



Kwethluk Incident Decision

Published
04/26/22 15:33

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1. Decision

1.1. Decision Summary

Decision Information

| NAME | VALUE |
|---------------------------|---|
| Published | 04/26/2022 15:33 CDT |
| Estimated Cost | \$250,000 |
| Incident Owner(s) | Thomas St. Clair, Jeff Bouschor, Stephen Nickel, Nathan Perrine, Phillip Blydenburgh, Ben Seifert |
| Editor(s) | Boyd Blihovde, Lynn Polacca |
| Reviewer(s) | Jeff Bouschor, Nathan Perrine, Phillip Blydenburgh, Thomas St. Clair |
| Approver(s) | Boyd Blihovde, Ben Seifert, Lynn Polacca, Stephen Nickel |
| Natl Preparedness Level 2 | |

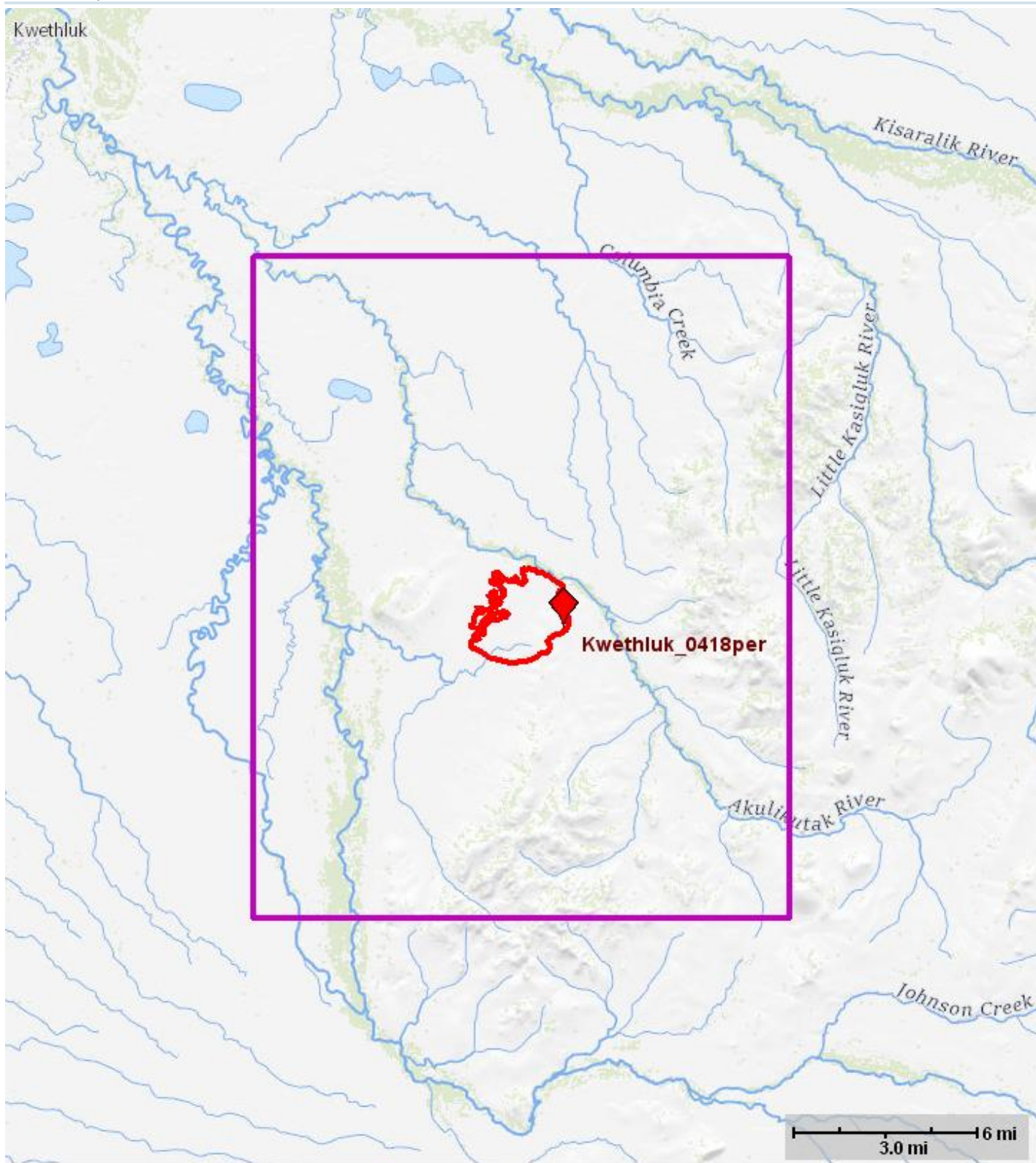
Decision History

| Editor Name | Action | Date (CDT) | Comment |
|----------------------|------------------|------------------|---|
| Nickel, Stephen | Published | 04/26/2022 15:33 | |
| Nickel, Stephen | Approved | 04/26/2022 15:33 | |
| Blihovde, Boyd | Approved | 04/25/2022 18:54 | |
| Blydenburgh, Phillip | Accepted | 04/23/2022 12:57 | |
| Polacca, Lynn | Approved | 04/21/2022 16:30 | |
| Seifert, Ben | Approved | 04/21/2022 16:30 | |
| St. Clair, Thomas | Accepted | 04/21/2022 16:24 | |
| St. Clair, Thomas | Review Requested | 04/21/2022 16:08 | |
| St. Clair, Thomas | Review Requested | 04/21/2022 16:07 | Please review and approve if this meets your needs. I can help with edits if they are needed. -Tom 907-978-0104 |
| St. Clair, Thomas | Created | 04/20/2022 10:49 | |

