SUGAR LOAF FIRE PROTECTION DISTRICT

EMERGENCY RESPONSE GUIDE

Revised Jan 1 2017

MISSION STATEMENT

Sugar Loaf Fire Protection District

To provide the District with fire prevention and suppression, emergency medical and basic life support services, relief and assistance during man-made and natural disasters, and public education by effectively and safely utilizing the material and human resources available to the District

Contents

1. General Procedures (All Incidents)

EN ROUTE	
Radio Protocol for Response	Announce en route status as follows: ▪ **All incidents** – first command officer, all apparatus, command officers or personnel in closer proximity to the incident, or on scene ▪ **EMS incidents** – as above, plus first EMT ▪ **Major incidents** – additional officers as needed and available for key ICS positions (water supply, staging, operations, etc.) ▪ Keep radio traffic to essential information necessary for efficient incident management. 5561, 5562, may announce their response status for all incidents at their discretion. Recent responses have found that even if you have your radio at hand, it is helpful to wait a few minutes before announcing your response so that other FF will have time to get to their radios and hear the update. The contradiction to this is if you are in a fire dept vehicle and it sounds like a major call.
Leave BCFD (Boulder County Fire Distpatch)	Go to a different channel for call coordination. ▪ For Sugarloaf-only calls, responding SLFPD units should switch to SugarLoaf Channel as soon as practical. ▪ For calls with other agencies responding, request a Tactical (“FTAC”) channel from Dispatch. FTAC-3 is repeated, all the other TAC channels are direct. Once the tactical channel is assigned, switch to that cahnnel and coordinate call response on it so other agencies can communicate with us. ▪ Sugar Loaf’s channel is direct (not repeated). Particularly for Fourmile Calls, Consider going to Ned-peat or 4-peat, their repeated channels.
Echo Key Information	Request Dispatch to echo important traffic for the benefit of responding personnel. This traffic should include; apparatus response, scene size-up and status updates, and key personnel arrival.
Officers Respond Direct	The first command officer to respond will typically proceed directly to the scene to coordinate responding personnel and apparatus. In general, they should not divert to the stations to pick up apparatus. Daytime and weekday calls, as well as other personnel availability issues, will require officers to exercise judgment on this issue.
Track Personnel	Monitor radio traffic and take note of responding apparatus and stations as they report manned, mutual aid agencies and apparatus, and Sheriff and ambulance. If response levels are inadequate or if there are indications of a major call (smoke column, etc) ask Dispatch for a second tone.
Mark Route	When appropriate, initial responders should flag turns and routes to the scene, to assist later responders in locating the incident.

ARRIVAL	
Approach Report	Keep communications advised of the status of the incident, including your arrival if you announced you were in route. If you assume command, advise communications and name the incident. Give an immediate radio report of conditions upon arrival (see specific incident procedures). Arrival reports need to be clear, concise and relevant. Describe what you see, what actions you will take or what you want others to do, and any additional resources needed (CAN report). Fill in additional details as they become evident.
Cancel / Downgrade	As soon as adequate resources are on scene or en route, cancel further responders (request cancellation tone, except late at night). Downgrade responding personnel and apparatus to **non-emergency** as soon as practical. Cancel additional response – especially mutual aid – if they are not needed.
ICS	Establish incident command structure as quickly as possible.
Delegate	***Delegate!*** You will be much more effective and efficient if you delegate responsibilities and authorities as quickly as possible. Instruct personnel to keep you advised of their progress or resource requirements.
Additional Tones	Evaluate the need for additional tones for SLFD or mutual aid agencies. Request second tone if incident and initial response warrants.
Accountability	Initiate personnel accountability system as soon as possibility. Designate accountability officer when practical.
Release Resources	Release unneeded personnel as soon as practical.

2. EMS Incidents - Medical

EN ROUTE	
Announce en route	Announce that you are en route if applicable.
Incident Status	Verify the address if the page was unclear. Ask for status update if not automatically given.
Ambulance	Verify the ambulance is en route. Obtain the ambulance unit number.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO)
AED	Based on the location of the call, weather conditions, distance from a station, and personnel responding, consider requesting that an AED be transported by POV.
Consider	If applicable, consider and/or request: ▪ Helicopter - standby/go ▪ Mutual aid (e.g. Nederland ambulance)

ARRIVAL	
Approach Report	Announce arrival and that EITHER you are in medical mode (don't take command, don't name incident) OR take command and provide the following radio report: ▪ Name of incident ▪ Verify or correct location or address ▪ Initial perception of scene ▪ Patient status – (e.g. alert, breathing, conscious, etc.)
Size Up	Conduct an initial size-up. Prioritize action items, including: ▪ Safely identify hazards to patient and / or responders. ▪ Patient treatment priorities – consider Boulder Protocols ▪ Activities in progress (e.g. CPR, splinting, etc.) ▪ Talk to witnesses, try to determine circumstances leading up to event ▪ Verify resource requirements
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in protective gear ▪ Restrain or isolate pets if required ▪ Hazards on scene controlled, flagged or cordoned off ▪ Bystanders, friends, relatives away from patient.
Status Update	Give a brief status report to communications. Include the following: ▪ Nature of medical emergency (stroke, allergic reaction, MI, etc.) ▪ Correct address if necessary ▪ Condition of victim(s) ▪ Breathing, conscious, alert, bleeding, relevant history ▪ Treatment being provided or actions being taken ▪ Request or cancel additional resources

ON SCENE	
Apparatus Positioning	Determine safe locations (MVA - preferably uphill the scene) for arriving apparatus (consider access and turn-around for ambulance, route to transport patient to ambulance, etc.), and advise arriving apparatus. Direct arriving apparatus to correct locations when 2-3 minutes out.
Inbound Route Marking	Staff or mark turnoffs for arriving ambulance, sheriff, etc. if appropriate
Staff ICS	As additional personnel arrive, consider the need for a Safety Officer, Air Operations for LZ, etc.
Resource Requirements	Determine if adequate personnel (EMT's, firefighters) are on scene or en route. Request an additional tone if needed. Cancel additional response if appropriate.
EMS Requirements	Check with EMS personnel to determine their needs and ensure that the correct EMS equipment is delivered to EMT's. Assign personnel to support EMS personnel as needed.
Patient Privacy	Ensure patient and EMS personnel safety, patient privacy if possible, and that bystanders are kept clear of the scene.
Inbound Resource Status	Verify the location and ETA of arriving medical resources (ambulance, helicopter, etc.) and advise EMS personnel.
Fatalities	Consider requesting victim's advocate from dispatch for family, friends, or involved bystanders if patient does not survive.

CLEARING	
Trip Reports	Ensure that medical trip reports are completed for each patient contacted by SLFD personnel. Include gaming information.
Release Personnel	Cancel and/or release personnel as soon as practical.
Restock Apparatus	Ensure that all supplies used on scene are restocked before returning apparatus to service. Make sure all equipment sent with patient is retrieved from the hospital.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

HELICOPTER CONSIDERATION

NOTE: IF APPLICABLE, SEE SECTION 16 – HELICOPTER PROTOCOLS – CONSIDER PUTTING HELICOPTERS ON STANDBY FOR ALL EMS CALLS IN THE WEST END OF THE DISTRICT.

3. EMS Incidents - Trauma (particularly MVAs)

EN ROUTE	
Announce En route	Announce that you are en route if applicable.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Ambulance	Verify the ambulance is en route. Obtain the ambulance unit number.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO)
Consider	If applicable consider and/or request: ▪ BES for extrication and/or lights ▪ RMR for evacuation / high angle rescue ▪ Hazmat team for leaking fluids ▪ Helicopter – standby / go ▪ Additional ambulances ▪ Mutual aid (fire agencies)

ARRIVAL	
Approach Report	Announce arrival and that EITHER you are in medical mode (don't take command, don't name incident) OR take command and provide the following radio report: ▪ Name of incident ▪ Verify or correct location or address ▪ Initial perception of scene ▪ Patient status – (e.g. alert, breathing, pinned, etc.) ▪ Brief description – (e.g. number and position of vehicles, traffic hazards, number of patients, etc.)
Size Up	Conduct an initial size-up. Prioritize action items, including: ▪ Safely identify hazards to patients and / or responders. ▪ Initiate triage for multiple patients ▪ Verify number of occupants in vehicles ▪ Talk to witnesses, try to determine circumstances of trauma event ▪ Verify resource requirements
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in appropriate protective gear ▪ Vehicle stabilization ▪ Leaking fluids (fire danger) ▪ Vehicle battery cables (ground first) ▪ Turn off ignition, lights, etc. ▪ Put car in park/gear if possible ▪ Traffic control - minimum personnel - 2 with radios ▪ Add two spotters as available ▪ SCBA on personnel if needed
Status Update	Give a brief status report to communications. Include the following: ▪ Descriptive nature of incident ▪ Number and condition of victim(s) ▪ Patient status: (e.g. breathing, conscious, alert, bleeding, trapped, deformities, combative) ▪ Nature and extent of any hazards on scene

	▪ Request or cancel additional resources as appropriate ▪ Verify echo for en route SLFD personnel
ON SCENE	
Apparatus Positioning	Determine safe locations (preferably above the scene) for arriving apparatus (consider wind, traffic, leaking gas, visibility, etc.), and advise arriving apparatus. Direct arriving apparatus to correct locations when 2-3 minutes out.
Staff ICS	As additional personnel arrive, consider the need for a Safety Officer, Medical Officer, etc.
Inbound Route Marking	Ensure that turnoffs are marked for arriving ambulance, sheriff, etc. if appropriate
Resource Requirements	Determine if adequate personnel (EMTs, firefighters) are on scene or en route. Request an additional tone if needed. Cancel additional response if appropriate.
EMS Requirements	Check with EMS personnel to determine their needs and ensure that the correct EMS equipment is delivered to EMTs. Assign personnel to support EMS personnel as needed.
Charge Lines	Charge lines as appropriate. Foam if appropriate. (Mandatory if victims or firefighters are near hazards or in vehicles.)
Patient Privacy	Ensure patient and EMS personnel safety, patient privacy if possible, and that bystanders are kept clear of the scene.
Inbound Resource Status	Verify the location and ETA of arriving medical resources (ambulance, helicopter, etc.) and advise EMS personnel.
Fatalities	Consider requesting victim's advocate from dispatch for family, friends, or involved bystanders if patient does not survive.

CLEARING	
Trip Reports	Ensure that medical trip reports are completed for each patient contacted by SLFD personnel. Include gaming information.
Release Personnel	Cancel and/or release personnel as soon as practical.
Restock Apparatus	Ensure that all supplies used on scene are restocked before returning apparatus to service. Make sure all equipment sent with patient is retrieved from the hospital.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

HELICOPTER CONSIDERATION

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4. Extrication

EN ROUTE	
Announce En route	Announce that you are en route if applicable.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Ambulance/BES	Verify the ambulance and BES are en route.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO)
AED	Based on the location of the call, weather conditions, distance from a station, and personnel responding, consider requesting that an AED be transported by POV
Consider	If applicable, consider and/or request: ▪ Helicopter – ground standby, air standby, go ▪ Mutual aid (e.g. Nederland/ 4-Mile, BES)

ARRIVAL	
Approach Report	Immediately upon arrival EITHER Announce you are in medical mode, do not take command, do not name scene, OR Take command and provide the following radio report: ▪ Name of incident ▪ Verify or correct location or address ▪ Initial perception of scene (number of vehicles, patients, etc.)
Size Up	Conduct an initial size-up. Prioritize action items, including: ▪ Safely identify hazards. (power lines, fluid spills, etc.) ▪ Number of vehicles and locations ▪ Stability of scene (Stability of vehicles, traffic conditions, etc.) ▪ Verify resource requirements
Scene Safety	Verify or correct scene safety, including: ▪ Proper PPE ▪ Proper location of emergency vehicles (Deflecting traffic) ▪ Hazards on scene controlled or proper precautions taken ▪ Bystanders, friends, relatives away from scene and non-threatening
Status Update	Give a brief status report to communications. Include the following: ▪ Nature of emergency (number, location and types of vehicles) ▪ Correct address if necessary ▪ Condition of victim(s) ▪ Request or cancel additional resources

ON SCENE	
Apparatus Positioning	Determine safe locations (Provide safe scene) for arriving apparatus (consider access and turn-around for ambulance, route to transport patient to ambulance, location for 5522, etc.), and advise arriving apparatus. Direct arriving apparatus to correct locations when 2-3 minutes out.
Inbound Route Marking	Consider where equipment will be placed to provide needed equipment and scene safety.
Staff ICS	As additional personnel arrive, consider the need for a Medical Officer, Safety Officer, Air Operations for LZ, Extrication Officer, etc.
Resource Requirements	Determine if adequate personnel (EMT's, firefighters) are on scene or en route. Request an additional tone if needed. Cancel additional response if appropriate.
EMS Requirements	Check with EMS personnel to determine their needs and ensure that the correct EMS equipment is delivered to EMT's. Assign personnel to support EMS personnel as needed.
Patient Privacy	Ensure patient and EMS personnel safety, patient privacy if possible, and that bystanders are kept clear of the scene.
Inbound Resource Status	Verify the location and ETA of arriving resources (BES, 4-Mile FPD, NFPD, ambulance, helicopter, etc.) and advise personnel
Fatalities	Consider requesting victim's advocate from dispatch for family, friends, or involved bystanders if patient does not survive.

