Shovel Creek Fire

AK-FAS-911319

June 24 – July 2, 2019

ALASKA
INCIDENT MANAGEMENT
TEAM

Incident Commander Norm McDonald

This page intentionally left almost blank.

Contents

Incident Objectives

Throughout most of the IMT's tenure on the fire, the incident objectives were to:

1. Provide for firefighter and public safety through sound risk management, implementation of mitigations, and clear understanding of assignments and associated hazards.

2. Protect known values including primary residences and private property in Martin, Lincoln, Murphy, Perfect Perch, and McCloud subdivisions, cabins and residences along Chatanika River Corridor, DOD infrastructure on Murphy Dome, and native allotments to the west.

3. Implement suppression operations to contain the fire East of Hardluck Fire Scar, South of Chatanika River, and North and west of primary sheerblade and dozer line from Murphy Dome to Chatanika River.

4. Work with cooperators including Chena-Goldstream Fire Department, Fairbanks North Star Borough Department of Emergency Services, Alaska State Troopers, State Parks, and Division of Forestry to develop long term strategic plan for incident including evacuation planning areas and management action points for implementation.

5. Enhance community, cooperator and stakeholder relationships through timely exchange of accurate information.

6. Provide support for initial attack within the incident planning area.

7. Assess, inventory, and collect data to validate and update Alaska Known Sites Database (AKSD).

8. Ensure cost containment measures are identified, applied, and documented. Integrate cost accountability into every decision.

Incident Overview

1. **Incident Acres**
   Estimated at 10,006 acres as of July 3rd. All estimates are done via a recon flight and satellite imagery.

2. **People assigned**

   677 as of July 2nd ICS 209; includes 17 Crews, 7 Helicopters, 17 Engines, 12 Dozers, and 11 Water Tenders.

3. **Situation**

- The Shovel Creek Fire was reported on June 21st at approximately 17:00
- An order for a Type 2 IMT was placed an hour later at approximately 18:00, due to the shortage of state-wide resources and proximity to values at risk.
- It was predominately burning mostly in black spruce.
- The cause of the fire was lightning.

- The fire is burning roughly 20 miles northwest of Fairbanks, AK. Smoke has been very visible from town, and has reduced visibilities and affects air quality in the Fairbanks area.
- Due to the predicted weather, the fire is expected to continue to grow. Several subdivisions are located south of the fire, and additional subdivisions located southeast of the fire in the Goldstream Valley north of Fairbanks.
- There is a large mechanical fuel break between the fire and most values put in place 10 years ago. This feature serves as the primary containment line at this time and is critical to keep the fire outside of communities.
- On the afternoon of June 29th, crews on the east side of the fire abandoned lines due to fire behavior and spotting. The fire grew to the east by 6000 acres that evening and evacuations were recommended for several subdivisions around midnight.
- An order was placed for a Type 1 IMT the morning of June 30th.
- PNW 2 Type 1 Incident Management Team took command of the incident at 07:00 July 3rd.

Fire Weather

Weather has been dry and abnormally hot with near record temperatures being dominant the last two weeks. A cold front has brought 0.31" of rain to the nearby Chatanika RAWS Sunday 6/30, however, upper ridging quickly returns to the region. Temperatures will return to near record values in the lower 80s by Friday July 5. There do not appear to be any significant wind events heading into next weekend, however, there is a significant local feature to note. The Chatanika River valley, located on the north end of the incident, runs approximately 70 miles east of the fire area. It is somewhat narrow for the length of the fetch. Under sunny skies during this time of year, it is very common for up-valley winds to gust at 20-30 mph along the river bottom and intersecting lower spur ridges.

Fire Behavior

Fire behavior was driven by fuels. Continuous stands of black spruce, where present, supported continuous crowning and spotting runs under the right weather conditions. Other fuel types (tundra, mixed deciduous/conifer, white spruce, old burns) were much less receptive to fire.

Weather conditions of >70F, >10mph wind, and <35% humidity were associated with the significant fire growth days, and most fire growth tended to happen between 1700-2200 hrs.

Coordination with Predictive Services analyst group, both in orienting team FBAN to the CFFDRS system for evaluating fire risk and predicting fire behavior and in providing long term assessment products to inform decisions.

Bringing in a dedicated IMET dramatically improved the quality and reliability of weather and fire behavior information provided to the team.

