



Case Study
Lander Road – Pinedale Anticline
Section 106 Activities

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Purpose of the Case Study

Demonstrate the application of Section 106 to
define mitigation for an adverse effect to an
historic trail



Section 106

- 36 CFR 800 Section 106: Requires avoidance, minimization or mitigation for an adverse effect to a National Register-eligible property on public land or on private land involving a federal undertaking.
- The Lander Road is a National Register-eligible resource on public land.
- The proposed development was determined to be an adverse effect to the setting of the Lander Road.



Briefing Overview

- ⇒ Description of the Lander Road
- ⇒ 2002 Pinedale Anticline Project
- ⇒ 2004 Programmatic Agreement – Mitigation
- ⇒ 2009 Revised Pinedale Anticline Project
- ⇒ 2009 New Discoveries
- ⇒ 2010 Programmatic Agreement - Mitigation
- ⇒ Summary

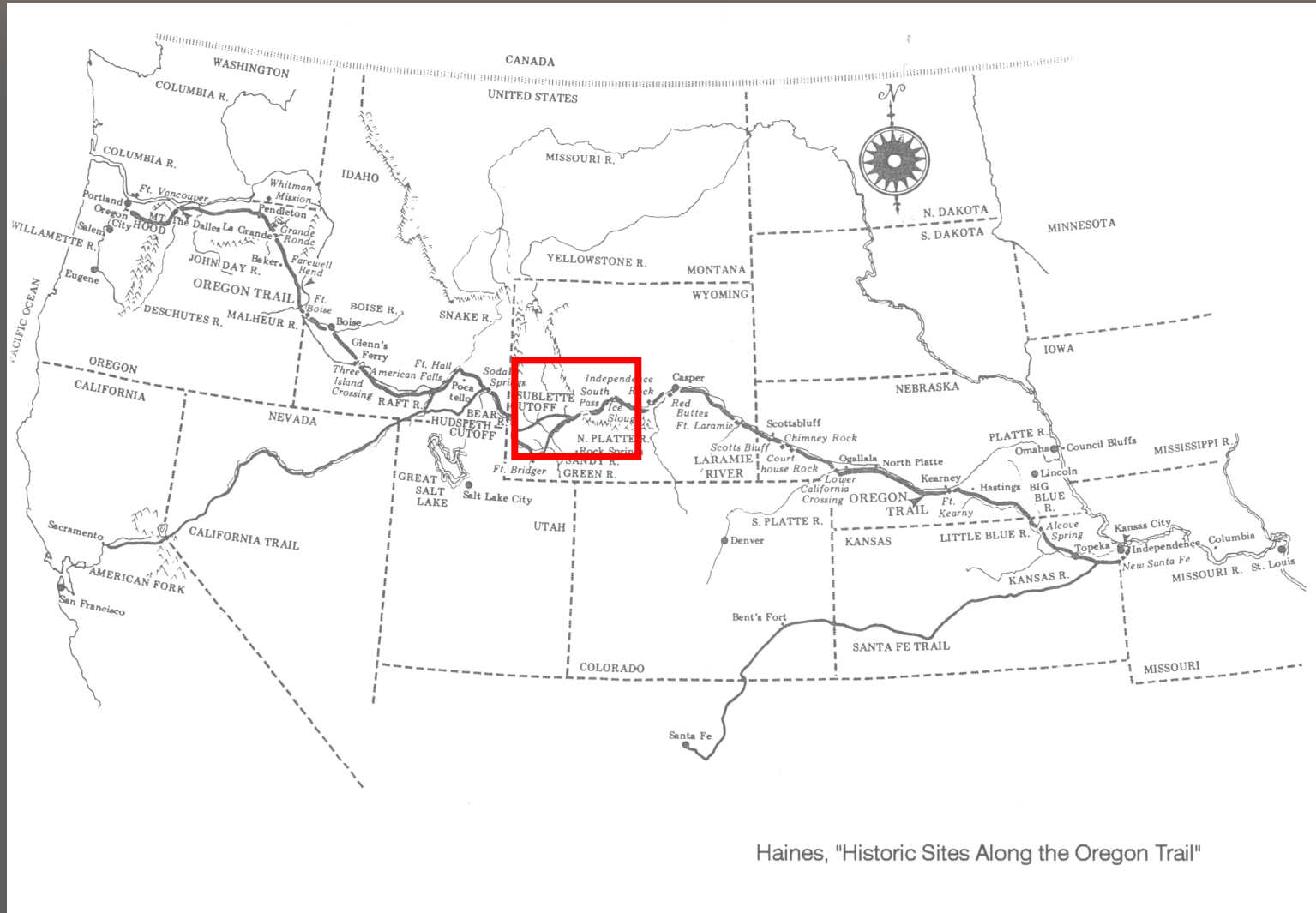


Lander Road

- ⇒ Part of California National Historic Trail.
- ⇒ Cutoff between South Pass and Fort Hall, Idaho.
- ⇒ Built by Frederick W. Lander 1857-58.
- ⇒ Only stretch of the Oregon and California Trail system to be subsidized and constructed by the federal government.
- ⇒ Used by more than 13,000 emigrants in 1859.