1.2. Incident Information

Incident Information

| NAME | VALUE |
|------------------------------|---|
| Incident Name | Kwethluk |
| Unique Fire Identifier | 2022-AKSWWS-204012 |
| Responsible Unit Name | Southwest Area |
| FireCode | PKS1 |
| P-Code | |
| Point of Origin | 60.535833N / 160.9125 W |
| Incident Size | 4,014.6acres |
| Latest WFDSS Perimeter Size | 4,105acres |
| Incident Cause | Undetermined |
| Incident Type | Wildfire |
| Incident Discovery | 04/16/2022 12:40 |
| Contained | |
| Controlled | |
| Out | |
| Jurisdictional Unit | AKYDR - Yukon Delta National Wildlife Refuge |
| Jurisdictional Agency(s) | BIA/Tribal, USFWS, ANCSA |
| Geographic Area (prep level) | Alaska (1) |
| Owner Name(s) | Thomas St. Clair, Jeff Bouschor, Stephen Nickel, Nathan Perrine, Phillip Blydenburgh, Ben Seifert |



— Fire Perimeters — Planning Areas ◆ Point of Origin

1.3. Weather

Fire Weather Zone Forecast

000
FNAK52 PAFC 211503
FWFALU
Fire Weather Planning Forecast for Southwest Alaska
National Weather Service Anchorage AK
703 AM AKDT Thu Apr 21 2022
.DISCUSSION...
Cloud cover will increase during the day as low pressure moves eastward. Expect easterly winds to increase, especially through the Bristol Bay area as a front approaches the coast by Thursday evening and further inland Thursday night through Friday. Chances for precipitation will increase with the frontal passage with wetting rains more likely at higher elevations. Downsloping to the lee of the mountains will keep the surface dry with localized gusty winds.
AKZ155-220600-
Kuskokwim Delta-
Including...Bethel...Hooper Bay...Nunivak Island
703 AM AKDT Thu Apr 21 2022
.Inland Areas...

| | Today | Tonight | Fri |
|-------------------|-------------|-------------|--------------|
| Cloud cover | MClear | PCldy | MCldy |
| Precip type | none | none | none |
| Chance precip (%) | 0 | 0 | 0 |
| Temp (24h trend) | 47 (+2) | 35 (+4) | 50 |
| RH % (24h trend) | 41-49 (0) | 70-80 (-11) | 42-51 |
| 20FTWND(MPH) | E 14-21 G29 | E 12-23 G32 | NE 18-23 G31 |
| CWR | 0 | 0 | 0 |
| LAL | 1 | 1 | 1 |

Remarks...None.
.Coastal Areas...

| | Today | Tonight | Fri |
|-------------------|-------------|----------|----------|
| Cloud cover | PCldy | PCldy | MCldy |
| Precip type | none | none | shwrs |
| Chance precip (%) | 0 | 0 | 20 |
| Temp (24h trend) | 43 (+1) | 32 (+3) | 43 |
| RH % (24h trend) | 62-68 (-1) | 87 (-5) | 66-73 |
| 20FTWND(MPH) | E 18-25 G35 | NE 18-22 | NE 17-22 |
| CWR | 0 | 0 | 0 |
| LAL | 1 | 1 | 1 |

Remarks...None.
.FORECAST FOR DAYS 3 THROUGH 5...
.SATURDAY...Mostly cloudy. Lows in the mid 30s. Highs in the upper 40s. Northeast winds around 10 mph.
.SUNDAY...Mostly cloudy. Lows in the lower 30s. Highs in the mid 40s. West winds around 10 mph.
.MONDAY...Mostly cloudy. Chance of rain. Lows in the lower 30s. Highs in the mid 40s. South winds around 10 mph.
\$\$

