

Colorado Division of
Water Resources

COLORADO DAM SAFETY BRANCH

September 2013 Flood

October 2013



Summary Of Activities

- Called 226 Dam Owners
- Responded to 34 Incidents
- Responded to 10 media requests
- DSEs Performed 152 Immediate Dam Assessments
- Manned 4 EOCs
- Performed 8 Forensic Investigations
- Organized over 100 engineers to perform 200 emergency inspections

Helibase



Helibase Sept 16



Emergency Operation Center



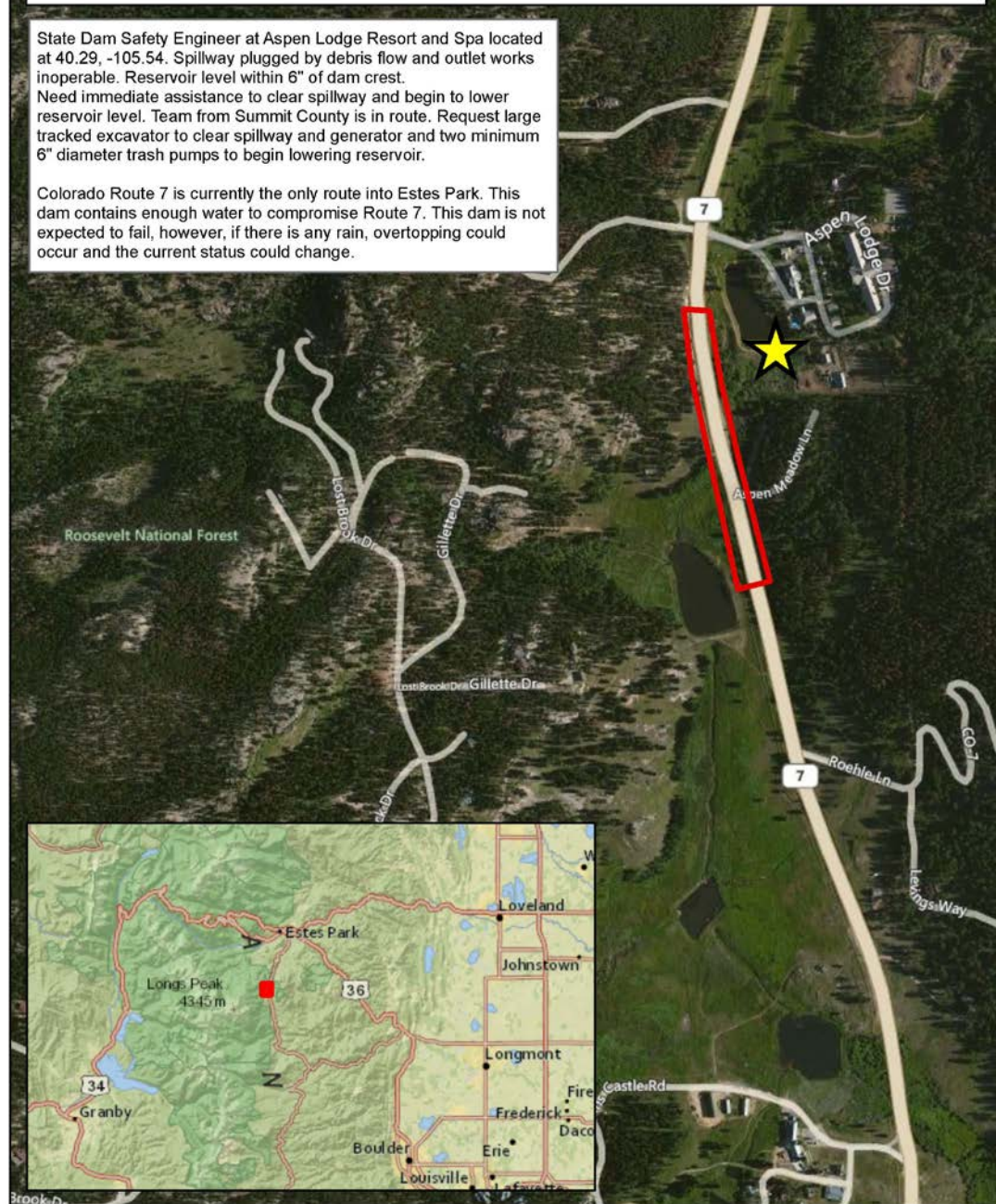
*Threat to Hwy 7
and dam
downstream
recognized 9/19*

Aspen Lodge Resort and Spa - Dam Assessment



State Dam Safety Engineer at Aspen Lodge Resort and Spa located at 40.29, -105.54. Spillway plugged by debris flow and outlet works inoperable. Reservoir level within 6" of dam crest. Need immediate assistance to clear spillway and begin to lower reservoir level. Team from Summit County is in route. Request large tracked excavator to clear spillway and generator and two minimum 6" diameter trash pumps to begin lowering reservoir.

Colorado Route 7 is currently the only route into Estes Park. This dam contains enough water to compromise Route 7. This dam is not expected to fail, however, if there is any rain, overtopping could occur and the current status could change.