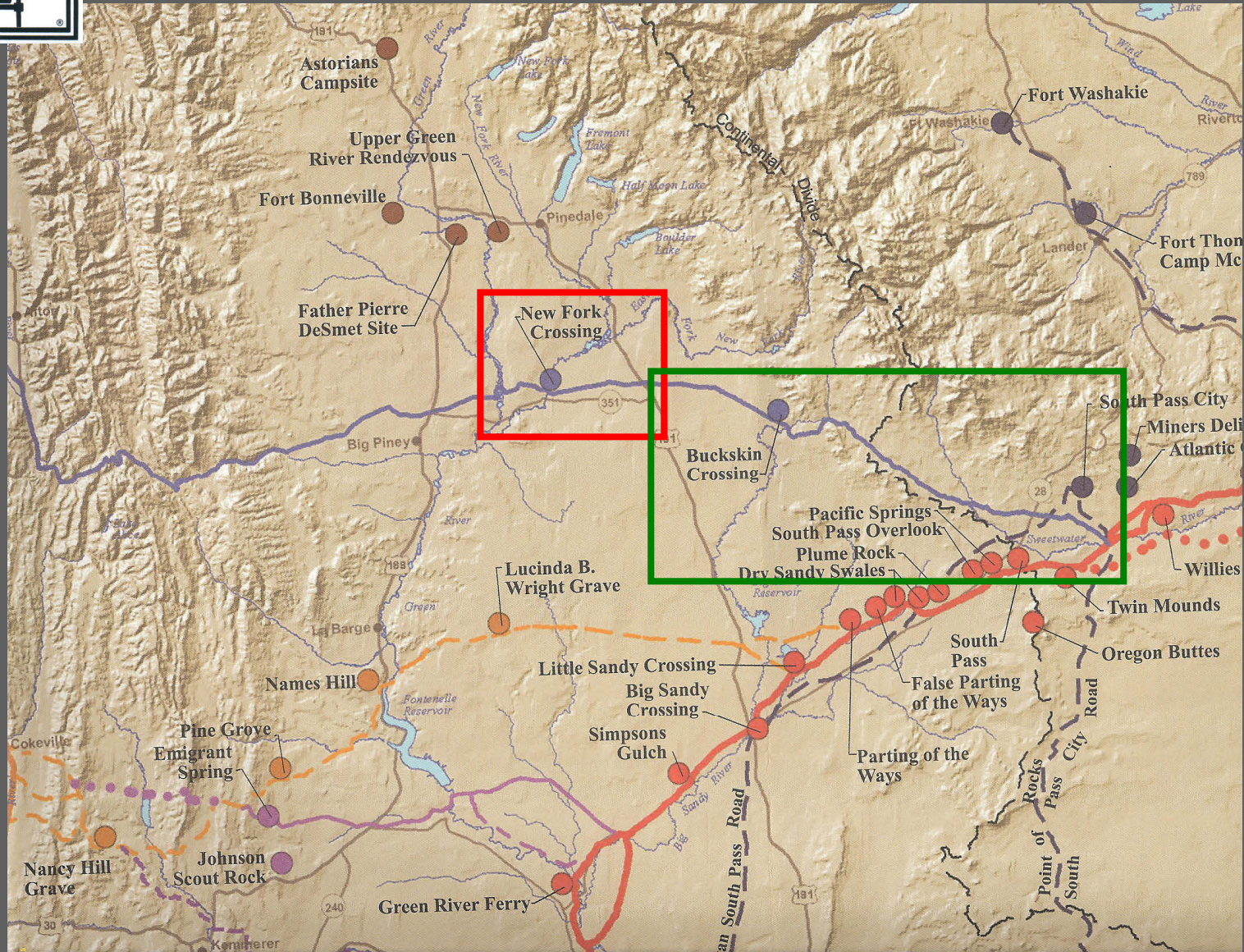
Oregon & California National Historic Trails