1.4. Modeling

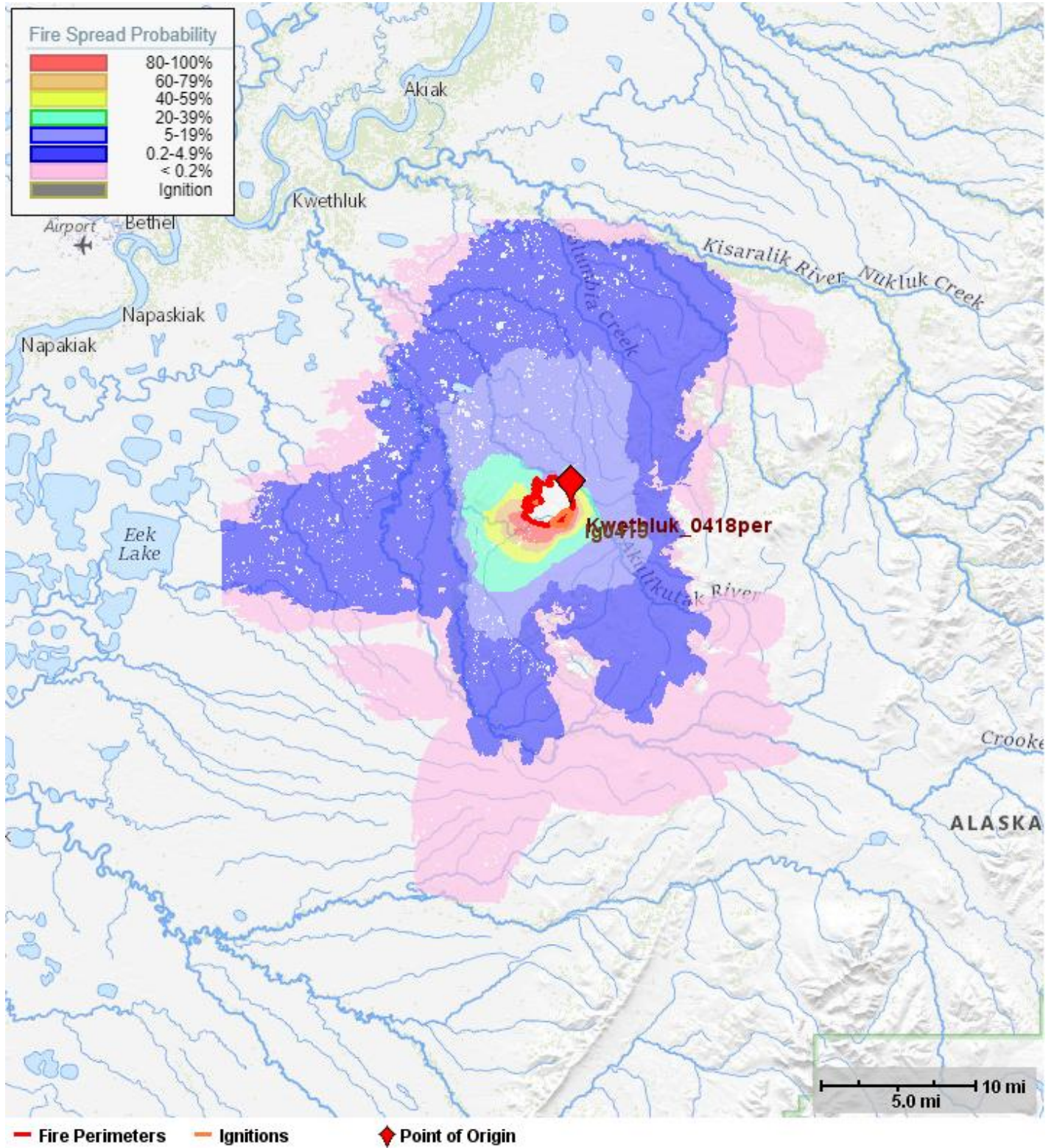
FSPro (0419 7 days Tussock Tundra - Started on 04-19-2022)

FSPro General Information

| NAME | VALUE |
|----------------|----------------------------|
| Analysis Name | 0419 7 days Tussock Tundra |
| Analysis Start | 04/19/2022 |
| Duration | 7 days |
| Simulations | 1000 fires |

| Time (CDT) | User | Note |
|---------------------|---------------------|---|
| 04/19/2022 19:28 | Saperstein, Lisa | Tussock tundra fuel model, 7 day analysis starting 4/19. In earlier accepted model, I changed GR4 (tussock tundra, usually) to GS2 fuel model. If it wasn't tussocky, GR4 was too aggressive. This shows more area with a higher probability of burning during the 7 days. The higher probability area is more similar to the fire spread predicted in the Short Term analysis, accepted earlier which used GS2 rather than GR4. Which FSPro run is more representative will depend on what the fuels actually are- all else was the same as the earlier analysis. Full extent of the lower probability bands to the west probably ends at the larger wetlands. Tried to run the analysis again to capture this, but WFDSS was having issues. Will re-run if new information becomes available. |

[FSPro Analysis '0419 7 days Tussock Tundra'](#)



1.5. Risk

Relative Risk

| NAME | VALUE |
|---------------|----------------------|
| Relative Risk | Moderate |
| Duration | Moderate |
| Saved By | St. Clair, Thomas |
| Completed | 04/20/2022 11:25 CDT |

Relative Risk Notes

Fire could impact multiple values and could persist for weeks. The fire is unlikely to last all summer due to coastal moisture but none is in the forecast. Wind can push the fire across most barriers, the snow on Three Step Mountain and in the woods near the Akulikutak River is a barrier until it melts. Fire is likely to go out in places and persist in others. Growth will be related to wind direction.

Values Notes

The fire has several Native Allotments and a USFWS fish weir within 1-3 miles of the fire. The fire is 30-35 miles southeast of Bethel, AK. The density of values towards Bethel continues to increase. In general away from Bethel the density of values decreases.

