9.9
Solid Waste	4.3	7.5	7.7
Other	3.0	6.4	5.0

Source: Kenai Peninsula Borough Comprehensive Annual Financial Reports, Fiscal Years 2005, 2010, and 2015.

Increasing population and tourism have also caused an increase in Borough expenditures and the cost of providing service. The largest non-education growth occurred in public safety, which grew over 80 percent over the last decade (58 percent on a per capita basis) and is the largest non-education expenditure category (Table 25). Spending on roads and trails, public safety, and solid waste have also grown with population, with roads and trails expenditures exceeding 15 percent annual growth, slightly above population growth.

Hospital expenses were the largest expense category for the Borough in 2005, 2010, and 2015. In 2015, the hospitals netted \$74 million, though in 2005 and 2010 the hospitals essentially broke even (Figure 69).

Figure 69. Borough Expenditures by Category and Percent of Total, FY 2015



Source: Kenai Peninsula Borough Comprehensive Annual Financial Reports, Fiscal Years 2005, 2010, and 2015.

The two Borough-owned hospitals have experienced rapid growth. Revenues have grown nearly 10 percent annually, outpacing the 5.6 percent annual growth in their expenditures. As demographics have shifted and there are more older residents in the borough, that population has bolstered demand for medical services.

Local funding of the Kenai Peninsula School District has remained the largest category of expenditures for the Borough, after hospitals. While the growth has only been 2.7 percent annually, the dollar value spent on the local share of education was the largest increase of any governmental activity from 2005 to 2015. Table 26 shows the 30 percent increase in local school funding, as well as the 77 percent increase by the State. Overall, spending increased by almost 54 percent. However, this growth occurred at a time of declining student enrollment as measured by average daily membership. As shown in Table 27, enrollment declined from 9,500 students in

2005 to 8,800 students in 2015. During this period, per Average Daily Membership (ADM) education spending increased by 66 percent, covered by a 41 percent increase in local spending and a nearly 92 percent increase in State funding.

Table 26. Kenai Peninsula Borough School District Revenue by Source in Millions of Dollars, Academic Year 2005 to 2015

	2005	2010	2015
Operating Fund			
Local	33.7	43.0	44.0
State	46.5	64.3	82.5
Federal	0.2	0.4	0.2
Other	1.0	2.0	1.0
Special Revenue	7.0	13.1	8.1
Total	88.4	122.8	135.8

Source: Alaska Department of Education and Early Development, K-12 Public School Operating Fund

Table 27. Kenai Peninsula Borough School District Revenue Source per Student, Academic Year 2005 to 2015

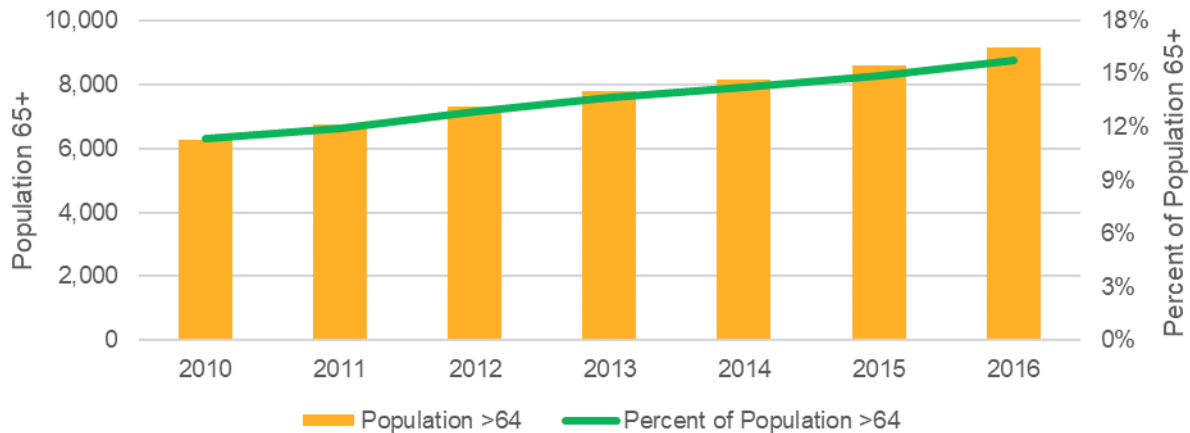
	2005	2010	2015
Average Daily Membership (ADM)	9,527	9,145	8,828
Operating Fund			
Local	3,542	4,700	4,986
State	4,877	7,033	9,340
Federal	22	45	24
Other	100	222	115
Special Revenue	734	1,430	920
Total	9,275	13,430	15,384