Net connectivity – both the FBAN and IMET struggled with web connectivity to complete our assignments. This is an unfortunate side effect of using the CFFDRS Fire Behavior System for forecasts,

as all the tools are web based. This issue should be resolved when the incoming team moves ICP into town.

Command

Incident Commander

Key Decisions:

- Decision to stand up the Alaska Green IMT while the Black IMT was assigned to the Swan Lake Fire. Rostering a long team proved challenging but with L-48 orders to fill key gaps the long team had a nearly full roster. The ability to staff two Type 2 incidents simultaneously was a goal of the AK IMT's.
- Switching from a primary tactic of direct attack suppression to a hybrid of direct and indirect suppression to keep the fire from moving to the east and south. Decision was made to provide for a safer working environment for firefighters and had the highest probability of success.
- Although not an IMT decision, it should be recognized that the decision to put a fuel break in behind the McMurphy ridge subdivision proved critical to the team's success defending structures.
- Ordering a Type 1 Team due to the span of control the Alaska IMT was facing with expanding theater of operations. Alaska IMT tasking becoming saturated while dealing with operations requiring multiple divisions and groups spread out over a large geographic area. Potential for large fire growth, additional evacuations, and the social/political consequences were the primary drivers.
- Ordering the Alaska National Guard to staff hard closers and check points was made to release Alaska State Troopers during the holiday weekend. Guard units came with staff to provide 24/7 coverage for five check points. With the Level 3 evacuation, the security of vacated homes was paramount to maintaining the trust of the residence.

Human Resources:

There was no Human Resource Specialist assigned to the incident. There were no reported HR issues.

Safety

Summary

This team arrived with one team safety officer on 06-24-2019. Additional safety officers added as incident complexities required. A total of 4 SOFR, 1 SOF2 and 1 SOF2 (t) were assigned. Major hazards included civilian vehicle traffic, civilians impacting Murphy Dome Staging Area, boat operations, limited safety zones. Significant fire behavior and rates of spread necessitated a defensive posture on 06-26 and 06-29 with evacuations of the fireline on each occasion. A possible near mid-air collision occurred on 06-29-19 and will have a Safecom generated by Hugh Carson (AOBD).

Notable Successes

A significant hazard existed with civilian traffic conflicting with low level helicopter operations and heavy equipment traffic at Murphy Dome Staging. This was mitigated on 06-26-19 by creating a soft closure with a safety officer posted below the entrance to this site.

Significant Challenges and Resolutions

River only access to Chatanika residents, recreational cabins and properties. Safety mitigations for associated hazards related to river travel included vendors in possession of US Coast Guard (USCG) License. These criteria were established, only to be deviated from if no other options existed and fire suppression and safety objectives were in jeopardy without use of proper boats. Hiring local boat operators with knowledge of the Chatanika River was also priority for safety reasons. Additional safety measures included weighing and manifesting all passengers and cargo and requiring use of PFDs by all boat operators and passengers.

See Medical Unit Summary for reportable lost time injuries & illness, injuries without lost time, patient contacts, and medical transports.

Liaison

- Cooperators' meetings: 6
- Daily attendance: 15 (avg.)
- Evacuation Alerts: 4

Key Decisions

The Alaska Incident Management Team staffed the LOFR (fully qualified) position with the Deputy PIO2 to enhance cooperator and stakeholder relationships through coordinated exchange of accurate information. Sharing the responsibilities of Deputy PIO2 and LOFR also helped the Alaska Incident Management Team work with cooperators to develop and successfully implement an evacuation plan for affected residents.

Significant Events

The Alaska Incident Management Team held cooperators' meetings daily beginning on June 26, 2019. The purpose of the meetings were to develop a shared operating perspective of the incident and discuss any issues, concerns, or upcoming activities that could affect mutual success in meeting the incident objectives. The meetings were well attended by a diverse representation of cooperators.

- **Evacuation Plan**
  The Alaska Incident Management Team worked in close coordination with Fairbanks North Star Borough to develop the Shovel Creek Fire Evacuation Plan. The framework of the plan defined a process for clear communication and execution for the orderly movement of residents out of the fire area.

- **Discretionary Resources**
  Through productive discussions held during the cooperators' meetings, the Alaska Incident Management Team assisted with defining the needs, roles, and procedures for integrating critical, non-assigned resources to assist in providing for life safety.