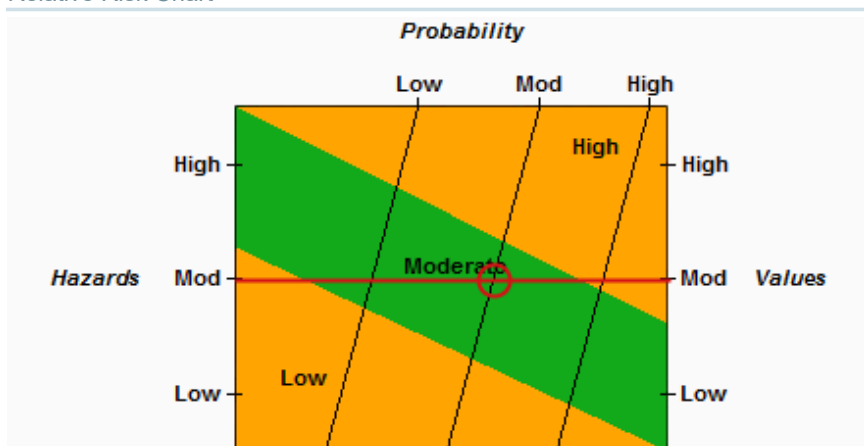
Hazards Notes

This is an early season fire. There is still snow on Three Step Mountain immediately west of the fire and some snow and ice in the rivers/creeks. Grass has not greened up and the lower part of the tussucks may or may not be available to burn. Fuel conditions and snow/ice cover are changing rapidly. The fire is likely to last until coastal rain occurs.

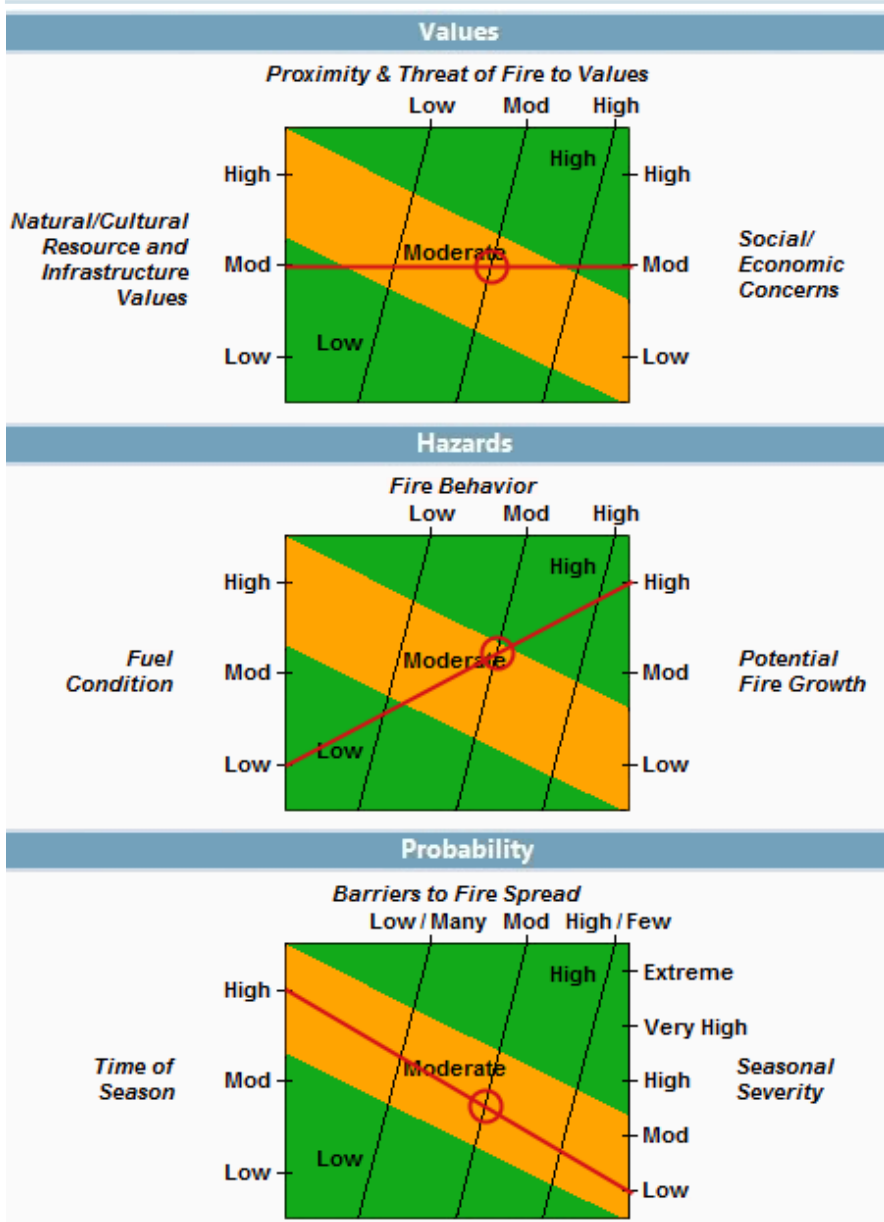
Probability Notes

It is early in the season and there are many creeks and rivers that are small barriers to spread, however, wind can get the fire across most of these barriers. The snow on Three Step Mountain and in the woods near the Akulikutak River is a significant barrier to fire spread which will melt soon. The dead grass and dormant brush would likely extinguish easily with firefighting or a significant rain. The fire is near the coast, so it is not likely to last all summer due to moisture but there is no rain in the extended forecast.

