

Location	Core Function	Product Categories	Objective	Key Considerations	Facilities	Demand	Utilization/Scale	Revenue potential (Low, Moderate, High)	Capital requirement (Low, Moderate, High)
Processing - Mariculture		Kelp (Bull kelp, Sugar kelp)		The Crop Project, established to help commercialize regenerative agriculture for lesser-known crops, such as kelp varieties, and create viable commercial (B2B) sales opportunities, is seeking exponential scale for harvest and process functions. Wet or dry brine preservation of kelp had potential, but more research is needed. Dan Lesh (SE Conference) noted that farmers in Ketchikan were looking into developing a kelp processing facility.	Packaging equipment and process, storage requirements, need a solution for labor and facility(ies) that can handle very large volumes and with multiple processing functions (dehydrate, freeze, bottle or can, wet or dry brine) for retail and wholesale/commercial scale. Co-locating with the Absolute Seafoods in downtown Ketchikan is a potential site for kelp (and non-kelp) KAPA-supported Processing, Aggregation, and Storage functions.	Year round & seasonal; Commercial	Wholesalers/processors, private label, CPG businesses of value-add products	High	Moderate-High
		Other Seafood (Geoduck, Sea cucumbers, Sea urchins)	Large-sale processing for local consumption and export; fresh and near frozen holding; further value-add refinement could be done on- or off-site	Complementary or staggered seasonality for harvesting and processing would allow a multi-purpose mariculture facility to serve anchor food business users as well as smaller-scale processing runs. Potential for value-add, e.g. smoked or canned geoduck.	Food safety/regulatory requirements for each product category; shared-use facility process turnover (sanitation, equipment)	Year round & seasonal; Commercial	Operating in the Lower 48 is said to reduce processing/operating costs by up to 40%, so developing local, affordable facilities and services is a great need for the entire region, whether it be centralized on Ketchikan or supported small scale on spoke islands with larger commercial processing at the Ketchikan hub. Successful local processing facilities would require a reliable and affordable transportation network between islands.	Moderate	Moderate-High
		Oysters	Product holding and transport; further value-add refinement on/off site	Trevor Sande (Hump Island Oyster Co.) mentioned need for local oyster smoking and canning capabilities.	Is there a faction of the processing facility that could also support cultivation, sustainability, shell recycling, etc. And for oysters with higher-margin and potential for Lower 48 export, what facility specialization should be considered for fulfillment?	Seasonal; Commercial	Wholesalers/distributors, private label?	High	Moderate-High
Processing - Fish		Fish (finfish, including salmon and halibut)	There is both a need and an opportunity for local fish processing that can be commercialized and scalable, but also for community utilization and consumption. A facility would likely need segmented, unique spaces for commercial and community functions, the need for both services was apparent in all local research and engagement.	Garret Evridge behind the Alaska Ocean Cluster, a startup accelerator focused on innovations that support Alaska's "blue economy" and healthy, thriving oceans around the world, mentioned the need for independent fish processing space, aquatic plant processing space, and how they can see the KAPA project as a great opportunity to get some much-needed infrastructure in the community.	Operating in the Lower 48 is said to reduce processing/operating costs by up to 40%, so developing local, affordable facilities and services is a great need for the entire region, whether it be centralized on Ketchikan or supported small scale on spoke islands with larger commercial processing at the Ketchikan hub. Successful local processing facilities would require reliable and affordable transportation network between islands.	Year round & seasonal; Commercial & community; According to Eric Bezenek, an independent fisherman in Ketchikan, there could be separate but complementary resources for: blast freezing, smoking hub at docks, hand filet and portioner, and caviar processing. Commensurate facility services should also include pallet-storage coolers and freezers, tote dumpster and commercial waste management, floor scale, and the space and equipment to containerize and pack large scale production runs.	Regional & national wholesalers	High	Moderate-High