Haines, "Historic Sites Along the Oregon Trail"



Lander Road





Sweetwater River Crossing





LANDER
RD 58



Near Buckskin Crossing



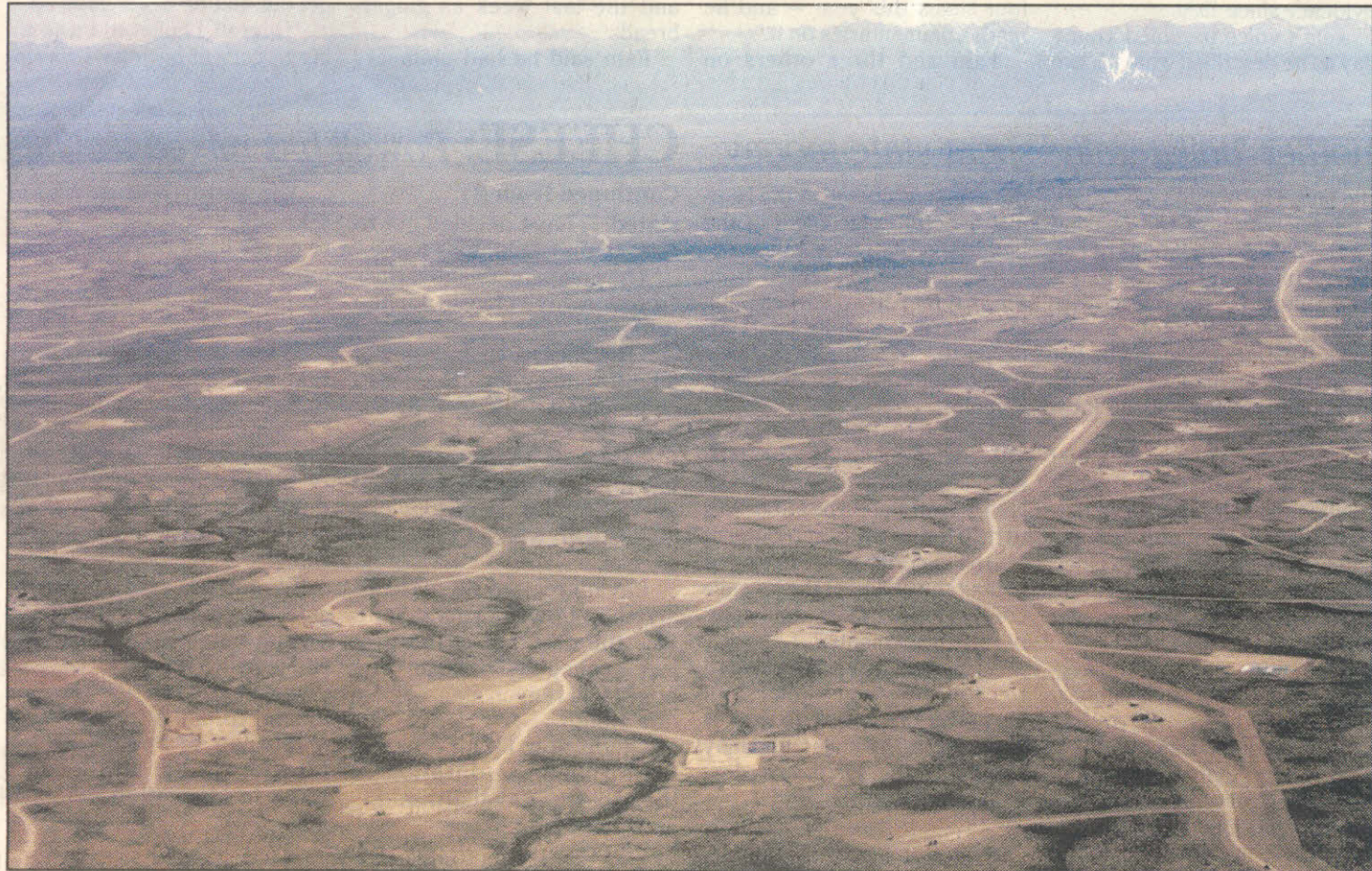


Terrain of the Development Area





Pinedale anticline



COURTESY/PETER AENGST/Wilderness Society

Drill pads are evident in the Upper Green River basin. The Houston-based WesternGeco is conducting seismic work to locate gas more reserves in the area. Conservationists have asked that that exploration be halted.