Relative Risk Chart



Relative Risk Inputs



Organization Assessment

| NAME | VALUE |
|---------------------------|----------------------|
| Unit Recommended Org Type | 4 |
| Saved By | St. Clair, Thomas |
| Completed | 04/20/2022 17:24 CDT |

Organization Assessment Notes

The fire is likely to be unstaffed or at a type 4 level with a small number of people.

Relative Risk Notes

Fire could impact multiple values and could persist for weeks. The fire is unlikely to last all summer due to coastal moisture but none is in the forecast. Wind can push the fire across most barriers, the snow on Three Step Mountain and in the woods near the Akulikutak River is a barrier until it melts. Fire is likely to go out in places and persist in others. Growth will be related to wind direction.

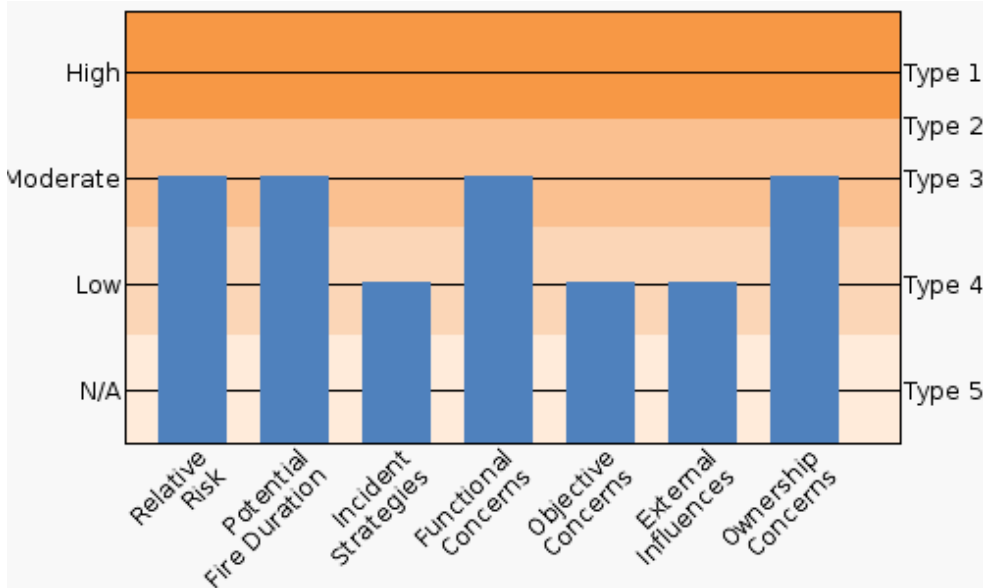
Implementation Difficulty Notes

The fire is not likely to have complex objectives. Periodic surveillance and possibly some suppression action to protect Native Allotments. The fire is likely to go out whenever significant rain occurs though that is not in the one week forecast at this time.

