

TIMBER HARVESTING PROGRAM:

Wood Utilization and Forest Management of the Kenai Peninsula Borough's Beetle-impacted Forests



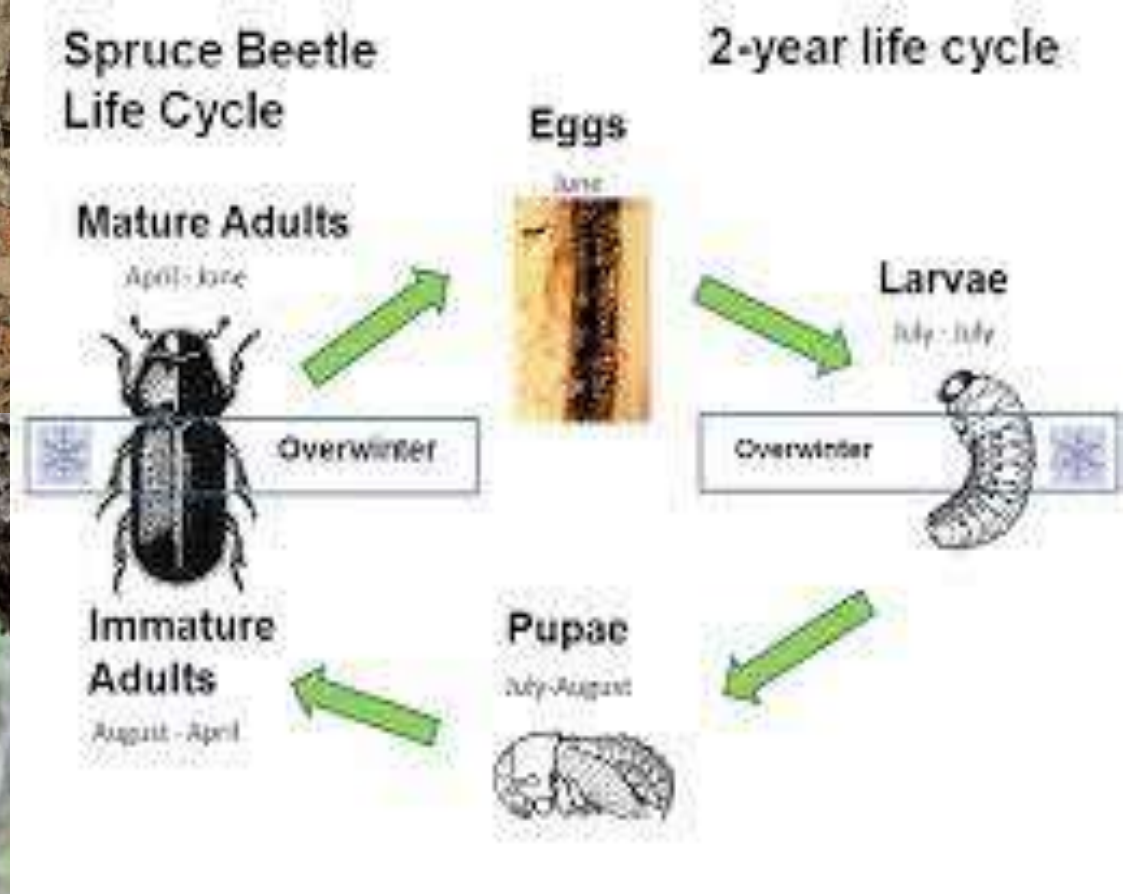
Land Management Agent
Dakota Truitt
February 15th, 2022

PURPOSE

- **Introduce KPB's Forest Management intent**
- **Express the value of our forests**
- **Upcoming Actions**
 - Public Engagement
 - Authorization of Timber Sales
 - Hire KPB Forester
 - Release Timber Sales
 - Identify and Pursue Funding



Spruce Bark Beetle (SBB)



