

# Proposed Drone Infrared Detection on City Forestlands

Wildfire Safety, Watershed Protection, and Resource Protection

# Why a Drone Detection Program?

- Resource Damage Caused by Camping
- Wildfire Ignition Risks as Climate Warms Resulting in More Severe Fires
- Actual Wildfires from Illegal Camps and Campfires
- Impractical and Uneconomical to Cover Steep, Difficult Terrain with Regularity
- What's at Risk? Adjacent homes, upslope Ashland Watershed, trails, wildlife habitat.

# Natural Resource Damage from Illegal Camping











# Fire Ignition Risks from Illegal Camping













# Wildfires Caused by Illegal Camping















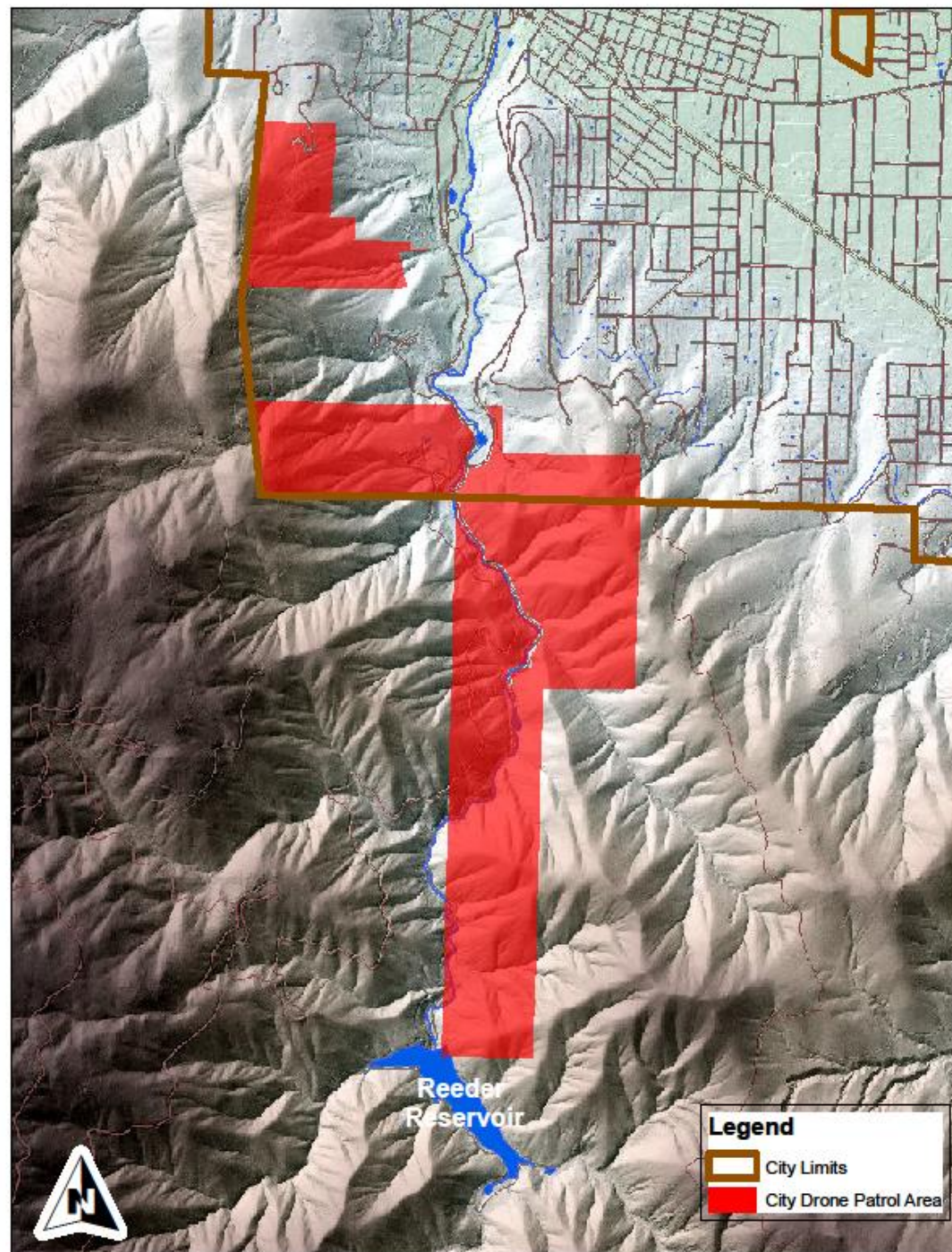
Black Swan Lake

160

© 2018 Google  
Image Landsat / Copernicus  
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth

