

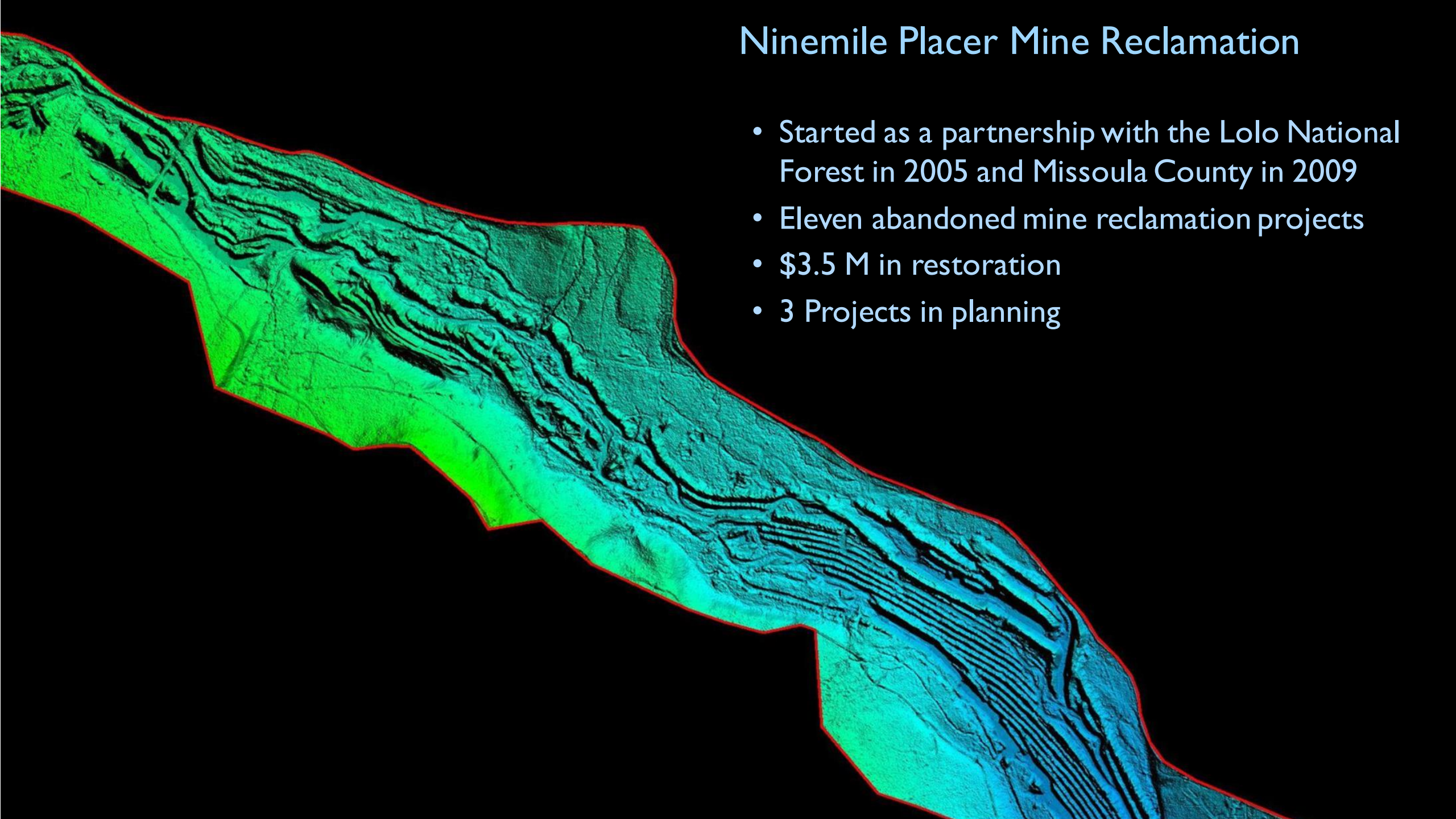
Mining Legacy in the Ninemile Valley



- ❧ Ninemile Creek has a long history of surface mining.
- ❧ Placer mining peaked in the 1870s and dragline dredging became prominent in the early 1940s.
- ❧ Several abandoned hard rock mines are located within the Ninemile drainage