SITUATION

Major Forest Disturbance and Spruce Stand Collapse

- Today it is evident that the SBB impacts are severe and far-ranging
- Action must be taken to protect our communities and to preserve the health of our forests into the future
- Selective timber harvest techniques can provide multiple benefits to our community and forested land both economically and environmentally

MASS TIMBER SALE PROJECT

• **Short Term Goals**

- Authorization for Timber Sales
- Initiate Active Forest Management - Utilize local labor
- Grant Exploration & Application

• **Long-Term Goals**

- Forest Management plan
- Cross-boundary Forest Health & Fire Resiliency
- Mandatory Reforestation
- Legacy Forestry infrastructure
- Sustainable market

PRIMARY OBJECTIVES

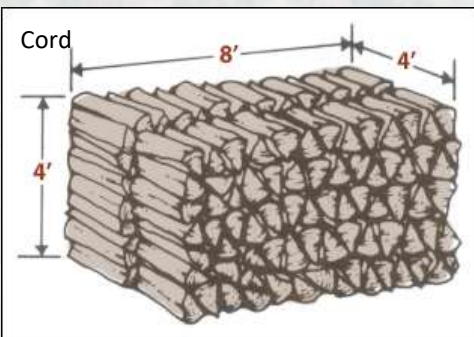
1. **Utilize KPB's forest resources that are rapidly deteriorating due to this SBB forest health epidemic**
2. **Reduce economic and ecological costs to Borough residents**
3. **Improve quality of land for determining best and highest use for the Borough- sale/ classification**
4. **Be a part of a Sustainable Forest Industry Development**
5. **Reforest Borough Lands**

SECONDARY OBJECTIVES

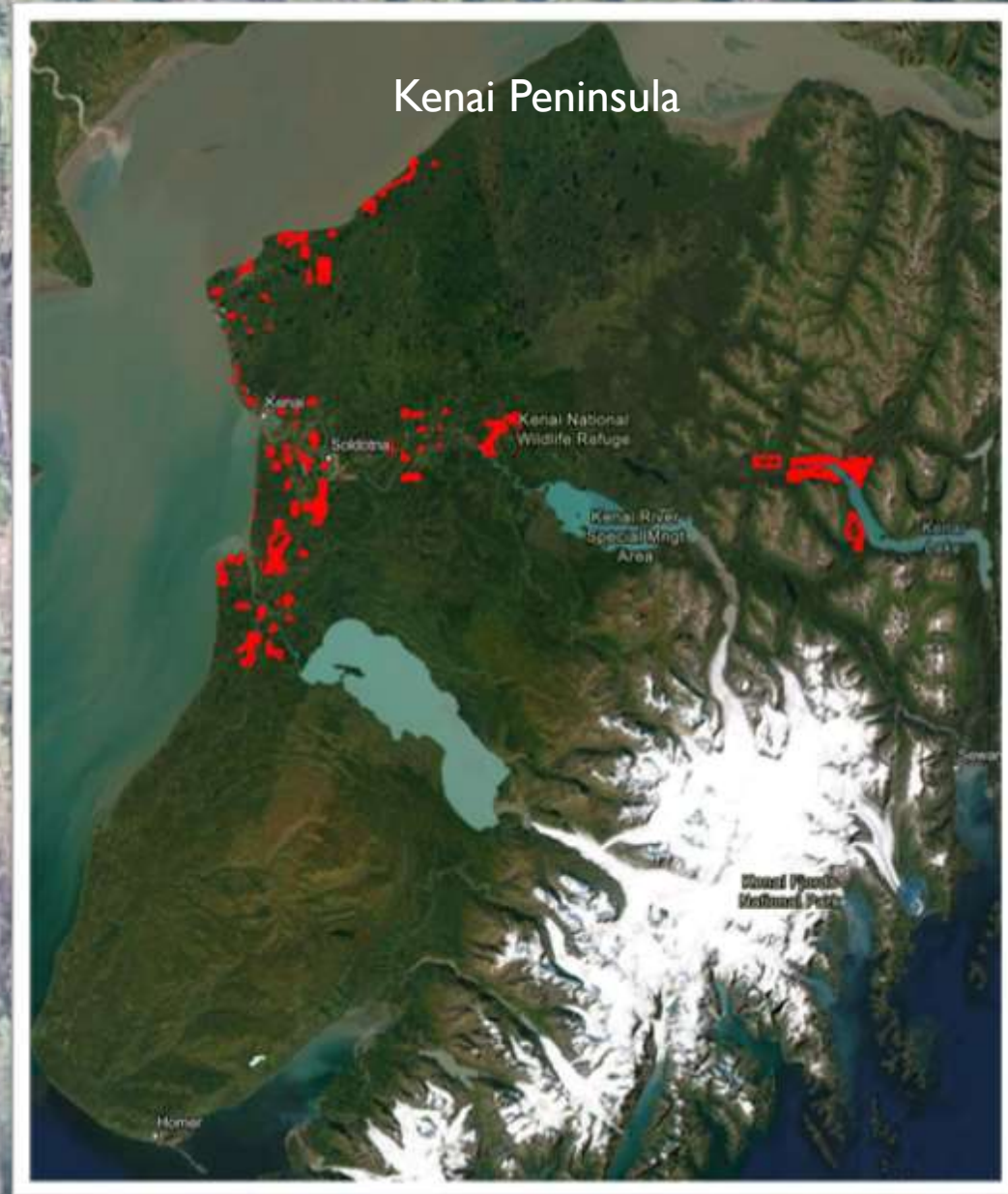
- 6. Improve fire resiliency and protect infrastructure**
- 7. Improve forest health**
- 8. Participate in cooperative cross-boundary management**
- 9. Maintain access for Borough residents and tourists**
- 10. Improve wildlife habitat quality**