Pinedale Anticline

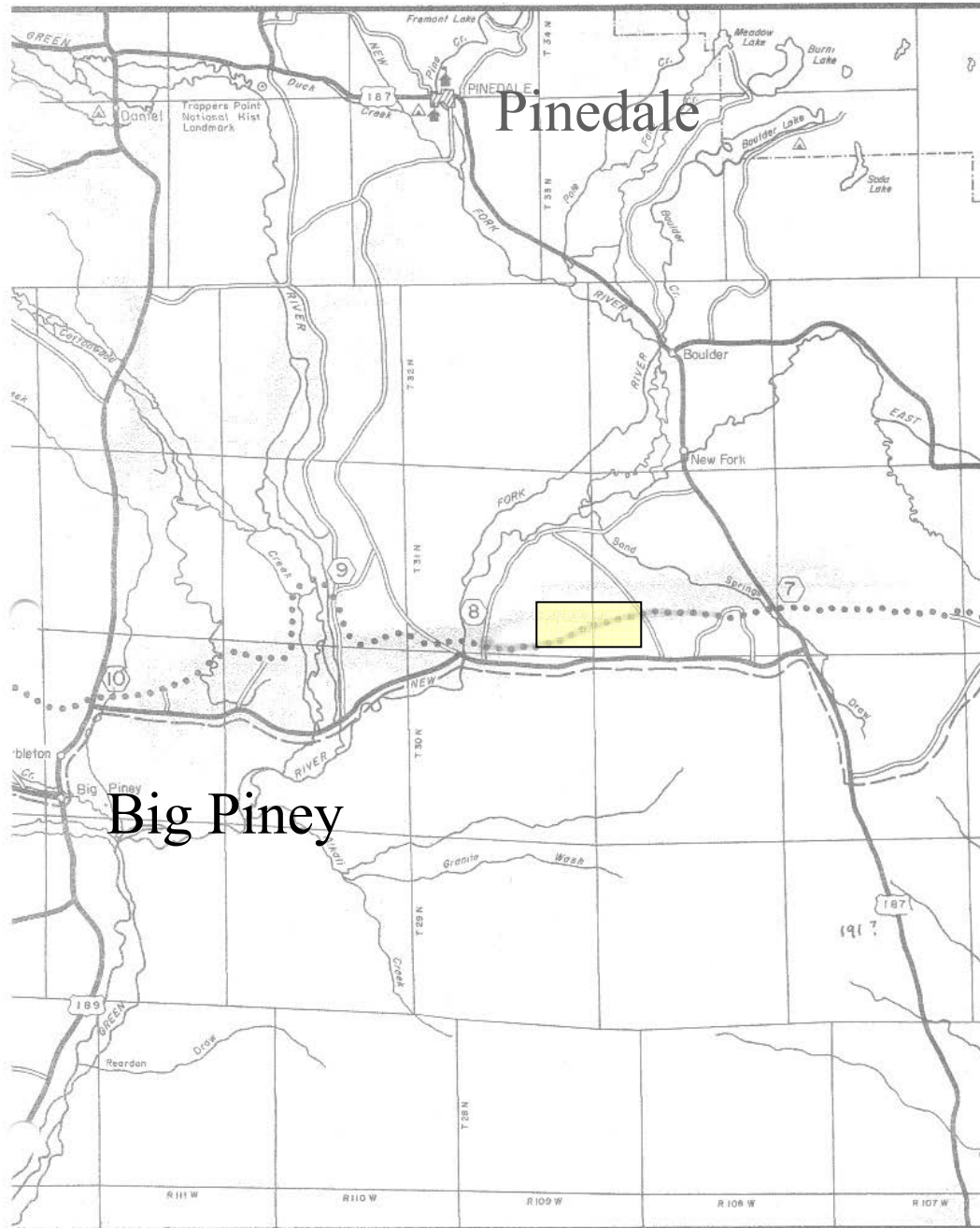
“The Pinedale Anticline Project Area (PAPA) is one of the newest and most productive gas fields in the continental United States with estimates of 20-25 Trillion Cubic Feet of Natural Gas that could be recovered.” (BLM project description)





Lander Trail/Anticline Proposal 2004

- ⇒ Developers: Ultra Resources Inc and Shell Rocky Mountain Production.
- ⇒ Scope: 137 bottom holes from 36 eight acre well pads.
- ⇒ Production for 30 years or more from a verified “hot spot”

