

SUNDOG CONNECTOR

Design Concept Report and Environmental Overview

AECOM

EMAC Coordination Meeting
Environmental Overview and Wildlife Connectivity

Date 08/08/2023

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Meeting Goals

- To better define the wildlife issues, concerns, and opportunities for the Sundog Connector Study
- How will potential impacts to wildlife and habitat connectivity be analyzed and addressed in the alternative evaluation for this study, and what are the recommendations for future planning phases?

Future coordination with EMAC:

- Present and discuss preliminary results and recommendations of the study's alternatives evaluation
- Explore more specific minimization and mitigation strategies

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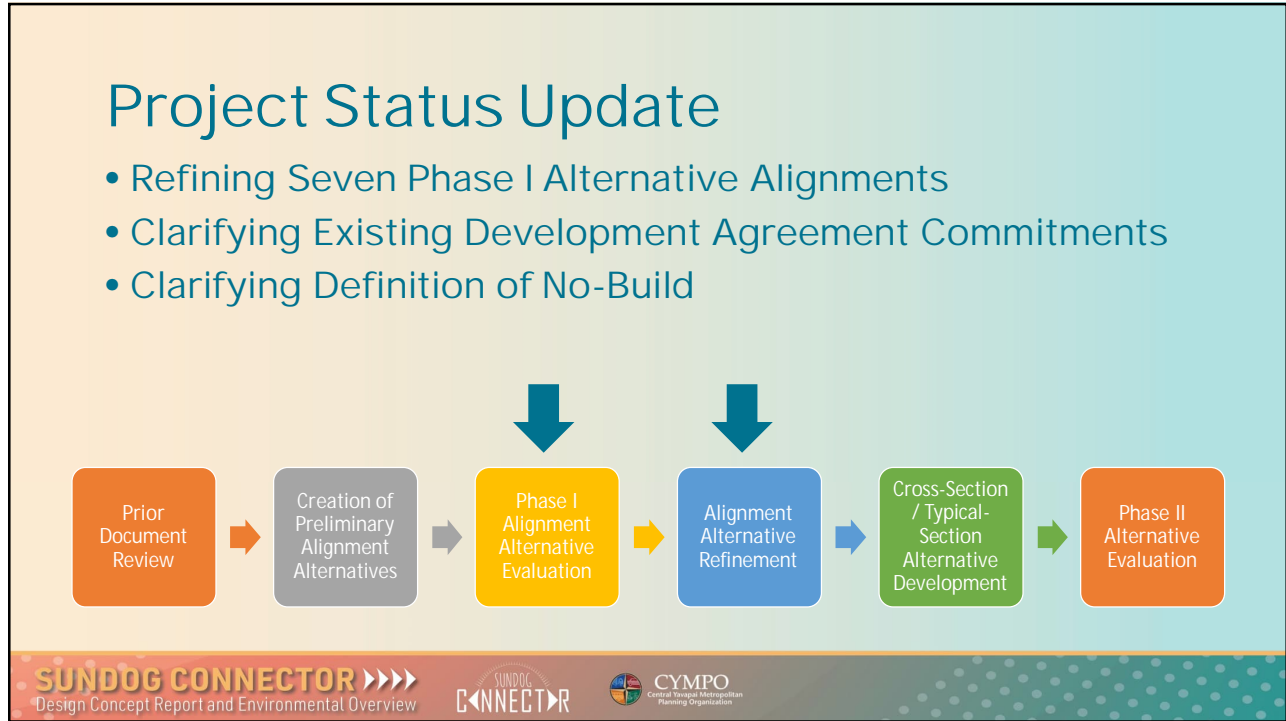
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Agenda

- Study Overview
- Environmental Overview
- Wildlife Issues, Concerns, and Opportunities
- Approach and Methodology for Considering Wildlife
- Open Discussion
- Next Steps and Action Items

Study Goals

- Establish Purpose and Need with Public Input
- Establish Benefit and Impacts of Corridor Implementation
- Identify Configuration for Potential Regionally Significant Route; Including Typical Section & Alignment
- Enhanced Public Involvement Process
- Informed Decision-Making



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Environmental Overview Scope and Goal

Scope

- Evaluate Existing Conditions to identify and 'fatal flaws', obstacle issues, and sensitive areas
- Evaluate for Environmental Opportunities with Alternatives
 - Biological and Natural Resources
 - Water Resources
 - Hazardous Materials
 - Cultural Resources
 - Socioeconomic
 - Wildlife Coordination and EMAC

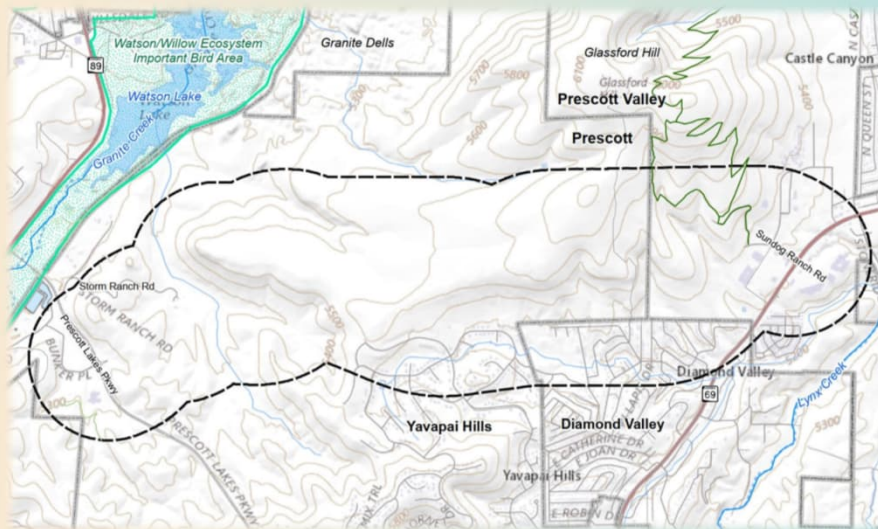
Goal

- Identify and provide a summary of known Environmental Resources and Potential Risks
- Make recommendations for future analysis and coordination



