

Upper Mokelumne Watershed Meadows

Restoring Watershed Services



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Reviewed by R. Farrington

Project Goals

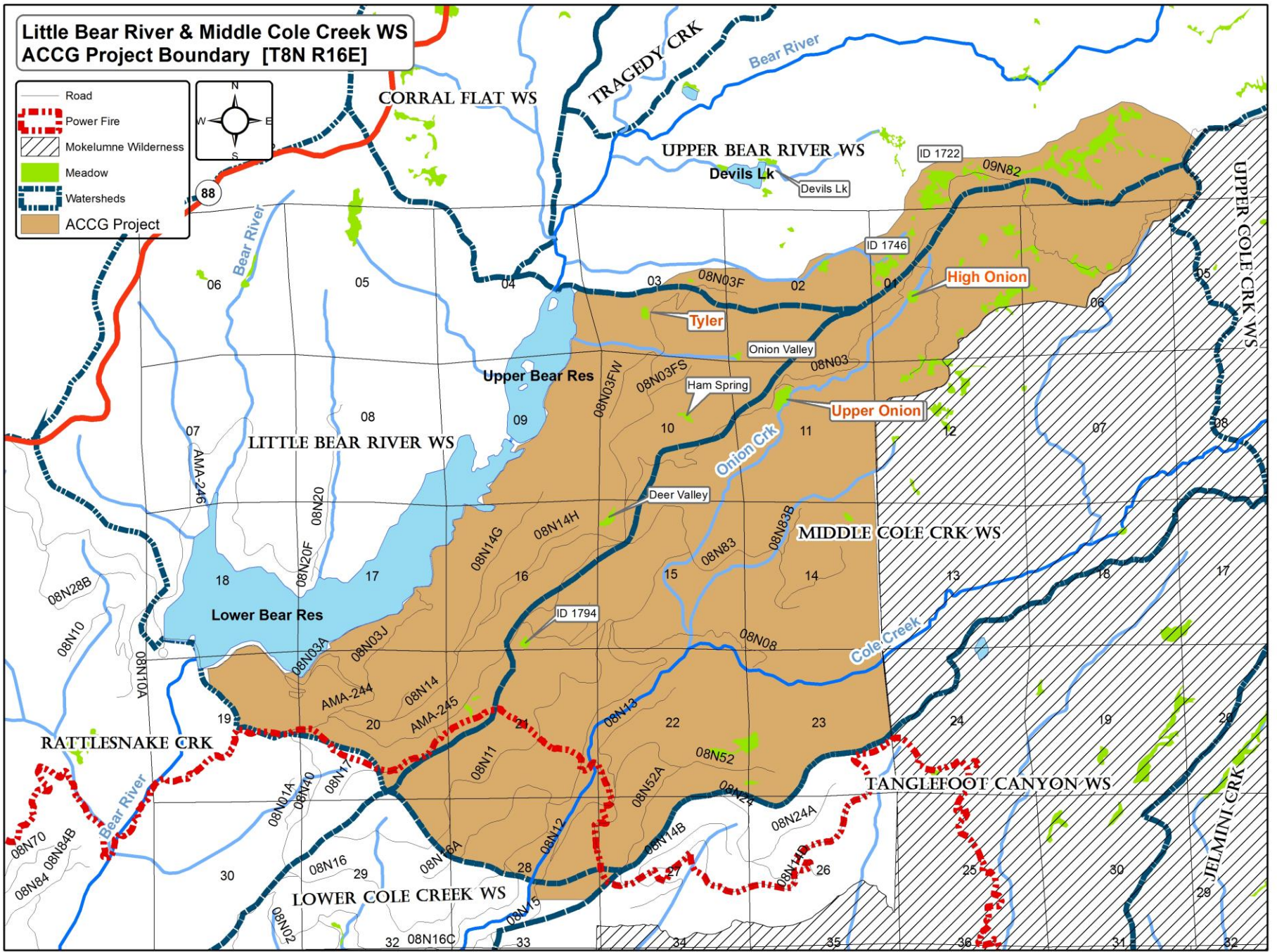
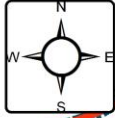
- Increase pace and scale of restoration post-Cornerstone
 - ACCG members take lead in funding and pre-project assessment
- Restore watershed services
 - Restore hydrology
 - Improve meadow habitat for sensitive species
 - Improve stream habitat for sensitive species
 - Improve grazing habitat long-term
- Build capacity for restoration work with local workforce