CLEARING	
Trip Reports	Ensure that medical trip reports are completed for each patient contacted by SLFD personnel. Include gaming information.
Release Personnel	Cancel and/or release personnel as soon as practical.
Restock Apparatus	Ensure that all supplies used on scene are restocked before returning apparatus to service. Make sure all equipment sent with patient is retrieved from the hospital.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

HELICOPTER CONSIDERATION

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5. Mass Casualty Incidents (MCI's)

EN ROUTE	
Announce En route	Announce that you are en route, if applicable. Instruct communications to echo apparatus response and status and personnel arrival status.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Ambulance	Verify the ambulance is en route. Obtain the ambulance unit number.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Information	If possible, contact units on scene for additional information (i.e., SO)
Consider	If applicable, consider and/or request: • BES for extrication or/or lights • RMR for evacuation • Hazmat team for leaking fluids • Helicopter – standby/go • Additional ambulances • Mutual aid (fire agencies)

ARRIVAL	
Approach Report	Immediately upon arrival provide the following radio report: ▪ Name of incident ▪ Command status ▪ Verify or correct location or address ▪ Initial perception of scene (number of vehicles, patients, etc.) ▪ Declare an MCI to 1800. (Trigger Point for a mass casualty: any incident in which emergency medical services resources, such as personnel and equipment, are overwhelmed by the number and severity of casualties. with three severely injured people could be considered a mass casualty incident.) ▪ Brief description – (e.g. number and position of vehicles, number of patients, etc.) ▪ Order ambulances based on estimate of patient count ▪ Request second tone for SLFD ▪ Request tone for all mutual aid ▪ Place helicopters on ground stand-by
Size Up	Conduct an initial size-up. Prioritize action items, including: ▪ Safely identify hazards to patient and/responders. ▪ If this is an MCI, ***do no triage***. *Command is more important.* ▪ Provide 1800 with an accurate patient count (# of reds, blacks, yellows and greens) ▪ Verify resource requirements ▪ If needed and appropriate to the scene, request "Chopper Go" to secure helicopters
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in appropriate protective gear ▪ Stabilization of vehicles

	▪ Leaking fluids (fire danger) ▪ Turn of ignition, lights, etc. ▪ Traffic control
Status Update	Give a brief status report to communications. Include the following: ▪ Confirm MCI status ▪ Number and condition of victims (black, red, yellow, green) ▪ Nature and extent of any hazards on scene ▪ Request additional resources as appropriate ▪ Verify echo for en route SLFD personnel

ON SCENE

Scene Set-Up	▪ Identify yourself an Incident Command vest ▪ Get MCI Kit from 5522, 5501, 5502 or 5503 ▪ Establish visible command post ▪ Establish and protect scene perimeter ▪ Identify ingress and egress routes ▪ Establish staging area(s) as needed
Apparatus Positioning	Determine safe locations (preferably uphill from the scene) for arriving apparatus (consider wind, traffic, leaking gas, visibility, etc.) and advise arriving apparatus. Direct arriving apparatus to correct locations when 2-3 minutes out.
Staff ICS	Delegate personnel to key roles *as quickly as possible*: ▪ Triage Unit Leader ▪ Transportation Unit Leader ▪ Medical Group Supervisor ▪ Treatment Area Manager ▪ Staging Manager
Inbound Route Marking	Staff or mark turnoffs for arriving ambulance, sheriff, etc., if appropriate.
Resource Requirements	Determine if adequate personnel (EMTs, firefighters) are on scene or en route. Request an additional tone if needed. Cancel additional response if appropriate.
EMS Requirements	In an orderly fashion, triage for every victim. As personnel become available, organize Shuttle Teams to move victims to staging areas (red, yellow, green. Do not move blacks).
Charge Lines	Charge lines as appropriate. Foam if appropriate (Mandatory if victims or firefighters are near fire hazard).
Patient Privacy	Ensure patient and EMS personnel safety, patient privacy, and that bystanders are kept clear of the scene.
Inbound Resource Status	Verify the location and ETA of arriving medical resources (ambulance, helicopter, etc.) and advise EMS personnel.
Trip Reports	Ensure that medical trip reports are complete for each patient contacted by SLFD personnel. Include gaming information.
Release Personnel	Cancel and/or release personnel as soon as practical.
Restock Apparatus	Ensure that all supplies used on scene are restocked before returning apparatus to service. Make sure all equipment sent with

	patients are retrieved from the hospital.
Terminate Incident	Announce apparatus/personnel clearing scene when appropriate.

HELICOPTER CONSIDERATION

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6. Structure Fires

EN ROUTE	
Announce En route	Announce that you are en route if applicable.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Ambulance	Verify an ambulance is en route for all working structure fires. Obtain the ambulance unit number.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO)
Water Supply	Ensure that fill sites are being established and that appropriate apparatus are directed to the correct fill site. If possible, designate a responding officer to handle water supply operations.
Consider	If applicable consider and/or request: ▪ Mutual aid from adjacent districts ▪ Second SLFD tone ▪ BES for air refill, rehab, and / or lights ▪ Helicopter - standby/go for burn victims ▪ Excel Energy and/or Propane Company ▪ Red Cross and / or Victim's Advocate

ARRIVAL	
Approach Report	Immediately upon arrival provide the following radio report: ▪ Name of incident ▪ Command status ▪ Verify or correct location or address ▪ Initial perception of scene ▪ Values at risk – (e.g. citizens, structures, vehicles, vegetation) ▪ Brief description – (i.e. nothing visible, smoke showing, etc.)
Size Up	Conduct an initial size-up including: ▪ Quick walk-around - all the way around ▪ Talk to witnesses ▪ Determine possibility of trapped victims ▪ Consider danger to exposure(s).
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in protective gear ▪ Escape routes ▪ Hazards on scene (live electrical wires, chemical or fuel storage, propane, ammunition, explosives)
Status Update	Give a brief status report to communications. Include the following: ▪ Type of incident ▪ Status of structure and danger to exposures ▪ Number and condition of victim(s) if applicable ▪ Request or cancel additional resources as needed

	▪ Verify echo for en route SLFD personnel
Scene Set Up	Determine apparatus and port-a-pond setup. Consider personnel safety, traffic flow, port-a-pond access, distance from structure, visibility, and weather conditions. Advise responding units of their initial assignments, where to position and in what direction when they are 2 – 3 minutes out.
ON SCENE	
Staging	Designate a staging location and advise all arriving resources ASAP. This step is critical to avoid congestion on scene.
Fire Attack	Determine the type of attack (interior, exterior, defensive, offensive) and the required personnel and apparatus
Staff ICS	As soon as possible, begin to staff ICS positions as needed: ▪ Adjunct to support IC ▪ Safety Officer ▪ Fire Attack (Fire Ground) ▪ Staging ▪ Exposure Defense ▪ Accountability ▪ Water Supply ▪ Ventilation ▪ Search and Rescue ▪ Medical
SCBA	Ensure that adequate SCBA and refill capabilities are en route or on scene. Request additional SCBA equipment from other stations if needed.
Utilities	Ensure that electrical power and propane lines have been disconnected or turned off
Inbound Route Marking	Mark turnoffs for arriving resources if appropriate.
Resource Requirements	Determine if adequate personnel (firefighters, EMTs,) are on scene or en route. Request an additional tone if needed.
Weather	Always request weather update.
Mutual Aid	Adjust mutual aid agency response and apparatus as necessary. Ensure that adequate resources are available or en route.
Relief & Rehab	Plan for relief personnel, water, food, and crew warming. Also truck fuel, radio batteries - charging, equipment maintenance. Personnel rehab and emergency medical needs.
Salvage	Plan for salvage operations, ventilation, tarps, etc.
Structure Security	Fire dept should not clear until building is secure (boarded up, tarped, etc to protect from weather, curious bystanders, and/or looting. If insured, have homeowner arrange for board-up service, otherwise acquire plywood and perform with FF.

CLEARING	
Trip Reports	Ensure that trip reports and medical reports are completed for each patient contacted by SLFD personnel.
Apparatus in Service	Ensure that all apparatus are refilled, including: water, foam, SCBA
Fire Cause Investigation	Advise SO of need for fire cause investigation, and maintain presence and control of scene until investigation crew arrives
Ongoing	If appropriate, schedule crew to monitor for potential rekindle

Monitor	
Release Personnel	Cancel and/or release personnel as soon as practical.
Restock Apparatus	Ensure that all EMS supplies used on scene are restocked before returning apparatus to service. Make sure all equipment sent with patient is retrieved from the hospital.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

Automatic Fire Alarms

Automatic Alarms are treated as structure fires until the alarm is proven to be false. Response procedures and protocols for Automatic Alarms are exactly the same as Structure Fires.

7. Wildland Fires

EN ROUTE	
Announce En route	Announce that you are en route if applicable.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO)
Water Supply	Ensure that fill sites are being established and that appropriate apparatus are directed to the correct fill site.
Consider	If applicable consider and/or request: ▪ Mutual aid from adjacent districts ▪ Second SLFD tone ▪ Boulder County Emergency Services ▪ Air tanker or helicopter status and availability ▪ US Forest Service ▪ Ambulance or helicopter for victims ▪ Excel Energy
Weather Report	Request spot weather forecast for your location.

ARRIVAL	
Approach Report	Immediately upon arrival provide the following radio report: ▪ Name of incident ▪ Command status ▪ Verify or correct location or address, jurisdiction ▪ Brief description – including: ▪ If the fire is big enough that county help is needed please ask dispatch to give you a tac Channel to talk to the FDO for other resources. – Approximate size – General fire behavior – Fuel type(s) – Rate of spread – Direction of spread – Values at risk – Topography – Weather conditions
Size Up	Conduct an initial size-up including: ▪ Observation of size and direction of fire, fuel types, slope, weather ▪ Determine possibility of trapped victims ▪ Determine need for evacuation
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in protective gear ▪ Escape routes (LCES) ▪ Hazards on scene
Staging	▪ Establish a staging site as soon as possible ▪ Designate a staging officer and staging radio frequency

	▪ Communicate the location and access routes to this site to incoming resources
Status Update	Give a brief status report to communications. Include the following: ▪ Name of incident ▪ Correct location including legal description if possible ▪ Access ▪ Terrain ▪ Request or cancel additional resources as needed ▪ Verify echo for en route personnel
ON SCENE	
L.C.E.S.	Determine the type of attack (containing, defensive, etc.) and the required personnel and apparatus. Post lookouts. Consider access routes, safety zones, escape routes, fuel types, aspects, weather, time of day, available resources, etc
Arriving Apparatus	Determine apparatus entry points and setup. Consider personnel safety, traffic flow, water source access, distance from fire and structures, visibility, and weather conditions. Direct arriving apparatus to correct locations when 2-3 minutes out, or instruct to report to staging
Inbound Route Marking	Mark turnoffs for arriving resources if appropriate.
Staff ICS	As soon as possible, begin to staff ICS positions as needed: ▪ Operations ▪ Adjunct to support IC ▪ Staging Officer ▪ Water Supply ▪ Division Supervisors ▪ Structure Defense ▪ Safety Officer ▪ Rehab
Communications Plan	Implement a communications plan as quickly as possible. Assign channels for staging, division(s), and air ops. If needed, clear channel assignments with Boulder Communications.
Accountability	Ensure that the accountability system is implemented as quickly as possible. Assign responsibility for tracking personnel and apparatus resources.
Evacuations	Evaluate the need for resident warnings or evacuations. Plan for future, possible fire behavior. Allow sufficient time for evacuations to be conducted safely
Weather	Request weather update - always.
Hazards Mitigated	Ensure that electrical power in the area has been or turned off
Resource Requirements	If multi-department, request Dispatch send Fire Duty Officer (FDO). Determine if adequate personnel (firefighters, EMTs,) are on scene or en route. Request an additional tone if needed.
Mutual Aid	Adjust mutual aid agency response and apparatus as necessary. Ensure that adequate resources are available or en route.
Legal Description	If you have not already done so, provide correct legal description to communications and / or emergency services.
Relief & Rehab	Plan for relief personnel, water, food, and crew warming. Also, truck fuel, radio batteries - charging, equipment maintenance.

	Personnel rehab and emergency medical needs.

CLEARING	
Trip Reports	Ensure that trip reports are completed with all relevant information
Apparatus in Service	Ensure that all apparatus are refilled, including: water, foam, SCBA
Fire Cause Investigation	Advise SO of need for fire cause investigation
Ongoing Monitor	If appropriate, schedule crew to monitor for potential rekindle
Release Personnel	Cancel and/or release personnel as soon as practical.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

8. Smoke Reports

EN ROUTE	
Announce En route	Announce that you are en route if applicable. The nearest officer or experienced firefighter with a radio should respond to the RP's address, to verify the direction and distance of the smoke from the RP's.
Incident Status	Verify information received regarding location of smoke and where reporting party (RP) is located.
Verify Command	Set up COMMAND position to coordinate search. Set up radio frequency to be used for search.
Responders	Contact COMMAND and report status from your position. Notify COMMAND where you will be searching. Keep monitoring radio and be responsive to COMMAND'S request.
PPE	Be prepared for either wildfire and/or structure fire.
Weather Report	If fire is found, request a spot weather forecast.

SEARCH	
Search Process	1. Respond with Brush Trucks and/or POVs for initial search. Start moving larger apparatus toward potential site. 2. Keep windows open to pick up smoke odor. 3. Get out and walk where appropriate to get a better view. 4. Go to higher ground for better visibility.
Command	1. Try to get better information from RP or, if possible, from other RPs. 2. Set up maps to start triangulation etc 3. Set up accountability system. 4. Coordinate with neighboring districts if appropriate.
Source Identified	Anticipate that fire could be from any source (lightning strike, grass fire, camp fire, structure fire). Adjust response once type of fire is confirmed.
Radio Communication /Coordination	Coordinate response Sugar Loaf channel unless otherwise multi-agency, then request tactical ("tac") channel from dispatch. If possible, staff radio at station 1 early on in the call to help coordinate crews from other stations.

9. Vehicle Fires

EN ROUTE	
Announce En route	Announce that you are en route if applicable.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Responders	Note EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO)
Consider	If applicable consider and/or request: ▪ BES for air refill, rehab, and / or lights ▪ Hazmat team for fluid spills ▪ Helicopter - standby/go for burn victims ▪ Mutual aid

ARRIVAL	
Approach Report	Announce your arrival and name command. Provide a radio report and brief description of the scene (fully involved, smoking, fire's out).
Size Up	Conduct an initial size-up including: ▪ Quick walk-around - all the way around ▪ Talk to witnesses (vehicle moving or not) ▪ Determine possibility of trapped victims ▪ Check for HAZ-MAT placards ▪ Consider danger to exposure(s).
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in protective gear – **including SCBA** ▪ Hazards on scene (live electrical wires, chemicals or fuel storage, propane, ammunition, explosives, traffic flow) ▪ Traffic control - minimum personnel - 2 with radios (stop all traffic until fire is out.) ▪ Appropriate protective clothing on all responders ▪ Possible hazardous contents ▪ Battery fire in Hybrid vehicles ▪ Fuel Tank condition and location relative to fire
Status Update	Give a brief status report to communications. Include the following: ▪ Type of incident ▪ Correct address if necessary ▪ Status of vehicle and danger to exposures ▪ Number and condition of victim(s) if applicable ▪ Vehicle moving or not ▪ Request or cancel additional resources as needed ▪ Verify echo for en route SLFD personnel
Scene Set Up	▪ Uphill and upwind of fire, at least 100 feet. ▪ Place apparatus between oncoming traffic and firefighting operations if possible.

	▪ Consider personnel safety, traffic flow, distance from vehicle, visibility, and weather conditions. ▪ Consider reach of hose lay ▪ Advise responding units where to position and in what direction when they are 2-3 minutes out

ON SCENE	
Fire Attack	▪ Full protective gear – including SCBA ▪ Secure reliable water source. Use CAFS if equipped ▪ Approach from corners, beware of "loaded" bumpers ▪ Chock vehicle wheels or pull stems to stabilize ▪ Pry open engine compartment when able ▪ Consider dry chemical extinguisher for appropriate fires
Resource Requirements	Determine if adequate personnel (EMT's, firefighters) are on scene or en route. Request an additional tone if needed.
SCBA	Request additional SCBA equipment from other stations if needed.
Scene Management	▪ Do not place no flares downhill or downwind of vehicle ▪ Dam fuels running from scene to prevent from entering waterway, divert off road or away from hazards ▪ Apply appropriate absorbent onto spilled fuels or chemicals ▪ Call Boulder County Health dept if more than 5 gal goes into water body, more than 15 gallons soaks into ground.
Staff ICS	As additional personnel arrive, consider the need for a Safety Officer, Medical Officer, Water Supply Officer, etc.
EMS Requirements	Check with EMS personnel to determine their needs and ensure that the correct EMS equipment is delivered to EMT's. Assign support personnel.
Inbound Resource Status	Verify the location and ETA of arriving medical resources (ambulance, helicopter, etc.) and advise EMS personnel.