- **Infrastructure**
  Facilitated discussions held at the cooperators' meetings led to the identification of values at risk from the Shovel Creek Fire. In addition to the point protection measures managed by the incident management team, the Community Emergency Response Team (CERT) assisted with gathering additional information about structures/residents in affected communities. Utility providers conveyed critical information about existing utilities within the fire area; including locations of power lines, communication sites, and gas pipelines. Emergency procedures for maintaining continuity of operations of known utilities were shared and documented. Cooperators also identified critical information for maintaining railroad operations, as well as the providing a safe road system for firefighters and the public through road maintenance and signage.

- **Public Safety**
  The Alaska State Troopers assisted with the execution of a Level 3 (GO) evacuation and staffed traffic control points (TCPs) until relief support from the Alaska National Guard arrived. The Alaska State Troopers (and other local law enforcement agencies) also provided an increased presence/patrol of the fire area, and a process for reporting suspicious activity.

- **Alaska National Guard**
  The mission ready package (security) soldiers provided staffing for traffic control points surrounding the area affected by a Level 3 (GO) evacuation alert. The Alaska National Guard also played a critical role in the development and execution of an orderly and accountable limited re-entry process for those residents displaced by the Level 3 (GO) evacuation alert.

Notable Successes

All of the Significant Events were Notable Successes. The highly professional cooperators involved in the Shovel Creek Fire addressed and resolved vital needs in a rapid fashion. The coordination between the cooperators and the Alaska Incident Management Team addressed all of the incident objectives, fostered and strengthened relationships, and created opportunities for future success at the conclusion of this incident.

Of particular note during the incident was the Alaska DOT representative for quickly responding to identified needs throughout the incident with exceptional professionalism. Also noteworthy was the commitment and engagement of the CERT volunteers. They engaged to support their community, yet remained respectful of the operational activity and tempo.

Challenges and Resolutions

There were no significant challenges during this incident. However, this incident highlighted the opportunity for further developing the successful plans and relationships formed as a result of the incident.

Information

Significant Events

- Utilizing PIO2 Chris Barth to serve as both Deputy PIO and LOFR.

- Working closely with FNSB Emergency Manager, David Gibbs, to coordinate live streaming of the public meetings on the FNSB Emergency Operations Facebook page, which increased their page followers by a notable amount (approximately 500% from nearly 1000 at the start of incident to over 5000 on July 2nd).

- Lorna Illingworth's CERT team of local volunteers served as force multipliers for the information unit, most notably during the process of implementing the Level 3 just before midnight on June 29. CERT team provided door to door support during the June 28 Level 2 "Set" notification process. The team provided additional information sign boards, the sound system for the community meetings, and overall community outreach.

- The information unit worked as a part of the LOFR's collaboration with the RSA Mission Ready National Guard Security Teams to implement the S.C.E.A.P (Shovel Creek Emergency Access Plan) providing evacuees opportunities to collect more valuables after a late night evacuation notice.

- Use of dedicated personal WiFi devices to ensure the timely dissemination of daily update emails, photographs, and videos to meet agency and incident objectives.

Significant Events

- Rapid and very visible fire growth in the first hours of the lightning strike on June 21 left the numerous homeowners very concerned. The Murphy Dome area has a long and storied fire history, and the local population is very well educated and aware of the potential for rapid fire growth.

- Concerns of the citizens were mitigated by a dedicated information phone number, timely updates on Inciweb, social media (akfireinfo.com and Facebook), the trap line, and two well attended community meetings.

- Level 2 evacuation orders were issued on June 28th for Lincoln Creek and on June 29th for Martin, Perfect Perch, McCloud and Murphy Subdivisions

- Level 3 evacuation orders were issued on June 29th late in the evening for Martin and Perfect Perch Subdivisions.

Operations

Strategic Direction and Course of Action

Initially had responsibility for two additional fires (301 and 323). Fire 323 was turned back to the local unit on Saturday July 29th. This improved span of control as the team was able to focus singularly on 319.

