BUREAU OF INDIAN AFFAIRS

Facilitated Learning Analysis

Martinez 3 Fire – October 21, 2019

SUMMARY OF INCIDENT

On October 21, 2019, at approximately 11:50 a.m., a firefighter assigned to the Martinez 3 Fire received 2nd and 3rd degree burn injuries below both knees. The firefighter, assigned to a type 3 engine on the incident, was performing suppression duties in an area of deep vegetation (duff) material, when he stepped into an ash pit, sunk to his waist, and received injuries.

Upon stepping in to the ash pit, the individual was able to immediately pull himself out, covered in mud and ash. The firefighter sat and began brushing himself off and was assisted to his feet by a fellow crewmember. Paramedics from a type 6 engine began evaluation. When seeing the injuries, the paramedics notified the division supervisor (DIVS). The DIVS notified the Heavy Equipment Boss trainee (HEQBt) who then asked the DIVS if he would like him to run the incident as the Incident Commander (IC) of the incident within an incident (IWI), named Mulch. DIVS said, “yes”; the initial report of the injuries were circumferential burn injuries to both ankles.

The Mulch IC notified the Martinez 3 Fire, type 4 IC of the injury. At approximately 12:00 p.m., the Mulch IC notified dispatch of the IWI. They reported a "red priority" patient with circumferential burns to the lower extremities, who is stable at this time. Per medic's request, the Mulch IC requested transport via air ambulance and requested a ground ambulance as a contingency. Air-to-ground frequency was confirmed, landing zone coordinates, as well as ground contact information were relayed to dispatch. At 12:05 pm, dispatch called the Mulch IC to identify the helicopter, a change in radio frequency, and the estimated time of arrival (ETA); approximately 12 minutes . The Mulch IC notified ground contact of the ETA and frequency change. The DIVS also notifies the Mulch IC of a change in the landing zone (LZ) location. Minutes later, the DIVS notifies Mulch IC of another change to the LZ location, back to the original site.

At 12:18 p.m., the air ambulance is on the ground and the paramedics that provided initial patient care arrive at the LZ with the patient. The patient is transferred to the helicopter and airlifted to Arrowhead Burn Center. At 12:30 p.m., an After Action Review (AAR) was conducted at the site of the injury.

Accident notifications were completed on October 21. On October 22, the Pacific Regional Office decided to initiate a Facilitative Learning Analysis (FLA) of the incident within an incident. FLA team delegations were drafted and the full FLA team arrived at the Martinez 3 Incident Command Post on the afternoon of October 23. The FLA team completed a site visit of the incident on October 23. On October 24, after the FLA team visited the site of the injury, resources on the incident began extinguishing heat at the injury site. They found the area within fifteen-feet of the injury site to be extremely hot to a depth of four-feet. It was estimated more than one-thousand gallons of water were used to completely cool this small area.

FINDINGS

1. A written Incident Action Plan was not provided to resources on the day of the accident or on previous days.
2. Medical evacuation sites and landing zones were not identified prior to the injury.
3. In an effort to reduce particulate inhalation, the injured firefighter was wearing an N95 respirator mask as recommended by Incident Management.
4. The injured firefighter was wearing all required personal protective equipment (PPE) at the time of the accident.