Source: Alaska Department of Education and Early Development, K-12 Public School Operating Fund and Selected Special Revenue Funds, Audited Revenues, Fiscal Years 2005, 2010, and 2015.

State-mandated and Borough-adopted optional property tax exemptions have increased over the last decade. State-mandated exemptions include residential properties owned by seniors and disabled veterans, as well as some property used by religious and other organizations. In 2015, senior citizen, disabled veteran, and farm-use land exemptions alone exempted \$598 million of assessed value, nearly half of the total value of the affected properties and over 10 percent of the total locally assessed real property value, and more than two-thirds of all real property exemptions. Overall, real property exemptions (including optional Borough-adopted exemptions), amounted to approximately 15 percent of locally assessed value. Borough services provided to those properties nevertheless need to be funded, resulting in non-exempt properties covering an increased share of the cost of those services.

Senior citizen property tax exemptions, combined with growth in the Borough's senior population, have had a significant impact on the Borough's fiscal health. Across the US, and Alaska, the baby boomer population is beginning to shift into their mid to late 60s. The Kenai Peninsula Borough is no exception, reporting a consistently aging population between 2010 and 2016. Figure 70 shows that in 2010 there just over 6,000 seniors 65 and older in the Kenai Peninsula Borough; by 2016 there were over 9,000. Importantly, the rate of increase in Kenai Peninsula seniors is faster than the overall increase of the general population.

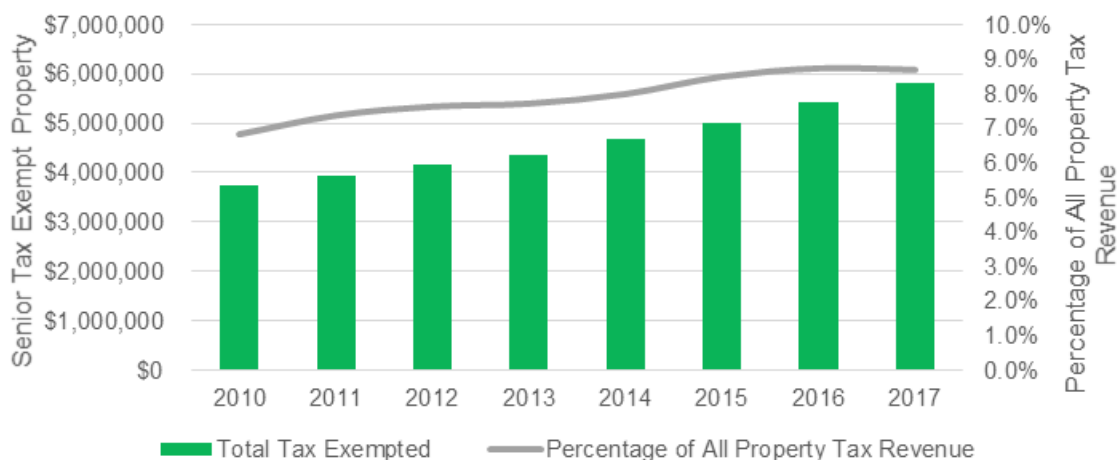
Figure 70. Senior (Age 65+) Population Trends in Kenai Peninsula Borough, 2010 to 2016