KPB Managed Land

- In 2020, more than 150,000 acres affected by SBB on the Kenai Peninsula
- **~21,000 acres** of Forested Land between Cooper Landing, Kenai, Soldotna
- Mixed forest stands of birch, aspen, spruce
- The spruce volumes currently average:
 - 0.5- 1 merchantable cords per acre
 - 6- 20 cords of fuelwood per acre



Limited Forest Inventory data available



TIMBER VOLUME & VALUE

MERCHANTABLE

TIMBER

21,000 acres x Avg 0.5 -1 cord/ acre=

~10,500 to 21,000 cords

Total Merchantable Volume

Avg value of white spruce sawlogs=

\$31.71/cord x Avg cord/acre=

~\$330,000 to \$666,000

Merchantable Timber Value

FUELWOOD

“Less than Merchantable”

21,000 acres x Avg 6-20 cords/ acre=

~126,000 to 420,000 cords

Total Fuelwood Volume

Avg value of white spruce fuelwood=

\$22.00/cord x Avg cord/Acre=

~\$2,770,000 to \$9,240,000

“Less than merchantable” Value

Timber value for the Landowner being lost to SBB

All Economic evaluations are estimates only

TIMBER VALUE

- Recent AK Timber Sales:
 - Spruce sawlogs = **\$31.71/ cord**
 - Spruce Fuelwood= **\$22.00/ cord**
- Currently:
 - Mat-Su Borough is currently conducting Timber Sales for **\$5/cord**
 - AK Division of Forestry Kenai/ Kodiak Area Sells **\$10/cord** of fuelwood
 - Chugach National Forest Sells Spruce logs for **\$5/cord**
- Significant reduction of up to **84%** in value of timber by not harvesting susceptible trees prior to infestation
- Profit Incentives for the Industry:
\$5/cord on the landscape, \$250/ cord in the marketplace

*All Economic evaluations are estimates only *

ASSETS NOW vs. LIABILITY LATER

- Service Contracts: Paying a contractor for stands to be thinned, as any apparent timber value has diminished
- Treatment rates vary case to case
 - Private Contractor: **\$450/acre**
 - USFS: **\$1800 /acre**
 - AK DOF: **\$2000/ acre**
- Loss of a Forest Ecosystem that provides imperative functions and services to Borough Residents