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Study Area



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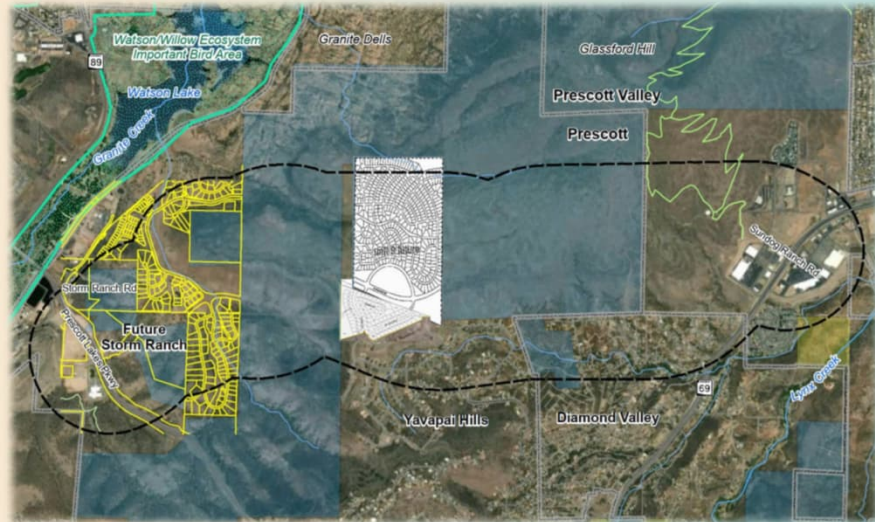
Land Use



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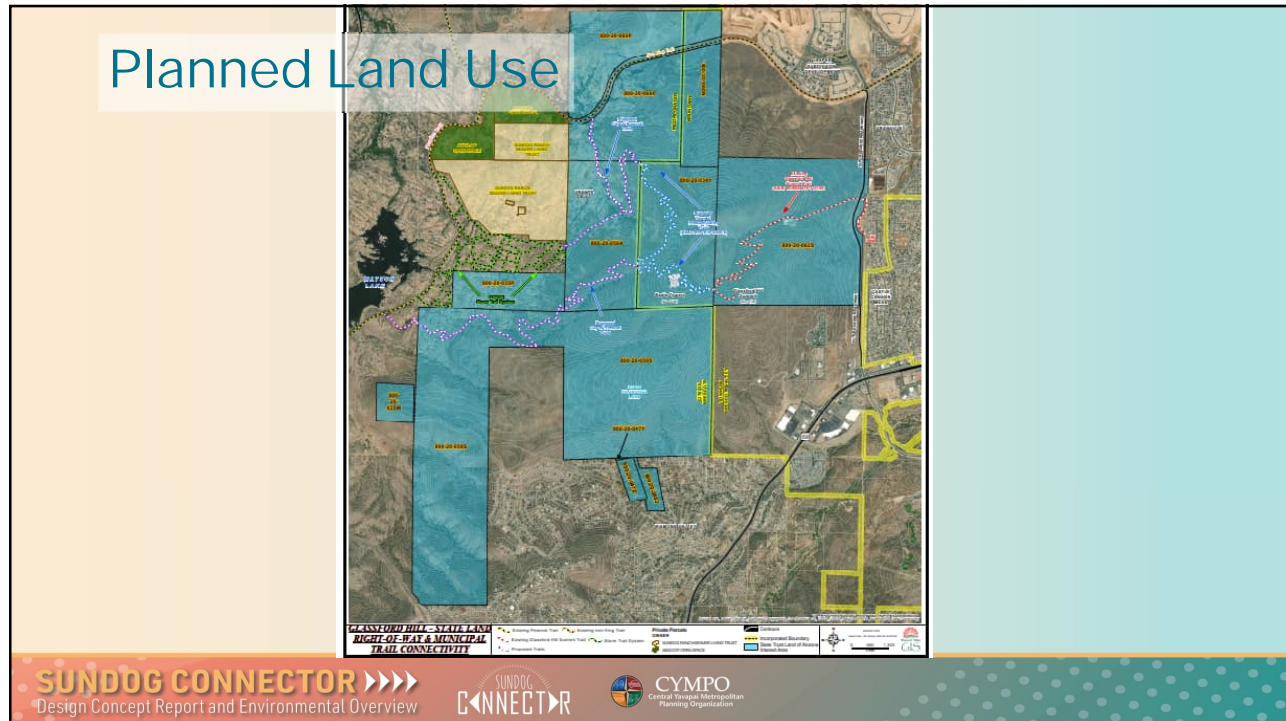