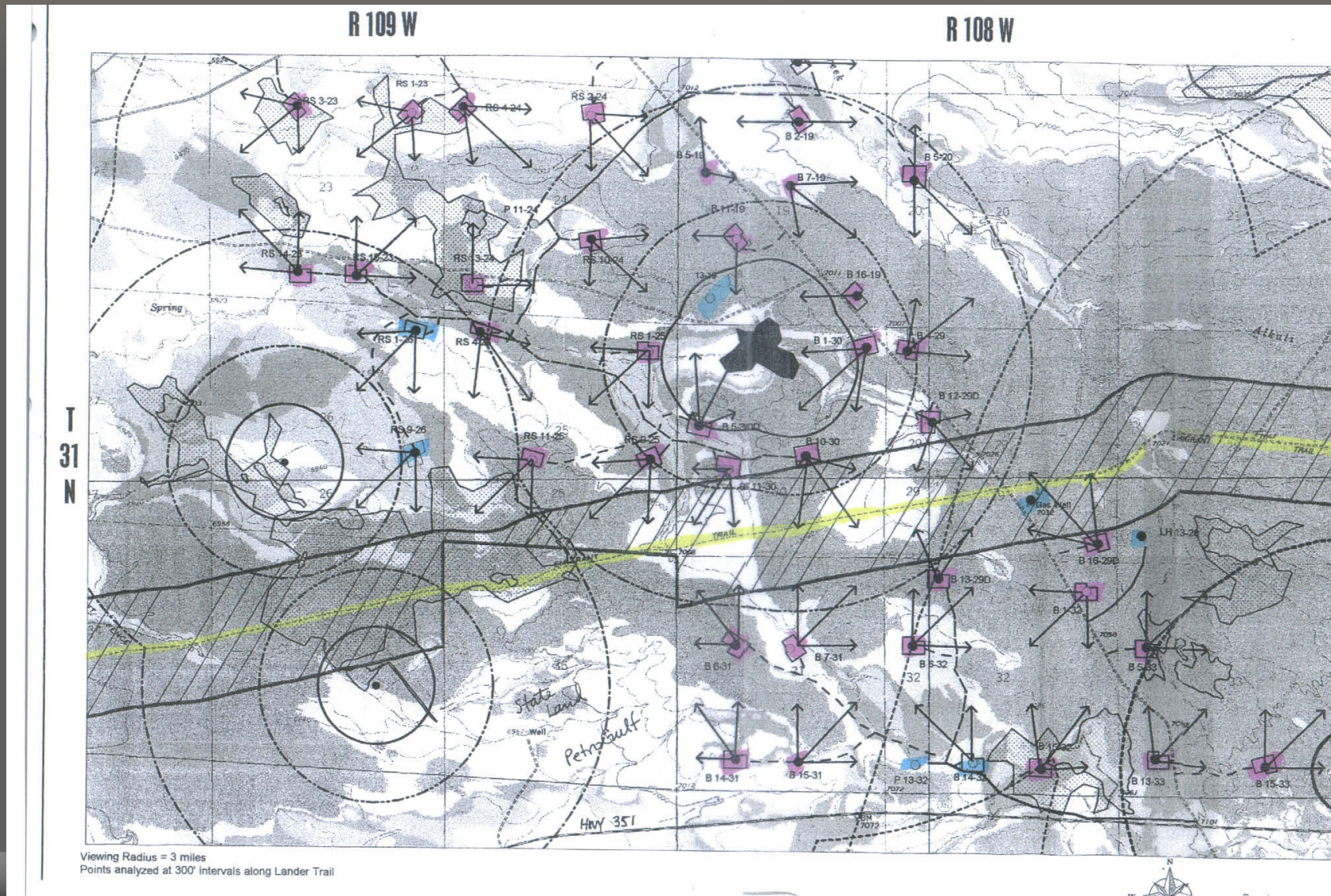


Pinedale

Big Piney



APE for 2004 Programmatic Agreement





Energy Development





2004 Pinedale Anticline Programmatic Agreement (PAPA)

- ⇒ Initial finding in 2002 by BLM Pinedale Office of “no adverse effect”
- ⇒ Challenged and reversed by the SHPO; OCTA unaware of proposal prior to May 2003
- ⇒ Programmatic Agreement (PA) developed 2004
- ⇒ OCTA an “Invited Signatory”



Proposed Mitigation

⇒ Best Management Practices

- Directional drilling
- Coordinated pipeline and access road systems
- Minimize visibility
- Low-profile, camouflaged tanks

⇒ Mitigation

- Support development of interpretive plan
- Remove old well in trail corridor

Shell/Ultra: “Let there be no mistake, the site will be industrialized.”