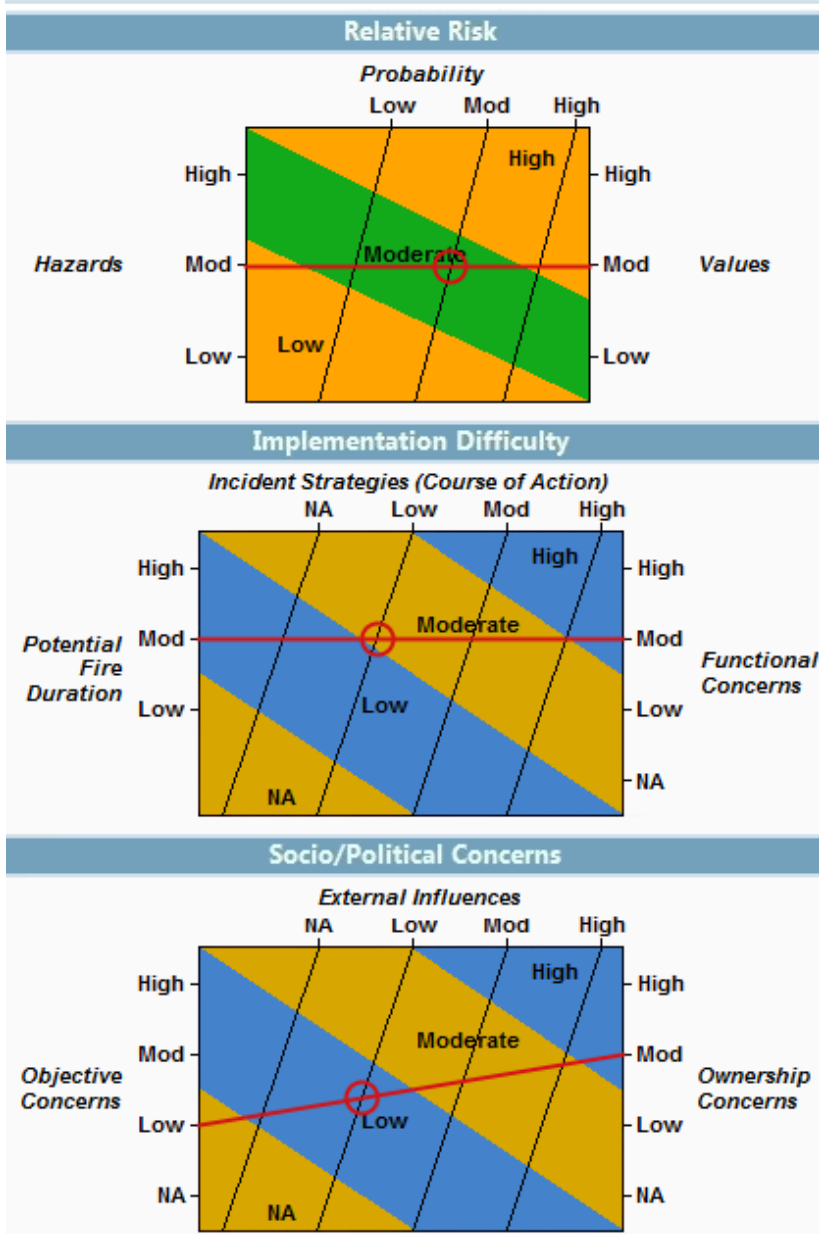
Socio/Political Concerns Notes

Objectives are relatively simple. The fire is on USFWS and ANCSA corporation land at this time and threatens nearby Native Allotments if fire spread resumes.

Organization Assessment Chart



Unit Recommended Org: Type 4



Planning Area Values Inventory Generated at 04/20/2022 10:50

| NAME | VALUE |
|--------------------|------------------|
| Planning Area Name | 04/26/2022 15:33 |
| Incident Name | Kwethluk |
| Planning Area Size | 241,968 acres |

| Category | Value | Data Source | Currency | Coverage |
|-------------------------------|---------------|-------------------------------------|------------|------------------------|
| Building Clusters: Bethel, AK | no data | Various | Various | Available counties |
| County: Bethel, AK | 241,968 acres | US Census Bureau - TIGER | 01/20/2022 | National |
| Landowner Category: ANCSA | 63,020 acres | PAD-US 2.0, AICC, BIA/WFDSS, Census | 10/09/2020 | National |
| Landowner Category: BIA | 2,434 acres | PAD-US 2.0, AICC, BIA/WFDSS, Census | 10/09/2020 | National |
| Landowner Category: Private | 640 acres | PAD-US 2.0, AICC, BIA/WFDSS, Census | 10/09/2020 | National |
| Landowner Category: USFWS | 175,780 acres | PAD-US 2.0, AICC, BIA/WFDSS, Census | 10/09/2020 | National |
| Responsible Agency: State | 241,968 acres | Various | 03/15/2022 | AK, CA, ID, MT, NM, MN |

Coverage of Values Queried that Produced No Results

BLM Buildings (National), BLM Horse and Burro (National), BLM Oil / Gas Leases (National), BLM Range Allotments (National), Campgrounds (National (BLM and USFS only)), Class 1 Airsheds (National), Communication Towers (National), Electric Power Plants (CONUS, AK, HI, Puerto Rico, Guam, N. Marian Islands, and US Virgin Islands), Electric Sub Stations (CONUS, AK, HI, Puerto Rico, Guam, N. Marian Islands, and US Virgin Islands), Electric Transmission Lines (CONUS, AK, HI, Puerto Rico, Guam, N. Marian Islands, and US Virgin Islands), Est Ground Evac Time (CONUS), Estimated Population (CONUS, AK, HI, PR), Habitat (National), IRA (National), Mines (National), NPS Buildings (National), NRA (National), Natl Historic Trails (National), Natl Recreation Trails (National), Natl Scenic Byways (National), Natl Scenic Trails (National), Natl Wild Scenic Rivers (National), Oil and Gas Pipelines (National), Other Areas (National), Ozone Non-Attainment (National), Particulates Non-Attainment (National), Protecting Unit (AK, CA, ID, MT, NM, MN), Roads (National), Sage Grouse Habitat (National), TNC Lands (National), USFS Buildings (National), USFS Trails (CONUS, AK, PR), USFWS Trails (CONUS, AK, HI, PR), WSA (National), Wilderness (National)

1.6. Objectives

Incident FMU/Strategic Objective Code List

| Unit | FMU/Strat Obj Code | Acres |
|-------|--|---------|
| AKAKA | AKAKA - Native Allotments | 2,434 |
| AKCAN | AKCAN - Calista Corporation | 27 |
| AKDNS | AKDNS | 640 |
| AKVLN | AKVLN - ANCSA Village Corporation | 63,041 |
| AKYDR | AKYDR - Yukon Delta National Wildlife Refuge | 175,826 |

Spatial Fire Planning Inventory

| Category | Value | Data Source | Currency | Coverage |
|-------------------------------|---------------|--------------------------------|------------|-------------|
| AK Fire Mgmt Options: Full | 61,725 acres | Alaska Interagency Fire Center | 06/04/2021 | Alaska Only |
| AK Fire Mgmt Options: Limited | 180,149 acres | Alaska Interagency Fire Center | 06/04/2021 | Alaska Only |

Incident Objective List

There are no Incident Objectives.