Full suppression strategy was implemented to protect communities and other values at risk utilizing a combination of direct and indirect tactics. The fire was burning in remote, rugged terrain with limited

access. Weather was hot and dry with several episodes of lightning producing thunderstorms in the previous days. Overall strategy was to keep the fire South of the Chatanika River drainage, West of the Murphy Creek drainage/handline, North of the Murphy Dome road/fuel break and East of the Hard Luck Fire scar. Primary line on the southern edge is the Murphy Dome Road fuel break which was constructed approximately 10 years previous. The fire is holding to the West in the old burn scar. After an evening of wetting rain the fire has not moved. However, it is anticipated to move after several days of predicted drying. This chosen strategy minimizes the risk to incident personnel while protecting values at risk by attempting to control the fire where chances for success are highest and risks to personnel are lowest.

While maintaining a full suppression strategy we used direct and indirect tactics with the goal of preventing the fire from crossing the established control lines and threatening the VARs. Concurrent with these actions we engaged in tasks that increased our ability to avoid or minimize damage to lands near values at risk. In support of the full suppression strategy we propose utilizing ground and aerial ignitions as appropriate to help secure the perimeter as the main fire continues advancing. Using the fuel break on the southern border has the highest priority due to the proximity of the main fire to control lines and the close proximity to VARs.

Successes include looking for and implementing opportunities that had the highest probability of success while minimizing the final fire size and reducing severity. Support and interaction with local agency was outstanding. Providing IA support to the local area. Developing relationships with the local fire departments and including them as discretionary forces in time of need.

Set Management Action Points immediately and utilized them effectively when fire reached MAP's. Quickly and efficiently evacuated two subdivisions threatened by active fire behavior.

PACE Planning

Primary Strategy:

Initially, direct attack appeared to be worth a good effort. Initial attack resources were able to keep the fire in check in the Shovel Creek drainage with heavy air support. As more crews arrived they were inserted to aid in direct attack and structure protection. Firing operations were successful along the Seven Mile Trail ridge from H15 to the south and then west to the Hard Luck fire scar. Unfortunately, at the north end, crews struggled trying to go direct down to the Chatanika River. High temperatures along with dry fuels and a moderate west wind pushed the fire to the east out of the Shovel Creek drainage. Inability to go direct due to heavy black spruce fuels hampered efforts to contain numerous spots east of the Seven Mile Ridge. Tactical air support has been increasing as the competition for resources has slowed. Initial attack remains high.

Secondary Strategy:

A change of strategy occurred Sunday June 30 when the Team went to an indirect strategy. A good anchor point has been established between the Hard Luck fire and Murphy Dome. Crews are improving the shear blade line (primary) as well as advancing line under the McCloud subdivision down to the Chatanika River utilizing dozers and crews. Alternate 1 line in Murphy Creek has been identified, scouted, and improved with minimal saw work and looks to be a good holding feature. Currently, crews are working on the Primary as well as Alternate 1 lines. Additionally, a dozer line from the radio antennae down to Murphy Creek has been established.

Point Protection Strategy:

Multiple subdivisions to the southeast and east of the fire have been prepped for structure protection. A lack of water-handling equipment has slowed progress. However, the Martin, Lincoln and Perfect Perch subdivisions are complete with defensible space, pumps, hose, and sprinklers. A Structure Protection Plan is in place. McCloud and Murphy subdivisions are being prepped contingent on availability of sprinkler kits and fold-a-tanks. Further out, subdivisions have been identified and catalogued in the Alaska Known-Sites database. Plans for structures further to the east and south need to be assessed for structure protection. Management action points have been identified and established in WFDSS with criteria and recommended actions. Currently Martin and Perfect Perch are under a 'Go' evacuation. Lincoln, Murphy and McCloud are in a 'Set' evacuation level. All others are in a 'Ready' state.

Structures along the Chatanika River corridor are mostly recreational cabins with a few full time residences. The structures closest to the fire have been assessed and are in varying degrees of complete structure protection. Prioritization of water-handling supplies has been to the full-time residential communities to the south.

The current indirect strategy has a high probability of success if adequate time remains to complete the line on the east side.

Air Operations

At height of incident had 7 helicopters: two Type 1, three Type 2, two Type 3, including a rappel module. Fixed wing available for use were 8 fire bosses, 2 water scooping CL-415, 4 heavy air tankers and 2 Canadian Government CL-215s. There were three attack platforms assigned to the incident. From the 24th of June to the 2nd of July, 106,241 gallons of retardant, 504,767 gallons of water and 5,991 gallons of Blaze Tamer were dropped on the fire. Additionally, the helicopters delivered 54,998 pounds of cargo and supplies to the fireline along with 146 passengers flown. 2 Helibases were used during the incident, AFS's helibase at Ladd field and a gravel pit located in Fox.