CLEARING	
Trip Reports	Ensure that trip reports are completed with all relevant information
Medical Reports	Ensure that medical reports are completed for each patient contacted by SLFD personnel
Apparatus in Service	Ensure that all apparatus are refilled, including: water, foam, SCBA
Fire Cause Investigation	Advise SO of need for fire cause investigation
Ongoing Monitor	If appropriate, schedule crew to monitor for potential rekindle
Release Personnel	Cancel and/or release personnel as soon as practical.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

10. Trench/Mine Rescue

SLFPD does not have the experience or equipment for anything but the simplest trench rescue.

Where people are partially buried and there is not risk of additional collapse, carefully dig the victim out, prioritizing the head and trunk area to allow for breathing.

For any event where there is risk of additional collapse or where people are completely buried, call for outside professionals. In this case be prepared to keep the area clear of spectators, press, etc, and request that the County provide a public relations officer to deal with the media.

For trench or mine rescue, have dispatch request:

Longmont Emergency Unit (LEU): is a mutual aid response agency, primarily for technical swift-water, dive, and ice rescues.

Longmont Emergency Unit
663 17th Ave. Longmont, CO 80501
Phone: (303) 776-6180
Fax: (303) 776-2382

For mine rescue,
Colorado Front Range Mine Rescue
365 8th Ave Pob#475
Idaho Springs, Colorado
(303) 570-6269

Or

Colorado School of Mines Rescue Team
Colorado School of Mines Public Safety at 303-273-3333

Or

State of Colorado Division of Recreation Mine & Safety
BILL YORK-FEIRN, Mine Safety Program Manager
Cell Phone – (303) 916-1707
Work – (303) 866-3567 x 8151

JOE SAMEK, Mine Safety Trainer
Cell Phone – (303) 880-1477

BRANDON NEAL, Mine Safety Trainer
Cell Phone – (303) 870-0431
Work – (303) 866-3567 x 8139

11. Hazardous Materials Incidents

EN ROUTE	
Announce en route	Announce that you are en route if applicable.
Incident Status	Verify the address and type of incident if the page was unclear. Ask for status update if not automatically given.
Responders	Take note of EMT's, command officers, and apparatus going en route.
Additional Info	If possible, contact units on scene for additional information. (i.e. SO) ▪ Nature of hazardous material ▪ Placard numbers ▪ Quantities ▪ Contained or not
Consider	If applicable consider and/or request: ▪ BES for SCBA and/or lights ▪ Hazmat team for leaking fluids ▪ County Health Department ▪ State Patrol ▪ Helicopter - standby/go ▪ Additional ambulances ▪ Mutual aid (fire agencies ▪ Ambulance
Response Routes	Based on the nature and location of the incident and current weather conditions, advise responding resources of safe response routes.
Staging	Determine a safe location for initial personnel and apparatus staging, based on nature of hazard and weather conditions. Don't allow personnel or apparatus to drive past the incident
Weather	Always request weather update for haz-mat incidents
Road Closures - Evacuations	If applicable, order appropriate road closures and evacuations. (CSP, SO)

ARRIVAL	
Approach Report	Immediately upon arrival provide the following radio report: ▪ Name of incident ▪ Command status ▪ Verify or correct location or address ▪ Initial perception of scene ▪ Values at risk – (e.g. citizens, structures, vehicles, vegetation) ▪ Brief description – (e.g. vapor cloud, powder, liquid in water, etc.)
Staging	Ensure that you and all arriving personnel are staging in a safe location. Announce safe access and staging routes to responding personnel. Determine apparatus setup. Consider personnel safety, traffic flow, distance from vehicle, visibility, and weather conditions. Advise responding units where to position and in what direction.
Size Up	Conduct initial size-up. Attempt to safely identify nature of hazard

	and the danger it presents If vehicle is placarded, use Emergency Response Guidebook to determine substances involved. Quick walk-around – maintain a safe distance. ▪ Talk to witnesses ▪ Use binoculars ▪ Stay up-wind
Scene Safety	Verify or correct scene safety, including: ▪ Initial responders in appropriate PPE – SCBA ▪ Traffic control – minimum personnel – 2 with radios ▪ Observe weather and wind patterns ▪ Maintain safe proximity from hazard ▪ Establish a safety perimeter

ON SCENE	
Status Update	Give a brief status report to communications. Include the following: ▪ Nature of incident ▪ Nature and quantity of hazardous material ▪ Number and condition of victim(s) if applicable ▪ Danger to surrounding civilians, structure, etc. ▪ Request or cancel additional resources as needed ▪ Indicate actions being taken ▪ Verify echo for en route SLFD personnel
Staff ICS	As additional personnel arrive, consider the need for a Safety Officer, Medical Officer, Water Supply Officer, Haz-Mat Liaison, etc.
Unified Command	If appropriate, establish a unified command with other agencies representatives and determine the FD's role(s): (e.g. securing perimeter, citizen evacuation, water supply, treatment, fire suppression, etc.)
SCBA	Request additional SCBA equipment from other stations if needed.
Resource Requirements	Determine if adequate personnel (EMT's, firefighters) are on scene or en route. Request an additional tone if needed.
EMS Requirements	Check with EMS personnel to determine their needs and ensure that the correct EMS equipment is delivered to EMT's. Assign support personnel.
Apparatus Positioning	Direct arriving apparatus to safe and efficient locations when 2-3 minutes out.
Charge Lines	Charge lines as appropriate. Foam if appropriate.
Notify Appropriate Agencies	If not already notified, advise communications to alert the following, as appropriate: ▪ Boulder County Emergency Services ▪ Boulder County HazMat ▪ Boulder County Health Department ▪ Colorado State Patrol
Clean Up Contractor	Once regulatory agencies approve, ask Communications to contact clean up contractors to begin site mitigation.
Inbound Resource Status	Verify the location and ETA of arriving medical resources (ambulance, helicopter, etc.) and advise EMS personnel.

CLEARING	
Trip Reports	Ensure that trip reports are completed with all relevant information.
Medical Reports	Ensure that medical reports are completed for each patient contacted by SLFD personnel
Apparatus in Service	Ensure that all apparatus are refilled, including: water, foam, SCBA
Fire Cause Investigation	Advise SO / CSP of need for cause investigation
Ongoing Monitor	If appropriate, schedule crew to monitor incident status
Release Personnel	Cancel and/or release personnel as soon as practical.
Terminate Incident	Announce apparatus / personnel clearing scene when appropriate.

12. CO and Gas Odor Investigations

EN ROUTE	
Announce En route	Announce that you are en route, if applicable. Gas detector should be on the engine. Call for a gas detector to come by POV if no engine will be responding. Consider non-emergent response for CO alarm if people are out of the house and no health complaints in page.
Incident Status	Verify the address if the page was unclear.
Additional Info	If possible, contact dispatch or units on scene for additional information (i.e. SO): ▪ Reason for response (odor, alarm, visible cloud, obvious leak) ▪ If an alarm, the type of alarm (smoke, CO, propane) ▪ Type of gas (CO, propane, etc)
Consider	If CO alarm, be alert to symptoms of CO poisoning: ▪ headache ▪ nausea, vomiting ▪ fatigue ▪ dizzy spells ▪ accelerated heart rate ▪ confusion ▪ unconsciousness ▪ convulsions If Gas alarm, be alert for potentially explosive conditions ▪ leak inside house or other enclosed space

ARRIVAL	
Approach Report	Announce your arrival and name command. Provide the following radio report: ▪ Name of incident ▪ Verify or correct location or address ▪ Brief description of scene – (e.g. vapor cloud, flames, etc.) ▪ Initial perception of scene
Staging	For explosive gas, position personnel and vehicles so they will not cause ignition and will not be injured or damaged if explosion occurs.
Size Up	Conduct initial size-up. Identify nature of hazard and the danger it presents. Quick walk-around – maintain a safe distance ▪ Talk to residents /witnesses -type of alarm -how long since problem began -severity of problem (size of leak, etc)
Scene Safety	*For explosive gasses, DO NOT turn lights off or on, use automatic garage door openers, or do anything that could cause a spark or*

	other ignition. Verify or correct scene safety, including: ▪ Initial responders in appropriate PPE – Structure gear with SCBA ▪ Observe weather and wind patterns ▪ Maintain safe proximity from hazard ▪ Establish a safety perimeter if necessary

ON SCENE	
Status Update	Give a brief status report to communications. Include the following: ▪ Nature of incident ▪ Nature and quantity of gaseous material ▪ Number and condition of victim(s) if applicable ▪ Danger to surrounding civilians, structure, etc. ▪ Request or cancel additional resources as needed ▪ Indicate actions being taken ▪ Verify echo for en route SLFD personnel
Staff ICS	As additional personnel arrive, consider the need for a Safety Officer, Medical Officer, potential Fire Ground and Water Supply Officers, etc.
Unified Command	If appropriate (e.g., propane truck wreck), establish a unified command with other agencies and determine the FD's role(s): (e.g. securing perimeter, citizen evacuation, water supply, treatment, fire suppression, etc.)
Actions	Use gas detector to determine areas with elevated levels. • If CO levels are detected above 35ppm or any explosive gas detected, evacuate building. For CO alarms; • Use SCBA if CO level exceeds 35 ppm. • Do not ventilate building until source is located. • Assess appliances in area with highest readings to determine if malfunction can be identified and corrected. -If cause can be corrected, fix, ventilate building, reset alarm (if necessary), and instruct occupants to call for a second response if alarm triggers again. -if cause cannot be identified or corrected (e.g. rusted flu pipe), shut off appliance, ventilate building, reset alarm, instruct occupants to call for a second response if alarm triggers again. -If CO detector does not have readings above 9ppm (long-term residential limit), check alarm power supply/battery. For explosive gas alarms in building: • Shut off all propane and electrical lines that are located outside structure. • Two-person team with SCBA proceeds with gas detector. Proceed unless gas detector reaches 10% combustible gas

	indicator (CGI). • If gas detector exceeds 10% CGI, exit building and use positive pressure to ventilate. • Assess appliances in area with highest readings to determine if malfunction can be identified and corrected. -If cause can be simply corrected (e.g., snow in front of exhaust vent), fix, ventilate building, reset alarm (if necessary), and instruct occupants to call for a second response if alarm triggers again. -if cause cannot be identified or corrected (e.g. cracked supply pipe), shut off appliance or gas line to appliance, ventilate building, reset alarm, instruct occupants to call a licensed plumber.
EMS Requirements	Check with EMS personnel to determine their needs and ensure that the correct EMS equipment is delivered to EMT's. Assign support personnel.
Inbound Resource Status	Verify the location and ETA of arriving medical resources (ambulance, helicopter, etc.) and advise EMS personnel.

CLEARING	
Trip Reports	Ensure that trip reports are completed with all relevant information.
Medical Reports	Medical personnel should complete medical reports for each patient assessed by SLFD personnel.
Apparatus in Service	Ensure that all apparatus are rehabbed, including: SCBA and gas detector batteries.

13. Specialty Tactics

VENTILATION

- Ventilation must be done prior to attack if flashover or backdraft conditions are present.
- **Ventilation activities must be closely coordinated with IC and Fireground**
- Determine safe routes of emergency egress.

Vertical Ventilation Procedures and Issues

- Place and secure at least two ladders – have a backup plan.
- Place ladders near corners, not over windows or doors.
- Only walk on supported areas of roof (on ridge, over walls, etc.)
- "Sound" roof with axe or pike prior to taking a step
- Cut inspection hole if unsure of conditions below
- Work from weak area toward egress
- **Complete operations safely and quickly, and then get off.**

Horizontal (Positive Pressure) Ventilation Procedures and Issues

- Determine direction you want smoke to travel
- Use blowers so that a cone of air just covers the opening
- Reduce large openings by partially closing them
- **DO NOT use blowers where backdraft conditions may occur**

ATTIC FIRES

- **Check all sides of the structure, look for gable vents**
- Determine roof construction features (truss, beam and deck, rafter, etc)
- Look for probable origin and direction of spread
- Check for interior and exterior exposures
- **Establish water supply and pull primary and back up lines**
- Gain access to attic and use water/CAFS to cool and knock down
- After initial suppression, consider pressurizing house with PPV to clear smoke
- Begin covering/salvage operations. Clear room(s) of furniture, cover floors, pull ceiling (if no other access), and begin removing attic contents for overhaul
- Evaluate the extent of fire and roof construction. If fast knockdown is not possible, be mindful of collapse risk.

CHIMNEY FIRES

- Check for exterior fire o exposures upon arrival
- Evacuate residence
- Close air and shut damper on woodstoves
- Discharge small amount from foam extinguisher or backpack pump up into the flue
- Check walls, ceiling, attic, chimney chase, and chimney for extension
- **Pull charged line but don't bring it into the structure unless absolutely necessary**
- Tarp and protect furniture and floors as much as possible if wall or ceiling needs to be removed
- Move insulation and stored items in attic away from the flue
- **Remove wall, ceiling and/or chimney enclosure as necessary to verify extent of extension**

BASEMENT FIRES

- Conduct a quick size-up, look for entrance/egress access
- Determine the best method for ventilation
  - Consider removing window(s) in side or rear rooms
  - Consider cutting ventilation hole in the floor above and venting out window or door on first floor
  - Put exposure line(s) in place and PPV structure
- Turn off gas and electricity if possible prior to entry
- Coordinate attack with ventilation efforts
- Always deploy a back-up crew with hose line
- Ensure crews have clear instructions and accountability is in place
- Constantly evaluate structure, fire behavior, and fire suppression progress
- **If crews cannot locate the seat of the fire, strongly consider pulling personnel out to re-evaluate tactics and consider risk/benefits of future operations**

GASOLINE FIRES

- Stage upwind and uphill
- Prepare to protect exposures
  - Consider where water/fuel runoff will go
  - Dike to prevent liquids from reaching streams or ditches
  - More than 5 gal in water body or 15 gal on ground, call Boulder County Health Dept
- Develop a plan of attack, with at least one alternative
- Consider allowing the product to burn off while you protect exposures and the environment to reduce cleanup requirements
- If the product is burning in a ruptured container or tanker, position personnel and equipment so that if an explosion occurs, running fuel will safely dissipate and personnel are protected from flying debris
- **Ensure that attack crews are briefed on safe entry and egress from the fuel**

area

- **Ensure that full PPE, including SCBA, are worn by all personnel in the danger zone**
- Determine if HazMat Team will be needed

PROPANE TANK FIRES

- Stage upwind, uphill and away from tank ends
- If possible, choose a protected position (behind building, etc.)
- **Immediately evaluate risk/benefit of further operations**:
  - Is the tank being impinged by flames?
  - Is the relief valve operating? Is venting gas burning or dissipating?
  - Can you verify the type of product?
  - Do you have adequate water supply and personnel for your plan?
- Direct the evacuation of those in immediate danger (Consider BLEVE potential)
- If attack and / or cooling measures are needed for rescue or exposure protection:
  - Size the handline or monitor appropriately to the size of the tank
  - Ensure that a back-up handline or monitor is available and that it is fed from a separate source
- **Attempt to cool the tank to the point that the until the relief valve resets**
- For leaks beyond tank, close shutoff valve on tank
- For leaks in broken or punctured lines without shutoff valves, consider crimping off
- For bulk tank leaks, notify the propane supplier
- Consider a HazMat Team response, if appropriate

