

ST GEORGE ISLAND

LOCAL ECONOMIC DEVELOPMENT

Working Paper - Skills, Capacity, & Quality of Life

Community Feedback and Opportunities Summary

This summary table outlines the core findings from this working paper on quality of life. Of the opportunities explored, potential benefits and outcomes for St. George are listed. On the next page, we also outline some of the key aspect related to quality of life, identified by people living on St. George.

OPPORTUNITIES*	BENEFITS / POTENTIAL OUTCOMES
Windmill repairs and other renewable energy sources	<ul style="list-style-type: none"> • \$250,000 - \$300,000 in annual cost savings¹ • Renewable power for half the community² • Reduces diesel use on island
Expanding the greenhouse	<ul style="list-style-type: none"> • 2 jobs³ • Local food production (potential for farmers market)⁴ • Educational opportunities⁵ • Provides communal space for our people to connect and share food⁶
Communications and internet accessibility	<ul style="list-style-type: none"> • Access to potential job opportunities⁷ • Can provide educational opportunities for youth and other community members⁸ • Can lead to opportunities for sophisticated medical equipment on island, benefiting access to health resources⁹

*These opportunities are further described below

- 1 City of St. George (2019), personal communication.
- 2 Anchorage Daily News, (2014) Retrieved from <https://www.adn.com/commentary/article/abundant-wind-efficient-diesel-cuts-energy-costs-st-george/2014/09/16/>
- 3 City of St. George (2019), personal communication.
- 4 City of St. George (2019), personal communication.
- 5 Cities of Service (2016) Retrieved from: <https://citiesofservice.org/stories/greenhouse-building-food-independent-alaska/>
- 6 Sitka conservation society (2019) Retrieved from http://www.sitkawild.org/sitka_kitch
- 7 Hay, Mark. (2014). "Here's how a tiny Pacific island got better Internet than the US." Retrieved from <https://www.pri.org/stories/2014-08-01/heres-how-tiny-pacific-island-got-better-internet-us>
- 8 The Atlantic, (2015). Retrieved from: <https://www.theatlantic.com/education/archive/2015/12/alaska-schools-internet/420648/>
- 9 Associated Press (2017) Retrieved from: <https://www.apnews.com/939f52f243cb42cfb72ad6fca97e43bd>

St. George Economic Development Working Papers are early efforts to pull together the best available information for future decisions on St. George. These should be seen as a starting point, and in need of your feedback. We are looking to those who care about St. George to provide comments, corrections and revise information so these can be updated for final recommendations and reporting.

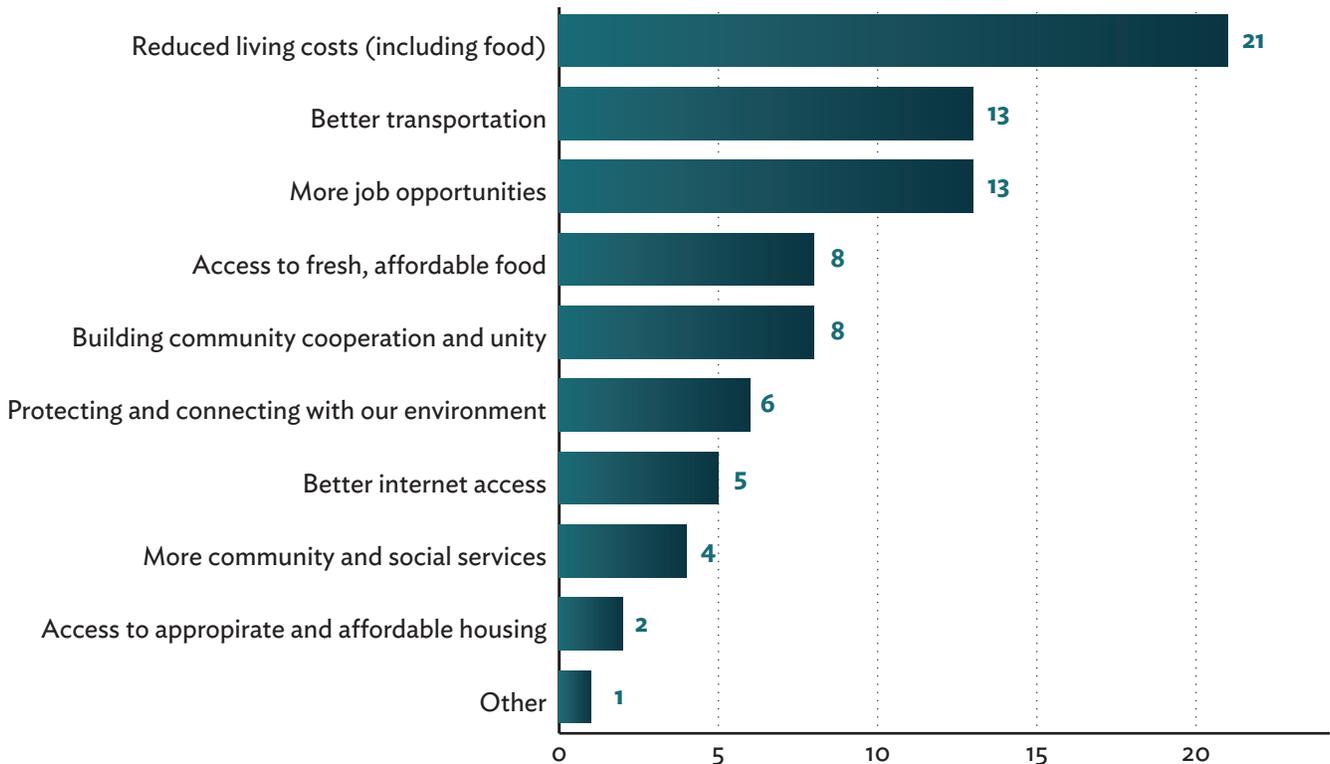
Thank you to everyone that has provided their input so far.