Three Air to Ground and three Air to Air frequencies were required during the incident allowing air attack to maintain situational control.

Maintained a safe working environment with the numerous aircraft and personnel on site.

Planning

Summary

The incident operational period ran from 0700-2300, with a 0800 Operational Briefing. Briefings were delivered to field personnel via radio from Incident Command Post (ICP). Incident Action Plans (IAP) were delivered both in paper and electronically via QR code. The daily planning cycle was as follows:

0730 Pre-ops briefing
0800 Operational Briefing
0900 Projections
0945 Alaska Weather
1030 IC/AA Call
1100 Cooperators Meeting
1200 C&G
1630 Tactics
1700 Planning
2000 C&G

Personnel, Fire Growth, and Evacuation Statistics

SHOVEL CREEK FIRE #319 - INCIDENT STATUS				# of Residences at Evacuation Level		
Date	Fire Size	Personnel Assigned	% Contained	Level 1 "READY"	Level 2 "SET"	Level 3 "GO"
6/24/2019	588	170	0	0	0	0
6/25/2019	908	237	0	175	0	0
6/26/2019	1622	345	0	175	0	0
6/27/2019	2307	446	0	175	0	0
6/28/2019	3424	517	0	135	40	0
6/29/2019	5568	550	0	0	123	52
6/30/2019	10639	560	0	0	123	52
7/1/2019	10008 *	605	8	0	123	52
7/2/2019	10008	667	8	0	123	52

**Decrease in acreage due to better mapping on 7/1/19*

Training

- Training Specialist (TNSP) ordered to assist with ordering/tracking trainees utilizing the Host Agency and National Priority Training Programs.
- TNSP worked directly with AK GATR to identify local and national priority trainees.
- Trainee ordering protocols drafted and approved related to this incident. Document is located on Drive I.

- TNSP Daily Roles and Responsibilities developed to support TNSP assignment. Document is located on Drive I.
- TNSP receives daily the updated Priority Trainee Available for Alaska and National Program.
- TNSP entered and updated trainee data in the Shovel Creek Incident ESuite database.
- As of 7/2/19, we have 66 trainees assigned to the Shovel Creek fire. Twenty-two trainees have checked in with TNSP. Seven of the 22 are Priority Trainees, 5 Alaska-2 National.

Agencies represented and number of personnel:

- State of Alaska-1
- Alaska Division of Forestry- 17
- Nevada Division of Forestry- 1
- Bureau of Land Management- 15
- USDA Forest Service- 25
- Washington DNR- 1
- City of Kennewick, WA- 1
- Department of the Interior- 1
- Pennsylvania Dept. of Conservation and Natural Resources- 1
- King County, WA- 1
- US Fish and Wildlife Service- 1
- Douglas County, CO- 1

Logistics

Summary

Notable Successes

- Blending out of state resources with local knowledge.
- 11:30 logistics phone with Darlene, Barb and Jack call was very beneficial.
- Having a Caterer at ICP (this save time and cut down on more unnecessary travel).
- The warehouse staff was great; if they had it we got it.

Notable Challenges

- The buying team was two days behind, this created a large backlog of local purchases.
- The unavailability of supplies was a huge issue. The large fire season created a backlog of supplies.
- Having the contractor of Fresh Food boxes unable to service our fire.
- The lack of vehicles thru NERV or local rentals.
- Having name requested positions being denied created a problem. Skills needed were not met.

Mitigations

- The crews and overhead were very patient with the slow supplies.

- Because of the Fresh Food boxes unavailability we went to Hot Cans. This was new to Alaska and has kinks but it will be better as more are used.
- Some issues could not be mitigated.

Communications Unit

Shovel Communications is comprised of a communication unit based out of the Moose Mountain ICP and supported using a remote in a tent. The communication unit was staffed by one COML, two COMT's, One INCM, and four RADO's.

Notable Successes

- Alaska Communications installed nine landlines for better phone service into camp since cell coverage was marginal.
- Supplies started getting delivered more frequently once people were ordered and staffed in supply and at the cache.
- LOGS put a shopping list in the IAP which helped make the ordering process easier to compile. Also, Communications put a numbering system in for line orders.