14. Search & Rescue

INITIAL RESPONSE	
Key Information	First person report to incident and obtain information from witnesses: ▪ Time and location of last sighting ▪ How many victims ▪ Last known condition of victim(s) ▪ Age of victim(s) ▪ Clothes -- type/color ▪ Name of victim(s) ▪ Name of witness ▪ Friends & relatives present?
Quick Search	Quick area search in current location (30 min)
Command Post	Establish a command post and ensure that all responders are aware of its location.
Unified Command	Establish a Unified Command with law enforcement and RMR/BES
Radio Frequency	Select a radio channel for the search and ensure that all responders are aware of it
Spotters	Station spotters at entrance and exit points from search area
Thorough Search	Thorough area search

SEARCH PROCEDURES	
Safety	Your safety FIRST
Buddy System	Always work in pairs, with at least one radio
Contact	Keep in touch with search command
Equipment	Bring to the search ▪ Hiking boots ▪ Arm and leg protection (poison ivy, thorns, sun, etc.) ▪ Hard hat ▪ Gloves ▪ Coat/jacket/yellow shirt with fire dept logo ▪ Drinking water ▪ Radio ▪ Flagging / sharpie ▪ Flashlight
If You Find	If you spot a body, do not attempt to move or retrieve it; contact search command

MUTUAL AID	
RMR/BES	Water rescue by BES, technical rescue by RMR
Nederland	Headwaters of Middle Boulder Creek to Roger's Park

SugarLoaf	Stream search from Roger's Park to tunnel
4-Mile	Stream search from tunnel to Boulder
City OF Boulder	Within City limits

SEARCH LANDMARKS	
FROM SUGAR LOAF ROAD TOWARD BOULDER FALLS	
0.6 mile	36 Mile Marker
1.2 mile	1st Bridge (35308 Boulder Canyon Drive)
1.4 mile	2nd Bridge
1.6 mile	35 Mile Marker
1.6 mile	Sunnyside turnout
1.7 mile	3rd Bridge
2.3 mile	Turnout
2.6 mile	34 Mile Marker
3.1 mile	Boulder Falls
FROM BOULDER FALLS TOWARD SUGAR LOAF ROAD	
0.5 mile	34 mile marker
0.8 mile	Turnout
1.4 mile	1st bridge
1.5 mile	Sunnyside turnout
1.5 mile	35 mile marker
1.7 mile	2nd bridge
1.9 mile	3rd bridge
2.5 mile	36 mile marker
3.1 mile	Sugar Loaf Road

15. Stream Search

INITIAL RESPONSE	
Key Information	First person report to incident and obtain information from witnesses: ▪ Time and location of last sighting ▪ Time and location of entry into water ▪ Initial condition of victim ▪ Age of victim ▪ Clothes -- type/color ▪ Name of victim ▪ Name of witness ▪ How many victims ▪ Friends & relatives present
Quick Search	Quick stream search below incident (1st half hour)
Command Post	Establish a command post and ensure that all responders are aware of the location.
Unified Command	Establish a Unified Command with law enforcement and BES
Radio Frequency	Select a radio channel for the search and ensure that all responders are tuned to it
Spotters	Station bridge spotters on 3 bridges noted in list of landmarks on next page
Thorough Search	Conduct thorough stream search along both banks, islands, rocks etc

SEARCH PROCEDURES	
Safety	Your safety FIRST
Buddy System	Work in pairs
Stay Dry	***DO NOT GO IN THE WATER***
Contact	Keep in touch with stream search command
Equipment	Bring to the search ▪ Hiking boots ▪ Arm and leg protection (poison ivy, thorns, sun, etc.) ▪ Hard hat ▪ Gloves ▪ SLFPD logo'd coat/jacket/yellow shirt ▪ Drinking water ▪ Sunscreen ▪ Flashlight
If You Find	If you locate the body, do **NOT** attempt to retrieve it; contact stream search command

MUTUAL AID	
BES	Water search and rescue
Nederland	Stream search from headwaters Middle Boulder Cr to Roger's Park
SugarLoaf	Stream search from Roger's park to tunnel
4-Mile	Stream search from tunnel to City limits
City OF Boulder	Within city limits

SEARCH LANDMARKS	
FROM SUGAR LOAF ROAD TOWARD BOULDER FALLS	
0.6 mile	36 Mile Marker
1.2 mile	1st Bridge (35308 Boulder Canyon Drive)
1.4 mile	2nd Bridge
1.6 mile	35 Mile Marker
1.6 mile	Sunnyside turnout
1.7 mile	3rd Bridge
2.3 mile	Turnout
2.6 mile	34 Mile Marker
3.1 mile	Boulder Falls
FROM BOULDER FALLS TOWARD SUGAR LOAF ROAD	
0.5 mile	34 mile marker
0.8 mile	Turnout
1.4 mile	1st bridge
1.5 mile	Sunnyside turnout
1.5 mile	35 mile marker
1.7 mile	2nd bridge
1.9 mile	3rd bridge
2.5 mile	36 mile marker
3.1 mile	Sugar Loaf Road

16. Flood Protocols

Definitions
MODE 1 (Flood producing storm observed)
▪ Digital page will be sent by Dispatch announcing potential heavy rainfall.
MODE 2 (Possibility of flooding recognized)
▪ Digital page will be sent by Dispatch announcing the possibility of flooding. ▪ Chief or designee will determine if, given the nature of the risk, a Sugar Loaf response is necessary, and will call for additional tones if necessary.
MODE 3 (Flooding will occur)
▪ Tone will be issued for Department. ▪ Reverse 911 advisories will be activated in affected areas. ▪ Advise residents who refuse evacuation of potential consequences and alternative actions. ▪ Close or restrict traffic into affected areas.
MODE 4 (Flooding is occurring)
▪ Perform search, rescue, and recovery operations in cooperation with other agencies. ▪ Assist victims with relocation and temporary shelter. ▪ Close affected areas to private vehicles.

GENERAL	
Set Up Command	Set up Sugar Loaf Command at Station 1 or 2, as determined by likely flooding location(s)
Position Personnel / Apparatus	Pre-place personnel and equipment (2 EMT's, 2 firefighters, and one squad/engine) at one or more of the following locations as appropriate: ▪ ***Magnolia Road***, including Silver Spruce (with Timberline mutual aid) ▪ ***Tall Timbers 1, 2, and 3*** (flooding along Sugar Loaf Road) ▪ ***Mountain Meadows*** and ***Mountain Pines*** (flooding along the drainage) ▪ ***Silver Springs*** (flooding endangers parts of Primos Road, Sugar Loaf Road, Switzerland Park Road, and homes in Dream Canyon)
Avoid Danger Zones	▪ ***Do not*** pre-position personnel or apparatus in Boulder Canyon, due to risk of flash flooding. ▪ ***Do not*** drive through flooded areas, road may be soft or washed away.

ACRONYMS	
HMS	Heins Meteorological System
MACS	Multi-agency Command System
STORRM	Sheriff Telemetry Operated Rain and River Monitor

17. Helicopter Protocols

EN ROUTE	
Advise Communications	Request helicopter from Dispatch early in the call as possible.
Consult	If possible, consult with units on scene or EMS personnel en route.
Chopper Status	Determine if status should be "Standby" or "Go". If "Go" ensure that engine is en route.
FAA Restrictions	Plan ahead – per current FAA restrictions, helicopter operators must file a flight plan prior to departure – this will require at least 10 minutes
Specify Chopper	Specify helicopter requested by name (i.e. Air Life Aurora, Flight for Life, Air Life Greeley – see Note)

SET UP	
Delegate to Air Ops	**If possible, turn helicopter operation to another arriving officer, otherwise assume the following duties:**
Determine and Prepare LZ	Determine appropriate Landing Zone (LZ). Consider: ▪ LZ should be at least 100' by 100' ▪ Overhead Wires (clear for 300' from LZ) ▪ Lighting ▪ Identification from the air ▪ Access from patient location ▪ Winds ▪ Slope ▪ Tie flagging on a pike pole, guy wire or other suitable object to indicate wind direction and speed to pilot. ▪ If possible, water down dry sand or dirt prior to landing ▪ Remove loose debris from immediate area if necessary
Advise Communications	Advise communications of chopper "Go" (if not already requested). Provide communications with: ▪ LZ location – use latitude, longitude, and elevation information from Avenza pdf map reading mobile phone app, from Helicopter Landing Zone Tables in this manual, or on laminated cards in engines. ▪ Ground contact ▪ Radio channel. **(Normally this will be FERN 1.)**
Fire Suppression	Ensure that an engine and crew is available to cover LZ operations. If no available engine is on scene, tone for additional engine. Ideally position engine where the helicopter will not fly over it on approach or departure.
ETA	Verify helicopter ETA as soon as possible and communicate to IC and / or EMS personnel
LZ Lighting	Verify adequate, appropriate, and safe lighting on LZ (no vehicle strobes). Vehicle headlights and overheads should be used. Emergency lighting on non-LZ vehicles should be shut down during helicopter approach and landing.

PPE	Engine crew should be in full bunker gear, including helmets with face shields.
Radio Contact	Establish radio contact with helicopter and provide ground weather information. (Wind direction and speed, viability). Also advise of obstructions and power lines.
Verify Helicopter Location	Once you have established visual contact with the helicopter, inform the pilot of his position by stating the LZ's position **relative to the helicopter** using clock coordinates. For example: "I am at your 3 o'clock."
Clear LZ	Keep LZ clear of apparatus and personnel.
DURING AND AFTER LANDING	
Monitor LZ Conditions	You should be focused on the LZ. Observe: ▪ Wind conditions ▪ Personnel or apparatus entering the LZ ▪ Loose material on the ground being kicked up by rotor wash ▪ Any unforeseen hazards
PPE	Make sure that everyone in proximity to the LZ is wearing protective gear, including a fastened helmet and eye protection.
Avoid Radio Traffic	Don't radio the helicopter during the last 30 seconds before landing, except to report an immediate hazard. If a hazard arises, state "Abort Landing" or "Go Around"
Fire Suppression Crew	Engine crew should be positioned at least 100' from LZ center. If landing on grass or other soft surface, be prepared to immediately pull a pre-connected line if an accident occurs. Do not pull and charge before landing in case an accident occurs beyond the reach of the apparatus and apparatus needs to reposition.
Approach	▪ Do not allow anyone to approach the helicopter until signaled by a crewmember. ▪ Do not allow anyone to approach the helicopter from any direction aft of mid-ships. ▪ If the helicopter is on a slope, only approach from the downhill side.
Take Off	▪ Repeat all safety precautions from landing. ▪ Ensure that the LZ is clear before the pilot starts engines. ▪ Stand down the Fire Suppression Crew once the helicopter has cleared the area.

CLEARING	
Advise Communications	Advise communications of helicopter arrival and departure.
Release Resources	Release LZ engine crew to Incident Commander.

NOTE: Boulder County EMS Protocols for helicopter transport are as follows:

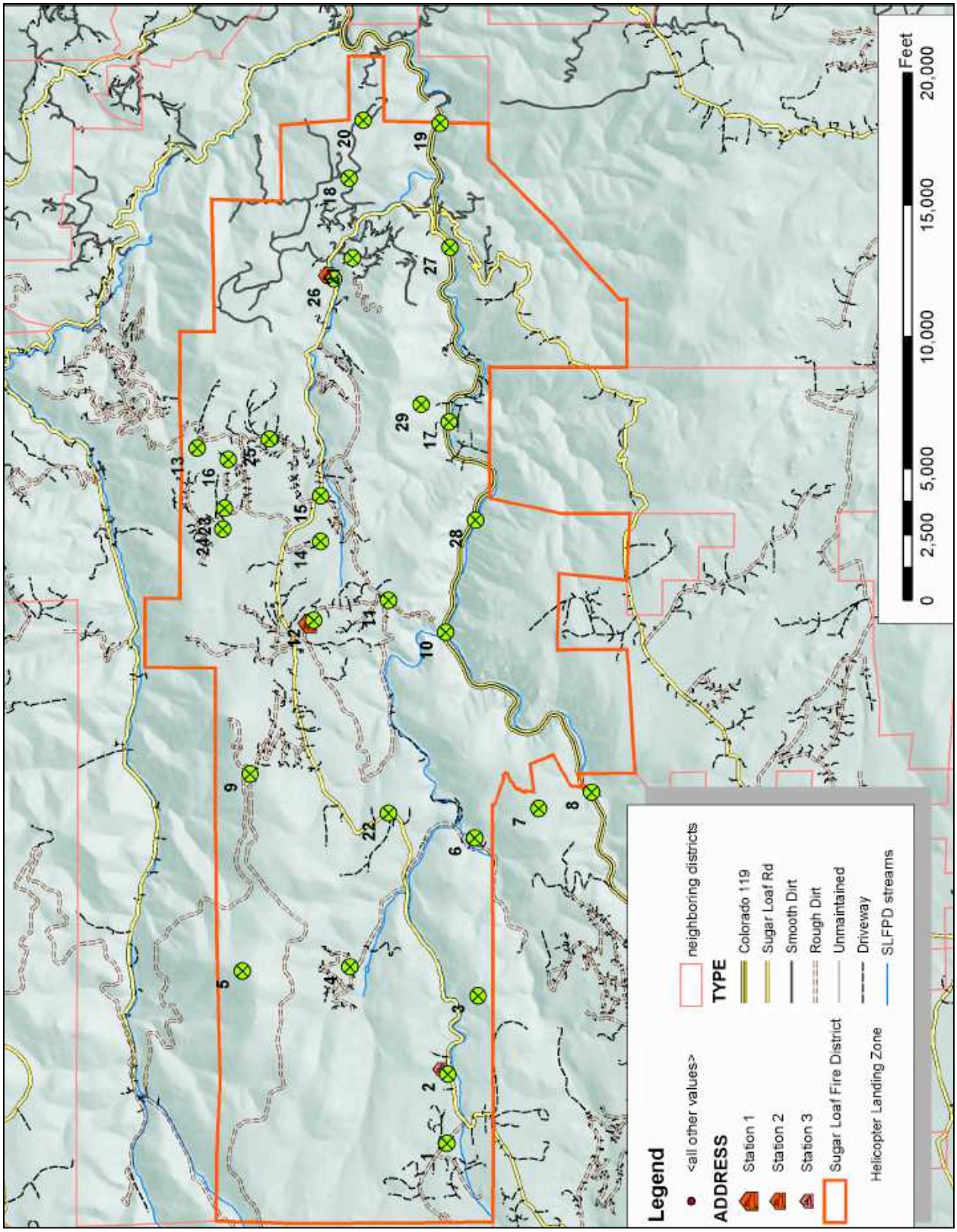
- Helicopter transport should be considered in one of four situations: multiple critical patients, extended transport time, extended extrication or evacuation time, or a need for a specialty hospital.
- If an incident results in more than two (2) trauma red patients, a helicopter should be considered.
- There are three helicopter services available for the Boulder County area; **Air Life in Aurora**, **Flight for Life in Denver**, and **Northern CO MedEvac in Boulder**. Each service uses a different model of helicopter, all of which have subtle difference in their performance and capabilities.

