Hewlett Gulch Wildfire
And High Park Wildfire
February 2013
Issue: Wildfires and Water

- Runoff from the High Park and Hewlett Gulch Fires in Larimer Co. are threatening reservoirs, diversion structures, & water supplies serving > 300,000 people.
- At this time, the quality of the drinking water supply is not affected.
- Water treatment staff are working hard to maintain high water quality.
High Park Fire
87,284 acres

Hewlett Gulch Fire
7,685 acres

Milton Seaman Reservoir

Greeley’s Filter Plant

Horsetooth Reservoir

Fort Collins’ Diversion

Tri-Districts’ Diversion

High Park Fire
87,284 acres
U.S. Forest Service Asked Permission To Use Our Water – Granted Gratefully
Effects of Wildfires on Supplies

- Municipalities were mostly off of Poudre diversion during the summer of 2012 due to “black water”

- Runoff creates high “Total Organic Carbon” loading
  - Creates taste and odor problems
  - Increases chemical costs
  - Increases disposal costs

- Erosion causes sediment which can...
  - Plug diversion structures
  - Fill reservoirs
Recent Debris Flow at Boyd Gulch
Recent Debris Flow and Flooding into Poudre River
Sediment above Greeley’s Diversion
Poudre River at Greeley Diversion in July
Hewlett Gulch Fire (the small one)

- Fire affected 7,685 acres, 30% moderate or severe burn
- Forest Service mitigated Federal lands
  - Of the 1,500 acres moderate burn and 700 acres severe burn, Forest Service mitigated 650 acres most critical
  - Greeley wanted more area mitigated and paid for it
- Greeley was Lead Sponsor for private land – 556 acres
  - Greeley selected helicopter company: $710,000
  - Needed agreements with 4 private landowners
  - Actual treatment could not begin until High Park fire was contained the following month
Debris entering Milton Seaman Reservoir
Funding Hewlett Fire Mitigation

- Majority of Hewlett fire damage drains into Greeley’s Milton Seaman Reservoir, so Greeley took the lead
- Greeley paid for mitigation and was partially reimbursed
- National Resource Conservation Service (NRCS) signed a reimbursement agreement with Greeley for 556 acres
  - 75% reimbursable = $500,000
  - Actual bid was $710,000
  - Greeley’s cost = $210,000
High Park Fire – 10 times as large

- Four lead sponsors
  - Greeley -- only one with NRCS reimbursement contract+
  - Ft. Collins
  - Larimer County
  - Tri-Districts (ELCO, North Weld, Ft.C-Loveland Water)
- Joint EWP/BAER report identified 5,600 acres of non-federal land requiring treatment
- Obtaining land owner permission is critical: Larimer Co. is taking the lead – 250 land owners on non-federal lands
- Federal land managed by Forest Service – similar acreage
Funding High Park Mitigation

- Greeley, Fort Collins, Tri-Districts are cooperating for mitigation of 5,600 acres of private land
  - $9.9 million dollar per NRCS damage survey
    - $7.4 million soil treatment + $2.5 million structures
  - IGAs between parties define cost share agreement
    - 45% Greeley  +  44% Ft.Collins  +  11% Tri-Districts
    - + City of Loveland
- Limited ($1.1 M) federal money is available in 2012
- We can’t wait
High Park Mitigation in 2 Phases

- Phase I in **2012**: 3,000 acres ~ $3.6 million
  - Greeley is managing contracts
  - Fort Collins is assessing water treatment options
  - Larimer Co. is acquiring land owner access
  - Using same contractor as Hewlett Gulch
  - 70% paid by water providers after reimbursement of $1.1 million from NRCS
- NRCS asked for more funding in Hurricane Sandy emergency relief bill,
  - Bill was just pulled by House Republicans
High Park Mitigation in 2 Phases

- Phase II in **2013**: 2,600 acres ~ $3.4 million
  - Asking NRCS to manage the vendor, acquire access, and provide 75% federal share
  - $2.5 million needed for erosion control structures
  - Maintaining funding coalition will be a challenge
  - Forest Service has the funding for their 4,300 acres of mitigation in 2013
High Park Mitigation Phase 1

- **First bite - Phase Ia.**
  - Hill Gulch – $1.4 million mulching – 1,152 acres – only 12 landowners - **Completed September 10**

- **Second bite - Phase Ib.** – Poudre & Big Thompson
  - Boyd Gulch and 11 other Drainages - $1.8 million mulching – 1,400 acres – over 25 landowners – Start Sept. 13 – **completed October 10**
  - Big Thompson - Buckhorn Gulch – 5 drainages - $650,000 mulching – 450 acres – 55 landowners
Steep terrain subject to erosion, mitigated with straw

Unnamed Tributary to Hill Gulch
Steep terrain subject to erosion, mitigated with straw.

Stripes are shadows of morning sun thru burned trees.

Unnamed Tributary to Hill Gulch.
Pilot Study – Hewlett Gulch Supplemental Mitigation

- JW Associates did risk analysis for drainages leading into Milton Seaman Reservoir
- Wild Land Restoration Volunteers and other non-profits volunteered to help
- Treated and additional 20 acres above Milton Seaman Reservoir
- Partnership with the Forest Service
- Tree Felling, re-seeding, aerial and ground mulching
What Next?

- JW Associates is doing risk analysis for Poudre
  - What worked last year?
  - What else needs to be done?
  - If reservoirs are not at risk, do water providers need to do anything more?
- Federal funding is doubtful
- Umbrella non-profit has been created
- Develop programs with U.S. Forest Service
  - Enhanced stabilization (tree felling, check structures)
  - Forest thinning to reduce fuel load
  - Pre-positioned permits for forest access
# High Park Fire Final Watershed Hazard Ranking

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<tr>
<th>Watershed</th>
<th>Area (acres)</th>
<th>Gradient Rank</th>
<th>Debris Flow Rank</th>
<th>Burn Severity Rank</th>
<th>Peakflow</th>
<th>Distance to Supply Rank</th>
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CPW – High Park Non-Profit

- CPW Formed from HP Fire Coalition
- Established - Non Profit CPW
- Trees Water People, FTC, Greeley, TU, Wild Lands, CCE And many others
  - Focus Assist with grants and funding
  - Permitting and Outreach
  - Manage projects – on the ground
  - Monitoring

- What can we do to enhance the river while we mitigate?
The Poudre and the Big Thompson are vital to water supplies in all Northern Colorado. The rivers supply over 300,000 with drinking water and irrigate over 640,000 acres. Sediment transport from burned areas threatens roads, water supplies, diversion structures, and property along the rivers. We appreciate the NRCS, Forest Service, and municipal partnerships.