Incident Requirement List

There are no Incident Requirements.

Strategic Objective List

| Unit | Shape/FMU | Activated | Strategic Objective |
|-------|----------------------|------------|---|
| | AK Fire Mgmt Options | 04/24/2019 | <p>"AIWFMP Full Fire Management Option</p> <p>The default initial action is to mobilize resources to protect the area and/or sites and suppress the fire without compromising public or firefighter safety. Initial action priorities are to:"</p> <ol style="list-style-type: none"> 1. Protect human life. 2. Protect qualifying sites and natural resources from damage by wildfire. 3. Contain fires at the smallest acreage reasonably possible in order to limit short and long-term threats to values. |
| | AK Fire Mgmt Options | 04/24/2019 | <p>"AIWFMP Limited Fire Management Option</p> <p>The default initial action is to conduct surveillance, assessment, and site protection as warranted. Initial action priorities are to:</p> <p>"</p> <ol style="list-style-type: none"> 1. Protect human life. 2. Protect qualifying sites and natural resources from damage by wildfire. 3. Allow fires to burn naturally to the extent possible in order to protect, maintain, and enhance natural and cultural resources and maintain natural fire regimes. |
| AKAKA | <Unit> | 07/02/2015 | Protect Native Allotments from fire and suppression activity impacts. |
| AKYDR | <Unit> | 06/02/2015 | <p><u>Yukon Delta Refuge Fire Management Plan</u></p> <ul style="list-style-type: none"> • Protect human life, settlements, sensitive biological communities, cultural and historic sites, native allotments, privately owned and permitted cabins, and refuge administrative facilities and equipment (Refuge FMP pg 24) • Restore, perpetuate, and protect native wildlife species and habitat by maintaining a diversity of plant communities (pg 25) • Maintain fire-related ecological processes to the maximum extent feasible (pg 25) |

Management Requirement List

| Unit | Shape/FMU | Activated | Management Requirement |
|------|----------------------|------------|---|
| | AK Fire Mgmt Options | 06/04/2021 | <p>Alaska Interagency Wildfire Management Plan Statewide Management Requirements</p> |

| Unit | Shape/ FMU | Activated | Management Requirement |
|----------------------|---------------|-----------|---|
| | | | <p style="text-align: center;">AIWFMP Statewide Management Requirements</p> <ul style="list-style-type: none"> • Weigh the cost and environmental impacts of suppression actions against the value of resources warranting protection. Consider risk to firefighters and the public in all fire management decisions. • To the extent possible, minimum impact suppression tactics should be used. Firelines will be constructed in a manner that minimizes erosion and will follow natural contours wherever possible. Indirect attack will be used to the extent practical. A suppression repair plan for wildfire suppression activity damage, as approved by the Jurisdictional Agency(ies), must be completed before the final demobilization occurs. • Jurisdictional Agencies will be made aware of all support areas such as camps, staging areas, and helispots located on their lands. • If a game animal is killed in defense of life or property (DLP) on an incident, an Alaska Department of Fish & Game (ADF&G) DLP report will be filed and Jurisdictional Agencies will be notified. • Base camps, spike camps, helispots and other support areas should be located in natural clearings if possible. The construction of helispots should be minimized. Any opening created for support areas will be cut with an irregular perimeter. Such areas will be kept clean so as not to attract animals and will be cleaned up before departure of the last suppression personnel. • Support areas on private lands or Native Allotments require a land-use agreement. No resources (e.g. firewood) will be removed from private lands or Native Allotments without an approved agreement. Agreements involving Native Allotments must be prepared by the BIA or the local BIA service provider. • The use of tracked or off-road vehicles requires approval by the Jurisdictional Agency(ies) prior to use. • When withdrawing water from a fish-bearing stream with portable pumps, scooper aircraft, or aerial buckets; or when crossing it with a vehicle or heavy equipment, comply with the stipulations and notification requirements in the ADF&G statewide <i>Fish Habitat Permit FH20-SW-0001 Amendment 1</i>. • Protecting and Jurisdictional Agencies will coordinate with state land managers if wildland fire or wildland fire management activities have the potential to affect public access to public waters or impact state resources. Protecting and Jurisdictional Agencies will coordinate if wildland fire or wildland fire management activities may result in fire area public access closures or may adversely impact values at risk. • Take measures to prevent the introduction and spread of terrestrial and aquatic invasive species during fire operations. Waterbodies known to harbor invasive species will not be used as dip sites unless needed to protect property or life. If used, equipment will be cleaned and sanitized before its next use. Communicate concerns, questions, and needs regarding invasive species to jurisdictional resource advisors in a timely manner. |
| AK Fire Mgmt Options | 06/04/2021 | | <p style="text-align: center;">Alaska Interagency Wildfire Management Plan Statewide Management Requirements</p> <p style="text-align: center;">AIWFMP Statewide Management Requirements (continued)</p> <ul style="list-style-type: none"> • Application of aerial fire retardant near lakes, wetlands, streams, rivers, and sources of human water consumption or areas adjacent to water sources should be avoided. A minimum of 300 feet is identified in the <i>Interagency Standards for Fire and Fire Aviation Operations</i> (Red Book). Individual Jurisdictional Agencies may have more restrictive retardant use guidelines. • Suppression activities including flight patterns on or near cultural sites or sites designated as "Avoid" must be coordinated with the Jurisdictional Agency. • Jurisdictional Agencies should be consulted concerning any operational restrictions in designated wilderness areas. • Jurisdictional Agencies will communicate planned fuels treatment locations to incident management organizations for consideration when locating firelines. • Wildland firefighters will not take direct suppression action on structure, vehicle, dumpster, trash, or landfill fires. Structure, vehicle, and landfill fire suppression is not a functional responsibility of wildland fire resources. These fires have the potential to emit high levels of toxic gases. Wildland firefighters who encounter structure, vehicle, or landfill fires will not engage in direct suppression action. Structure protection (not suppression) activities will be limited to exterior efforts, and only when such actions can be accomplished safely and in accordance with agency policy and established wildland fire operations standards. |