18. Primary Helicopter Landing Zones

Map Key	LZ Location	Latitude (N)	Longitude (W)	Elevation
1	Coughlin Meadows	40°00.30'	105°28.50'	8280'
2	Station 3	40°00.23'	105°27.58'	8080'
3	Peewink Mountain Rd.	40°00.08'	105°27.30'	8200'
4	Silver Springs	40°00.77'	105°27.00'	7880'
5	Bald Mountain	40°01.55'	105°27.10'	9147'
6	Switzerland Park	40°00.10'	105°26.02'	7560'
7	Comforter Mountain Saddle	39°59.70'	105°25.78'	8000'
8	Rogers Park	39°59.37'	105°25.65'	7560'
9	Sugar Loaf Mountain Parking	40°01.50'	105°25.50'	8440'
10	Boulder Falls	40°00.28'	105°24.35'	6880'
11	Good Friday Mine Road	40°00.56'	105°24.38'	7520'
12	Station 1	40°01.23'	105°24.28'	8012'
13	Left Fork Rd. Cul-de-sac *	40°01.83'	105°22.85'	7720'
14	Boulder View Rd. Cul-de-sac *	40°01.03'	105°23.00'	7560'
15	Lost Angel Rd. Ball Field	40°01.64'	105°22.00'	7040'
16	Plains View Rd. Cul-de-sac *	40°02.30'	105°21.16'	7480'
17	Sunnyside Pull Out	40°00.50'	105°22.66'	6360'
18	Betasso Preserve	40°00.80'	105°20.71'	6480'
19	Hwy 119 Tunnel - West Portal	40°00.28'	105°20.20'	5920'
20	Betasso Water Treatment Plant	40°00.47'	105°20.15	6400'
21	Sandy Rd. and Kelly Rd.	40°01.28'	105°21.19'	6500'
22	Sugar Loaf Rd. - West Boundary	40°59.82'	105°28.50'	8320'
23	Top of Primos Hill	40°08.75'	105°26.19'	7930'
24	Neitenbach's (Left Fork Rd.)	40°01.67'	105°23.51'	7560'
25	Wild Tiger Road	40°01.38'	105°22.78'	7220'
26	Station 2 *	40°01.51'	105°21.27'	6300'
27	Sugar Loaf Rd and Hwy 119	40°00.30'	105°21.29'	6050'
28	Cob Rock	40°00.35'	105°23.39'	6600'
29	35308 Boulder Canyon Drive	40°00.43'	105°22.50'	6330'

* Indicates possible power line obstruction. Daylight use only.

19. Helicopter Landing Zone Map



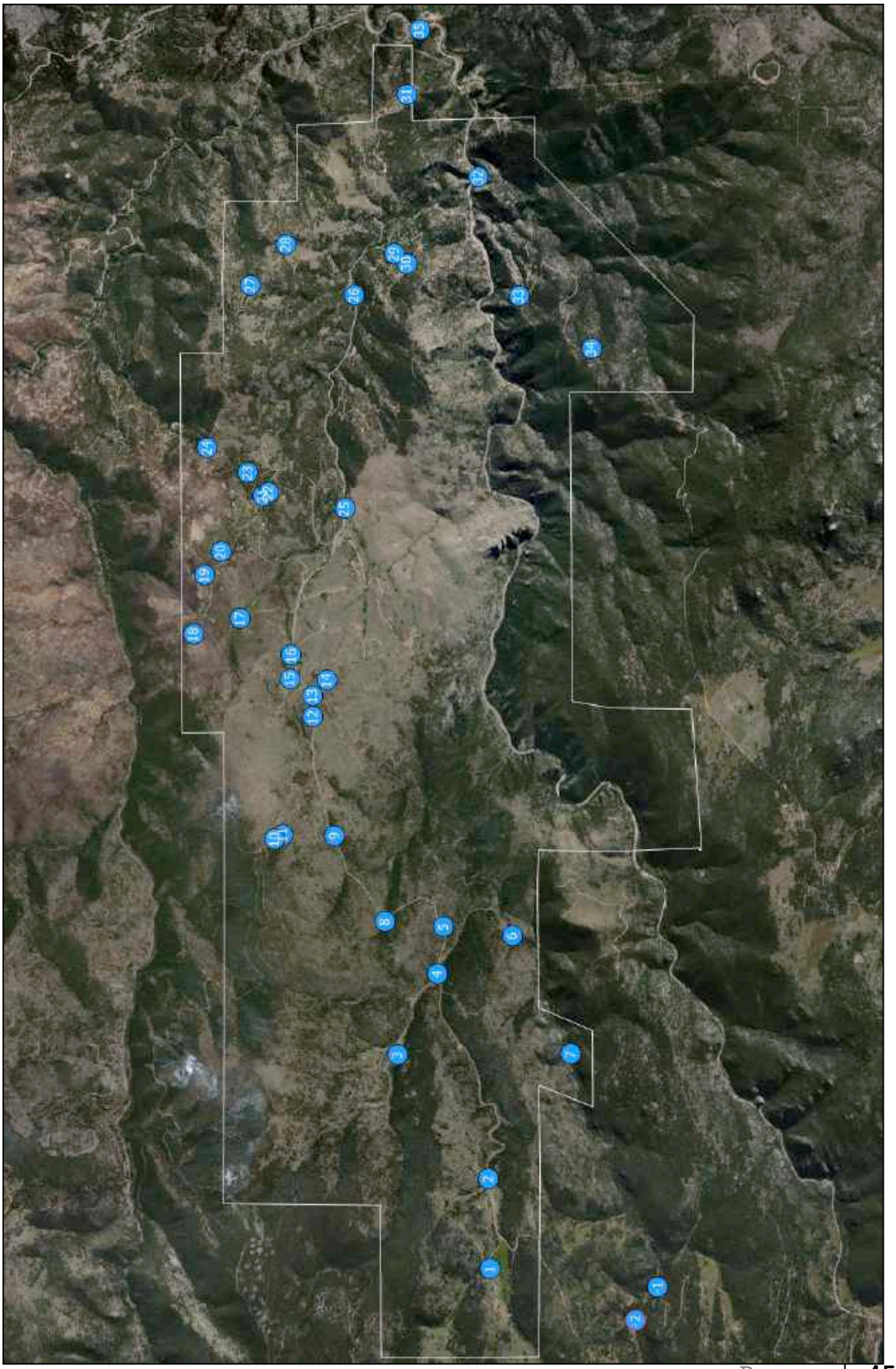
20. Water Sources & Fill Sites

Map Key	Common Name	Address	Capacity (gal.)	Primary	Year-Round	Dry Hydrant	Fitting
-2	Cold Springs Press Hyd	935 Cold Springs Dr	15,000+	X	X	X	2½M 5M
-1	Cold Springs Dry Hydrant	Cold Sgs & Hummer Dr	Cont.	X	X	X	6M
1	Coughlin Mdws Cistern	76 Gordon Creek Dr	10,000	X	X	X	4F
2	Station #3 Pond	8200 Sugarloaf Road	84,000	X	X	X	4F
3	Silver Springs Pond #1	579 Primos Road	20,000+	X	X	X	4F
3+	Silver Springs Pond #2	581 Primos Road	1.0 Mil				---
4	Primos Hill hydrant	6500 Sugarloaf Rd	15,000+	X	X		2½M 5M
5	Primos Hill cistern	6200 Sugarloaf Rd	15,000+	X	X	X	6"F
6	Switzerland Park Hydr	800 Switzerland Park Rd	Cont.	X	X		6M
7	Winchester's Hydrant	2000 Switzerland Park Rd	Cont.		X	X	4F
8	Wither's Corner Pond	5750 Sugarloaf Road	8,000	X		X	4F 2F
9	5-Mile Marker Tank	5155 Sugar Loaf Road	12,000	X	X	X	4F
10	Swiss Peaks Cistern	5155 Sugar Loaf Road	12,000			X	6M
11	Swiss Peaks Hydrant	5155 Sugar Loaf Road	10,000	X	X	X	2½M 5M
12	Old Townsite Cistern	4400 Sugarloaf Rd	15,000+	X	X	X	6M
13	Old Townsite Hydrant	25 Old Townsite Rd	15,000+	X	X	X	2½M 5M
14	Station #1 Cistern	1677 Lost Angle Road	5,000	X	X	X	4F 2M
15	Teresa Colman Cistern	78 Old Post Office Road	1,800		X	X	6M
16	4-Mile Marker Cistern	3962 Sugarloaf Road	8,000	X	X	X	4F 2F
17	Lasky Pond	3660 Sugarloaf Road	50,000+				---
18	Chamberlin's Cistern	359 Mountain King Road	10,000	X	X	X	6M
19	Wyatt Cistern	115 Mountain King Road	10,000	X	X	X	6M
20	Neitenbach's Pond	252 Left Fork	40,000+	X	X	X	4F 2F
21	Hunter Cistern	1105 Mountain Pines	5,000		X		4F
22	Hunter Pond	1105 Mountain Pines	15,000+				---
23	Arkansas Mtn Cistern	20 Arkansas Mtn Rd	12,000	X	X	X	6M
24	Bray's Cistern	595 Arkansas Mtn. Road	1,800			X	6M
25	The Duck Pond	2941 Sugarloaf Road	29,000+	X	X	X	6M 4F 2M
26	Station 2 Cistern	1370 Sugarloaf Rd	12,000		X	X	2½M 5M
27	Upper Weaver Dr Cistern	1188 Weaver Drive	12,000	X	X	X	4F
28	Lower Weaver Dr Cistern	470 Weaver Drive	10,0000	X	X	X	4F
29	Kugle's Swimming Pool	84 Douglas Court	10,000		X		---
30	Sandy Drive Tank	Sandy Drive & Kelly Rd	10,000	X	X	X	4F
31	Betasso Water Trtmt	1094 Betasso Rd	Cont.	X	X	X	2½M 5M
32	Barnes' Pond	37128 Boulder Canon	Cont.	X	X	X	4F 2F
33	Lower Magnolia Cistern	900 Magnolia Rd	10,000	X	X	X	6M
34	Upper Magnolia Cistern	2307 Magnolia Rd	10,000	X	X	X	6M 4F
35	4mile Bldr Can Hydrant	38555 Boulder Canyon Dr	Cont.	X	X	X	2½M 5M

Key: 6M – 6" Male 4F – 4" Female 2F – 2 ½" Female 2M – 2 ½" Male

Note: Primary sources are those from which apparatus can draft with the suction hose they carry, and which have ready access (that is, are used routinely).