OCTA Response

- ⇒ Expressed (reluctant) support for proposed mitigation.
- ⇒ Need to link program agreement to project parameters (number of pads and wells).
- ⇒ Chapter volunteers identified for working group.
- ⇒ PA signed,

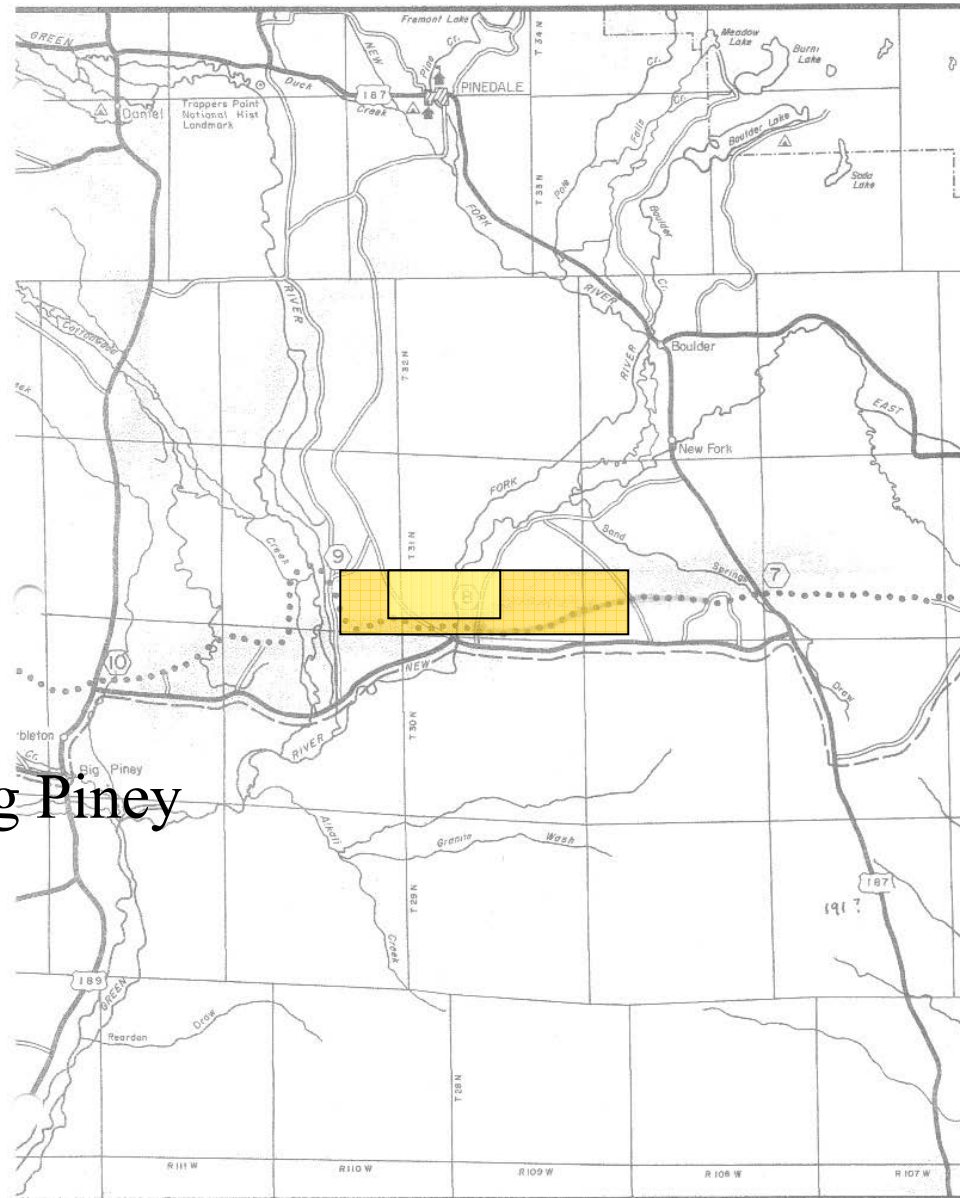


Project Expansion – 2008

- ⇒ Expand area of potential effects to include all Shell and Ultra leases within three miles north of the Lander Road and to Hwy 351 on the south and east-west from the vicinity of Hwy 191 to the New Fork River.
- ⇒ Future pad sizes from 8 to 25 acres with one well pad per quarter section per operator
- ⇒ One new well pad in the no surface occupancy zone (0.25 miles each side of trail).