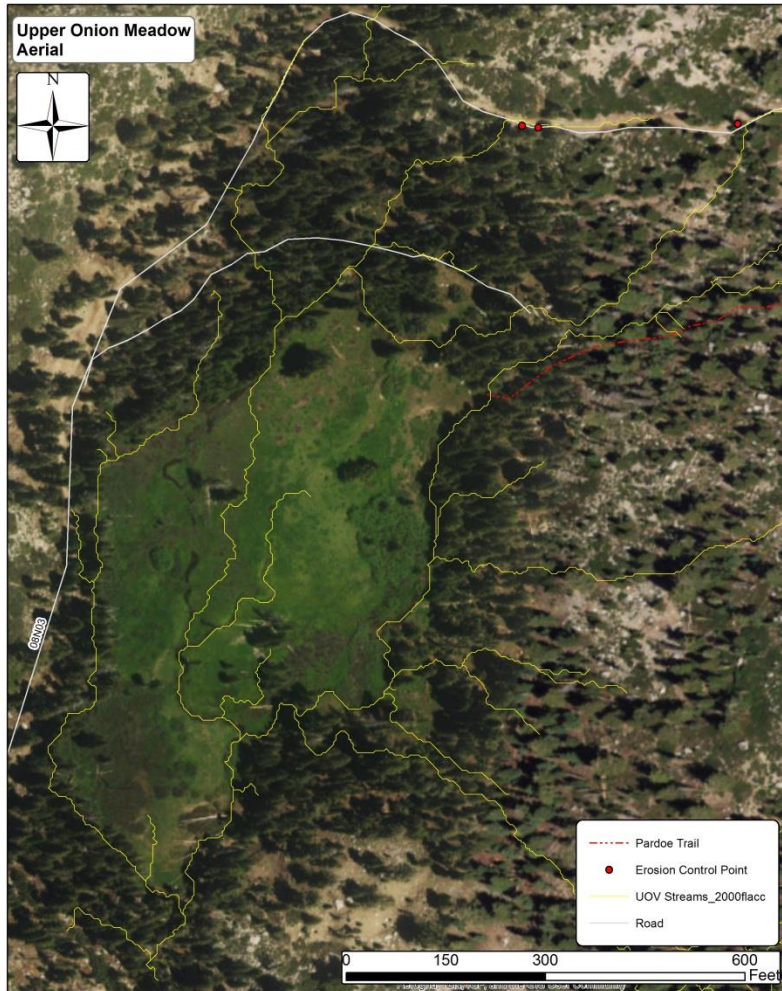
**Little Bear River & Middle Cole Creek WS
ACCG Project Boundary [T8N R16E]**

Legend:

- Road
- Power Fire
- Mokelumne Wilderness
- Meadow
- Watersheds
- ACCG Project



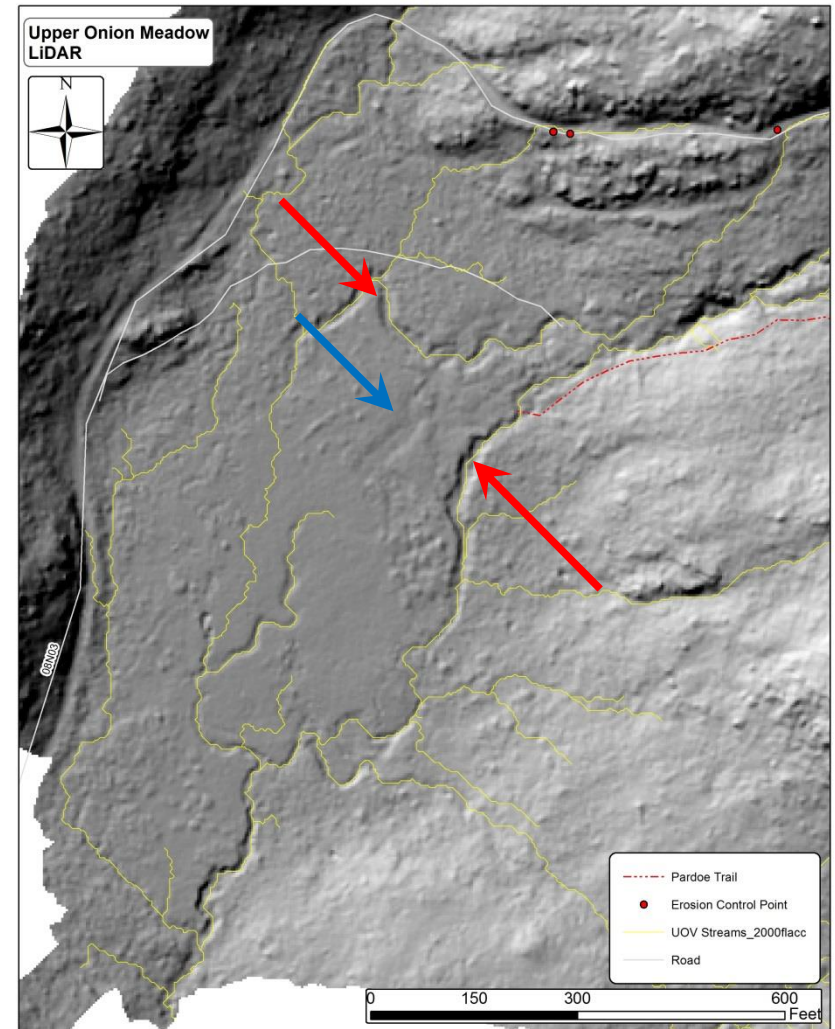
Upper Onion Valley



Mdws_UpOnion_Lidar

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Map by McGreevy, Farrington & Nicita 8/15/17