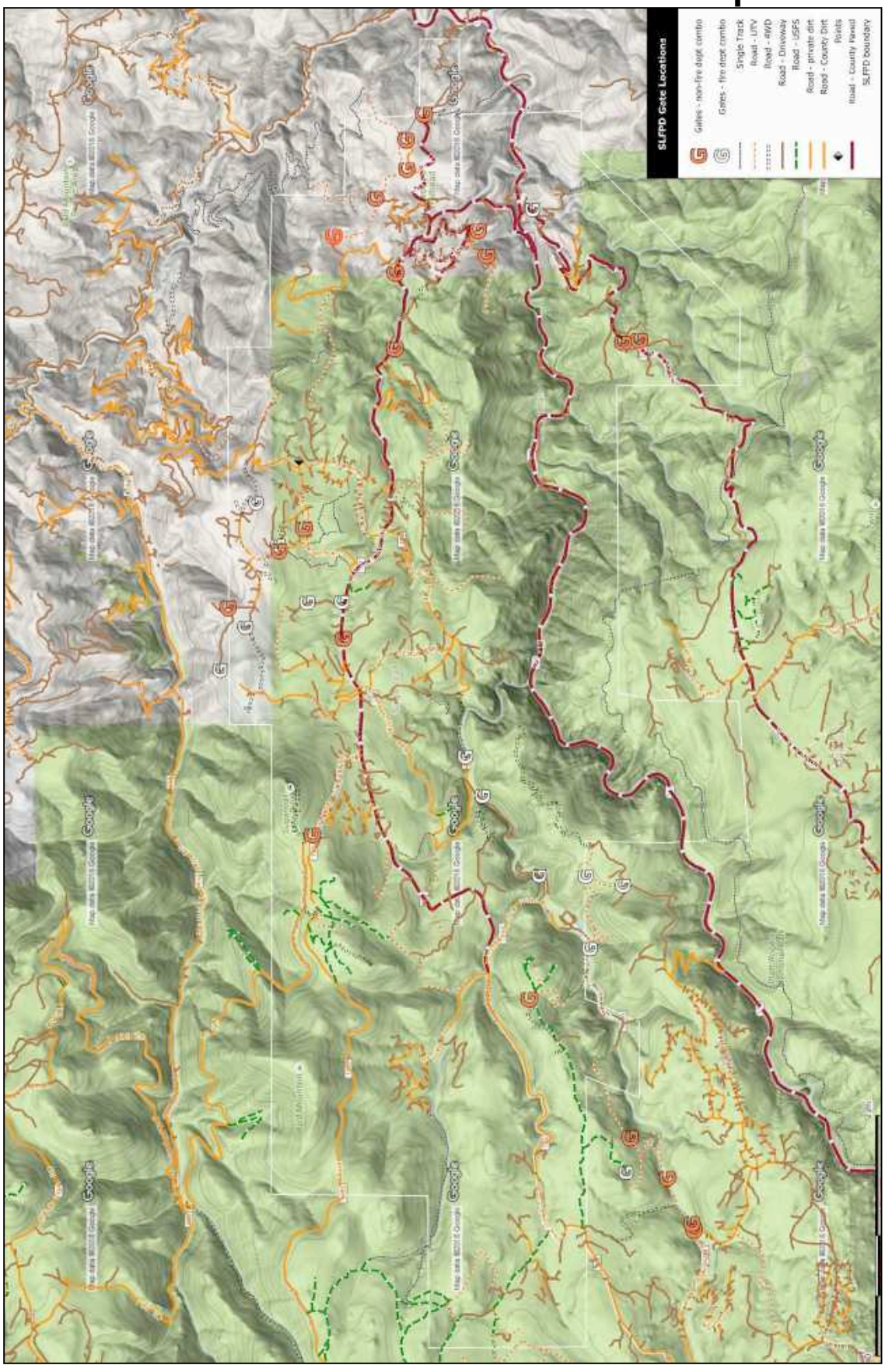
21. Water Sources & Fill Site Map



22. District Gates and Locks

Location	Comments	Combination
Betasso Water Treatment Plant	Manually open during	1739
Betasso Preserve - gate off main parking lot		Bldr Cnty Key (on trucks)
Betasso Preserve - gate off seconary parking lot		Bldr Cnty Key (on trucks)
Betasso Preserve - gate off Weaver Connector		Bldr Cnty Key (on trucks)
14 Canyon View		3030
36 Canyon View		2345 (if not, try 2002)
215 Left Fork	Electronic gate	2345
254 Left Fork		Closed but not locked
750 Left Fork	unknown if rebuilt after	2345
51 Magnolia	Gate on first turn up	2345
2010 Magnolia		707
2307 Magnolia		5050
355 Mountain King		Electronic gate, usually open
359 Mountain King		Unknown
367 Mountain King	2 locks, one fire dept	2345
1392 Mountain Pines Rd	Elect: manual override	No FD lock
1702 Old Townsite	Road upstream to	2345
1936 Old Townsite	Cable on road going	2345
1340 Sugarloaf		Usually closed but not locked
1835 Sugarloaf, Sweeney's Mill		No FD lock
3660 Sugarloaf (a)	Lasky outer gate.	Usually closed but not
3660 Sugarloaf (b)	Lasky inner gate. Formerly	Usually closed but not
3826 Sugarloaf	Green gate to summer	Unknown
3923 Sugarloaf	Train track house	Unknown
Sugarloaf Mountain		Bldr Cnty Key (on trucks)
573 Switzerland Park Rd	Chain to Lower Dream	1245
1000 Switzerland Park Rd	Winchester's gate	1245
470 Weaver Dr		182
5061 RIDGE RD - lower gate #1	Non-FD lock is 8642	1245
5061 RIDGE RD - upper gate	Non-FD lock is 2468	1245
2000 Swtizerland Park Rd	Winchester's gate	Usually open, not locked
1533 Cold Springs Road	Gate right at Cold Springs	No FD lock
1539 Cold Springs Road	Gate 200 ft down drivway.	No FD lock
On 332A, just west of 8933 SUGARLOAF RD	West of Andy and Ellen's	1245
On pipeline north of Camp Omaha		No FD lock
On N side of 332 culdesac		No FD lock
55061 RIDGE RD - lower gate #2	Non-FD lock is 8642	1245
1670 Lost Angel		Not locked
1358 Lost Angel Rd		Unknown
Gate on N Boulder Creek		No FD lock
8384 Sugarloaf Rd	Electric gate	No FD lock
8264 Sugarloaf Rd		Closed but not locked
5943 Sugarloaf Rd		per owner, cut chain
6181 Sugarloaf Rd		Unknown
8933 Sugarloaf Rd (off USFS 332A)	Often open when owners	No FD lock
2722 Sugarloaf Rd		Electric gate
5566 Sugarloaf and USFS 237.1		Unknnown
6010 Sugarloaf Rd and USFS 237.1	Firemen and Sherriff	Latched but not locked
West end of USFS 237.1 I and Switzerland trail	Gate to close social trail	No FD lock
3820 Sugarloaf Rd		Unknown
345 Old Townsite		Usually open, not locked
37 Arkansas Mtn Rd		No FD lock
9341 Sugarloaf Rd		Locked, no FD lock
4147 Sugarloaf Rd		Usually open
9507 Sugarloaf Rd		No FD lock
75 Sugarloaf Rd	Cable	No FD lock
254 Left Fork #2		Closed but not locked

23. District Gates and Locks Location Map



24. Sugar Loaf ICS Guidelines

The Incident Command System (ICS) is designed to be scalable and flexible based on the **scope** and **type** of incident being managed. Not all ICS positions will be needed or filled for all incidents. There is no fixed parameter that establishes an incident as "major". Rather, this determination is subjective and is left to the judgment of the Incident Commander. How the ICS structure is populated is also a function of the availability of trained, qualified personnel for each position.

- **Scope** – Determined by the complexity of an incident, based on several variables, including: number of resources involved (personnel, apparatus, agencies), duration of incident, impact on the public, safety of responders, nature of hazards involved, values at risk, and the type of incident.
- **Type** – Refers to the principal nature of the emergency. Most incidents will fall into easily defined, major categories such as EMS or Structure Fire. However, many incidents will involve components of several incident types and the resulting ICS structure must reflect the multi-dimensional nature of these emergencies.

The table below is only intended to serve as a guide for the expected makeup of the ICS structure for typical incidents. It is not an absolute protocol and will be modified, depending on the nature of the specific incident.

ICS Position	Incident Scope		Incident Type						
	Any	Major Only	Structure Fire	Wildland Fire	MVA	EMS (simple)	MCI	Search & Rescue	Haz Mat
Primary									
Incident Commander	X		X	X	X	X	X	X	X
Operations		X	X	X	X		X		X
Staging		X	X	X			X		X
Safety	X		X	X	X		X	X	X
Information		X	X	X			X		
Type Specific									
Fire Attack (Fireground)	X		X						
Division / Sector Supervisor	X		X	X					
Strike Team Leader		X		X					
Exposure (A, B, C, D)	X		X						
Water Supply	X		X	X					
Air Operations (LZ)	X			X	X	X	X		
Medical		X					X		
Triage	X				X		X		X
Treatment		X					X		
Transportation		X		X			X		
Extrication	X				X		X		
Search / Rescue		X	X	X				X	X
Ventilation		X	X						
Rehab	X		X	X	X		X	X	X

25. ICS Position Primary Responsibilities

Incident Commander	
Upon Arrival – Any Incident – Adjust based on incident complexity and size	
1	Establish command and name incident
2	Conduct scene size-up and provide initial radio report
3	Assume responsibility for all ICS positions until they are filled
4	Determine and disseminate initial tactical response plan
5	Determine resource requirements - order additional resources or cancel surplus
6	Ensure scene safety – advise responding resources of nature and location of hazards
7	Determine and disseminate positioning information for arriving resources
8	Wear appropriate identification (vest, helmet)
9	Initiate personnel accountability system
10	Establish communications frequency plan and communicate to arriving responders
11	Designate an adjunct or assistant to support the Incident Commander
On Going Responsibilities	
12	Assign arriving personnel to ICS positions as appropriate
13	Develop strategic response plan and interim objectives
14	Provide primary communications conduit between incident and communications
15	Monitor BCFD for incoming communications from Dispatch
16	Monitor Incident Command channel for communications from Section Chiefs
17	Interface with Operations Section regarding the progress of incident response
18	Assume responsibility for interagency liaison
19	Provide guidance to Public Information Officer regarding data to distribute
20	Ensure that resource needs of various ICS branches are met

Operations Officer	
All major or complex incidents involving multiple agencies, venues, resource types	
1	Obtain briefing from Incident Commander
2	Assume responsibility for direction of operational response units
3	Wear appropriate identification (vest, helmet)
4	Execute incident response strategy established by Incident Commander
5	Assist line unit managers in developing tactics to support strategic objectives
6	Monitor Incident Command channel for communications from Section Chiefs and IC
7	Provide liaison between incident command and line unit managers
8	Monitor progress and success of tactics and strategy – adjust and update as needed
9	Consult with Incident Commander regarding progress and adjustments to operations
10	Keep incident commander informed of incident resource requirements

Staging Officer	
Any incident requiring the coordination of arriving resources	
1	Obtain briefing from Incident Commander
2	Determine best organizational layout for staging area
3	Wear appropriate identification (vest, helmet)
4	Track and document status of all arriving resources (apparatus and personnel)
5	Document capabilities of arriving resources
6	Keep Operations advised of resource availability
7	Monitor assigned Staging frequency for traffic
8	Monitor Incident Command frequency for traffic from IC, Ops, and Section Chiefs
9	Keep a log of resources in and out of the staging area
10	Direct manpower and equipment to locations when and where requested
11	Advise Operations of resources being dispatched
12	Enter and track all arriving resources in the accountability system

Water Supply	
All fire related incidents	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, safety, access to IC /
3	Wear appropriate identification (vest, helmet)
4	Coordinate water supply objectives with Operations and Fireground
5	Determine resource requirements to support water supply objectives and advise IC /
6	Coordinate resource requests with Staging
7	Monitor designated Water Supply frequency for communications from fill sites and
8	Monitor Incident Command frequency for traffic from IC, Ops, and Section Chiefs
9	Evaluate possible total incident water requirements
10	Determine number and location of fill sites – and quantity of available water
11	Consider and plan for additional fill sites
12	Plan for redundant water sources, including fill sites and water tender requirements
13	Ensure proper number of personnel at fill sites
14	Track status and capabilities of available tankers
15	Direct sequence and direction of tanker shuttle
16	Direct setup and configuration of port-a-ponds
17	Evaluate need for jet pumps, jet siphons, auxiliary pumps
18	Configure port-a-ponds for efficient tanker operations
19	Monitor tanker turn-around times for problems or additional staffing needs
20	Keep tanker shuttle operation moving efficiently

Fire Attack (Fireground)	
Structure fires	
1	Obtain briefing from Incident Commander / Operations
2	Wear appropriate identification (vest, helmet)
3	Determine type of attack (external - internal) based on tactical objectives and available
4	Determine water or foam attack
5	Determine number and size of attack lines
6	Determine angle and direction of attack
7	Ensure that Rapid Intervention Team (RIT) is staged and ready to respond
8	Advise IC / Operations of progress
9	Request personnel and apparatus resources as needed

Ventilation	
Structure Fires as needed	
1	Obtain briefing from Incident Commander / Operations / Fireground
2	Develop a ventilation plan in coordination with IC / Operations / Fireground
3	Instruct ventilation team on plan, safety issues, fire attack plan, and alternatives
4	Determine resource requirements for execution of ventilation plan
5	Coordinate execution of ventilation plan with fire attack and / or search and rescue team

Exposure Defense	
Fire related incidents as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Coordinate exposure protection efforts with Fireground
4	Ensure that surrounding property and structures are protected
5	Request personnel and apparatus as needed
6	Monitor status of propane tanks, autos, etc.
7	Advise IC / Operations of any fire spread

Air Operations	
Any incident as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Establish communications with air support
5	Establish and advise air support of lat / long coordinates
6	Ensure safety protocols are followed by all personnel

Landing Zone	
Any incident as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Establish communications with helicopter
5	Determine lat / long coordinates and advise communications
6	Coordinate safe landing zone preparations
7	Mark landing zone using standard air operations procedures
8	Ensure safety protocols are followed by all personnel
9	Advise communications (and IC if appropriate) of helicopter arrival, departure and

Information Officer	
More complex incidents	
1	Obtain briefing from Incident Commander / Operations
2	Establish visible, accessible location for base of information operations
3	Wear appropriate identification (vest, helmet)
4	Establish any restrictions for media / public access
5	Determine other agencies involved
6	Continually gather and evaluate information for release
7	Respond to special requests (tours, briefings, interviews)
8	Schedule press briefings as appropriate

Extrication	
Motor Vehicle Accidents – MCI's	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Consult with senior medical resource regarding victim status and extrication issues
5	Develop an extrication plan and communicate it to extrication team members and IC
6	Coordinate execution of extrication plan with mutual aid agencies
7	Monitor progress of extrication plan and adjust as necessary
8	Coordinate essential pinned victim(s) treatment and vital sign monitoring with transport

Rapid Intervention Team	
Structure Fires	
1	Obtain briefing from Incident Commander / Operations
2	Brief team on tactics, hazards, search parameters, any special conditions
3	Check safety equipment / PPE of all team members
4	Check building construction & associated safety problems
5	Prepare entry and rescue tools: search ropes, door stops, forcible entry tools, hand
6	Stand-by with charged hose line from 2nd source (engine) if possible
7	Plan Potential rescue problems
8	Determine fire location and probable routes of travel

Medical Officer	
Any incident as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Establish medical plan
5	Coordinate incident needs with responding EMT's, First Responders, and mutual aid
6	Ensure that Boulder County Protocols are adhered to
7	Ensure that firefighter safety precautions are followed (BSI - PPE)

Triage	
Any incident as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Communicate triage results to medical officer
5	Coordinate incident needs with treatment officer

Treatment	
Any incident as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Coordinate personnel and equipment needs with Staging
5	Assign personnel resources as necessary

Transportation	
Any incident as needed	
1	Obtain briefing from Incident Commander / Operations
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Wear appropriate identification (vest, helmet)
4	Coordinate incident needs with transport agencies
5	Maintain log of destination facility by patient
6	Establish ambulance staging and loading area

Safety Officer	
Any incident	
1	Establish contact and obtain briefing from Incident Commander
2	Contact Operations if established
3	Wear appropriate identification (vest, helmet)
4	Identify hazardous situations associated with the incident ensure personnel are aware of
5	**Verify personnel are properly clothed and equipped for the tasks being performed**
6	**Ensure Junior and Trainee personnel are observing task restrictions and relevant**
7	Assess the safety of apparatus placement
8	Assess condition of any vehicles / structures involved
9	Establish and enforce “red” zones as appropriate (extrication, hazmat, structure fire)
10	**Ensure that accountability system is in place and being maintained**
11	Ensure that LCES protocols are being followed (wildland fire)
12	Ensure that a rehab center is established and in a safe and accessible location
13	**Monitor personnel for signs of fatigue, heat or cold related symptoms,**
14	Ensure personnel are seeking rehab as appropriate
15	Establish medical station and assign EMT’s for treatment of all injuries
16	**Immediately stop any unsafe actions or activities**
17	Ensure that SCBA operations and bottle filling are being performed safely and per SOP’s
18	Ensure that traffic control is being performed safely and per SOP’s
19	Ensure that Rapid Intervention Team is staged and ready to respond if needed
20	Ensure that all personnel have necessary equipment for assigned tasks and personal
21	Evaluate the need for specialists (Hazmat, technical rescue, etc.) and advise IC /
22	Check status of building utilities for operation and hazards, and advise IC / Operations

Rehab	
Motor Vehicle Accidents – MCI’s	
1	Obtain briefing from Incident Commander / Operations and Safety Officer
2	Establish location for base of operations considering visibility, access to IC / Operations,
3	Advise IC / Operations and Safety of rehab facility location and capabilities
4	Determine immediate and ongoing needs for supplies, personnel, additional resources
5	Consult with IC / Operations to determine anticipated duration of incident and rehab
6	Advise IC / Operations of ongoing resource requirements

26. Apparatus Response Protocols

Structure Fire/Fire Alarm

1) All engines and tenders to call location
2) 5532 to fill site
3) Rescue and UTVs to staging

Confirmed Wildland Fire

1) Brush trucks and UTVs to call location
2) Engines, tenders and rescue to staging
3) Staff radio relay at Station 1

Smoke Report

1) Brush trucks, UTVs and POV (w/radio) to report area
2) Command officer to RP (if possible)
3) Staff radio relay at Station 1
4) Station 1 and 2 on standby for confirmation on type of call, or roll non-emergent to report area.

MVA

1) Rescue and nearest engine to call location
2) 5532 to all Canyon calls (to anchor traffic and free up rescue for extrication)

Vehicle Fire

1) Rescue and nearest engine to call location
2) Nearest tender and brush truck stage in area

Odor/Gas Leak

1) Rescue and nearest engine to call location
2) Nearest tender and second engine stage in area

EMS

1) POV and rescue to call location
2) Nearest engine standby at station for possible helicopter evac
3) Chest pain/MI reports – POV pickup of nearest AED and portable suction

Search & Rescue

1) UTVs and rescue to call location/staging area
2) Manned radio relay at Station 1

Fallen Climber

1) Rescue and nearest brush truck to call location/staging area
2) Manned radio relay at Station 1

Stream Search

1) Rescue and POV (w/radio) to call location/staging area
2) POVs peel off to downstream bridges
3) Manned radio relay at Station 1

Mutual Aid – Structure Fire

Timberline – 1,Tender- 5544

For all of Timberline's district that is in Boulder County only. Staff with crew of two.

Nederland and Four Mile – Engine 1st then a Tender that has SCBA in it.

- With a crew of two.

Boulder Rural – Engine and Tender

- Automatically send 5502 and 5544 with a full crew until cancelled

Except for very unusual circumstances, limit the response to other districts to two trucks.