Processing - Produce (Fruits, Vegetables, Fungi)		Minimal/change of state	Extend the regional food supply beyond growing season; preparation for wholesale sales channel	Produce processing facility can be co-located in commercial kitchen operations but the yields would be very minimal. A full-scale produce processor would be both operationally and cost-prohibitive due to the equipment, labor, and throughput minimums.	Produce processing at a shared-use commercial kitchen would require food safety understanding, packaging/bagging equipment, and a minimally-skilled workforce with oversight.	Commercial	Institutional food service; hospitality (restaurants, resorts); CPG/value-add food products	Moderate	High
		Foraged & indigenous foods	Foods that require more refinement because they were foraged, not cultivated	Consider the root vegetables that grow well in colder, wetter climates, and native cultivars such as Tlingit potatoes. In addition, native forageables such as sea asparagus (grow project commencing in Spring), wild mushrooms, spruce tips, and wild berries. Grow operations could be considered both for Production as well as Education purposes.	General food processing/readying product for market could occur in a shared-use commercial kitchen but would require food safety understanding, packaging/bagging equipment, and a minimally-skilled workforce with oversight.	Commercial and community	Wholesale (B2B) and direct to consumer (DTC or B2C)	Moderate-Low	Unknown
Processing - Game/Wild catch		Smokehouse	Preservation technique, mostly for community use, though some commercial enterprises are using (Wildfish Cannery in POW, for example)	Need to conduct a heat distribution study to prove product is cooked all the way through Cold smoke falls under FDA regs. It is easier to do cold smoking when canning Report log must be checked every day by someone with HACCP certification Due to the Roadless rule for Tongass national forest (can't access park to hunt, (as well as ecotourism and more.)), there is a deep mistrust of federal government	Shared-use processing space (possibly mobile, modular, or temporary?)	Community	Household subsistence	Moderate	Low-Moderate
		Game processing	Further exploration needs to be done to assess the demand and viability of a semi-permanent (temporary or mobile) game processing unit (meat or poultry) that could also handle small scale, private/raised herd animals such as goats	Sanitation and food safety of community shared-use processing spaces. Due to the Roadless rule for Tongass national forest (can't access park to hunt, (as well as ecotourism and more.)), there is a deep mistrust of federal government	Shared-use processing space (possibly mobile, modular, or temporary?)	Commercial and community	Household subsistence and direct to consumer (DTC or B2C)	Moderate	High
		Bleeding, hanging, drying, curing, animal breakdown, butchering	Develop affordable and food-safe solutions for on-island processing of hunted wild game	Sanitation and food safety of community shared-use processing spaces.	Shared-use processing space (possibly mobile, modular, or temporary?)	Community	Household subsistence	Low	Moderate

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Ketchikan	Commercial kitchen	Shared-use/community kitchen	Provide a food preparation space for commercial and residential food business, recreational classes, food safety trainings, etc.	Facility should be able to serve a licensed food business and community-focused programming (recreational, educational).	Katherine Tatsuda's shuttered grocery store in downtown Ketchikan might offer a location for a community-focused facility that includes a community kitchen, smokehouse, and cold storage for local community; location is also accessible to community users and commercial connections. Some usable infrastructure remains on site. The grocery store was demolished by a landslide. A stabilizing rock wall has been added to a portion of the property. However, additional due diligence on the safety of facility buildout would be required, and would be limited to the reinforced section until additional efforts for stabilization are conducted.	Commercial and community	Licensed food businesses, recreational community groups, emerging food concepts, value-add foods production and preservation	Low	Moderate-High
	Production - Farming/Cultivation	Traditional agriculture	Produce/specialty crops, hoop houses	Consider the root vegetables that grow well in colder, wetter climates, and native cultivars such as Tlingit potatoes. In addition, native forageables such as sea asparagus (grow project commencing in Spring), wild mushrooms, spruce tips, and wild berries. Grow operations could be considered both for Production as well as Education purposes.	Soil and flat ground will pose challenges on Ketchikan, but Storage and Sales functions could move product grown elsewhere.	Commercial and community	B2B and B2C	Low	Low-Moderate