To provide feedback, additional information, comments, or questions about this Working Paper, please contact stgeorgeeconomicdevelopment@gmail.com or visit our website at www.stgeorgealaska.org. We look forward to hearing from you.



Community members were asked which of the following options are most important to enhancing quality of life on St. George.¹⁰ The figure below shows how members ranked quality of life aspects on St. George, with reduced living costs (including food), better transportation, and more job opportunities coming out on top.

Most Important Aspects of Enhancing Quality of Life on St. George



Introduction

Quality of life is an all-encompassing term that describes physical health, family, education, employment, wealth, safety, religious freedom, and a healthy environment. Our quality of life is determined by what we value as a community, how our core needs are met, and what aspects of our community support life satisfaction. There are so many aspects of our community that contribute to the betterment of our lives, and we want to explore options that will improve quality of life on St. George. Our skills and capacities as a community support our quality of life on the island and will help us meet our needs.

In this paper we explore our current situation and describe what assets we share as a community, overview of key quality of life challenges we are facing, and outline planned, potential, and underway opportunities that will help improve our community.

¹⁰ Community survey of adults living on St. George, (June 2019, n= 28)

Current Situation

OUR QUALITY OF LIFE ASSETS

The table here lists and describes some of the assets on St. George that support our quality of life, including ownership responsibility.

Asset	Ownership Responsibility	Description
Support Organizations (APICDA, APIA, AHA)	Based on each organization	Aleutian Pribilof Island Community Development Association (APICDA) offers opportunities to pursue business startup funds, scholarships, vocational training opportunities, and internships. ¹¹ Alaskan Pribilof Islands Association (APIA) offers services in behavioral health, cultural heritage, education, and tribal child support. ¹² The Aleutian Health Authority (AHA) provides housing support services as well as employment opportunities and job training. ¹³
Church	The Church has ownership responsibility and the City of St. George assists when possible.	Provides spiritual services for community members on St. George.
Natural Landscape and Wildlife	Everyone is responsible for treating and respecting the lands and waters around St. George. Certain organizations on St. George have specific mandates related to wildlife / environmental management. For more information on this see the Research, Education, and Conservation Working Paper.	Our island is home to globally significant populations of nesting seabirds, large Northern Fur Seal populations, and Arctic foxes. The natural landscape around us is rugged and beautiful.
Ball field, playground, basketball (in disrepair)	The City of St. George?	Provide recreational opportunities for our community members. In need of repairs to become functional again.
Health Clinic	Traditional Council	Provides health services to the community.
St. George School	City of St. George	Our school is now closed due to low numbers of attendance resulting in funding cuts.
Rec Centre	Traditional Council	A place for our community to engage in recreational activities.
Store / Canteen	Traditional Council	Provides food for purchase for our community.
Small Mart	City of St. George	Provides food for purchase for our community.
Greenhouse	City of St. George	Our greenhouse offers an opportunity for residents to grow and access food. The community would like to expand so that residents could have their own plots.
Wind Turbine and Power Generators	City of St. George	Provides renewable energy to our community – is currently in the repair process.