Debris Flow into Spillway, Dam overtopped,



*Owner Unable, EOC Resources distant,
Prioritize, Improvise, begin to lower Reservoir (9/20)*

Colorado Division of
Water Resources



*Mobilize local Excavator, after working out
payment (9/21)*

Colorado Division of
Water Resources



Danger Mitigated (9/21), Rain falls again 9/22

Colorado Division of
Water Resources

Emergency Dam Inspections Program

<i>Emergency Dam Inspections Program Statistics</i>		
Participants	Number	Comments
Volunteer Engineers	101	All Colo. Professional Engineers
Federal Agencies	4	NRCS, USACE, USBR, FERC
State Agencies	1	Wyoming
Engineering Consultant Firms	27	From up and down Front Range

Lesson Learned

- Reporting requirements
 - County emergency operation centers
 - Governor
 - Media
- A lot of time spent communicating
- Difference in overtopping, spilling, failing

DAM OVERTOPPING

Greeley Tribune and Denver Post Website: 9/13/2013:

UPDATE, 11 a.m. — Residents around the Latham Dam south and west of Kersey at Weld County roads 50 and 51 are advised to evacuate immediately. The dam is overtopping by 4 feet and two gates are already lost. A reverse 911 is going out to all area residents.



OR NOT

Big Elk Meadows Dam Failures



Big Elk Meadows Dam Failures



Big Elk Meadows Dam Failures



Big Elk Meadows Dam Failures



Big Elk Meadows Dam Failures



Big Elk Meadows Dam Failures



Colorado Division of
Water Resources

Big Elk Meadows Dam Failures



Carriage Hills Dams, Estes Park



Button Rock Reservoir



Button Rock Reservoir

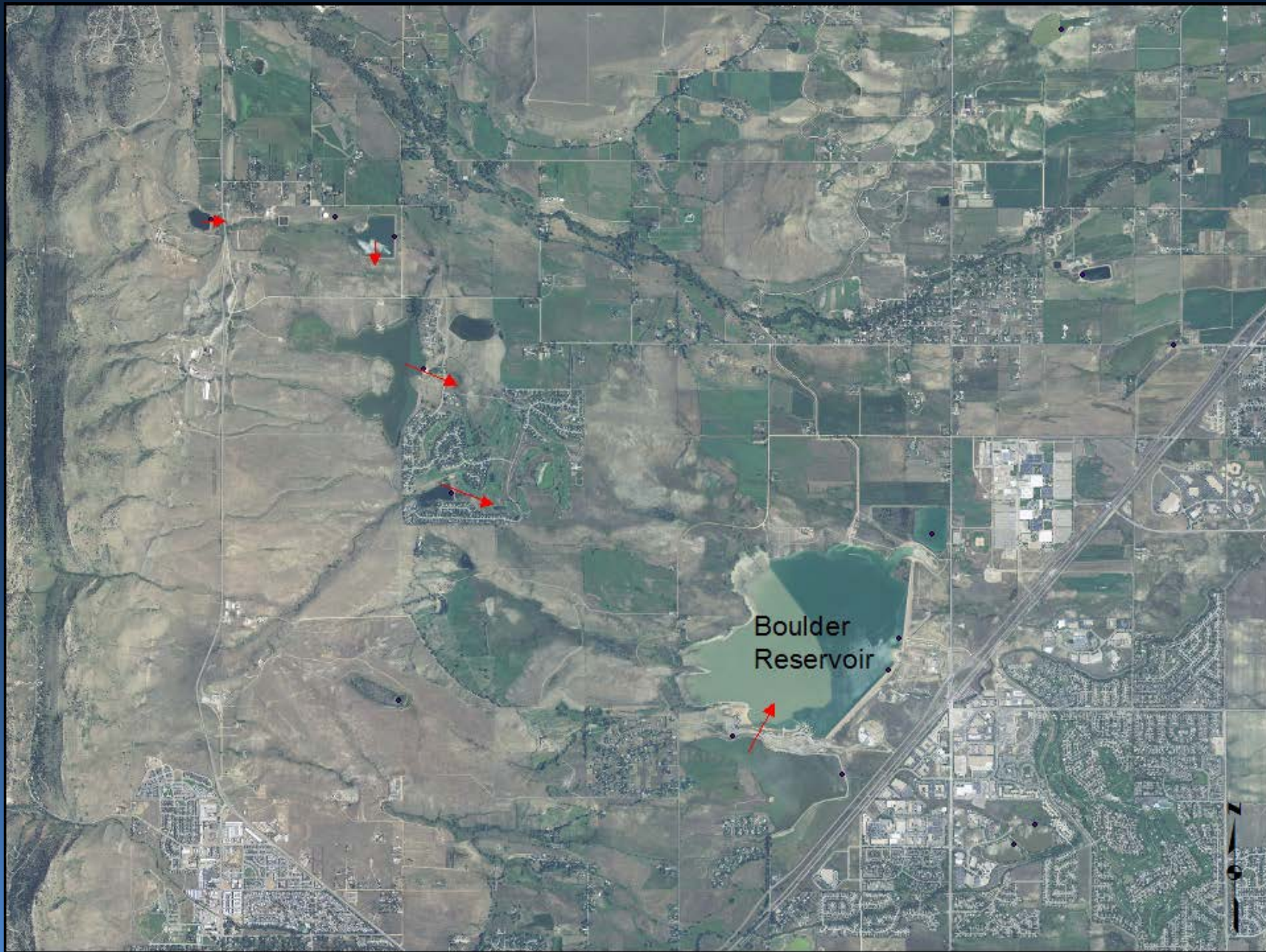


Button Rock Reservoir



Button Rock Reservoir





Lefthand Valley Reservoir