		Mariculture	Mariculture production/cultivation is a consideration for kelp, oyster seed, sea asparagus, sea cucumber, urchin, abalone, and more. Oysters are mostly for cruise ships and lodges	Significant interest in kelp production and need for kelp processing infrastructure from interviewees. Trevor Sande of Hump Island Oyster Co. notes that they have sufficient infrastructure for production and light processing, but have a need for oyster smoking/canning facility, oyster wet storage space, and access to local retail sales outlets.	Processing bull kelp and sea cucumber and sea urchin in the same facility is efficient due to opposite harvest seasons	Commercial and community	Wholesale (B2B), potential for KAPA brand B2C but would require a distribution partner	Moderate	Moderate-High
		Container/aqua/hydro/etc.	Commercial and residential production of lettuces, microgreens, herbs, mushrooms, and strawberries could be a viable option for small- to mid-scale yields of product for community or small commercial sale	The equipment for these grow operations, as well as utility costs and labor/oversight, makes small, recreational growing less viable from a financial standpoint unless KAPA or another 3rd party or philanthropic funder made the capital and operating investments in initial operations.	Explore renting/lease structure for small scale or community users as part of a large operation; this could be incremental revenue for KAPA and a community-scale offering of KAPA. Ketchikan Ever Greens is producing lettuce and other greens via hydroponics in shipping containers - scalable tested facility model.	Commercial and community	Wholesale (B2B) and direct to consumer (DTC or B2C)		
	Storage	Refrigerated	Commercial-scale warehouse cooler storage to accommodate pallets	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow. Trevor Sande mentioned need for oyster wet storage to help with on-demand fulfillment.	Temperature controlled storage could be located under one roof, or be multiple standalone units.	Commercial wholesale warehouse is the scale that would allow for the most facility use and product versatility because you can segment storage areas and create storage solutions within a larger footprint. However, if the topography does not allow, smaller units in larger number could be a viable option.	Many	Moderate-High	High
		Dry/ambient	Commercial-scale ambient temperature warehouse storage to accommodate pallets	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow					
		Freezer	Commercial-scale warehouse freezer storage to accommodate pallets; storage needs the facility to delineate and store many different types of food products, including frozen fish and seafood	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow; need to consider commingled product types, food safety, and allergen controls					
	Aggregation	Produce (all)	High tunnel/hoop house, container (aqua-, hydroponics, vertical)		Kevin Murphy of Murphy's Island offered to support the development and operations for several key KAPA functions on a 3.125 acre parcel of flat/buildable land, low cost tenancy but important considerations would be lack of utilities: 3-phase electric, water, sewer. A 40-80 foot deepwater dock is needed, but can be built for this waterfront property. Kevin would like this property to support the local Ketchikan community and also provide some residual revenue, promote through long-term leaseholds, for his children. This property is large and could house both a commercial processing center and a community kitchen + fractional cold storage	Commercial and community	B2B and B2C	Moderate	Moderate
		Mariculture products	Source products at scale to create a regional KAPA brand and robust wholesale program for regional consumption and export to the Lower 48					Moderate	Moderate
		Foraged products	Consider scaled foraged efforts of items like spruce tips, mushrooms, berries, etc.					Moderate	Moderate
	Sales	Retail store	Provide a food retail space in an under-served but easily accessible part of town	Accessibility for food supply chain and customers should be considered	Katherine Tatsuda's idle land and partially-outfitted cold storage facilities could offer a food access point in a part of Ketchikan that is a food desert	Commercial and community	B2B and B2C		
		Wholesale		Cruise ships, lodges/hotels					
	Resources	Soil	Develop soil using a Totomic system	Grant Ecohawk, who is part of the borough assembly, is interested in developing a composting program and facility in Ketchikan	Two totemic dehydrators (2) and one in-vessel composter (Neter12) in Ketchikan would have a footprint of 600 sq ft. Need a flat area to build on. Dan Lesh mentioned they are working on a pellet-mill project on Gravina Island near the airport. This could be a good co-location site for the Totomic composting system.	Jonathan Rubbo of Totemic Compost says operating dehydrators plus an in-vessel composter in Ketchikan could divert 1,140,000 pounds of waste per year and generate 500,000 pounds of compost per year.	B2B		