RISK

FIRE

- Loss of life
- Infrastructure loss
 - Roads, Utilities, Buildings
- Loss of forest resources/
products
- Loss of forest industry
jobs



2019 Swan Lake Fire on Sterling Highway

COST OF WILDLAND FIRE

- 2019 Swan Lake Fire Cost ~\$46 million
 - ~167,000 acres burned in high severity fire
 - ~1.7 million tons of wood total
- 2014 Funny River Fire Cost ~\$6.1 million
 - ~200,000 acres burned in high severity fire
 - ~2 million tons of wood total



2019 Swan Lake Fire

**Cost of timber sales < Cost of service contracts < Cost of fire response and potential infrastructure loss
OR Collapsed Forest for next Generation**

REFORESTATION

- **History/ Background**
 - AK Native Plant Materials Center historically grew seedlings
 - All seedlings were coming from British Columbia, Canada for past 5-10 years
 - Reforestation is relying on natural regeneration
 - 40-45 years for seedlings to even establish, if they ever do... lack of seed source and only 40% chance of reforestation through natural regeneration
- **No/minimal funding, staffing, or infrastructure in AK for Native seedling cultivation**
- **HUGE potential market place**
 - private landowners, USFS, AK DOF, Borough, etc.
- **Replanting ensures renewable resources for the next generation**

ECONOMIC OPPORTUNITIES

Resource Utilization & Industry Development

Sustainable Timber Management

Forest Management Plan

KPB SBB Mitigation/Forestry Program
Logging Operations
Milling Operations
Fuelwood Operations
Reforestation Businesses
Slash Disposal & Biomass Use
Carbon Credits

- Jobs
- Resource Utilization
- Market Expansion
- Industry Development

- **KPB SBB Mitigation/ Forestry Program**
 - Forester
 - Community Engagement/ Grants Specialist
 - Program Manager
- **Logging Operations**
 - Cutters/ Fellers
 - Equipment operators
 - Truck drivers
- **Small mill operations**
 - Dimensional lumber
- **Fuelwood operations**
 - Firewood
- **Reforestation - Native Tree Nursery Business Opportunity**
- **Slash Disposal/ Biomass Use**
 - Composting Facilities
 - Bio-char Facilities
- **Carbon Credits**
 - \$ per acre for preservation

Forest Management Plan

CROSS-BOUNDARY COLLABORATIVE FOREST MANAGEMENT

- Planning & Action towards Forest Management

- Community Wildfire Protection Plans
- ALAH 5-Year Plan
- Sterling Strategic Fuelbreak
- Kenai Strategic Fuelbreak
- Nikiski Strategic Fuelbreak
- Soldotna Strategic Fuelbreak
- Homer Strategic Fuelbreak

- Partners & Potential Partners

- Kenai National Wildlife refuge
- AK Division of Forestry
- AK Department of Fish & Game
- US Forest Service
- Chugach National Forest
- Chugachmuit
- NRCS
- Soil & Water Conservation Districts
- Native Corporations
- Private landowners
- Industry Contractors



ORIGINAL SBB RESPONSE FUNDING REQUEST

- KPB submitted a \$35 million funding request to Senator Murkowski in April 2021
 - Not directly funded
- Using this structure to apply for individual grants.