# Proposed Initial Coverage Area

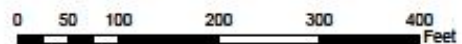


# Examples of Infrared Detection Imagery on Ashland Watershed Burning Projects

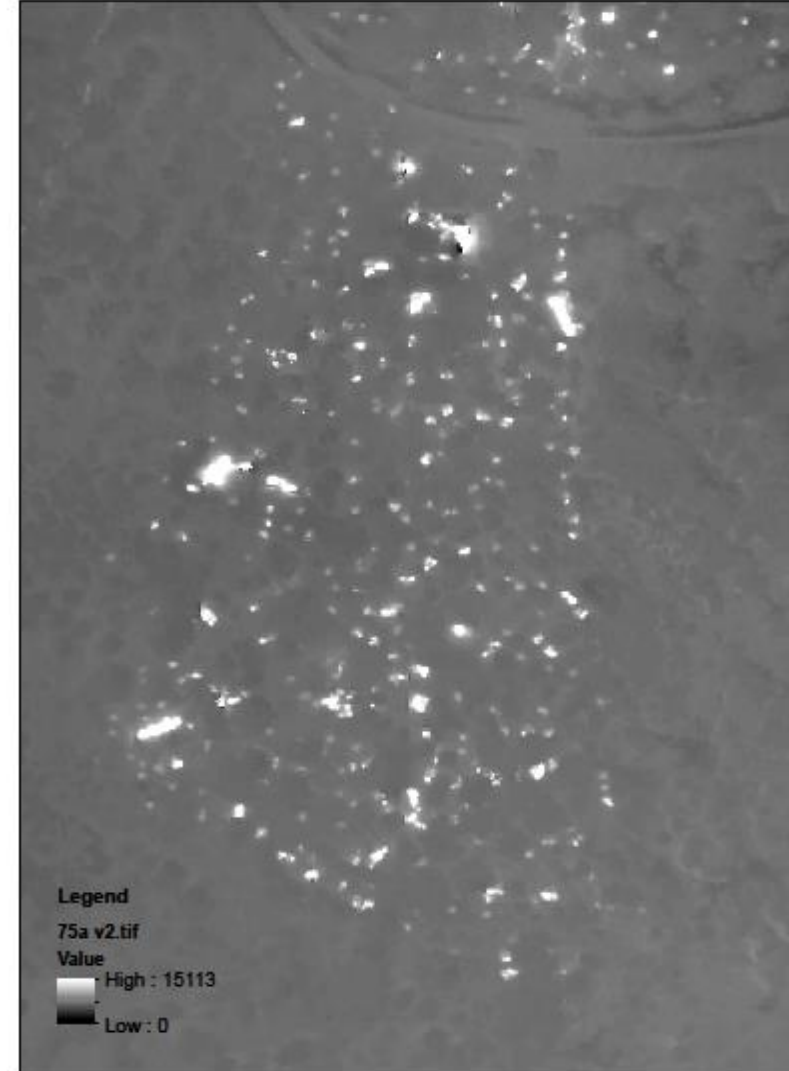
AFR Pile Burn - 75a - UAV IR Flight - 11-30-2018