		Growing technology	Develop a cadre of resources (hard and soft) that could support commercial and community needs for grow innovations	Technology and resources could be purchased, leased, borrowed, and technical assistance/education on how to use it could be fee-based or supported by KAPA, its partner network, or the philanthropic community			B2B		
		Shared small- and mid-scale equipment/infrastructure	To the extent that it is safe and logistically feasible, what pieces of shared equipment could become an asset of KAPA (literal) and reduce barriers to small producers (growers, food businesses)?	Review equipment needs of small, independent growers, harvesters, and foragers and assess what types of value-add, packaging, fulfillment, and preservation equipment would be common pieces of shareable equipment	Located shared equipment at a central location would be the most equitable and accessible to a variety of users	Community to pre-commercial scale	B2B		

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	Transportation	Aggregation	Creating a point of aggregation and return transport back to the Ketchikan hub is something that will likely need to be solved for in a KAPA-operated solution. Relying on commercial ferry service where a vehicle is both the storage, transport, and last mile solution could prove financially viable.	Ferries lack reliability, especially moving into the fall and winter months due to wind and inclement weather. Service between Metlakatla and POW always requires a transfer in Ketchikan.	Providing a refrigerated vehicle that can be activated (turned on) as a temporary storage solution, transport vessel aboard the ferry, as well as a refrigerated delivery vehicle for on-island transport and last mile delivery is a low cost solution to high-cost transportation infrastructure.	Commercial	B2B		
		Distribution	Identify viable ferry service options (commercial service vs KAPA operated), in tandem with road service on island as hybrid storage-transport units	The cost of contractual transportation services might end up justifying capital investments in transportation solutions that are owned (or leased) and operated by KAPA hub/spoke staff or partners. Small scale transportation routes already exist for hyperlocal food businesses, such as Ketchikan Ever Greens delivery route, which utilizes an EV vehicle when possible. Existing local routes should be considered and consulted for collaboration opportunities for distribution within communities.		Commercial	B2B		
Metlakatla	Processing - Game/Wild catch	Smokehouse	Create a space for community smokehouse, would have to include non-commercial processing area, for cleaning and preparation; some commercial enterprises are using (Wildfish Cannery in POW, for example)	Need to conduct a heat distribution study to prove product is cooked all the way through. Cold smoke falls under FDA regs. It is easier to do cold smoking when canning. Report log must be checked every day by someone with HACCP certification					
		Game processing	Further exploration needs to be done to assess the demand and viability of a semi-permanent (temporary or mobile) game processing unit that could also handle small scale, private/raised herd animals such as goats	Mostly for community use unless deer farming catches on					
		Bleeding, hanging, drying, curing, animal breakdown, butchering	Develop affordable and food-safe solutions for on-island processing of hunted wild game						
			Develop a coordinated supply chain, volume projections to meet local/on-island demand as well as off-island aggregation and larger wholesale opportunities outside the SE region						
	Production - Farming/Cultivation	Traditional Agriculture + Container/aqua/hydro/etc.	Develop a plan to utilize idle flat terrain for traditional growing practices, such as hoophouses, with season extension resources	Gatgyeda Anderson is currently operating an 80x40 ft hoophouse with temperature control (electric) capability, has a team of 3 students to support operations, and is developing educational and training resources to replicate this operation elsewhere on island	Grant Ecohawk commented on the amazing potential of the airstrip that sits unused just outside town. A primary barrier in AK is the cost of developing lands - removing trees and roots, level the land, etc. That has already been done on airstrip. Just off the airstrip are patches of cleared land, and other physical infrastructure could also go on or around the airstrip. This is federal land, so it is necessary to approach the tribal council for protocol and courtesy (in process)				
		Mariculture	Meet the demand for kelp farming on Metlakatla	Trevor Sponis (The Sustainable Learning Projects) is running educational programming with students in the Metlakatla school. They are growing seaweed, oysters, and are considering adding geoduck, sea cucumber, and mussel production. Production is non-commercial at this point, but the program aims to prepare and inspire students to start mariculture businesses.					