Planned Land Use

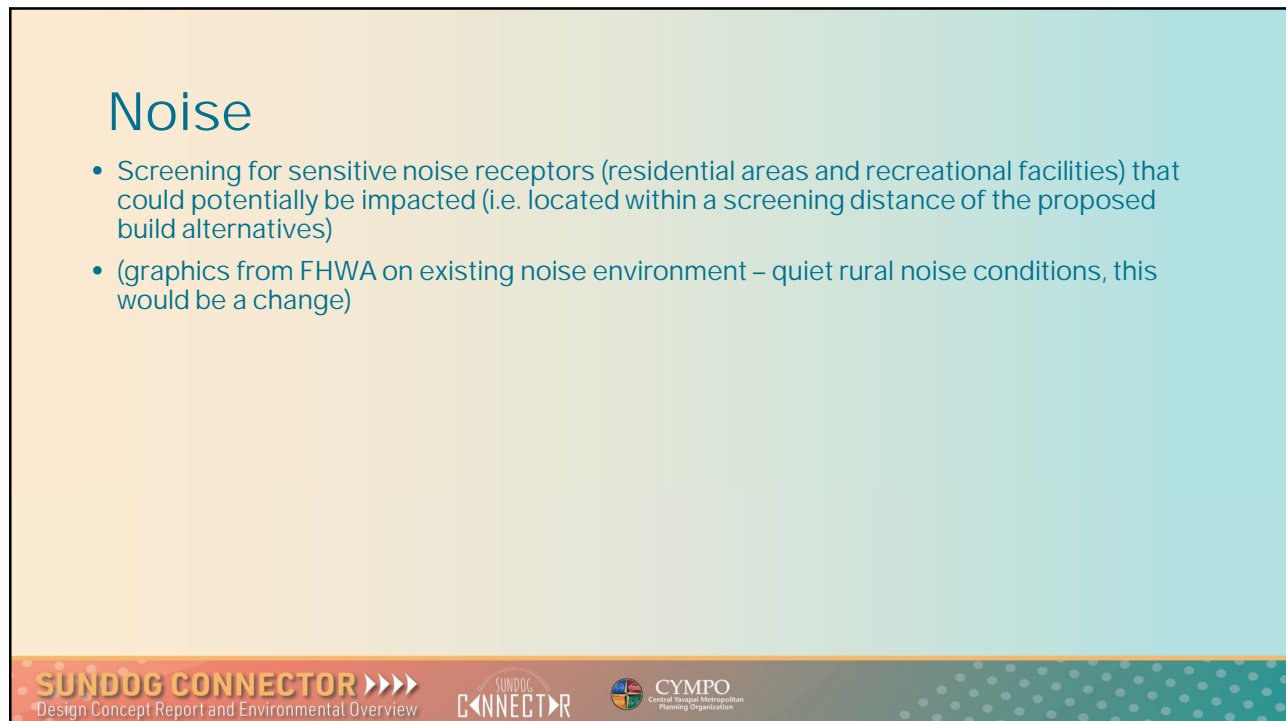


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Biological Resources

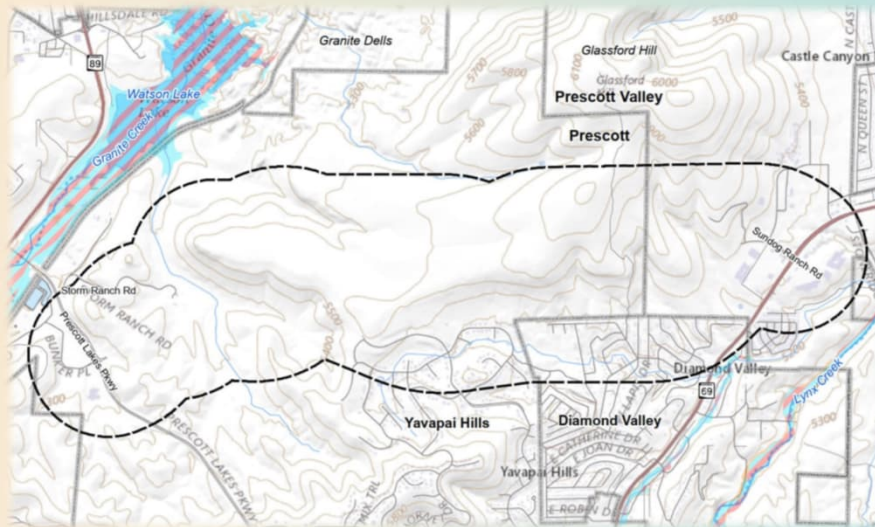
Endangered Species Act



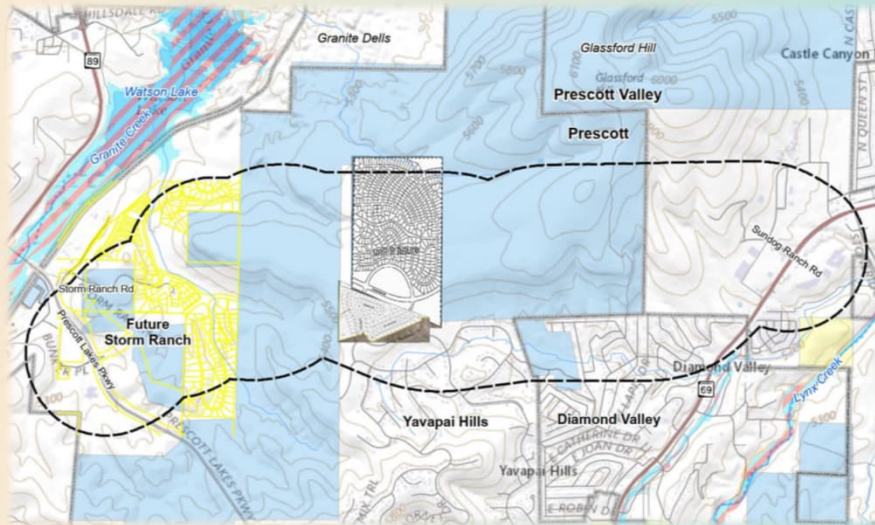
Other Species of Concern



Drainage and Floodplains



Drainage and Floodplains



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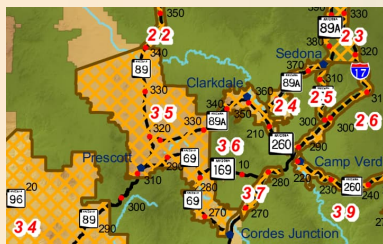