Significant Challenges

- Shovel ICP had issues with spotty cell cover in camp. The ITSS ordered nine landlines to help with incoming and outgoing calls.
- When the incident started we were having issues getting supplies to stock the Communication Unit.
- The orders that the field were calling into the Communication Unit were not streamlined and made things difficult to relay.

Medical Unit

The decision to mobilize an IMSM and an AEMT to staff the medical unit was critical to the success of the Medical Unit. With this staffing we were able to divide the responsibilities of the unit so that we could cover both the operational responsibilities and the staffing requirements.

Significant Events & Patient Contacts

Injuries:

There were two (2) reportable injuries. Both were released back to the line.

Trends:

There were no trends at the time of transition.

Patient Contacts:

Medical transports reflected in Patient Care Records- 12, Smoke related- 2, Cold and flu- 10, Stomach (heartburn, constipation, diarrhea)- 15 , Infection- 3, Foot problems- 16, Headache- 10, Eye problems- 2,

Soft tissue- 26, broken bone- 0, Strain/Sprain 0, Burns- 2, Respiratory- 10, Allergies- 12, Preventative- 5, crew restock- 8, misc. comfort care- 100. Total Patient contacts since 6/24/19- 232

Notable Successes

The positive working relation that was developed with Communications and the local resources was critical for managing medical incidents on the fire line. Through Communications we were able to track and communicate with the Medics and Ambulances on the line in order to make the best decisions for our patients. The relationship that was established with local resources with the assistance of Deputy Chief Berrian of Chena Goldstream Fire Rescue allowed us to request local resources to assist with transports as needed. These positive relationships were reflected in the management of a yellow medical incident that was flown off the line to definitive care with no gap in medical care.

Significant Challenges and Resolutions

It was difficult to run daily medical operations and provide a confidential and quiet area for patients to be treated and to recuperate. The issue was unresolved but through professional conduct and positive work attitudes from the entire logistics team we were able to make it work.

Facilities Unit

Notable Successes

- Arriving on Sunday the 23rd and finding out that AK Forestry had the ICP Land Use already in progress. Moose Lodge worked well although tight.
- AK Forestry sending a brusher cutter over to ICP to clear brush at ICP and Helibase.
- The team being patient with the delays in getting ICP organized with Tables and Chairs.
- Having 2 qualified FACL's to set up camp
- The Fairbanks State cache having available Items not found in Federal cache.

Significant Challenges and Resolutions

- Getting Cache orders
- Delay in the Buying team being in place
- Weak Internet and phone service signal

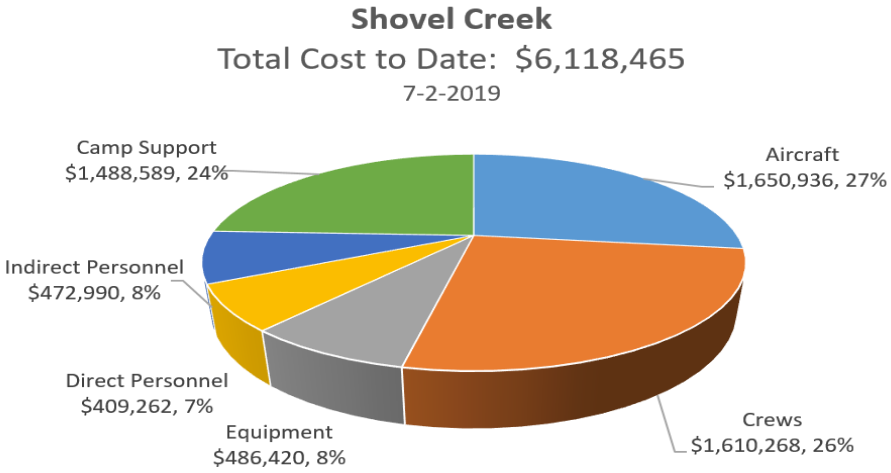
Finance

Summary

The Shovel Creek Incident was approved for the Fire Management Assistance Grant Program effective 6/21/19 at 2022. Financial operations were in compliance with direction from agency representatives. Costs were updated daily and kept current.

Local resources such as hotels, restaurants, equipment, crews, overhead, fuel and supplies injected revenues into the local economy.

As of July 2, 2019 the total cost of the Shovel Creek Fire is $6,118,465



This page intentionally left almost blank.

ALASKA
INCIDENT MANAGEMENT
TEAM