Source: Alaska Department of Labor Workforce and Development

As required by state law (AS 29.45.030 (e)-(i)), the Kenai Peninsula Borough is required to exempt property taxes on up to \$150,000 of property valuation for residents who are 65 and older or are a disabled veteran. Further, AS 29.45.050 lists optional property tax exemptions the Borough can legally offer. Specifically, AS 29.45.050(i) allows the Borough to provide an optional senior citizen exemption more than \$150,000 upon approval of the voters. In addition to the senior property tax exemptions, AS 29.45.050(a) authorizes the Borough to exempt up to \$50,000 of the value of residential property by voter-ratified ordinance. Through a citizen initiative proposition, the optional residential exemption in the Borough was established at \$50,000. When the optional residential exemption of \$50,000 is added to the mandatory senior exemption of \$150,000 plus the optional senior exemption of \$150,000, the total exemption is \$350,000. Shown in Figure 71, the amount of senior property tax exempted in the Borough from 2010 to 2017 consistently rose from \$3.8 million to \$5.8 million. During the same time, senior property exemptions went from representing 6.8 percent of all collected property tax revenue to 8.7 percent.

Figure 71. Senior Property Tax Exemptions in Kenai Peninsula Borough, 2010 to 2017



Source: Alaska Department of Commerce, Community, and Economic Development, *Alaska Taxable*

The number of applications for senior citizen and disabled veteran property tax exemptions nearly doubled from 2005 to 2015, reaching 4,439 applicants and total tax exemptions of over \$590 million and reductions in tax revenues of over \$5.4 million (Table 28).

Table 28. Senior Citizen and Disabled Veteran Property Tax Exemptions in the Borough, FY 2005 to 2015

	2005	2010	2015
Applications for Senior and Disabled Veteran Exemptions	2,480	3,363	4,439
Total Assessed Value Exempted (in Millions)	\$290.44	\$437.17	\$591.72
Total Tax Amount Exempted (in Millions)	\$3.33	\$3.92	\$5.42

Source: Alaska Department of Commerce, Community, and Economic Development, *Alaska Taxable*.

Another exemption program is for farm use land, which defers any value of the land above and beyond the farm value. Over the last decade, the deferred value has nearly doubled, though the impact to overall Borough property tax revenues is very small (Table 29).

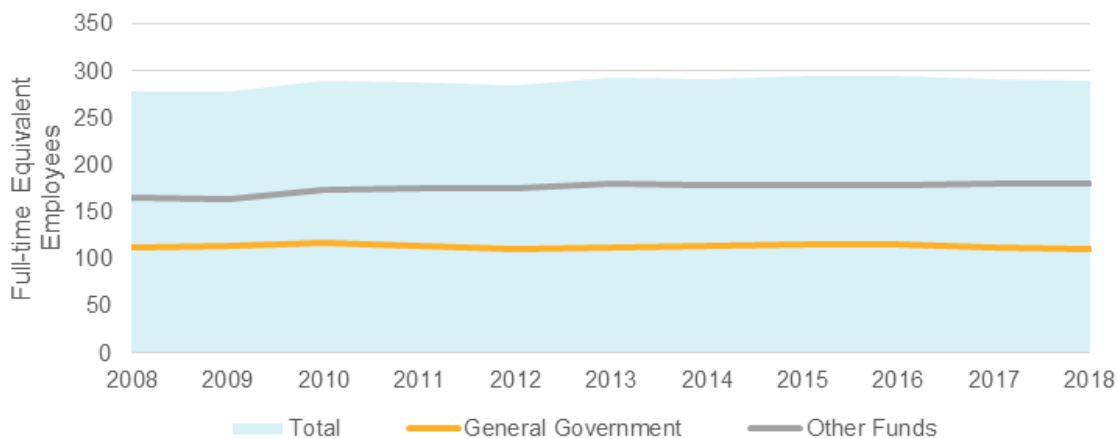
Table 29. Farm Use Land Property Tax Deferrals in the Borough, FY 2005 to 2015

	2005	2010	2015
Farm Use Land Applicants	11	13	12
Acres of Farm Use Land	922	1,289	1,139
Full & True Value (Millions of \$)	3.64	5.93	6.40
Farm Value (Millions of \$)	0.49	0.79	0.40
Value Deferred (Millions of \$)	3.15	5.14	6.00

Source: Alaska Department of Commerce, Community, and Economic Development, *Alaska Taxable*.