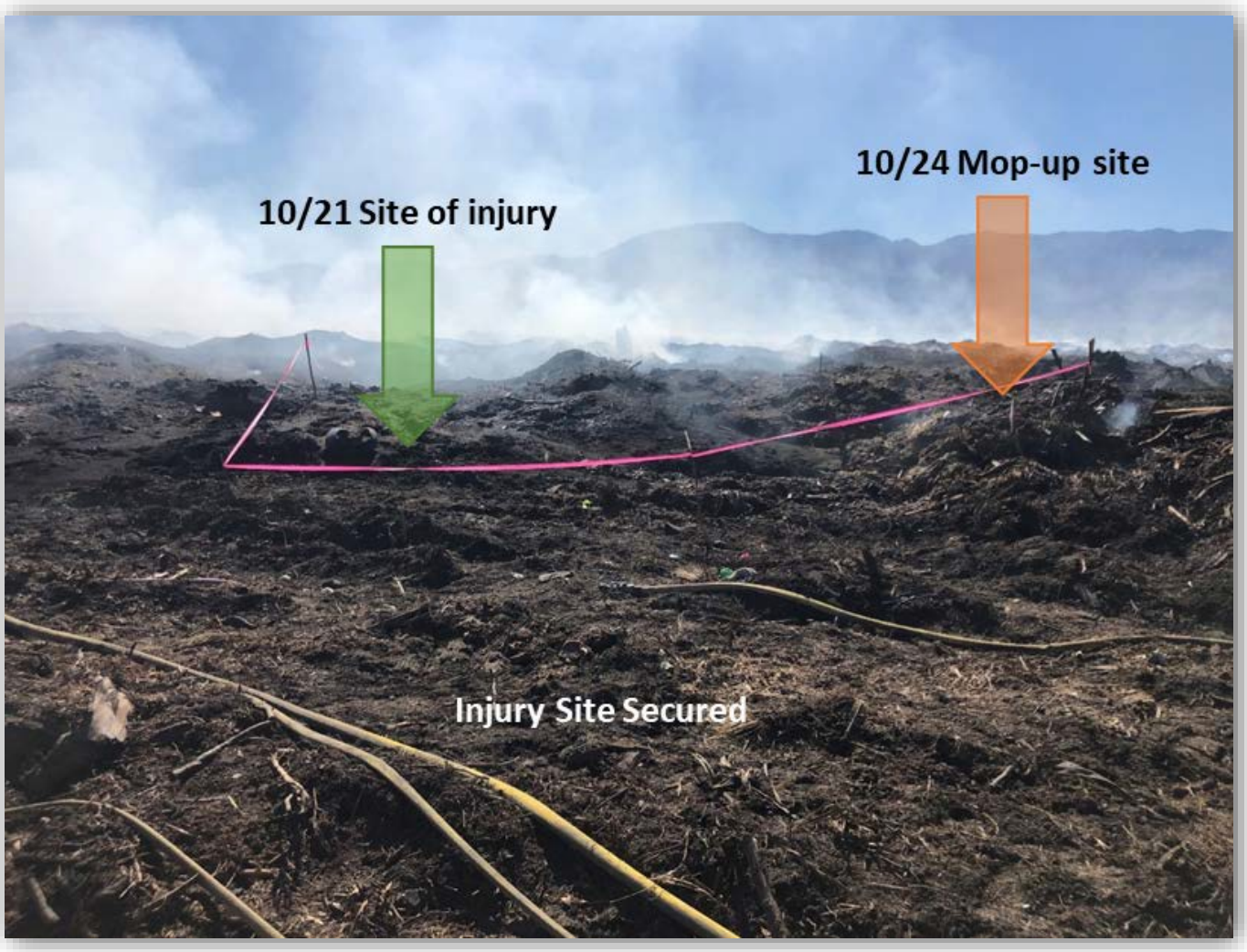
RECOMMENDATIONS

1. A written Incident Action Plan should be made available to all resources as soon as possible, during extended attack operations.
2. Med-evacuation sites and landing zones should be identified and communicated to all resources as soon as possible.
3. To reduce firefighter exposure, use thermal detectors to identify hot spots during mop-up operations and when working in areas of widespread vegetative material (duff).

Example of thermal detector

COMMENDATIONS

1. Incident Command provided N95 respirator masks to fire resources. Wearing of the mask by the firefighter, at the time of injury, may have prevented him from receiving additional injuries caused by smoke and heat inhalation.
2. Prior knowledge of resource capability, by the Division Supervisor, helped expedite medical evaluation and assessment by qualified medical personnel.
3. Paramedics who conducted the initial patient care, completed incident within an incident training prior to this incident.
4. The Incident Commander of the Mulch incident within an incident was prepared and acted quickly and decisively.



FACILITATIVE LEARNING ANALYSIS TEAM MEMBERS

Technical Specialist	Hakon Hansen	Occupational Health and Safety Manager, Pacific Region
Technical Specialist	John Mosley	Natural Resource Specialist, Pacific Region
Writer/Editor	Zoila ForrestDavis	Budget Analyst, BIA Branch of Wildland Fire Management
Team Lead	Adrian Grayshield	National Safety Program Manager, BIA Branch of Wildland Fire Management