	Storage	Refrigerated	Commercial-scale warehouse cooler storage to accommodate pallets	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow					
		Dry/ambient	Commercial-scale ambient temperature warehouse storage to accommodate pallets	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow					
		Freezer	Commercial-scale warehouse freezer storage to accommodate pallets; storage needs the facility to delineate and store many different types of food products, including frozen fish and seafood	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow; need to consider commodity product types, food safety, and allergen controls			Out of Scope	Out of Scope	Out of Scope
	Aggregation	Produce (all)	High tunnel/hoop house, container (aqua-, hydroponics, vertical)	Tlingit potatoes					
		Mariculture products	Source products at scale to create a regional KAPA brand and robust wholesale program for regional consumption and export to the Lower 48	Connecting production and foraging efforts in Metlakatla with markets on and off-island is something Gatgyeda Haayk says is critical to building supply/aggregation and a regional brand					
	Sales	Retail store							
Wholesale		Develop new and expanded greenhouse operations on island for wholesale produce (greens, etc) production for island food service utilization and wholesale sales to buyers such as Annette Island School District	Annette Island School District Superintendent, Taw Lindsey referenced the opportunity to build the capacity for purchasing locally grown foods for district meals production, as well as develop internships and food and farming skills for district students						

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	Resources	Food shelf/pantry							
		Soil	Develop soil using a Totomic system	Gatgyeda Anderson insisted that soil development must occur on island to mitigate invasive species	Grant Ecobawk (Ketchikan) - part of borough assembly - interested in compost in Ketchikan				
		Growing technology							
		Shared small- and mid-scale equipment/infrastructure	To the extent that it is safe and logistically feasible, what pieces of shared equipment could become an asset of KAPA (literal) and reduce barriers to small producers (growers, food businesses)?	Review equipment needs of small, independent growers, harvesters, and foragers and assess what types of value-add, packaging, fulfillment, and preservation equipment would be common pieces of shareable equipment					
		Aggregation	Creating a point of aggregation and return transport back to the Ketchikan hub is something that will likely need to be solved for in a KAPA-operated solution. Relying on commercial ferry service where a vehicle is both the storage, transport, and last mile solution could prove financially viable.	Ferries lack reliability, especially moving into the fall and winter months due to wind and inclement weather. Service between Metlakatla and POW always requires a transfer in Ketchikan.	Providing a refrigerated vehicle that can be activated (turned on) as a temporary storage solution, transport vessel aboard the ferry, as well as a refrigerated delivery vehicle for on-island transport and last mile delivery is a low cost solution to high-cost transportation infrastructure.				
Transportation	Distribution	Identify viable ferry service options (commercial service vs KAPA operated), in tandem with road service on island as hybrid storage-transport units	The cost of contractual transportation services might end up justifying capital investments in transportation solutions that are owned (or leased) and operated by KAPA hub/spoke staff or partners	Fishing boats in Metlakatla are not being utilized due to declining salmon runs. Leveraging a fishing fleet could be a solution (think taxi service for cargo). Island hopping network would support economic dev for fishers. Matakelta alone probably has 25 boats to engage with to transport cargo.					