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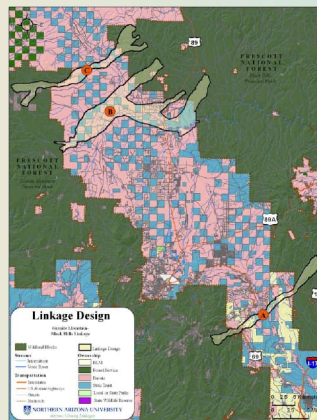
Wildlife Studies Reviewed

2006 Arizona Wildlife Linkage Assessment

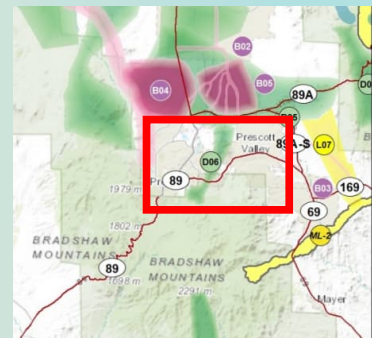
Linkage 35
East – West Prescott National Forest
Apache Highlands Ecoregion



2008 Granite Mountain – Black Hills Linkage Design Report



2013 Yavapai County Wildlife Connectivity Assessment

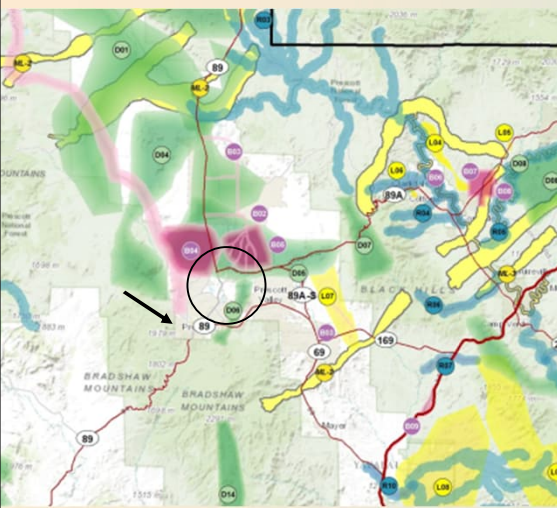


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2013 AZGFD Yavapai County Wildlife Connectivity Assessment: Diffuse Movement Area D06




D06. Badger Mountain – Glassford Hill


Species Identified:	Coyote, Deer, Javelina, Mountain lion, Skunk
Current Threats/Barriers:	<ul style="list-style-type: none"> • Commercial/industrial development • Communications installations (top of Glassford Hill) • Mining (strip mining hillside) • Powerline • Recreational activity (trails with horse usage) • Residential development (high density, ranchettes) • Roads: SR 69
Future Threats/Opportunities:	General commercial development, proposed State Trust Land Reform area
Note:	None


D07. Mingus Mountain – Woodchute Mountain

Species Identified:	Black bear, Deer, Squirrel, Turkey
Current Threats/Barriers:	<ul style="list-style-type: none"> • Off-highway vehicle use • Powerline • Roads: US Highway 89A, Prescott National Forest Road 3
Future Threats/Opportunities:	None identified at workshop
Note:	Forest lands



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2021 Arizona Statewide Wildlife-Vehicle Conflict Study


Table 2- 6. ADOT Northwestern District wildlife-vehicle crash hotspots.


WVC Crash Hotspot Rank	Name	Route	Mile post range	Length (mi)	No. of Animal Crashes	Animal Crashes per Mile	Annual Avg. Animal Crashes per Mile
3	SR 69 Prescott	SR 69	291.5-296	5.58	75	13.45	2.69
25	SR 69 Poland Junction	SR 69	273-275	2.00	15	7.50	1.50
29	SR 69 Humboldt	SR 69	79-80	1.00	7	7.00	1.40
41	SR 69 N Spring Valley	SR 69	268-269	1.00	5	5.00	1.00





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Wildlife, Protected Species, & Habitat

Common Wildlife



Open Discussion #1

Are there additional readily available/previously completed studies or data sources we should review and consider?

Wildlife Issues, Concerns, and Opportunities



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Previous Stakeholder Input

June 3, 2022 – Stakeholder Meeting #1

- Total of 76 comment cards were collected and coded into 11 themes
- Environmental concerns had 20 comments
- Roadway concerns had 16 comments
- Other concerns themed around:
 - Community impact
 - Congestion
 - Economic impact
 - Wildlife concerns
 - Public transit
 - Planning process
 - General/misc.



"Dark sky" could foster wildlife transits



"Robust wildlife corridors/safe passage needed for large and small."



"Wildlife has been consistently ignored. What would be guaranteed for attention?"



"Will wildlife corridor impacts be included?"



"Would fewer animals would be killed on road? Glassford Hill is a wildlife haven."