These protocols must be followed closely unless there is a compelling reason to deviate from them. These may include apparatus out or service, or lack of response from "first due" stations

"Standby at the Station" = Start the apparatus, pull it out of the station, report staffing status on the radio to incident command or communications, and monitor radio traffic closely for instructions.

"Respond and Stage in the Area" = Do not commit these apparatus to secondary or questionable roads until the incident has been located, sized up, safety of access has been confirmed, and IC has directed it.

Standing Orders for Apparatus Response

The primary objective of these standing orders is to ensure that the most appropriate and effective response is made to any and all emergency incidents. This objective is achieved by ensuring that the apparatus best able and equipped to deal with the incidents are available at the scene. However, an equally important consideration is to make certain that apparatus do not respond unnecessarily to incidents where they are inappropriate or do not add enhance the quality of the response. This ensures that adequate resource capabilities continue to exist in the District if and when additional incidents should arise.

- Generally, apparatus should only respond out of their respective station's normal coverage area when needed or requested.
- **"Respond and Stage in the Area"** means do not commit apparatus to secondary or questionable roads until the incident has been located, sized up, and access has been confirmed.
- **"Standby at the Station"** means start the apparatus, pull it out of the station, and report staffing status on the radio.
- Personnel responding to stations for standby should report their status on the radio and remain at the station until released by incident command.
- For confirmed structure or wildland fires, all apparatus should respond in the order indicated for each station.
- For EMS and rescue responses, Rescue 2 and the primary engine for the "first due" station should respond.
- For smoke reports, the primary wildland vehicle and the primary engine from the "first due" station should respond. Remaining apparatus should stand-by at stations.
- Automatic fire alarms are always treated as a structure fire until proven otherwise.
- When personnel are needed, but not additional apparatus, response by POV to the incident is appropriate.
- In general, apparatus should not respond out of district without direction from a command officer.
- Individual personnel should not respond out of district without express instructions from a command officer.
- Strict personnel accountability records should be maintained on all personnel and apparatus directed to respond out of district in support of mutual aid requests.

27. Apparatus Fire Suppression Specifications

	Station 1			Station 2			Station 3		Totals
	5501	5531	5541	5502	5532	5542	5503	5543	
NWCG Type	1	6	1	1	6	1	2	4	
Water (gal)	1,200	400	3,000	1,200	200	2,500	1,000	1,000	**10,500**
Pump (gpm)	1,250	500		1,250	500	500	500	60	
Port-a-Pond	2,500		2,500	2,500		2,500	2,500		**12,500**
Supply Hose									
2 ½" In Bed									**0'**
2 ½" Rolled	50'	300'	50'	25'	200'	50'	50'	50'	**775'**
3" In Bed	1,800'			1,800'			800'		**4,400'**
3" Rolled							300'		**300'**
Attack Hose – Structure									
1 ½" Pre-connect		200'			200'	250'			**650'**
1 ¾" Pre-connect	350'			350'			300'		**1,000'**
1 ¾" Rural Pack	200'			200'			200'		**600'**
1 ¾" Rolled	100'			100'			100'		**300'**
2 ½" Pre-connect	250'			250'		200'	250'		**950950**
3"	250'			250'					**500'**
Attack Hose – Forestry									
¾" Rolled					200'				**200'**
1" Rolled	400'	1,000'		400'	1,000'		500'		**3,300'**
1 ½" Rolled	400'	700'		400'	700'		500'	1,000'	**3,700'**
1 ½" Pre-connect		400'			400'			400'	**1,200'**
Attack Hose – Reel									
1"		200'			200'			150'	**550'**
Suction Hose									
2 ½"			15'			15'		12'	**42'**
4"		16'			20'	20'	20'		**76'**
6"	22'			22'					**44'**
Foam Concentrate									
In Tank (gal)	20	20		20			15	5	**80**
In Cans (gal)	30			30			20	20	**100**
Miscellaneous									
Pack Pumps	2	4		2	4		2	4	**18**
Hand Tools	6	10		6	10		6	14	**52**
SCBA Packs*	4	2		4	2		4		**16**
SCBA Spares*	4			4			4		**12**
Chain Saw		1			1		1	1	**4**
Ventilation Saw		12"			14"				**2**
Jet Siphon	6"	4"	4"	6" – 4"			4"		**6**
Portable Pumps			250		60	250		60	**620**
Extension Ladders	24'			24'		24'	24'		**4**
Roof Ladders	14'			14'		14'	14'		**4**
Attic Ladders	10'			10'					**2**

* Note: 4 additional SCBA Packs and 4 additional SCBA spares are carried on 5522.

28. Water Supply Tables

Essential Hydraulic Calculations

Required Pump Pressure	=	**Desired Nozzle Pressure**	+ -	**Head Pressure** (Change in elevation X .43)	+	**Friction Loss** (From table, based on length and diameter of hose)
Resulting Nozzle Pressure	=	**Available Pump Pressure**	+ -	**Head Pressure** (Change in elevation X .43)	-	**Friction Loss** (From table, based on length and diameter of hose)

Friction Loss – (p.s.i. per 100 ft of hose, synthetic lined / cloth jacket)

GPM	1"	1 ½"	1 ¾"	2 ½"	3"	2 x 2 ½"	2 x 3"	4"	5"
50	37	6	4	1					
75	84	13	9	1					
100	150	24	15	2	1				
125	234	38	24	3	1				
200		96	62	8	3	1			
250		150	96	12	5	3	1	1	
300			139	18	7	5	2	2	
400			248	32	13	8	3	3	1
500				50	20	12	5	5	2
600				72	29	18	7	7	3
700				98	39	25	10	10	4
800				128	51	32	13	13	5
900					65	40	16	16	6
1,000						50	20	20	8
1,500							45	45	18
2,000							80	80	32

Elevation and Head Pressure

Elevation Gain or Loss (feet)	- 1,000'	- 750'	- 500'	- 250'	- 100	0 ft.	+ 100'	+ 250'	+ 500'	+ 750'	+1,000'
Pressure Gain or Loss (psi)	+ 430	+ 108	+ 86	+ 65	+ 43	0	- 43	- 65	- 86	- 108	- 430

- **There is a 43 psi change in head pressure for every 100 feet of change in elevation.**
- **Elevation gain or loss is measured from the pump elevation to the nozzle elevation.**

Drafting

Elevation	Sea Level	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Maximum Draft (Lift)	15 ft.	14 ft.	13 ft.	12 ft.	11 ft.	10 ft.	9 ft.	8 ft.	7 ft.	6 ft.	5 ft.

- **There is a loss of one foot in suction (lift) capability for every 1,000 feet increase in elevation.**
- **Lift is measured from the surface of the water source to the highest point in the suction hose.**
- **To draft beyond the limits shown, it will be necessary to utilize the jet siphons.**

29. Medical Don't List

Everyone can contribute during emergency medical responses, even those who are relatively new to EMS or have received little in the way of formal training. There is always something that can be done to assist the paramedics, EMT's, and first responders. Most important, however, is the creed to "do no harm". Even if our training or equipment will not allow us to improve the patient's condition, it is critical that we do nothing to make it worse. This Medical Don't List provides basic rules to follow to ensure that we do no harm.

- Don't attempt to rescue a patient if it will endanger you or other emergency responders. Don't become "part of the problem".
- Don't, under any circumstances, handle a patient or any items that have been used near a patient, unless you are wearing protective gloves. Based on the circumstances of the incident, consider masks and gowns as well.
- Don't attempt to move or extricate victims unless they are in immediate, life-threatening danger, or unless directed and supervised by trained EMS personnel. You may worsen injuries.
- If you are asked to provide spinal immobilization, don't do it unless you know how. Once spinal immobilization has been initiated, don't stop until an EMT or paramedic tells you it is OK to let go, even if the patient insists they are fine.
- Never stand an oxygen bottle upright, always set it down on its side where it will not slide or roll. Carry it so you will not drop it. Whenever possible, the bottle should be left in its protective case or cover. The oxygen is pressurized to 2000 psi; the tank becomes a missile if the top is damaged.
- Don't make comments (jokes, sarcasm, criticisms) while on scene which you do not wish to hear repeated. The patient may be able to hear you even if they appear unconscious. Bystanders may be family or friends or the press.
- Don't offer to do anything you are not trained to do. If you are asked to do something you do not know how to do or are not comfortable doing, say so.
- Don't openly question or criticize another rescuer's procedures. Use discretion. Feel free to ask about it in an appropriate context.

30. Medical Equipment Locations

EQUIPMENT	5522	5501	5502	5503
Medical Kit	Streetside, wheel well cmpt, bottom shelf	Streetside, forward lower cmpt, bottom shelf	Streetside, forward lower cmpt, bottom shelf	Curbside, forward upper cmpt, bottom shelf
Pediatric Kit	Streetside, wheel well cmpt, bottom shelf	Behind driver's seat in cab		Curbside, forward upper cmpt, top shelf
Defibrillator	Streetside, wheel well cmpt, second shelf	Streetside, forward lower cmpt, top shelf		Curbside, forward upper cmpt, bottom shelf
Portable Suction	Streetside, wheel well cmpt, second shelf	Streetside, forward upper cmpt, top shelf		Curbside, forward upper cmpt, bottom shelf
Pulse Oximeter	Streetside, wheel well cmpt, second shelf	Streetside, forward upper cmpt, top shelf		Curbside, forward upper cmpt, top shelf
Oxygen Cylinders & Regulators	Streetside, wheel well cmpt, third shelf (2), In Medical Kit (1), and Evac Oxygen Pack in Streetside, #2 cmpt, second shelf (2)	In Medical Kit (1)	In Medical Kit (1)	In Medical Kit (1)
Cervical Collars	Front transverse cmpt, Both sides	Streetside, forward lower cmpt, bottom shelf, rear	Streetside, forward lower cmpt, bottom shelf, rear	Curbside, forward upper cmpt, top shelf
BP Cuff / Stethoscope	In Medical Kit & MCI Kits	In Medical Kit	In Medical Kit	In Medical Kit
Oxygen Masks and Cannulas	In Medical Kit, MCI Kits, Oxygen Packs, and Walk-in cmpt	In Medical Kit	In Medical Kit	In Medical Kit
Oral/Nasal Airways	In Medical Kit, MCI Kits, and Oxygen Packs	In Medical Kit	In Medical Kit	In Medical Kit
Resuscitator (Ambu Bags)	In Medical Kit & MCI Kits and Evac Oxygen Pack	In Medical Kit	In Medical Kit	In Medical Kit
Back Board(s)	Front transverse cmpt, top shelf (6)	Fold down, Port-a-pond rack (1)	Fold down, Port-a-pond rack (1)	Ladder rack (1)
Scoop(s)	Front transverse cmpt, top shelf and stokes (2)			Ladder rack (1)
Stokes Litter	Front transverse cmpt, second shelf			Ladder rack (1)
Full Body Vacuum Splint	Front transverse cmpt, second shelf in stokes			
Ladder Splints	In Medical Kit	In Medical Kit	In Medical Kit	In Medical Kit
Extremity Vacuum Splints	Streetside, wheel well cmpt, top shelf			Curbside, middle upper cmpt, top shelf
Traction Splints	Streetside, wheel well cmpt, bottom shelf	Streetside, forward lower cmpt, bottom shelf		In Medical Kit
MAST Pants	Streetside, wheel well cmpt, top shelf	Streetside, forward lower cmpt, bottom shelf		Curbside, forward upper cmpt, bottom shelf
Blankets / Sleeping Bags	Walk-in compartment, under bench seat			Curbside, middle upper cmpt, top shelf
Obstetrical Kit	In Pediatric Kit	In Pediatric Kit	In Pediatric Kit	In Pediatric Kit
I.V. Supplies	Walk-in cmpt	In Medical Kit	In Medical Kit	In Medical Kit
Sharps container	Walk-in cmpt & Medical Kit	In Medical Kit	In Medical Kit	Curbside, forward upper cmpt, bottom shelf
Exam Gloves	Walk-in cmpt	Streetside, forward lower cmpt, door	Streetside, forward lower cmpt, door	Curbside, forward upper cmpt, top shelf
Face Masks	In Medical Kit, MCI Kits, and Walk-in cmpt	In Medical Kit	In Medical Kit	In Medical Kit
Bio-hazard Bags	In Medical Kit, MCI Kits, and Walk-in cmpt	In Medical Kit	In Medical Kit	In Medical Kit

31. Wildland Fire Indices

Burn Index

BURN INDEX	FLAME LENGTH (shown in feet)	INTENSITY (BTU's/ft/sec)	COMMENTS
0 - 30	0 - 3	0 - 55	Normal range for prescribed burns.
30 - 40	3 - 4	55 - 110	Represents the limit of control for direct manual methods.
40 - 60	4 - 6	110 - 280	Machine methods usually necessary or indirect attack should be used.
60 - 80	6 - 8	280 - 520	Prospects for direct control by any means are poor above this intensity.
80 - 90	8 - 9	520 - 670	Heat load on people within 30 feet of the fire is dangerous.
90 - 100	9 and over	670 - 1050	Spotting, fire whirls and crowning should be expected.

Manning Class

MANNING CLASS	MAXIMUM RESPONSE TIME	MINIMUM MANPOWER	FIRE APPARATUS *
CATEGORY I: Human habitation and improvements interspersed in the forest are overriding the forest fire protection concern.			
1 & 2	20 Minutes	6	1
3	20 Minutes	8	1
4	20 Minutes	12	2
5	20 Minutes	16	2
CATEGORY II: Human habitation and improvements interspersed in the forest modify traditional forest fire protection concerns.			
1 & 2	2 Hours	5	1
3	2 Hours	5	1
4	1 Hour	8	1
5	1 Hour	12	2
CATEGORY III: Traditional forest values are the primary forest fire protection concerns.			
1 & 2	4 Hours	3	0
3	4 Hours	3	0
4	2 Hours	6	0
5	1 Hour	9	0

Manning Class 1: Fuels wet and fires slow
Manning Class 2: Below average severity
Manning Class 3: Normal ("typical" summer range)
Manning Class 4: Very high - 10% of days
Manning Class 5: Severe - normal frequency 3% of days

32. NWCG Typing Specifications

Engines

COMPONENTS	MINIMUM STANDARDS FOR TYPE						
	1	2	3	4	5	6	7
Pump Capacity (GPM)	1000	250	150	50	50	30	10
Tank Capacity (gallons)	400	400	500	750	400	150	50
Hose, 2 ½" (feet)	1200	1000					
Hose, 1 ½" (feet)	400	500	500	300	300	300	
Hose, 1" (feet)			500	300	300	300	200
Ladder (feet)	48	48					
Heavy Stream (GPM)	500						
Personnel (minimum) *	4	3	3	3	3	3	3

* Personnel *must include one red-carded Engine Boss. The remainder of the crew must be red-carded as FFT-2 minimum.*

Tenders

COMPONENTS	MINIMUM STANDARDS FOR TYPE			
	1	2	3	4
Pump Capacity (GPM)	300	200	200	
Tank Capacity (gallons)	5000	2500	1000	1000

Helicopters

COMPONENTS	MINIMUM STANDARDS FOR TYPE			
	1	2	3	4
Seats, Including pilot	16	10	5	3
Card Weight Capacity (pounds)	5000	2500	1200	600
Tank Capacity (gallons)	700	300	100	75
Examples	Bell 214	Bell 212	Bell 206	Bell 47

Air Tankers

COMPONENTS	MINIMUM STANDARDS FOR TYPE			
	1	2	3	4
Tank Capacity (gallons)	3000	1800	600	100
Examples	C-130, P-3	DC-4, P2V	S-2	Thrush

33. Radio Procedures & Arrival Modes

Arrival Mode	Action Required
Command	▪ Name the incident ▪ Assume command ▪ Stay available for further radio traffic
Fast Attack	▪ Not establishing command at this time ▪ Initiating fire attack with resources on hand ▪ Probably not available for further radio traffic ▪ Next unit in should establish command
Medical	▪ Not establishing command at this time ▪ Initiating patient evaluation and treatment ▪ Probably not available for further radio traffic ▪ Next unit in should establish command
Investigation	▪ Not establishing command at this time ▪ Will investigate the nature of the incident ▪ Will advise of additional resources and / or actions required ▪ May not be available for further radio traffic ▪ Next unit in should establish command

Tactical Channels:

* If the incident will require coordination with mutual aid resources, request a Tactical (Tac) channel from dispatch on BCFD. Dispatch should allocate one of the county-wide Tac channels for the incident.