Category	Subcategory	Spatial Scale/ Ownership	Timeframe/ Duration	FY 2022 Costs (thousands)	Total Costs (thousands)	Notes/ comments
Forest Management Plan Update	Contract Forester Consultation	KPB Lands	2 years	\$50	\$150	
	Interagency Partnership	Borough-wide	3 year	\$20	\$60	interagency forest management cooperation
Impact Assessment/ Identification	Remote Sensing/ Analysis	Borough-wide	1 year	\$100	\$100	use new imagery from May 2021
	Site-level survey/ marking	KPB Lands	2 years	\$150	\$300	mark and measure
Public Information	Outreach/ Education	Borough-wide	5 years	\$100	\$500	public outreach, fliers, workshops
Slash Management	KPB Sites	Borough-wide	5 years	\$400	\$2,000	managing public-facing disposal sites
	Solid Waste	Borough-wide	5 years	\$200	\$1,000	offset costs at Landfill
	Innovation	Borough-wide	3 years	\$300	\$2,000	Biochar, etc.
Wildland Fire Response Capacity Building	Equipment/ Training for FD's	Borough-wide	5 years	\$650	\$3,250	cooperate with FDs, VFDs, DOF
	Firecrew prepositioning/ project work	Borough-wide	5 years	\$500	\$2,500	Chugachmiut, and an additional crew?
Utility ROW Clearing	Assistance with severe problem areas	Borough-wide	5 years	\$300	\$3,000	cooperate with HEA, etc.
Roads Mitigation	Hazard tree removal	Borough-wide	5 years	\$400	\$2,000	cooperate with Roads Dept.
Industry Incentives/ Economic Development	Forest products manufacturing incentives		5 years	\$8,000		USFS has grants for innovative uses of forest resources
	Shipping/ Transport/ Logistics support		5 years		\$8,000	Coordinate with KPEDD
Private Landowner Assistance	Firewise Cost-share	Borough-wide	5 years	\$1,200	\$6,000	model after DOF's program, administered by John Winters
	Home Assessments	Borough-wide	5 years	\$50	\$250	firewise assessments, and forest stewardship advice
	Direct Assistance	Borough-wide		?	?	this would require a KPB fire-wise work crew
	Seedlings	Borough-wide	10 years	\$0	\$500	help private landowners re-plant, and give stewardship advice
Municipal Partners/ Pass Through	Resource sharing with cities	KPB cities	5 years	\$1,500	\$3,000	
	Local project funding	KPB cities	5 years	?	?	
KPB Lands	Inventory	KPB Lands	1 year	\$20	\$20	internal inventory
	Harvest Infrastructure	KPB Lands	2 years	\$3,000	\$4,500	roads to resources
	Salvage Harvests	KPB Lands	5 years	\$50	\$250	administrate low-value timber sales to rapidly get wood to markets
	Marketing/ Consultation	KPB Lands	2 years	\$25	\$50	explore international markets
	Maintenance/ Facilities/ Equipment	KPB Lands	5 years	\$200	\$1,000	tree removal around KPB schools, facilities, etc.
	Technical Treatments (contracted)	KPB Lands	5 years	\$500	\$2,500	pay for fuels mitigation on technically challenging parcels (like Tsalteshi)
Reforestation	Research Study (university collab)	Borough-wide	2 years	\$75	\$150	fund some graduate-level research on reforestation outcomes on Kenai Peninsula
	Seed Collection	Borough-wide	2 years	\$50	\$100	pending results from Research Study
	Propogation	Borough-wide	10 years	\$200	\$2,000	outsource this to Canada, Lower 48 facility (or develop in state capacity)
	Site Prep	KPB Lands	10 years	\$0	\$750	pending results from Research Study
	Planting	KPB Lands	10 years	\$0	\$750	pending results from Research Study
Programmatic Administration/ Staff (mini Incident Management Team)	Program Manager	Borough-wide	5 years	\$160	\$800	management background, CEO-type
	Grant Administrator	Borough-wide	5 years	\$120	\$600	Liaison with federal agencies, partners
	Forester	Borough-wide	10 years	\$140	\$1,400	Subject Matter Expert - local knowledge if possible
	Field Techs	Borough-wide	10 years	\$70	\$700	seasonal techs to collect cones, do site assessments, inspect timber disposals, etc.
	GIS Analyst	Borough-wide	5 years	\$120	\$600	inventory, progress tracking
	Administrative Assistant	Borough-wide	5 years	\$100	\$500	Finance/ accountability