Borough employment has remained relatively flat over the past decade, with growth occurring in specific areas of need. General government employment, as measured in full-time equivalent (FTE) positions, has averaged 113.1 FTE from 2008 through 2018, with a low of 109.55 budgeted for fiscal year 2018 and a high of 116.15 in 2010 (Figure 72). Other funds' employment has averaged of 174.8 FTE over the same period, though the employment trend has been upward as positions are increasingly added to emergency services, including 911 communication and emergency fire and medical services for special service areas.

Figure 72. Kenai Peninsula Borough Full-Time Equivalent (FTE) Employees, FY 2008 to 2018



Source: Kenai Peninsula Borough FY 2018 Annual Budget

The Kenai Peninsula Borough is not alone in its potential impact from the State's economy and fiscal situation. As the home of popular tourism destinations for both in-state and outside visitors, however, it has been successful in diversifying its tax base through sales tax revenues. Services for residents may be affected by cuts to State spending, particularly with education, and the Borough will need to continue to diversify its revenue sources to overcome outside reductions.

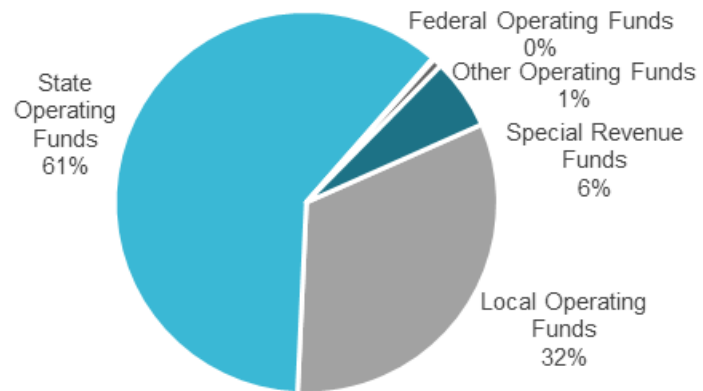
Like other local governments, the Borough faces uncertainty and risk as a result of the State's fiscal challenges.

We need to stay in the black, remain diverse and moving forward, despite what is happening with the State budget.

Kenai Peninsula Borough Assembly member

The State's fiscal situation affects residents in many ways, from cuts to State-provided services to uncertainty in funding in the future. One area in which State funding affects residents is through the State's share of education funding. From 2005 to 2015, local and State funding of the Kenai Peninsula School District has grown on a dollar basis despite shrinking enrollment, resulting in the funding per student growing even faster. However, over this period the relative share of fund sources have changed; in 2005, 38 percent of school funding came from local sources, with another 53 percent from the State. In 2015, the State's share grew to 61 percent while the local share dropped to 32 percent, leaving the Borough at greater risk from State funding cuts (Figure 73).

Figure 73. Kenai Peninsula Borough School District Funding Sources, Percent of Total, FY 2015