Big Piney





BMPs and Mitigation

⇒ BMPs

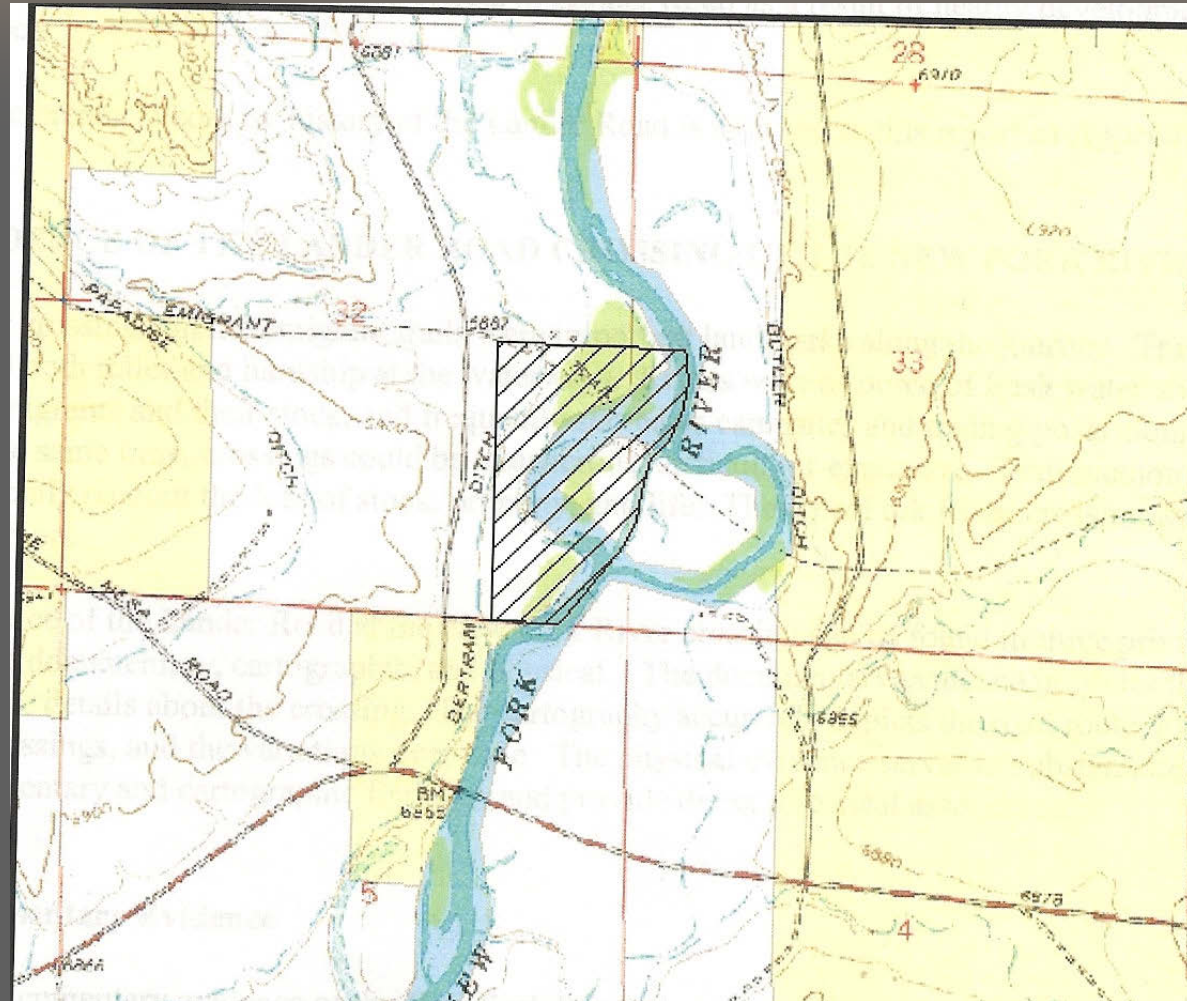
- As per previous agreement with some enhancements

⇒ Mitigation

- Over \$620,000 from Shell and Ultra toward purchase of New Fork River crossing. Additional \$310,000 from Rocky Mountain Power.
- Back-up plan if property purchase fails.