Totals:	\$18,750	\$51,280
	2022	overall

FEDERAL FUNDING OPPORTUNITIES

- **Infrastructure Investment and Jobs Act:** Actively pursuing these funding opportunities to support our SBB Mitigation and Reforestation.
- **Grant Exploration**
 - BLM Wood Products & Forest Management \$25,000 per application
 - Forest Inventory and Forest Management Plan – inform our Land Management Plan
 - BLM Fuels Mitigation \$150,000 per application
 - Fuel mitigation projects

STATE FUNDING OPPORTUNITIES

- Capital Improvement Project Funds: SBB Timber Sales & Reforestation
 - The Kenai Peninsula Borough is seeking \$15,950,000 for the mitigation of Spruce Beetles and its effects.
 - 21,000 acres targeted for Timber sales, Technical Fuel Treatments, and/or reforestation

CODE OF ORDINANCES: CHAPTER 17

- 17.08.010 Authority to Dispose of Forest Resources
 - The mayor is authorized to negotiate with private individuals or firms for the **salvage or other harvest of dead and mature timber** of commercial value upon borough-owned or borough-selected lands.
- 17.10.210 Materials and forest resources – commercial quantities
 - The mayor is authorized to negotiate at the current market value the sale of material and forest resources from **lands classified as resource development or resource management.**
- 17.50.010 Forest Management Plan
 - The forest management plan shall include the following: the borough's **most current inventory of forest resources** on borough patented lands and final approved lands.

LEGISLATIVE PROCESS

- Ordinance 2000-50

KENAI PENINSULA BOROUGH
ORDINANCE 2000-50

AN ORDINANCE AUTHORIZING EMERGENCY HARVEST OF SPRUCE BARK BEETLE KILLED TIMBER IDENTIFIED AS REPRESENTING A FOREST FIRE HAZARD AND AMENDING KPB 17.50.060 TO PROVIDE FOR OVER-THE-COUNTER DISPOSAL OF FOREST RESOURCES WHEN NO QUALIFYING PROPOSALS ARE RECEIVED IN RESPONSE TO REQUESTS FOR PROPOSALS FOR BIDS



- New Ordinance Authorizing Forest Management is needed

- Any land classification
- Broad prescription types for multiple management objectives
- Affected areas identified - parcels/ units
- Authorize Timber Sales

- Public Process

- APC Meetings → Planning Commission Public Hearings → Assembly Public Hearings

PUBLIC ENGAGEMENT & MEETING SCHEDULE

2/15	KPB Admin Building	Assembly Meeting Preliminary Project Introduction	Project Presentation
2/18	N/A	Media Release	Public Notice of Project, Engagement, & Meetings
3/2	Kenai River Center	1 st SBB TSs & Reforestation Open House	Presentation followed by Informal Open House
3/9	Kenai River Center	Timber Industry	Presentation followed by Informal Open House
3/16	Kenai River Center	ALAH Spring Meeting	Meeting with Round-robin agency updates and special presentations
3/16	Zoom	Kalifornsky APC Meeting	Presentation and Introduction of Ordinance
3/22	Kenai River Center	2 nd SBB TSs & Reforestation Open House	Presentation followed by Informal Open House
4/11	Zoom	Planning Commission- Drafted Ordinance	Presentation and Introduction of Ordinance with APC input
5/3	KPB Assembly Chambers	Assembly Introduction	Introduction of Ordinance with PC input
Unknown	Zoom	Funny River APC	Ordinance Intro & Hearing
5/4	Zoom	Kalifornsky APC	Ordinance Intro & Hearing
5/5	Zoom	Moose Pass APC	Ordinance Intro & Hearing
5/4	Zoom	Cooper Landing APC	Ordinance Intro & Hearing
5/9	KPB Assembly Chambers	Planning Commission	Ordinance Hearing
5/17	KPB Assembly Chambers	Assembly Hearing #1	Ordinance Hearing
6/13	KPB Assembly Chambers	Planning Commission	Ordinance Hearing
6/21	KPB Assembly Chambers	Assembly Hearing #2	Decision/Action

TIMELINE



Thank you!

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