¹¹ APICDA (2019). Retrieved from <https://www.apicda.com/programs/>

¹² APIA (2019). Retrieved from <https://www.apiai.org/>

¹³ AHA (2019). Retrieved from <http://ahaak.org/>

Key Challenges and Possible Responses

There are several challenges that need to be addressed for our quality of life to improve on island. Overcoming these challenges would significantly contribute to a positive quality of life.

	Challenges and Success Factors	Description
Education	<p>Challenge: Lack of available education and skills and capacity training for youth and adults.</p> <p>Success Factor: Accessible on-island education and skills training for youth and adults.</p>	<p>Our school is at risk of closure due to declining numbers of students attending. We need consistent and reliable education for our youth, and training for adults in order to thrive as a community.</p> <p>Improving internet connectivity would help our youth access educational opportunities; adults with access to the internet could also reach training and skill upgrade opportunities otherwise unavailable to us. Additionally, potential gardening / greenhouse-based programs can help our community members learn skills and build capacity for food security.</p>
Energy	<p>Challenge: High cost of fuel and few alternatives available.</p> <p>Success Factor: Reliable sustainable energy for the community.</p>	<p>On island, the cost of fuel is high (\$7 / gallon on St. George and \$3.5 / gallon on St. Paul) and this negatively impacts the cost of living here.</p> <p>If we repair our wind turbine or seek out other alternative forms of energy development, we can reduce the cost of living significantly for our community.</p>
Climate Change & Associated Impacts	<p>Challenge: Impacts of climate change on our community.</p> <p>Success Factor: Preparing, adapting, and mitigating the worst effects of climate change.</p>	<p>We are already feeling the impacts of climate change (warming average air temperature, ocean acidification, etc.) and along with pollution, the impact of commercial fisheries, increased vessel traffic, invasive species, oil and gas spills, and marine debris, our community's quality of life and marine ecosystems are stressed.</p> <p>Understanding the impacts of climate change on our community is the first step, leading to promoting climate action in various aspects of community life (energy, food, wildlife, harbor activity, weather affects, etc.).</p>
Connectivity (cell phone and internet)	<p>Challenge: Lack of cell phone service and reliable internet connectivity.</p> <p>Success Factor: Upgrading St. George's internet and cellphone services.</p>	<p>Internet on St. George is currently poor, and the island is not connected to cell service (although nearby St. Paul island is).</p> <p>Connectivity can allow for new jobs and educational opportunities that will improve our community's quality of life. Some potential options for improvement have been discussed, such as a microwave tower, or connecting to a fiber optic cable planned along a nearby route.</p>
Transportation	<p>Challenge: No fully functioning harbor and unreliable air transportation.</p> <p>Success Factor: Building a fully functioning harbor, transportation program, passenger ferry.</p>	<p>Without a seaport, boat access to our island is extremely difficult. Our south harbor is in a state of disrepair, so mobility is limited. It is not unusual for flights to and from the island to be delayed due to bad weather.</p> <p>If a new harbor is built, this will replace the landings near the village and allow for safe and reliable access to the island. This is explored further in the Harbor working paper. Additionally, a tribal transportation program that will help to improve transportation on island is underway.¹⁴ A ferry between St. Paul and St. George would also greatly help to share resources between the two communities.</p>

¹⁴ Traditional Council (2019), personal communication.