Management Requirement List

| Unit | Shape/ FMU | Activated | Management Requirement |
|-------|---------------|------------|--|
| | | | <ul style="list-style-type: none"> Any discovery by firefighters of potential unexploded ordnance (UXO) or other potentially hazardous materials (e.g., mining sites) will be immediately reported through proper channels. Firefighters will remain clear of the area until the threat has been evaluated and mitigated. |
| AKAKA | <Unit> | 07/13/2015 | Provide BIA and/or compact provider with documentation of impacts to Native Allotments caused by fire or fire suppression actions. |
| AKAKA | <Unit> | 07/13/2015 | Ensure BIA and/or compact provider is kept informed regarding strategy, risks, and progress on incidents involving Native Allotments. |
| AKAKA | <Unit> | 07/09/2020 | Native Allotments fall under the jurisdiction of the Bureau of Indian Affairs. Titles to these land parcels are held by individual or groups of Native Alaskans. The lands are very similar to private land, but have a restricted status. The restricted status is the same as trust status except that the title is held by the Allottee with restrictions against taxation and alienation. It means that the Federal Government is responsible for maintaining these lands in perpetuity for their Native owners. Protecting Native Allotments and the Trust Resources on the Allotments from wildland fire and wildland fire suppression impacts is a part of the Federal Government's maintenance trust responsibility. |
| AKVLN | <Unit> | 05/29/2015 | Ensure Village Corporation is kept informed regarding strategy, risks, and progress on the incident. |
| AKYDR | <Unit> | 06/02/2015 | <p><u>Yukon Delta Refuge Fire Management Plan</u></p> <ul style="list-style-type: none"> The use of aerial retardant for anything other than an immediate threat to life must be authorized by the Refuge Manager. Heavy equipment use on FWS lands requires agency administrator approval. (pg 32) |
| AKYDR | AKYDR | 06/09/2017 | <ul style="list-style-type: none"> Provide timely and accurate fire information to the Manager or FMO as fire conditions warrant. <i>Coordinate dissemination of fire information including smoke forecasts to the public and press with the Refuge Manager and/or FMO.</i> |

1.7. Course of Action

Course of Action

| Active | Inactive | Action Item |
|------------|----------|---|
| 04/26/2022 | | Conduct periodic fixed wing aerial surveillance. If available utilize infra-red technology. |
| 04/26/2022 | | Ensure the availability of initial attack firefighters through the weekend in case the fire comes back to life with forecast wind. |
| 04/26/2022 | | Staff the fire if it comes back to life and there is a path for the fire to burn Native Allotments or other values at risk in the area. |

1.8. Cost

Estimated Final Cost

| NAME | VALUE |
|----------------------|----------------|
| Estimated Final Cost | \$250,000 |
| Method(s) Used | Historic Costs |

Comments

The fire will likely cost somewhere between 60,000 and 250,000 dollars depending on whether it needs to be staffed. The majority of cost is aviation related.

1.9. Rationale

4.20.2022

Decision Approvers for this fire are: BLM-AFS for the financial approval and as the jurisdictional representative for ANCSA Corporation land, Alaska DNR for the fire protection and as the jurisdictional representative for private lands in the planning area, USFWS as the jurisdictional representative for Refuge Lands, and BIA as the jurisdictional representative for Native Allotments in the planning area.

Our decision is to conduct periodical aerial surveillance of this fire and take suppression action to protect Native Allotments and any other values at risk if needed based on any activity noted. Information from infrared camera in the surveillance airplane and views from Airport web cameras at Bethel, Kwethluk, Napakiak, and possibly other locations may also be used to see fire activity. This is an early season fire in dead grass and brush with some snow barriers (notably in the Akulikutak river and forested area nearby as well as on top of Three Step Mountain. It grew to approximately 4,000 acres over a three day period from April 16-18, but did not show large growth on the 19th. The fire is very close to the coast and the region generally receives a lot of precipitation but there is none in the forecast. The fire has likely gone out along much of the perimeter but it has shown us that it can survive through the night in pockets through high RH recovery. Days with dry winds have allowed the fire to spread across the landscape and if they occur, they will test the fire.

At this time, we believe there is a high chance that the fire will not reach values at risk and thus does not justify the risk to firefighters associated with taking action. If the fire becomes active again we believe that a small type-4 organization will be sufficient to protect the values at risk.