Processing - Fish & Mariculture	Processing - Game/Wild catch	Fish cannery; mariculture processing	Develop affordable solutions to on-island processing for both commercial and community consumption of local catch	Work in partnership with existing operations, such as Wild Fish Cannery, to provide community-level services such as smoking and custom fish processing in addition to the businesses core commercial customers	Seafood processing facility in Craig was fully funded by a Build Back Better Grant to Southeast Conference in 2022. Dan Lesh (SE Conference) leading the planning for this project, still in pre-feasibility phase. Facility planned for established mariculture producers as anchor tenants using the space for processing and storage, but with a space/capacity for the general community to access. Facility would provide opportunity for smaller local producers to scale up to that level of production. Facility layout of up to 100,000 sq ft.	Dan Lesh noted interest from several seaweed and oyster producers in their planned mariculture processing facility in Craig.			
		Smokehouse	Create a space for community smokehouse, would have to include non-commercial processing area, for cleaning and preparation						
		Game processing	Further exploration needs to be done to assess the demand and viability of a semi-permanent (temporary or mobile) game processing unit that could also handle small scale, private/raised herd animals such as goats		Deer farms are of interest but require high fencing				
		Bleeding, hanging, drying, curing, animal breakdown, butchering	Develop affordable and food-safe solutions for on-island processing of hunted wild game						
Production - Farming/Cultivation	Aqua/hydro/etc.	Traditional Agriculture	Building the capacity to cultivate fresh vegetables and fruits enhances a community that subsists on hunted, foraged, and fished food products	According to Rose Ruel, the current NRCS high tunnel awarded to the City of Kasaan requires in-ground soil as part of the grant terms, so there has not been robust utilization for scaled production to date due to the lack of soil/compost. Due to the Roadless rule for Tongass National Forest (can't access the park to hunt, (as well as use for ecotourism and more)), there is a deep mistrust of federal government	There is still plenty of opportunity for stone fruit orchards and hardy crops that have traditionally been grown in AK since early settler days (root vegetable, rhubarb, some brassicas, etc.)				
		Because the demand for fresh produce is very high, every grocery store, farmers market, lodge is interested and would buy much of what is grown, scaling up production and commensurate storage needs would be a good opportunity. KAPA and regional players should look critically at current SE Island School District production at Coffman Cove and assess the viability of a commercial production alongside the district-run programming.	Anecdotally, iceberg lettuce past its prime costs about the same as local gorgeous, delicious hydroponically grown lettuces. Amanda Kiely believes there is demand 2-3x that of current local supply. If privatized, would this operation be profitable enough to be successful?	Complementary or staggered seasonality for harvesting and processing would allow a multi-purpose mariculture facility to serve anchor food business users as well as smaller-scale processing runs. Potential for value-add, e.g., smoked or canned geoduck, oysters, others.					
		Mariculture	Develop mariculture production and processing	Rose Ruel is interested in pursuing kelp-based ag in Kasaan. Marina Anderson said there is a pressing need to teach people responsible harvesting - products such as berries (cloud, blue, salmon, lingon), abalones, oysters, juniper, kelps and seaweed, crocus plant related to ginseng, mushrooms, wild parsley, wild rice.	Several small oyster farms are in Naukati. According to Dan Lesh, they are some of the oldest oyster farms in Southeast Alaska.				
Storage	Refrigerated	Commercial-scale warehouse cooler storage to accommodate pallets	Commercial-scale warehouse cooler storage to accommodate pallets	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow					
		Dry/ambient	Commercial-scale ambient temperature warehouse storage to accommodate pallets	Commercial-scale ambient temperature warehouse storage to accommodate pallets	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow				

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POW		Freezer	Commercial-scale warehouse freezer storage to accommodate pallets; storage needs the facility to delineate and store many different types of food products, including frozen fish and seafood	Modular units vs building, sq and cu feet storage capacity, foundation and floor space, sizing the need with room to grow; need to consider commdly product types, food safety, and allergen controls			Out of Scope	Out of Scope	Out of Scope
	Aggregation	Produce (all)	High tunnel/hoop house, container (aqua-, hydroponics, vertical)	Marina Anderson said there is a great need for more local produce to supplement and complement what is foraged.	Marina Anderson, deputy director of the Sustainable Southeast Partnership, lifelong resident of POW respected food sovereignty leader for the region, and a traditional foods harvester, mentioned the following crops grow well on POW: squashes, cabbages, rutabagas, as well as Tlinget and haida potatoes that have been grown for hundreds of years.				