* When the incident is terminated, inform 1800 that the channel is released.

* Larger incidents may require multiple Tac channels for different purposes - staging, water handling, operations, etc.

* FTAC 3, FTAC 4, FTAC 5, and FTAC 7 (formerly known as Red 3, Red 4, etc) are tactical channels shared throughout Boulder County.

* FTAC 6 is a repeated channel, and should generally be reserved for use as a command channel.

Large Incident Communications Plans:

* For larger (Type 3) incidents, the county has agreed upon an "extended attack" communications plan. The plan uses radio channels that the FCC has allocated for interoperability on large incidents, leaving the county radio channels free for normal operations outside of the large incident.

* This communications plan should be available in one bank of the Bendix king radios. Consult the channel reference card for specifics.

* Large incidents may also have a different communications plan. In this case, you will need to "clone" the frequencies for the incident into your radio. Simply select an unused bank (12-16). Be sure to consult the IAP (incident action plan) for more details on the communications plan.

34. Communications DO's and DON'Ts

Do:	▪ Compose your message before keying the mic, clearly state your message. ▪ Keep the mic close to your mouth and talk across it ▪ Speak clearly and in a normal voice. ▪ Say the designation of the unit you are calling first, then your unit designation ▪ Acknowledge receipt of messages ▪ Say the channel you are transmitting on then calling another unit ▪ Pause briefly when transmitting on BCFD and FTAC 3 to give the repeater time to begin broadcasting ▪ Be professional – you represent the department and the fire service
Don't:	▪ Talk on the radio unless it is necessary ▪ Use acronyms and codes ▪ Shout into the microphone – avoid "popping" by not over-annunciating ▪ Tie up the channel with superfluous traffic ▪ Use unprofessional or inappropriate language ▪ Transmit without verifying that you are on the correct channel ▪ Transmit until you are sure what you are going to say ▪ Forget to acknowledge receipt of messages

35. Boulder County Unit Designators

Radio Series	Agency
1800	Boulder Communications
1900	Rocky Mountain Rescue
2100	City of Longmont Fire
2200	Mountain View Fire Protection District
2300	**Boulder Rural Fire Protection District**
2400	Cherryvale Fire Protection District
2500	Boulder Fire - Rescue (City)
2600	Lafayette Fire Department
2700	Louisville Fire Department
2800	Hygiene Fire Protection District
2900	Front Range Rescue Dogs
3000	Longmont Emergency Unit
3100	Boulder Emergency Squad
3200	Boulder County Haz-Mat Team
3900	Boulder Open Space / Mountain Parks (City)
4000	Lyons Fire Department
4100	Lefthand Fire Protection District
4200	Jamestown Fire Department
4300	Boulder Mountain Fire Protection District
4500	Sunshine Fire Protection District
4600	**Four Mile Fire Protection District**
4700	Eldorado Springs Fire Department
5000	Big Elk Meadows Fire Protection District
5100	Pinewood Springs Fire Protection District
5200	Allenspark Fire Department
5300	Indian Peaks Fire Protection District
5400	Gold Hill Fire Protection District
5500	**Sugar Loaf Fire Protection District**
5600	**Nederland Fire Department**
5700	**Timberline Fire Protection District**
5800	Coal Creek Fire Department
5900	United States/Colorado State Forest Service

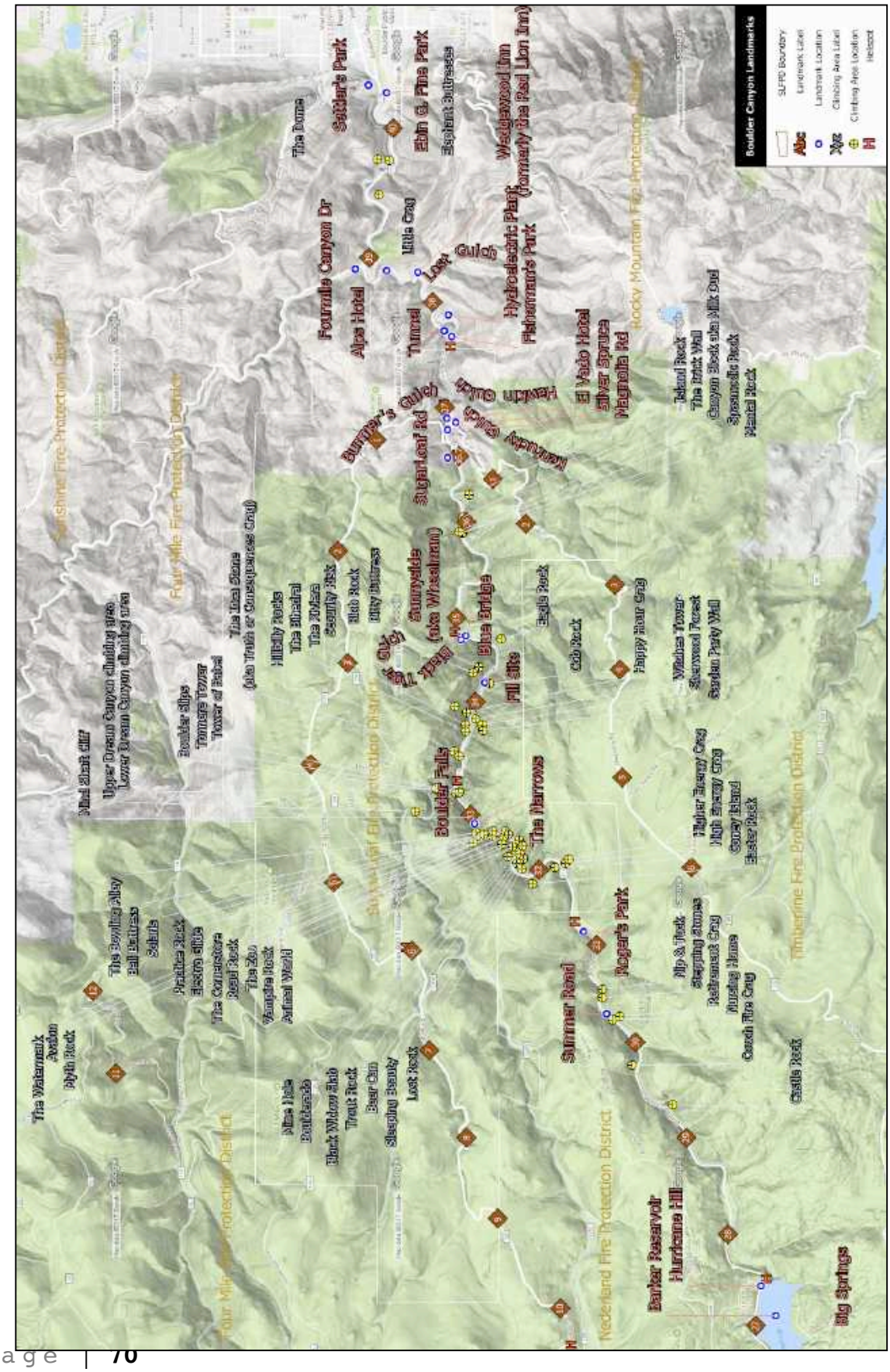
Apparatus Designations

NUMBER	ASIGNMENT	NUMBER	ASSIGNMENT
00 -15	Structure Engines	40 - 49	Tenders
16 - 19	Aerials	50 - 59	Support Vehicles
20 - 29	Rescues - Ambulances	60	Department (Generic)
30 - 39	Squads – Brush Trucks	61-99	Personnel

36. Landmarks on Highway 119

Mile Mark	Landmark	Climbing	Parking	Fill Site
26.0	**Nederland**		X	
29.1	**Castle Rock**	X		
31.5	**West end of Sugar Loaf Fire District**			
32.4	west end of narrows - parking on west side			
32.8	**Bell Buttress** (Liberty Bell Buttress)	X		
	Practice Rock	X		
33.0	east end of narrows - parking on east side			
33.2	**Boulder Falls**	X		
	Tonnere Tower	X		
33.5 - 7 - 9	parking			
34.0	parking			
34.2	excellent fill site			X
	Happy Hour Crag	X		
	Security Risk	X		
	Blob Rock	X		
34.2	**Cob Rock**	X		
34.6	**Eagle Rock**	X		
34.8	blue bridge - excellent parking site		X	
35.2	Fitz's bridge - excellent parking area		X	
35.4	bridge - just east of good parking		X	
35.5	red bridge			
35.7	**Black Tiger Gulch** - old wooden bridge			
35.8	**Sunnyside (aka Wheelman)**		X	
35.8 - 9	parking		X	
36.1 - 2	loop road		X	
36.3	**Brick Wall**	X		
36.7	**Sugar Loaf Road**			
36.9	**Magnolia Road**			
36.91	**Kentucky Gulch**			
37.0	**El Vado Motel**			
37.126	bridge			
37.13	**Bummer's Gulch**			
37.29	**Hawkin Gulch**			
37.296	bridge			
37.6	**East end of Sugar Loaf Fire District**			
37.8	**Tunnel**			
38.468	**Red Lion Inn**		X	X
38.46	**Lost Gulch**		X	
38.6	**The Alps**			
38.9	**Four Mile Canyon** - excellent parking		X	X
39.9	The Dome	X	X	
39.9	Elephant Buttresses	X	X	
40.0	**Boulder - Canyon Boulevard and Arapaho Road**			

37. Highway 119 Landmark Map



38. Road Locations in the SLFPD

ROAD NAME	LOCATION	MILE MARK	COUNTY MAP BOOK PAGE*
Arkansas Mountain Road	4th left off Mountain Pines Rd	1.0	33C
Betasso Road	North off Sugar Loaf Rd	0.9	33D
Boulder View Road	South off Sugar Loaf Rd	3.5	33C
Broken Fence Road	1st left off Betasso Rd	0.1	33D
Canyon View Road	1st left off Kelly Rd East		33D
Chapman Road	1st right Lost Angel Rd East		33C
Coughlin Meadows Road	North off Sugar Loaf Rd	8.6	31
Coyote Court	Off Nightshade Dr and Primos Rd		32B
Douglas Court	1st left off Kelly Rd West		33D
Good Friday Road	1st Left Off North Gulch & Lost Angel Rd		32A
Gordon Creek Road	1st left off Coughlin Meadows Rd		31
Kelly Road (East)	South off Sugar Loaf Rd	1.05	33D
Kelly Road (West)	South off Sugar Loaf Rd	0.1	33D
Labelle Road	North off Sugar Loaf Rd	4.3	32A
Left Fork Road	1st left off Mountain Pines Rd		33C
Lost Angel Road (East)	South off Sugar Loaf Rd	3.05	33C
Lost Angel Road (West)	1st left off Old Town Site Road		32A
Magnolia Road	South of Hwy 119 at 36930	36.93	33D, 36, 37
Millionaire Drive (East)	South off Sugar Loaf Rd	1.95	33C
Millionaire Drive (West)	South off Sugar Loaf Rd	2.25	33C
Mountain King Road	1st left off Left Fork Rd		33C
Mountain Meadows Road	North off Sugar Loaf Rd	3.1	33C
Mountain Pines Road	North off Sugar Loaf Rd	3.45	33C
Nightshade Drive	1st right off Primos Rd		32B
North Gulch Road	3rd right off Lost Angel Rd West		32A
Old Post Office Road East	North off Sugar Loaf Rd	4.1	32A
Old Post Office Road West	North off Sugar Loaf Rd	4.25	32A
Old Townsite Road	South off Sugar Loaf Rd	4.3	32A
Old Whisky Road	1st left off Magnolia Rd	0.8	33
Owl Creek Road	2nd right off Lost Angel Rd West		32A
Plains View Road	3rd left off Mountain Pines Rd		33C
Post Boy Road	2nd left off Mountain Pines Rd		33C
Primos Road	North off Sugar Loaf Rd	6.7	32B
Sandy Drive	1st right off Kelly Rd West		33D
Silver Spruce	South off Hwy 119 at Magnolia	36.9	33D
South Peak Road	North off Sugar Loaf Rd	5.0	32A
South Peak Lane	2nd left off South Peak Rd		32A
South Peak Trail	1st left off South Peak Rd		32A
Sugar Court	North off Sugar Loaf Rd	2.8	33C
Sugar Loaf Mountain Road	North off Sugar Loaf Rd	4.7	32A
Switzerland Park Road	South off Sugar Loaf Rd	6.6	32B
Switzerland Trail	End of Sugar Loaf Mountain Rd		32, 32B, 31, 32A
Weaver Drive	North off Sugar Loaf Rd	1.2	33D
Wild Tiger Lane	1st right off Mountain Meadows Rd		33C
Wild Tiger Road	1st left off Mountain Meadows Rd		33C

* the Boulder County Mountain Address Book can be found at:
http://www.bouldercounty.org/doc/sheriff/contour11.pdf (contour map) or
http://www.bouldercounty.org/doc/sheriff/plan11.pdf (roads/addresses, no background)

39. Subdivision Locations in the SLFPD

SUBDIVISION	LOCATION	MAP PAGE
Coughlin Meadows	8.6 mile mark Sugar Loaf Road (Coughlin Meadows Road)	31
Mountain Meadows	3.1 mile mark Sugar Loaf Road (Mountain Meadows Road)	33C
Mountain Pines	3.45 mile mark Sugar Loaf Road (Mountain Pines Road)	33C
Pride of the West	3.5 mile mark of Sugar Loaf Road (Boulder View Road)	33C
Silver Springs	6.7 mile mark of Sugar Loaf Road (Primos Road)	32B
Silver Spruce	36.9 mile mark of Highway 119 (Magnolia Road)	33D
Sugar Loaf Acres	2.25 mile mark of Sugar Loaf Road (Millionaire Drive West)	33C
Swiss Peaks	4.7 mile mark of Sugar Loaf Road (Sugar Loaf Mountain Road)	32A
Switzerland Park	6.6 mile mark of Sugar Loaf Road (Switzerland Park Road)	32B
Tall Timbers I & II	1.05 mile mark of Sugar Loaf Road (Kelly Road East and West)	33D
Tall Timbers III	0.9 mile mark of Sugar Loaf Road (1st Left off Betasso Road)	33D