	<i>Challenges and Success Factors</i>	<i>Description</i>
Funding to Sustain Tribe Services	<p>Challenge: Funding for tribal services is low.¹⁵</p> <p>Success Factor: Reliable income / grant sources to sustain the Tribe's services.</p>	<p>Funding is lower and lower every year for our tribal community services. If we don't have funding, our support organizations cannot provide essential services.</p> <p>If grant opportunities are secured and / or sustainable sources of income can be found, essential services that the Tribe offers to our community won't be at risk. For information on potential grants, see the Grants Working Paper.</p>
Access to Job Opportunities	<p>Challenge: Too few jobs on island.</p> <p>Success Factor: Create new job opportunities for the community, search for grants, attract both on and off-island members.</p>	<p>Jobs in our community are scarce and without any opportunities, our residents cannot have reliable sources of income to support their quality of life.</p> <p>As explored in other working papers (Ecotourism, Small Businesses, and Grants), it's important for our community to innovate and look for opportunities for new jobs on the island. More job availability means employment for current residents and potentially new residents coming to our island, which will boost our economy.</p>
Building Partnerships and Community	<p>Challenge: Coordination among our leaders and organizations.</p> <p>Success Factor: Building supportive partnerships and a connected community would bring us together to work on initiatives that improve our community.</p>	<p>Our governing institutions need to work more closely together to create coordinated efforts towards improving quality of life on island for our residents.</p>
Food Security	<p>Challenge: Food insecurities can and likely will impact our community as the result of increased storms due to climate change, high costs of importing food, and the limited ability to grow / harvest on island.¹⁶</p> <p>Success Factor: Our community can prepare for these impacts by supporting and maintaining a food system on island.</p>	<p>Our food security can quickly shift, so preparing by strengthening our food system on island can help to decrease these risks. If we expand and upgrade our greenhouse, we can provide food for our community members, training opportunities for youth and adults, provide jobs for people on island, and create a communal space for our people to connect.</p>
Housing	<p>Challenge: Community roofs in a state of disrepair.</p> <p>Success Factor: Grants to support roofing being pursued by housing authority.</p>	<p>Our housing needs to be upgraded, roofing being in a state of disrepair.</p> <p>Through the Aleutian Housing Authority, a \$780,000 grant to redo roofs was successfully obtained, which will result in repairs that will employ 2-4 people.</p>

¹⁵ Traditional Council (2019), personal communication.

¹⁶ Meter, K, Goldenberg, M. P. (2014). *Building Food Security in Alaska*.

Quality of Life Opportunities

EXISTING QUALITY OF LIFE ASSETS

Based on the results of the community survey, residents' choices for quality of life improvements were: reducing the cost of living (including food), better transportation, having more job opportunities, access to fresh affordable food, building community cooperation and unity, protecting and connecting with our environment, better internet access, more community and social services, and access to appropriate and affordable housing. Additionally, education is a core need of the community that should be addressed, as our school has closed due to low attendance.

Fitting this all together, there are planned, potential, and underway opportunities that all contribute to various aspects of our quality of life. Our community organizations are already working towards improving quality of life and meeting the needs of our people. Health programming, home management, transportation initiatives, and food service support are either currently being provided to our members or are planned future services.

Below is a list of current and planned programs that contribute to our on-island quality of life:

Current programs:¹⁷

- Health Programming – funding from APIA has been received to sustain this programming
- Home Management – funding received from NOAA
- Food Bank – serves 25 households

Upcoming planned quality of life contributors:¹⁸

- Tribal transportation program – in town roads and road to harbor
- Roof grant: through the Aleutian Housing Authority; \$780,000 to redo roofs that will employ 2-4 people
- Remodelling Health Clinic – APIA has asked for this support