		Retail store		According to Meghan Geary, local foods coordinator at the AK Farmers Market Association revealed there is no farmers market or dedicated local foods retailer on the island.	Kasaan community members have disdain and skepticism toward government-owned buildings that sit idle/vacant; explore an opportunity to utilize one or some of these spaces for one of the Sales or Storage functions				
	Sales	Wholesale	Develop a wholesale program that can both sell direct as well as broker connections fee-based between local producers and island grocery retailers, such as Canadian-based, ACC, hospitality and food service customers, etc.	Reaching scale will be a significant challenge					
		Food shelf/pantry	Additional access points	Would need multiple locations to have impact because of geographical landscape					
		Soil	Develop soil	Jennifer Nu, Regional Food Systems Catalyst with the Sustainable Southeast Partnership, referenced a significant composting initiative led by the tribal consortium on POW. Rose Ruel is interested in a composting project in Kasaan, but the project is on hold for now and she is focusing on vermicomposting in the school. Dennis Nickerson, POW Tribal Environmental Planner, shared plans for a composting facility on POW as part of a waste reduction project. The composting component is on hold as they focus on other solid waste projects. They are looking for a location to site the Big Hanna composter (Totemic).	Accessing a space large enough to develop soil would be integral for exponential growth in specialty crop production on island. Rose Ruel mentioned soil inputs such a mulch, alder, seaweed and mariculture by products, poultry excrement, etc. are plentiful				
	Resources	Growing technology							
		Shared small- and mid-scale equipment/infrastructure	To the extent that it is safe and logistically feasible, what pieces of shared equipment could become an asset of KAPA (literal) and reduce barriers to small producers (growers, food businesses)?	Review equipment needs of small, independent growers, harvesters, and foragers and assess what types of value-add, packaging, fulfillment, and preservation equipment would be common pieces of shareable equipment.					
	Transportation	Aggregation	Creating a point of aggregation and return transport back to the KTH hub is something that will likely need to be solved for in a KAPA-operated solution. Relying on commercial ferry service where a vehicle is both the storage, transport, and last mile solution could prove financially viable.	Feasible to charter or backhaul a boat from Kasaan to Hollis (20 minutes)	Providing a refrigerated vehicle that can be activated (turned on) as a temporary storage solution, transport vessel aboard the ferry, as well as a refrigerated delivery vehicle for on-island transport and last mile delivery is a low cost solution to high-cost transportation infrastructure.				
		Distribution	Find solutions to the transportation barriers between port and inland and downtown demand for product coming in from other islands as well as product grown on island that is moving toward Ketchikan	Ferry (commercial service available between POW and Ketchikan via IFA, but indirect service between POW and Metlakatla, it takes 12 hours); KAPA affiliated partners or dedicated transportation should be explored solution, with supportive road service on island; a KAPA vessel could be docked in Kasaan	The cost of contractual transportation services might end up justifying capital investments in transportation solutions that are owned (or leased) and operated by KAPA hub/spoke staff or partners				
	Staff housing	Full-time & fractional individual residences	Offer a viable housing solution for food hub operators, food production and harvesting staff, etc.	Seasonal upticks, individuals vs families, shared amenities	Housing, parking,				
		Subsidized staff transportation program							
	Technical assistance/learning space	Aquaponics training and production facility	Rose Ruel in Kasaan cited the need for technical assistance / playbook for operating an aquaponics facility; also Amanda Kiely on POW needs this kind of help at the 7000 sq ft aquaponics greenhouse she runs in coffinman cove						
		Workforce development/Vocational training	Develop a workforce of POW residents, high need for CDL drivers, food security and public health workers, technology and other specialized training in sectors such as mariculture						