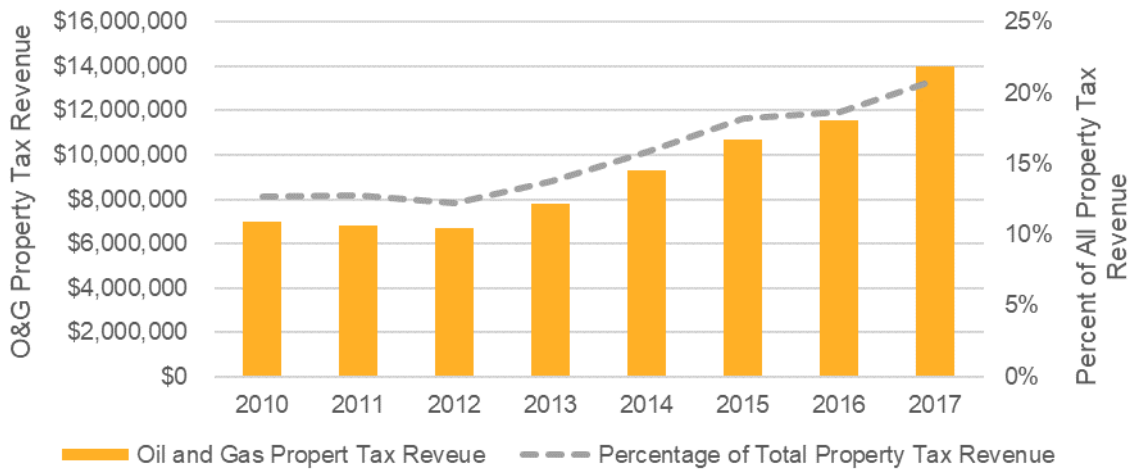
Source: Alaska Department of Education and Early Development, *K-12 Public School Operating Fund and Selected Special Revenue Funds, Audited Revenues, Fiscal Year 2015*.

As the State grapples with the fiscal situation and how to fund education and other government services, the Borough will need to plan for ways to support the services its residents need. Eventually the rising share of State school funding could reverse, leaving borough residents with the burden of additional education costs.

The oil and gas sector provides employment and revenue, though its contribution varies.

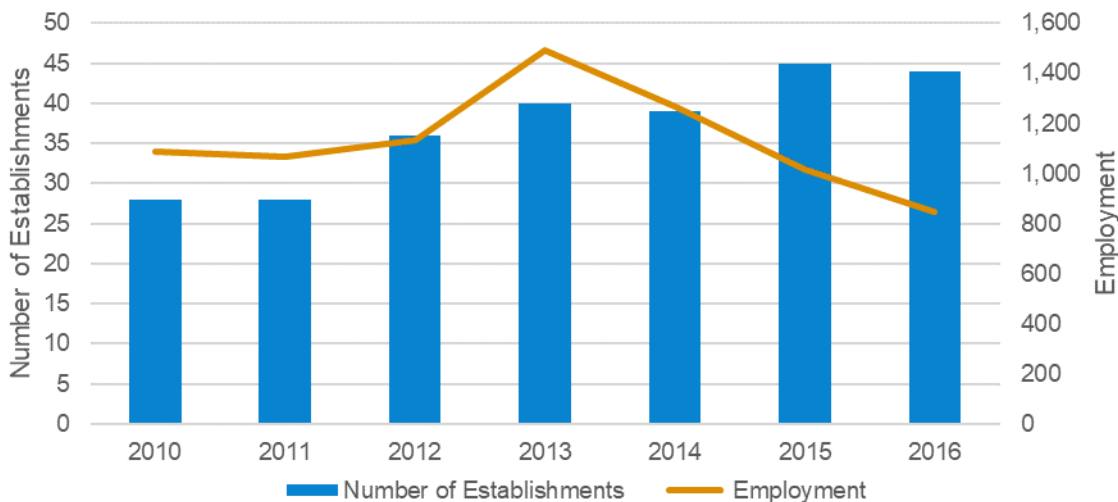
From 2010 to 2017, tax revenue from oil and gas properties in the Borough has varied. Prior to 2012, known Cook Inlet oil and gas supplies were in decline and operated by two major producers, Chevron and Marathon Oil. In 2012 and 2013, XTO Energy, Cook Inlet Energy, and Hilcorp Energy purchased Chevron's and Marathon's assets and increased exploration. By 2017, both production volume and the number of smaller independents in Cook Inlet, such as Blue Crest and Furie, have increased modestly, in part due to the State's tax credit program. Because of new activity, oil and gas property tax revenue rose sharply in the borough after 2012 from just under \$7 million, or 12 percent of property tax, to over \$14 million in 2017 or 21 percent of property taxes (Figure 74).