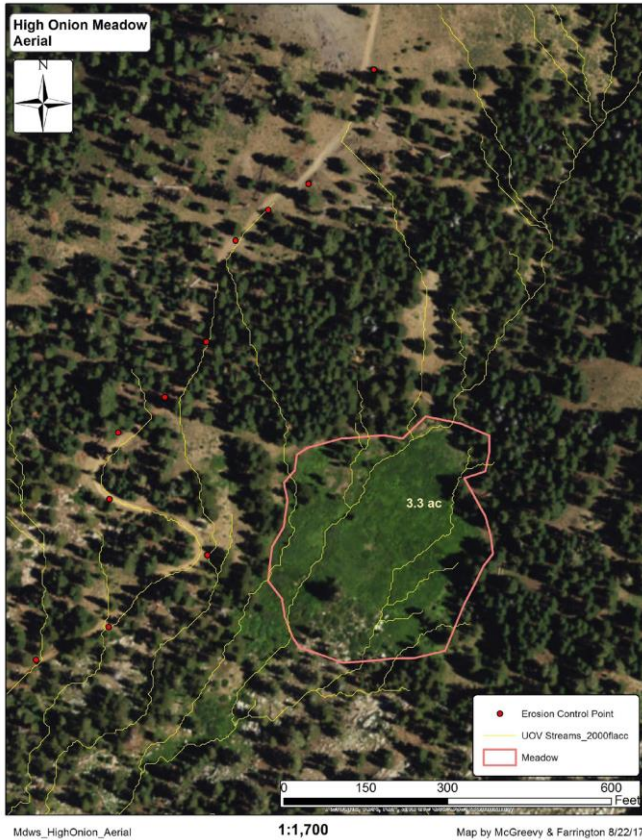
Mdws_UpOnion_Lidar

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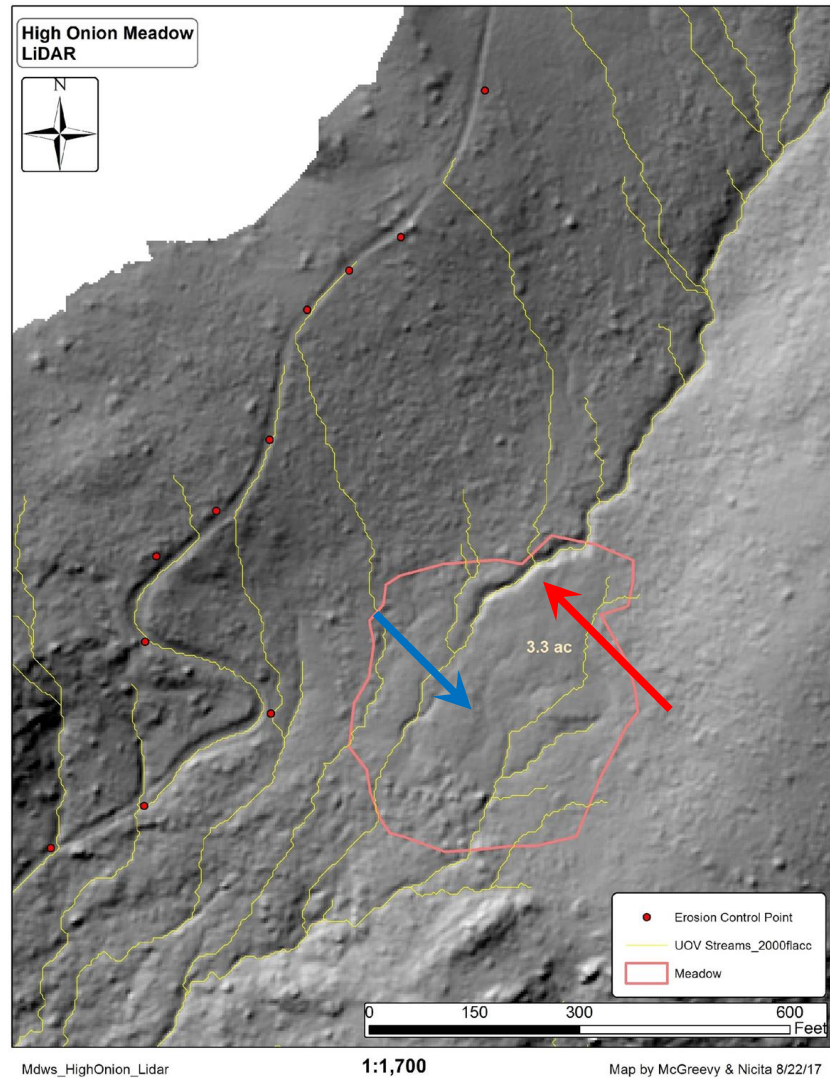
Map by McGreevy, Farrington & Nicita 8/15/17

- Incised channels dewater meadow (red arrows)
- Remnant channel (blue arrow)