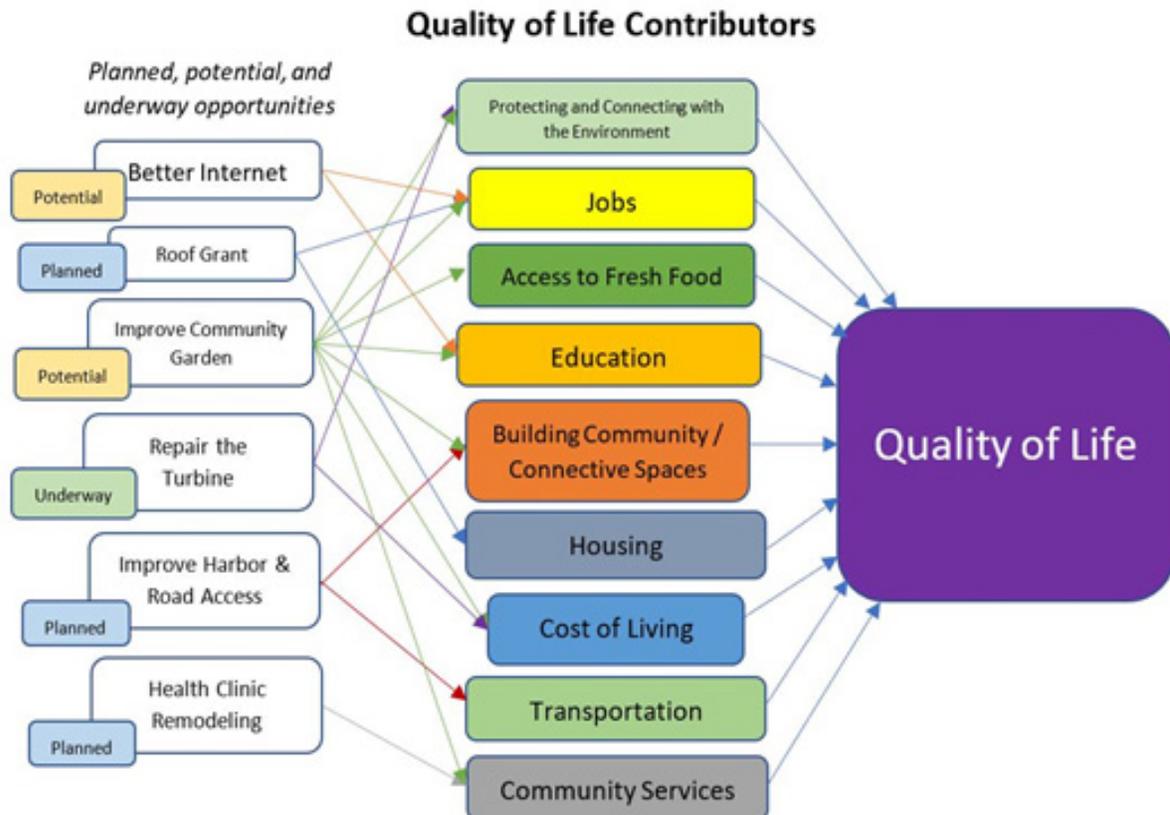


Figure. Planned and potential future opportunities for quality of life improvements on St. George.

¹⁷ Traditional Council (2019), personal communication.

¹⁸ Traditional Council (2019), personal communication.

QUALITY OF LIFE OPPORTUNITIES ON ST. GEORGE

Three core opportunities are explored below: repairing and upgrading our energy infrastructure, improving our community garden, and exploring internet options.

Renewable Energy: Repairs and Other Energy Sources

If we invest in repairing the wind turbine or explore adding additional wind turbines or other renewable energy options, fuel costs could be reduced. Additionally, offsetting diesel use on the island would reduce our impact on the environment. We've recently had maintenance workers come to inspect the turbine and plan to work towards repairing it as soon as possible.¹⁹ If operable, it could provide up to half of our community's energy needs.²⁰ The core benefits of repairing the turbine include:

- \$250,000 - \$300,000 in annual cost savings²¹
- Providing renewable power for half the community results in energy security
- Replacing diesel use on the island, and therefore our community's impact on the environment
- Reducing our city spending on fuel costs, which can then be spent on other community needs²²

According to the Alaska Energy Authority (AEA), grants and loans are available for various renewable energy projects (wind, hydro, biomass, heat recovery, heat pumps, etc.) and remote communities with high energy costs are likely recipients of project funding, with over \$15 million in grants already invested in the Aleutians.²⁴ The AEA is planning more renewable energy grant funding opportunities for 2020 and 2021.²⁵



Source: https://www.energy.gov/sites/prod/files/styles/borealis_photo_gallery_large_respondxl/public/boxpower-solar.jpg?itok=fyBH2AE5

STUDY: COMMUNITY OF BUCKLAND ALASKA

By tapping into renewable energies as a way of cutting fuel costs, this Alaska Native community produced up to 38% of its energy needs in a day and has displaced 30,000 gallons of diesel fuel. The project was a \$2 million investment with half provided through a federal grant from the Department of Energy's (DOE) Office of Indian Energy. The community is now exploring other cost saving opportunities such as installing heat pumps in all village homes.²³

Renewable Energy Funding and Grant Opportunities: An updated list of funding and grant opportunities for energy projects (with status, deadline, eligibility, and application deadline information included) is available through the Southwest Alaska Energy Network. This organization already works with partners in the Aleutians to develop energy projects and build capacity.²⁶

¹⁹ City of St. George (2019), personal communication.

²⁰ Anchorage Daily News, (2014) Retrieved from <https://www.adn.com/commentary/article/abundant-wind-efficient-diesel-cuts-energy-costs-st-george/2014/09/16/>

²¹ City of St. George (2019), personal communication.

²² City of St. George (2019), personal communication.