Figure 74. Oil and Gas Property Tax Revenue in Kenai Peninsula Borough, 2010 to 2017



The number of establishments associated with the oil and gas sector have increased between 2012 and 2017 in response to demand, and the State tax credit program. However, employment in the sector has declined in recent years because of persistently low oil prices (Figure 75). The State is also currently considering changes to the Cook Inlet oil and gas tax credit program, which could adversely affect the number of companies operating in the region in the future.

Figure 75. Numbers of Mining, Oil and Gas Establishments and Employment, 2010 to 2016



Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages.

FISCAL HEALTH OBJECTIVES AND STRATEGIES

What We've Heard

A strong Borough government comes from a strong economy. Residents who were surveyed by phone gave low grades to factors that make up a strong economy. Overall, residents gave a “C+” grade to competitive wages in the Borough. Job security and stability earned a “C.” Employment opportunities earned a “C-.” These opinions spill over to other measures, such as satisfaction with Borough services and overall feelings about quality of life.

When asked about what they like most and least about living on the Kenai Peninsula, some residents said that they like their job but many indicated that what they like least is the lack of jobs; those expressing displeasure with employment opportunities noted challenges such as work that is only seasonal and not year-round, jobs that don't pay well-enough to raise a family, competitiveness in getting jobs, and difficulties in keeping jobs. Many residents mentioned uncertainty about jobs and the economy, and concerns about stability.

One response to fiscal challenges is greater efficiency. Stakeholders have called for greater efficiency in the Borough's operations and staffing capacity. There have also been calls for decentralization, to allow for more local control and opportunities to generate local revenue to support activities.

Make sure local government is efficient as possible and not causing blocks. [...] There are going to be cuts. Can't sugar coat it. Restructure to make sure we are efficient and low spending.

Kenai Peninsula Borough Assembly member

The 2005 Comprehensive Plan identified several key issues pertaining to the Borough's staffing and efficiency. The plan called for community organizations to conduct local planning, establish capital project priorities, and respond to potential activities that could affect their area. The plan also called for internal coordination among Borough departments, the Planning Commission, and the Assembly for better decision making and efficient use of Borough resources, and external coordination with Native organizations as potential partners.

Note: "Near-Term" strategy indicates a priority to focus on and/or accomplish in the next three years.

Objective A. Develop a sustainable fiscal plan for funding Borough operations that reduces dependence on uncertain State funding.

The economy: I don't have any confidence in it and concerned about how the governor is taking away from schools and healthcare.

2017-2018 KPB Comp Plan Survey Participant

Strategies

1. **Near-Term:** Develop a long-term fiscal plan that is proactive, sustainable, and responsive to short term external fiscal challenges.
2. Identify programs that could assist economic development and growth opportunities to diversify the Borough's industries and revenue sources.

Residents who participated in the phone survey ranked commercial fishing, tourism, and oil and gas very highly (a mean score greater than 4 out of 5) as the industries that are important for creating future economic growth. Respondents also mentioned other industries with growth potential, such as health care and mining. Thought must be given to how the Borough can balance revenue generation from these activities with steps taken to develop these industries.

The Borough should be led and provide incentives for any and all economic development projects.

Kenai Peninsula Borough Assembly member

3. Seek efficiencies to decrease the cost of the Borough's public services. Provide a submission form on the Borough's website so that residents can provide ideas about how the Borough can cut costs and improve its services.

Objective B. Diversify Borough revenues to reduce exposure to single industries or sources.

The economy, oil, fuel, resource development are in a great deal of stress right now and that is dropping wages.