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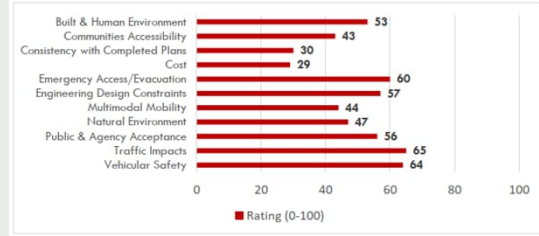
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Previous Stakeholder Input May 24, 2023 – Stakeholder Meeting #2

- 1) Engagement Activity #1 included a series of questions which asked the Stakeholder Committee member to choose between two randomly generated Evaluation Criteria Categories to select which was more important in the Sundog Connector Alternatives Evaluation Process. Each participant was asked 30 total questions.
 - A total of 690 votes were cast across 23 participants during the engagement activity. The scoring and ranking are shown in Figure 1.
- 2) Engagement Activity #2 was conducted using a digital engagement tool to rank each of the seven alternatives from most preferred to least preferred. A total of 10 Stakeholder Committee members participated in this engagement activity. The scoring and ranking are shown in Figure 2.

Figure 1 – Engagement Activity #1 Results



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Open Discussion #2



What are the concerns regarding wildlife and wildlife movement in the study area?



What are the priority issues?



Major vs. minor concerns



Does your organization see any opportunities to solve a need/deficiency in the study area?

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Approach & Methodology for Considering Wildlife

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Alternative Evaluation

1. Phase I Alternative
 - Include corridor alignment only
 - Only includes Build Alternatives
 - Does not include cross-section or corridor amenities
 - Value - identifies possible topographical opportunities and constraints
 - Shortlist of Phase I Alternatives advance to Phase II development
2. Phase II Alternative
 - Includes advanced Phase I Alternatives
 - Includes different cross-section or corridor amenities details
 - Includes Build and No-Build Alternatives

Evaluation Criteria Categories



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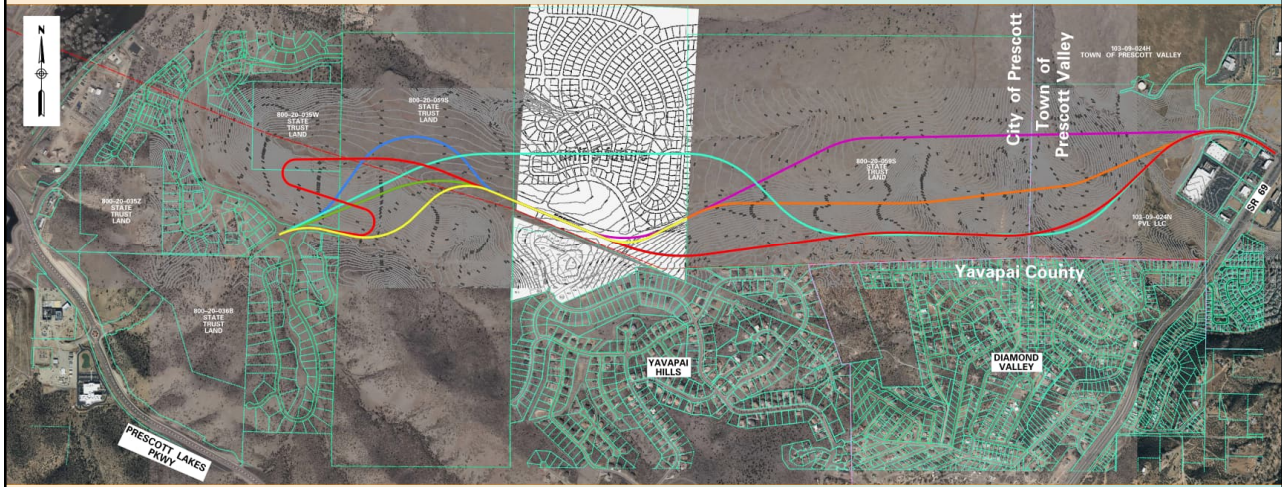
Open Discussion #3

How should we approach the alternatives evaluation for this study?
Is there the potential for differentiating impacts?



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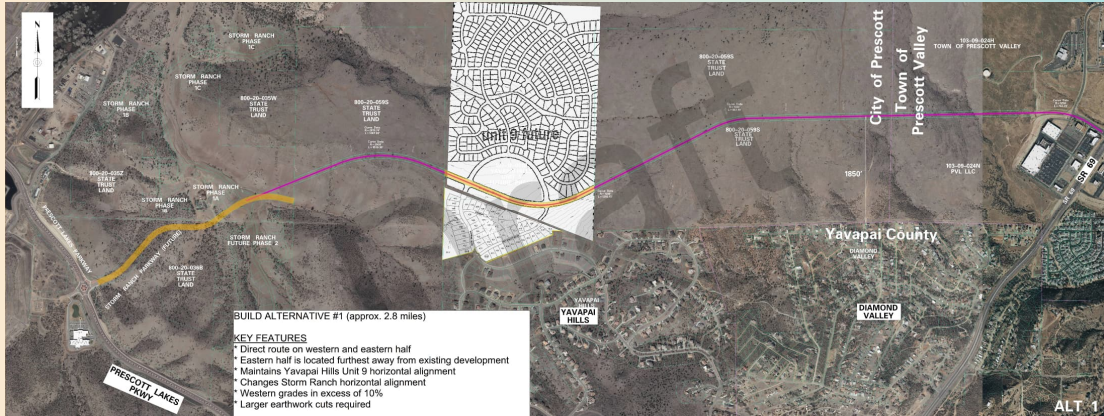
Range of Phase 1 Build Alternatives