²³ Office of Indian Energy and Programs (2019) Retrieved from: <https://www.energy.gov/indianenergy/articles/doe-co-funded-pv-project-brings-fuel-cost-savings-three-alaska-native-villages>

²⁴ Alaska Energy Authority (January, 2019). Renewable Energy Fund Status Report, retrieved from: <http://www.akenergyauthority.org/Portals/0/Programs/RenewableEnergyFund/Documents/REF%202019%20status%20report%20Electronic%203.18.19.pdf>

²⁵ Alaska Energy Authority (April, 2019). Renewable Energy Fund Grant Program Fact Sheet, retrieved from: <http://www.akenergyauthority.org/Portals/0/Programs/FactSheets/Documents/REF.pdf>

²⁶ Southwest Alaska Energy Network (2019) Retrieved from: <http://www.southwestakenergy.org/resources/>



Food Security and Community: Expanding the Greenhouse

One method for improving quality of life on St. George would be to expand the greenhouse, which could: reduce the cost of living (food costs), provide access to fresh food, create jobs and educational opportunities, increase connective community spaces, and promote respect for the environment. If we expand our greenhouse by building additional garden plots, our residents could cut their food costs as well as grow resiliency to food insecurities brought on by unpredictable weather and high fuel costs.²⁷ The hiring of a part-time or volunteer lead gardener could provide, learning opportunities for youth and adults in our community.²⁸ By expanding our food infrastructure, we could create construction, growing, and garden maintenance jobs for our community members.²⁹ Additional community garden plots and greenhouse could also provide a gathering place for community members. Community survey respondents stated that they wanted more opportunities to bond and build connections with one another.³⁰ The core benefits of upgrading our community greenhouse are:

- 2 jobs created from expanding the greenhouse and associated benefits³¹
- Grow more local food and supply it to grocery stores
- Potential to start a farmer's market³²
- Educational opportunities for community members
- Increasing community spaces for members to gather and connect

Supporting ideas:

- The power plant is near the greenhouse and could potentially provide waste energy to heat the greenhouse in the winter months; lamps could also be installed to provide additional heat.³³
- Community kitchens that offer training and education on healthy cooking and use locally grown food could be explored; this would also provide additional opportunities for community members to gather.³⁴

27 Meter, K, Goldenberg, M. P. (2014). *Building Food Security in Alaska*, Crossroads Research Center.

28 Cities of Service (2016) Retrieved from: <https://citiesofservice.org/stories/greenhouse-building-food-independent-alaska/>

29 Meter, K, Goldenberg, M. P. (2014). *Building Food Security in Alaska*.

30 Community survey of adults living on St. George, (June 2019, n= 28)

31 City of St. George (2019), personal communication.

32 City of St. George (2019), personal communication.

33 City of St. George (2019), personal communication.

34 Sitka conservation society (2019) Retrieved from http://www.sitkawild.org/sitka_kitch

35 Cities of Service (2016) Retrieved from: <https://citiesofservice.org/stories/greenhouse-building-food-independent-alaska/>

36 Alaska Energy Authority and USDA Forest Service (2017) *Biomass-Heated Greenhouses Handbook*.



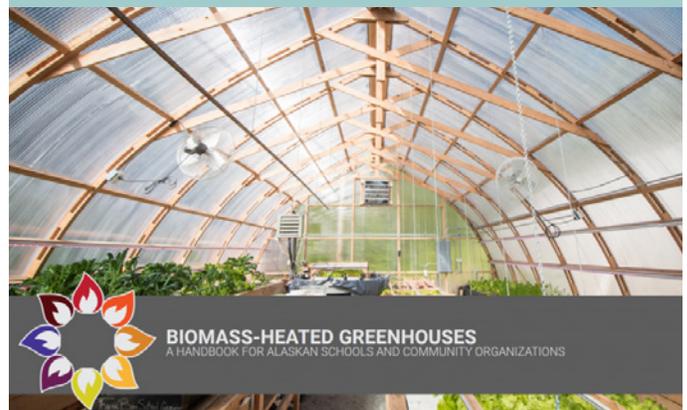
Source: <https://citiesofservice.org/stories/greenhouse-building-food-independent-alaska/>

ALASKA

In 2016, 95% of Alaska's food was imported, with \$1.9 billion being spent on import costs. As weather becomes less predictable and fuel prices rise, these statistics are predicted to grow over time, leading to food shortages and insecurities for Alaskan communities. Some communities are already working on food security initiatives. The remote community of Kotzebue, AK has created upwards of 600 community gardens for residents to grow food. In Anchorage, afterschool programs have started to use food security as a teaching tool where youth learn about food independence, growing techniques, and nutritional education. In Bethel, AK, the city installed community gardens for all citizens and provided permafrost melting pipes to support farmers.³⁵