Ninemile Placer Mine Reclamation

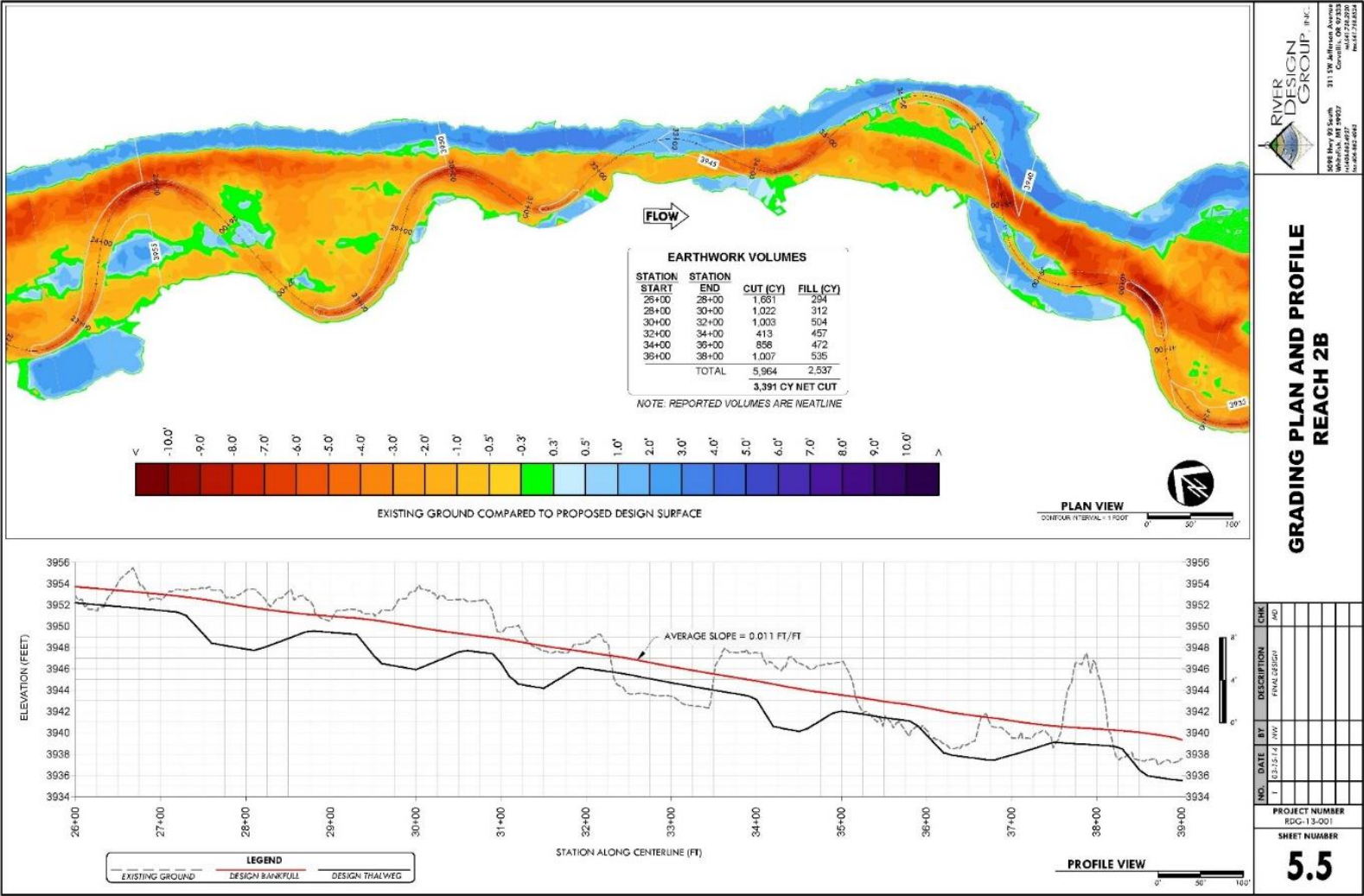
- Started as a partnership with the Lolo National Forest in 2005 and Missoula County in 2009
- Eleven abandoned mine reclamation projects
- \$3.5 M in restoration
- 3 Projects in planning







Placer Mine Reclamation Process













Physical Damage – Repaired



2016 – Ninemile Creek, MT





Placer Mine Reclamation Process









Placer Mine Reclamation Benefits



For every mile of valley restored, an additional 1.01 acre-feet of groundwater entered the stream each day at baseflow.



860 tons/year sediment reduction per mile restored



Our work shows that restoration can have a substantial impact on sediment reduction, water storage and streamflow generation processes, and is a valuable tool for mitigating climate change effects on Western rivers and streams.