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AA0

Build Alternative 1



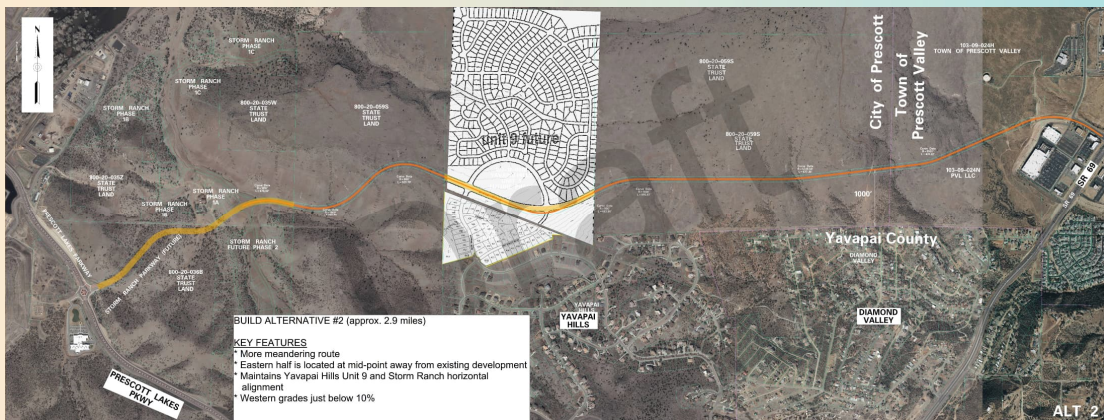
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Build Alternative 2



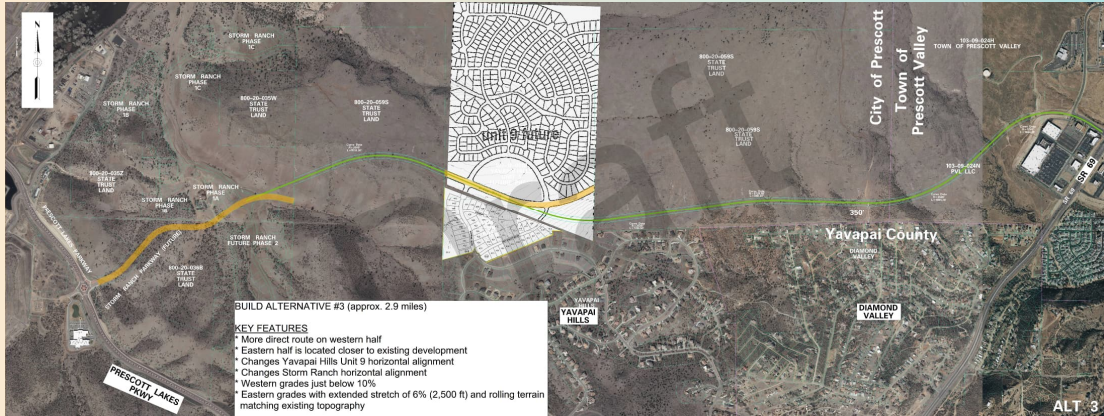
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Build Alternative 3