Legend



AFR Pile Burn - 75a - UAV IR Flight - 11-30-2018



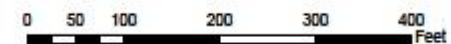
Legend

75a v2.tif

Value

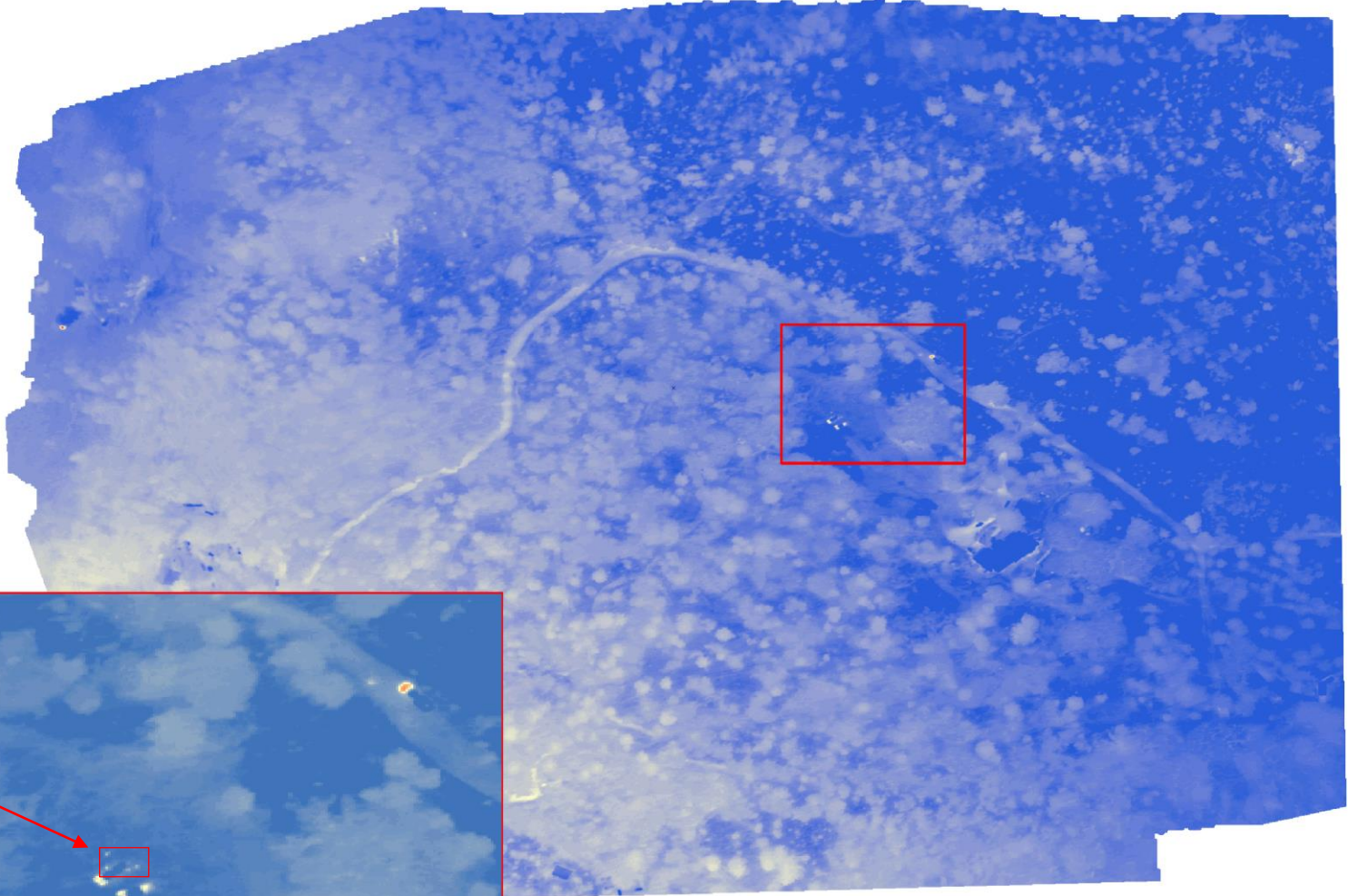
High : 15113

Low : 0



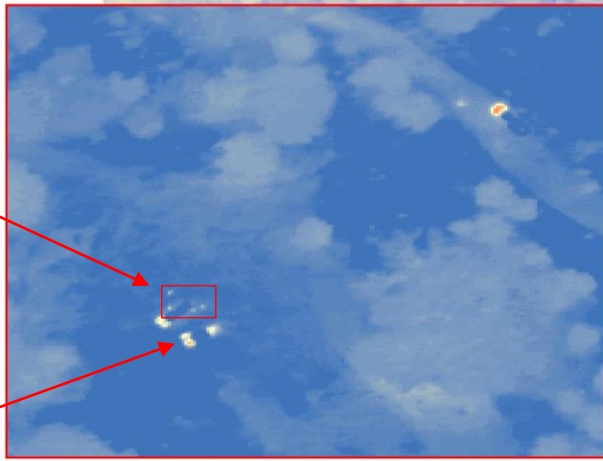
2003 TOLMAN IR FLIGHT - 05/07/2019

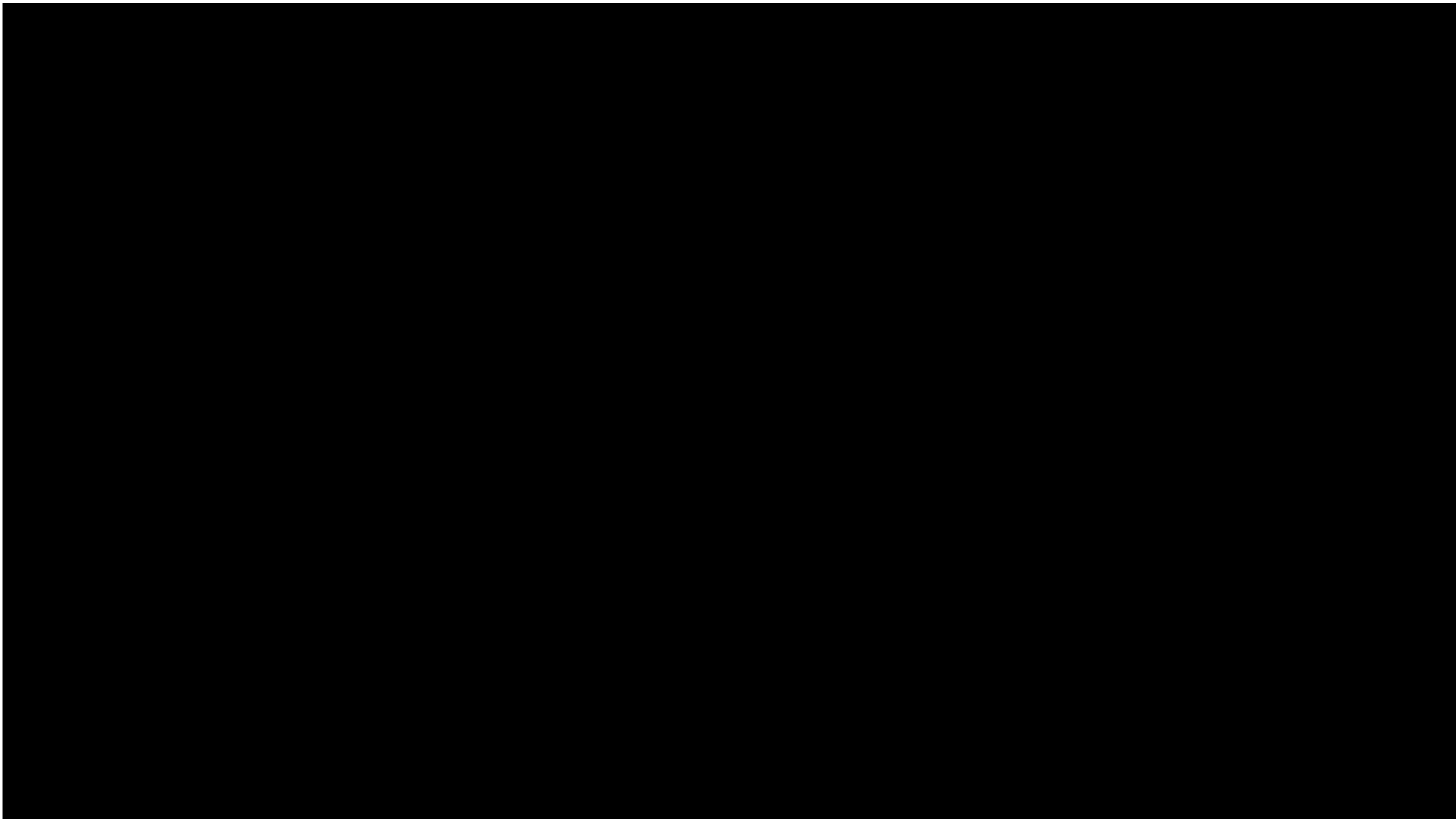
Heat signatures of  
vehicles and  
personnel standing  
nearby



Human heat signature

Vehicle





# Costs of the Program

- Utilize currently allocated \$13,000 for watershed patrol program for drone detection services,
- Ashland Police Department would enforce illegal camping on City lands inside and outside the City limits.
- Leaves US Forest Service law enforcement to pursue issues on federal lands (currently patrolled by City sponsored JCSO Patrol 2X week)