2017-2018 KPB Comp Plan Survey Participant

We should be taking more local control, generating our own revenue, being more self-sustaining.

Kenai Peninsula Borough Planning Commission member

Strategies

1. **Near-Term:** Research and develop appropriate broad-based taxes.
The phone survey found mild support for Borough-level alcohol and tobacco taxes, but other sources of tax were neutral or unsupported. Refine the proposed sales tax on temporary housing to address uncertainty and concerns raised with the original ordinance, to diversify Borough revenues and build on one of its major industries.
2. **Near-Term:** Research and develop appropriate taxes and fees associated with existing and new industries.
Linking the Borough and industry financially will create shared goals and provide a return on economic development activities to the Borough, borough residents, and local industries.

Objective C. Develop and apply new fiscal strategies that better link growth in demand for services with revenues needed to pay the cost of those services.

Strategies

1. **Near-Term:** Diversify the revenue base to respond to changing demographics and growth in property tax exemptions.
2. **Near-Term:** Expand use of local service areas to create locally managed, low overhead, focused funding streams for specific, locally requested services.
3. **Near-Term:** Identify opportunities to coordinate with organizations including city governments, Native organizations and corporations, and non-profits, to leverage resources and provide services more cost-effectively.
4. **Near-Term:** Advocate for Borough priority capital improvement projects that directly contribute to increased revenue and economic opportunity for the Borough and their community and regional partners.

Funders, including public agencies and non-profit foundations, are much more likely to direct resources to important projects where the need for projects is clearly identified in an adopted plan. This potential greatly expands when the priorities have been endorsed by a larger group of partners, for example, the State of Alaska, incorporated cities, and Native organizations. This plan identifies a specific list of priority capital improvement projects that Borough staff, communities and other partners can use to push for funding to carry out those projects.

5. Develop partnering agreements that clearly delineate roles and responsibilities, including committing the Borough to be responsible for ultimately achieving the goal.

Example: look at opportunities where one partner might bring capital funding for a priority project, but only when a partner can commit to future operations costs. One current example is funding for trails within the boundaries of the Kenai Mountains Turnagain Arm Natural Heritage Area (KMTA NHA). When a trail project has local political support, and is identified in an adopted plan, Heritage Area staff can secure substantial federal funding for trail construction, but only if a local partner can then take over trail ownership and maintenance. An important role for this Comprehensive Plan is to help orchestrate these types of collaborative funding efforts. In the case of trails in the Heritage Area, options for operations could include a combination of State of Alaska, Kenai Borough (through a local trails service district), and a non-profit trails organization.

REFERENCES

- Alaska Department of Commerce, Community, and Economic Development. Alaska Taxable Database. September 22, 2017.
- Alaska Department of Commerce, Community, and Economic Development, Alaska Taxable 2005, 2010, and 2015.
- Alaska Department of Education and Early Development, K-12 Public School Operating Fund and Selected Special Revenue Funds, Audited Revenues, Fiscal Years 2005, 2010, and 2015.
- Alaska Department of Labor Workforce and Development. Components of Change 2010 to 2016. Available at <http://live.laborstats.alaska.gov/pop/index.cfm>. September 22, 2017.
- Kenai Peninsula Borough. Annual Budget of the Kenai Peninsula Borough. 2017.
- Kenai Peninsula Borough. Comprehensive Annual Financial Reports for Fiscal Years 2005, 2010, 2015, and 2016.
- PennEnergy Oil production at Alaska's Cook Inlet reaches more than 16,000 bpd. Available at <http://www.pennenergy.com/articles/pennenergy/2014/09/oil-production-at-alaska-s-cook-inlet-reaches-more-than-16-000-bpd.html>. 2014.

Appendices

Note: the following appendices will be available upon completion of the plan.

Appendix A. Plan Maps

Appendix B. Public Engagement Process + Materials

Appendix C. 2017-2018 KPB Comp Plan Survey Questions + Summary of Results

Appendix D. Glossary of Acronyms