TOOLKIT FOR BUILDING AND HEATING GREENHOUSES

With contributions from communities, non-profits, energy associations, and government organizations around Alaska, a toolkit was developed to assist community organizations and schools develop cold climate greenhouses and food programs with heating systems to support growth of various plants suitable for the climate. Additional case studies, funding, finances, and educational opportunities are described to support communities.³⁶



BIOMASS-HEATED GREENHOUSES
A HANDBOOK FOR ALASKAN SCHOOLS AND COMMUNITY ORGANIZATIONS

Connecting our Community: Communications and Internet Accessibility

Without reliable internet and communications, our community continues to be disconnected.³⁷ Without reliable internet speeds, there's no stable opportunity for our youth and the rest of our community to learn remotely. The Entrepreneurs, Small Business, Innovation, and Government Services Working Paper explores how fast and reliable internet installed in our community could lead to more opportunities for small businesses, increasing access to jobs for our people. Some potential options for improvement have been discussed, such as a microwave tower, or connecting to a fiber optic cable planned along

a nearby route (there has been discussion of a fiber optic connection between Japan and Nome, Alaska.)³⁸ Additionally, future statewide plans to bring high speed fiber optic connections across all of Alaska are being explored.³⁹ Core benefits of internet accessibility in our community include:

- Access to new job opportunities for our community members, including working remotely⁴⁰
- Educational opportunities for our students, youth, and other community members
- Can lead to opportunities for sophisticated medical equipment on the island that relies on internet connectivity, benefiting our community's access to health resources⁴¹



Source: <https://www.apnews.com/939f52f243cb42cfb72ad6fca97e43bd>

CASE STUDY: VILLAGE OF UTQIAGVIK, AK
After major government investments, and a warming Arctic environment that allowed for infrastructure development, cables were placed underwater to distribute broadband internet to remote communities across northern Alaska. Not only did this improve general Wi-Fi connectivity but it allowed for reliable educational opportunities for classrooms and the ability to use sophisticated medical equipment that relies on internet connectivity.⁴² Microwave towers are also being installed in remote Alaskan communities to provide internet.⁴³

³⁷ The Atlantic, (2015). Retrieved from: <https://www.theatlantic.com/education/archive/2015/12/alaska-schools-internet/420648/>

³⁸ City of St. George (2019) Personal communication.

³⁹ The Verge (2019) Retrieved from: <https://www.theverge.com/2019/5/1/18525866/alaska-fiber-optic-network-cable-continental-us-100-terabit>

⁴⁰ Hay, Mark. (2014). "Here's how a tiny Pacific island got better Internet than the US." Retrieved from <https://www.pri.org/stories/2014-08-01/heres-how-tiny-pacific-island-got-better-internet-us>

⁴¹ Associated Press (2017) Retrieved from: <https://www.apnews.com/939f52f243cb42cfb72ad6fca97e43bd>

⁴² Associated Press (2017) Retrieved from: <https://www.apnews.com/939f52f243cb42cfb72ad6fca97e43bd>

⁴³ IEEE (2017) Retrieved from: <https://spectrum.ieee.org/telecom/wireless/109-microwave-towers-bring-the-internet-to-remote-alaska-villages>

Conclusion

Improving our quality of life needs to be a collective effort. If we're going to make St. George a better place to live, we need to put in the work. The opportunities explored in this paper link to other working papers and are considered in the context of all other work being done in the economic development process.

We need your feedback to make sure we're getting everything we can to inform a strong economic development strategy. Help us by providing feedback, additional information, comments, or questions about this Working Paper!



Image source: <https://unangansanctuary.wordpress.com/maps-and-photos/>



TELL US WHAT'S MISSING!

Go to our online survey: bit.ly/stgeorgesurvey2

STAY A PART OF THE CONVERSATION!

Please contribute, your ideas are needed. Here are some simple ways to participate:

Go to our online survey and give your input about where St. George should go and how we should get there.

bit.ly/stgeorgesurvey2

Send an email or contact:

St. George Economic Development Project Team
stgeorgeeconomicdevelopment@gmail.com

Or visit the project website:

www.stgeorgealaska.org