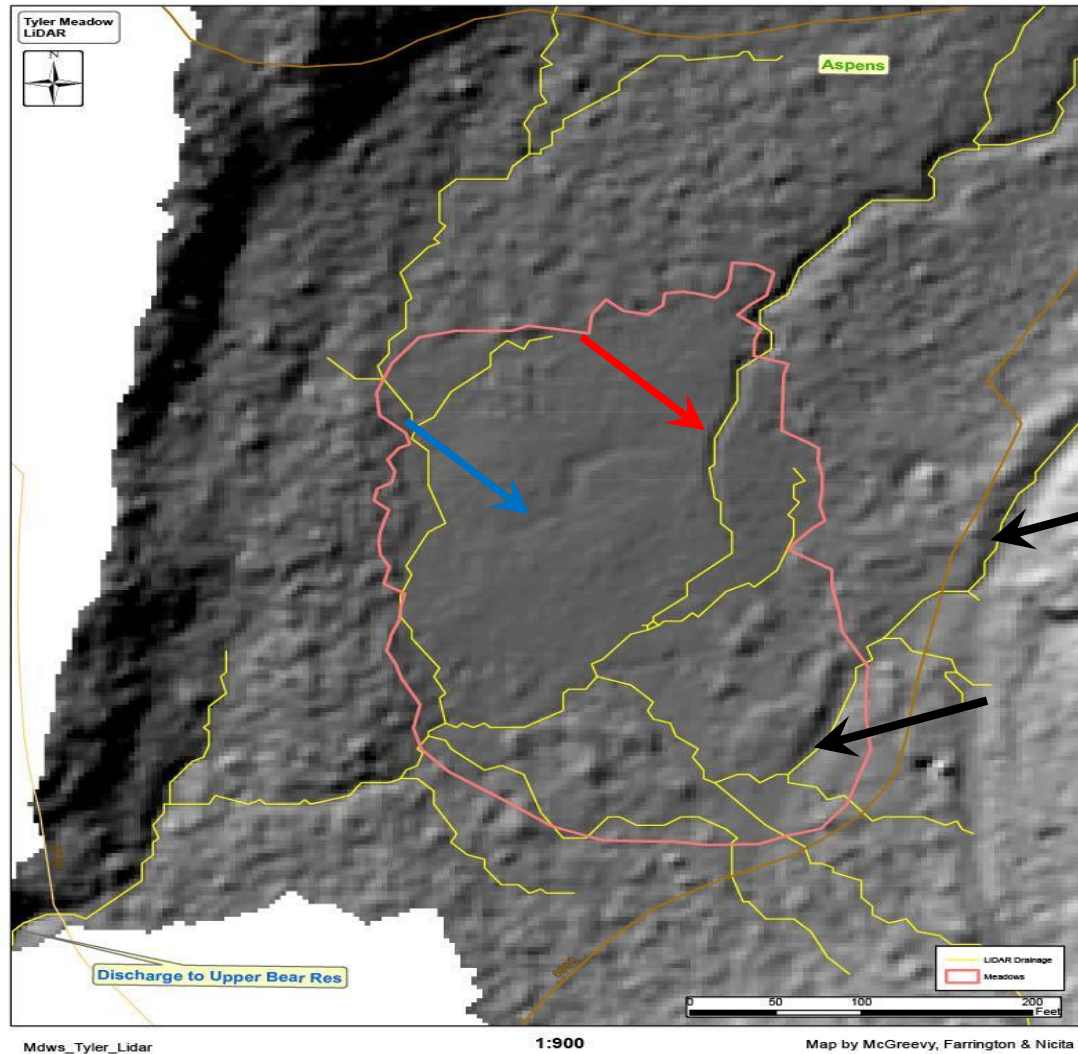
High Onion Meadow



- Incised channel dewateres meadow (red arrow)
- Remnant channel (blue arrow)



Tyler Meadow



current channel (red), remnant channel (blue) and road 8N03F (black).