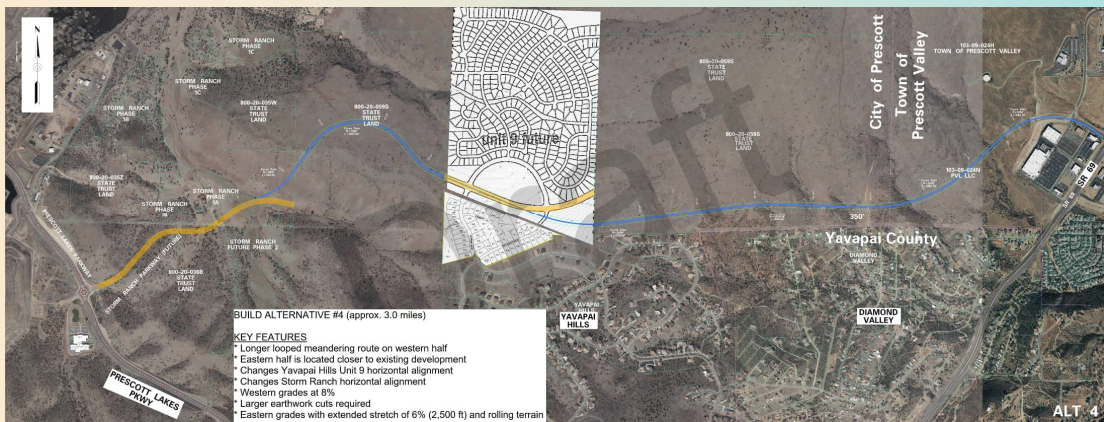


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Build Alternative 4

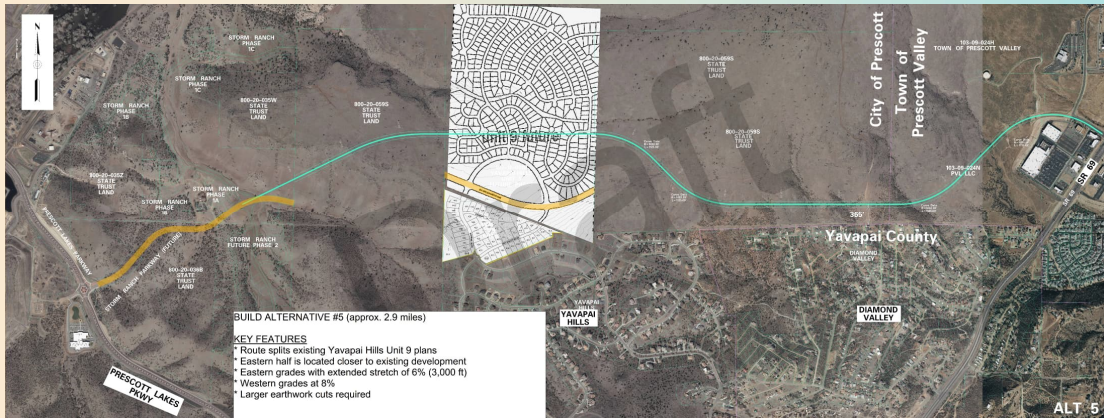


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Build Alternative 5



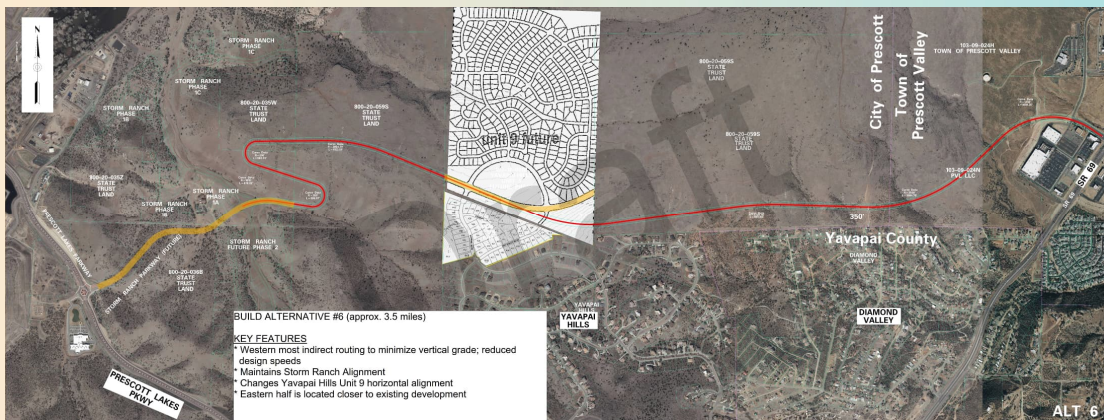
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Build Alternative 6



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Build Alternative 7



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Open Discussion #4

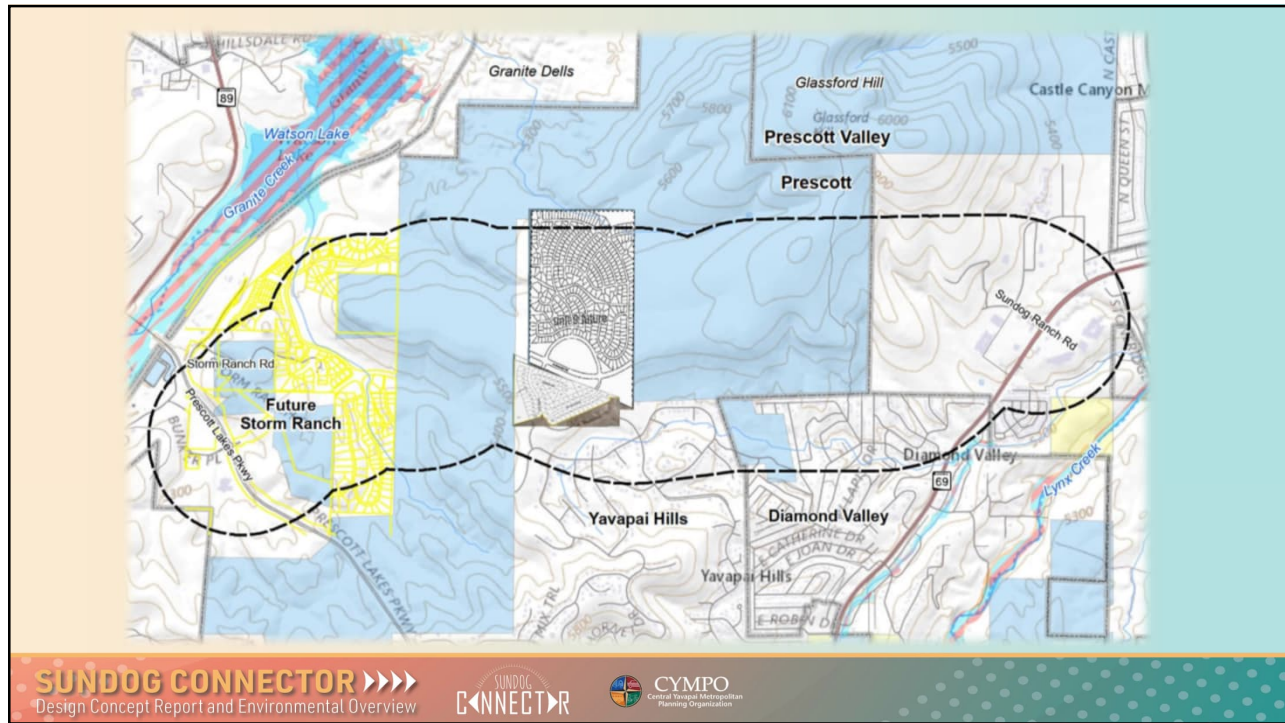
Identify opportunities to incorporate design elements that would avoid, minimize, and mitigate potential impacts

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Fencing?

Drainage Structures?

Overpass Structures?

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Open Discussion #5

Future Study Needs



Do the existing studies and information provide enough information to characterize wildlife issues, concerns, and opportunities?



Is there additional information needed to help inform this early planning study?



If the Sundog Connector progresses to future NEPA studies, what additional information would be needed to inform impact evaluation, or develop minimization/mitigation strategies for a Build Alternative?