New Fork River Crossing



Map by Dave Crowley, BLM Pinedale



Land Purchase

- ⇒ Initial effort by the Conservation Fund – difficulty with “fair market value”
- ⇒ Green River Land Trust will make purchase
- ⇒ Management by the Sublette County Historical Society



New Fork River Crossing

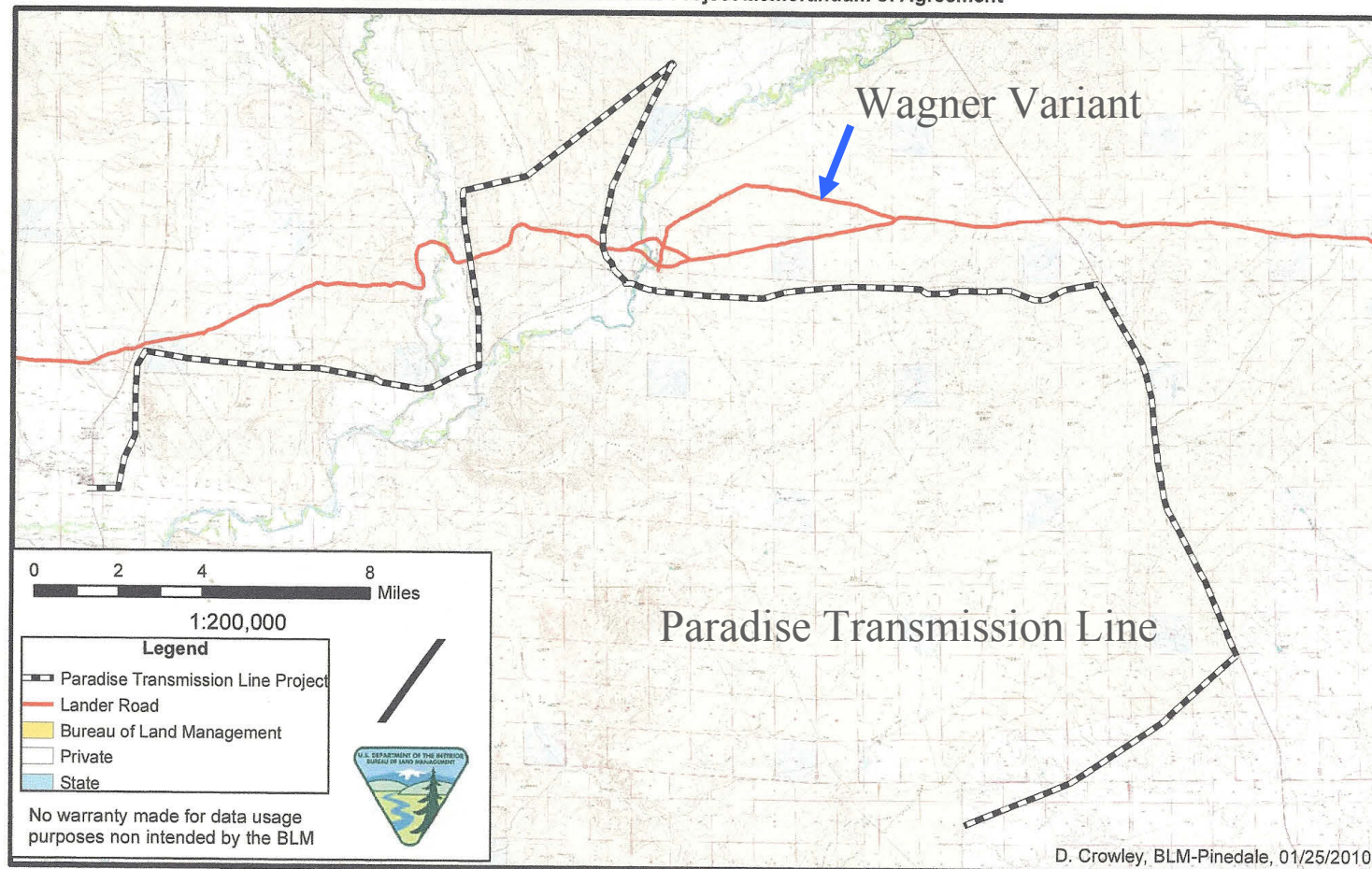


Photos by Dave Crowley, BLM Pinedale



Discoveries – Wagner Variant

Appendix A - Map 5
Paradise Transmission Line Project
Paradise 230kV Transmission Line Project Memorandum of Agreement





Discoveries – Wagner Variant



Summary

- ⇒ Precedent-setting level of mitigation reflecting the magnitude of the actual loss of trail and setting.
- ⇒ Achieved through the strong support of the BLM, SHPO and ACHP.
- ⇒ Recognition of the appropriateness by Shell, Ultra and Rocky Mountain Power.
- ⇒ Advocacy partners: OCTA, Alliance for Historic Wyoming (AHW) and Sublette County Historical Society.



Mission Accomplished?