Meadow Restoration Objectives

- Eliminate erosion, sediment and runoff from roads
- Reconnect channels to the floodplain and increase water retention within the meadows - Fill or partially fill incised channels within three meadows (Upper Onion Valley, High Meadow, and Tyler Meadow)
- Improve vegetative conditions of meadow by restoring hydrologic meadow functioning and removing conifers within the meadows
- Improve habitat for Sierra Nevada Yellow-legged Frogs by increasing water retention in meadows
- Elevate groundwater table to support mesic meadow vegetation and riparian vegetation
- Attenuate peak flows in the spring and extend base flow in the summer

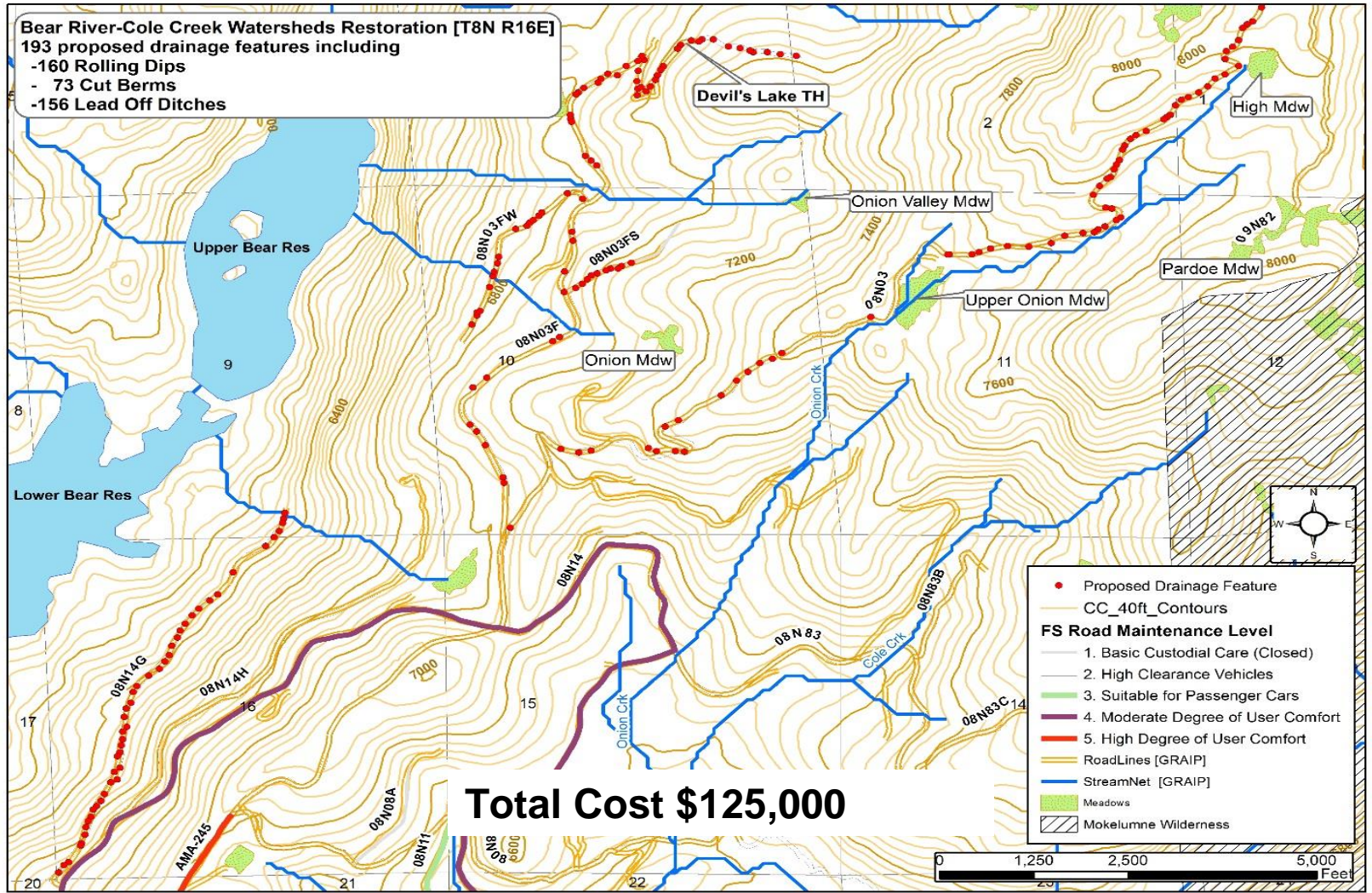
Many Roads are Stream Channels



Sediment Deposition from 8N03

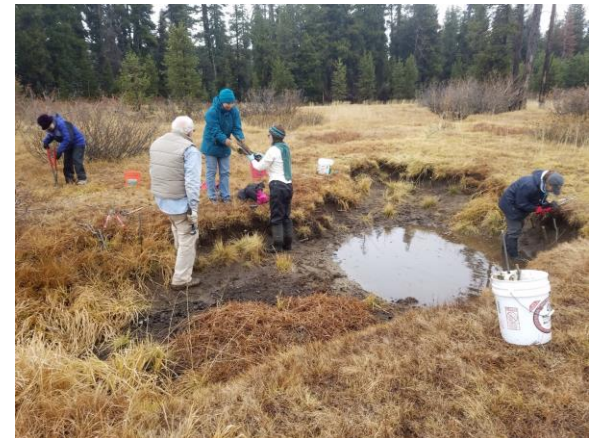
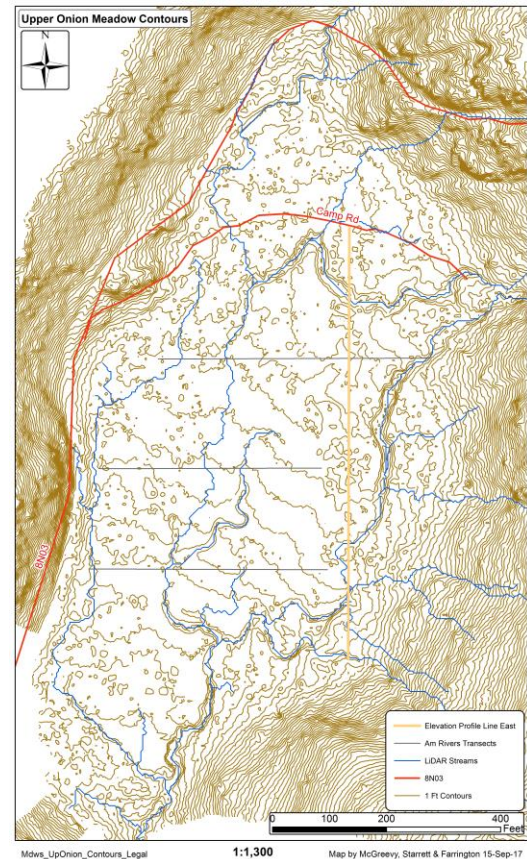


Distribution of proposed drainage features on FS roads 8N03, 8N03F, 8N03FW, 8N03FS & 8N14G.



Meadow Restoration Efforts

- Eliminate water/sediment transport from roads
 - 2018 Scope of Work for C&M crews
- Channel remediation for incised channels
 - 2017 Willow planting to stabilize head cuts in Upper Onion
 - Use LiDAR to develop channel profiles
- Return flows to remnant channel
 - Use LiDAR to develop contours for meadows



Funding: Fire Settlement NFWF

- ***NFWF Grant: February 1st, applications due end of March***
- ***Grant application – Planning, design and implementation***
 - ***If awarded***
 - ***Year 1 August 2018 – August 2019 Assessments, design, planning***
 - ***Year 2 August 2019 – August 2020 Complete NEPA and permit approvals, start implementation?***
 - ***Year 3 August 2020 – August 2021 Complete implementation***
- ***Updates provided to Planning Workgroup***

ACCG

- **Letter of support (NFWF grant deadline is end of March)**
- **In-kind match from ACCG member agencies/organizations (non-federal)**
- **Participation via Planning Group**
- **Build capacity for this type of work in Mokelumne Watershed**