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Open Discussion

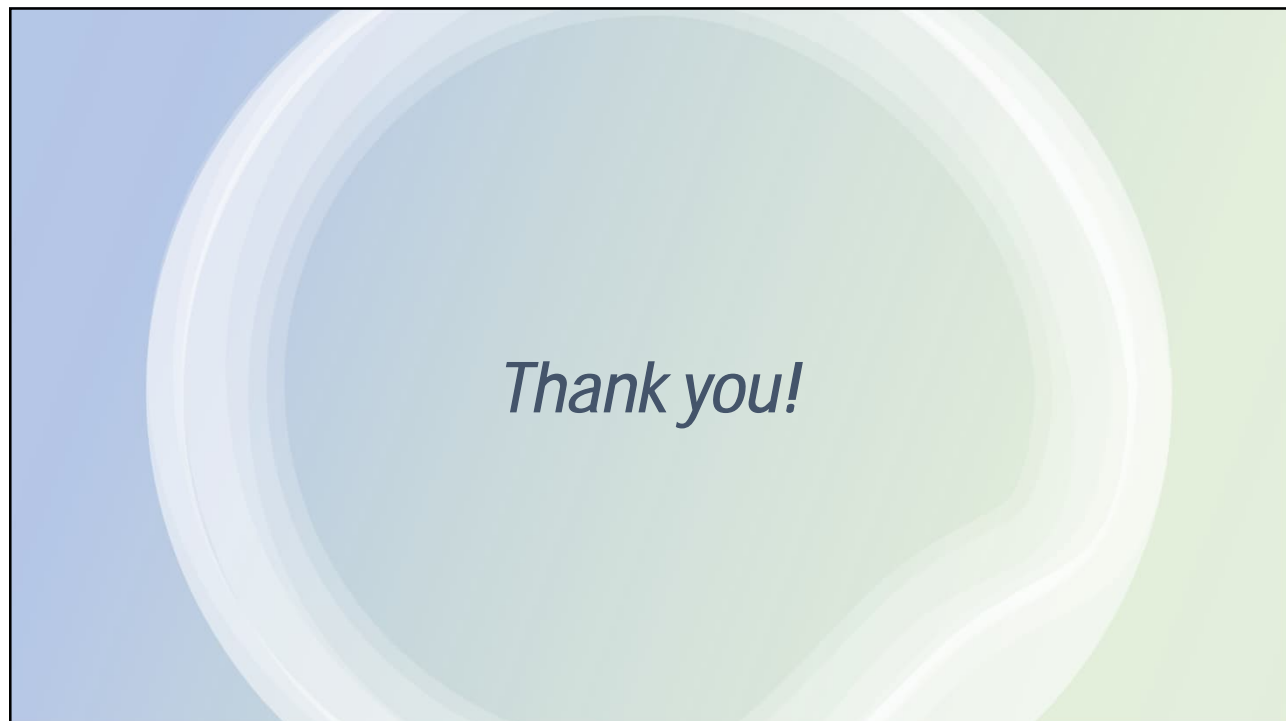






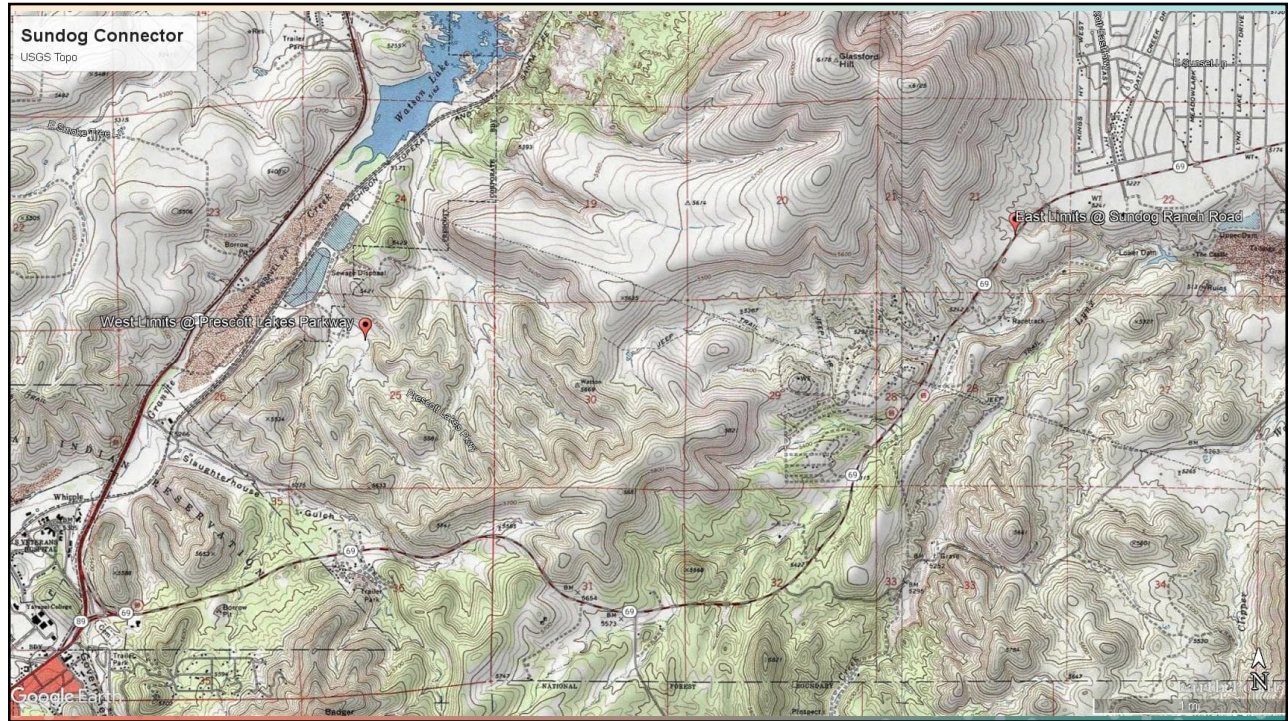
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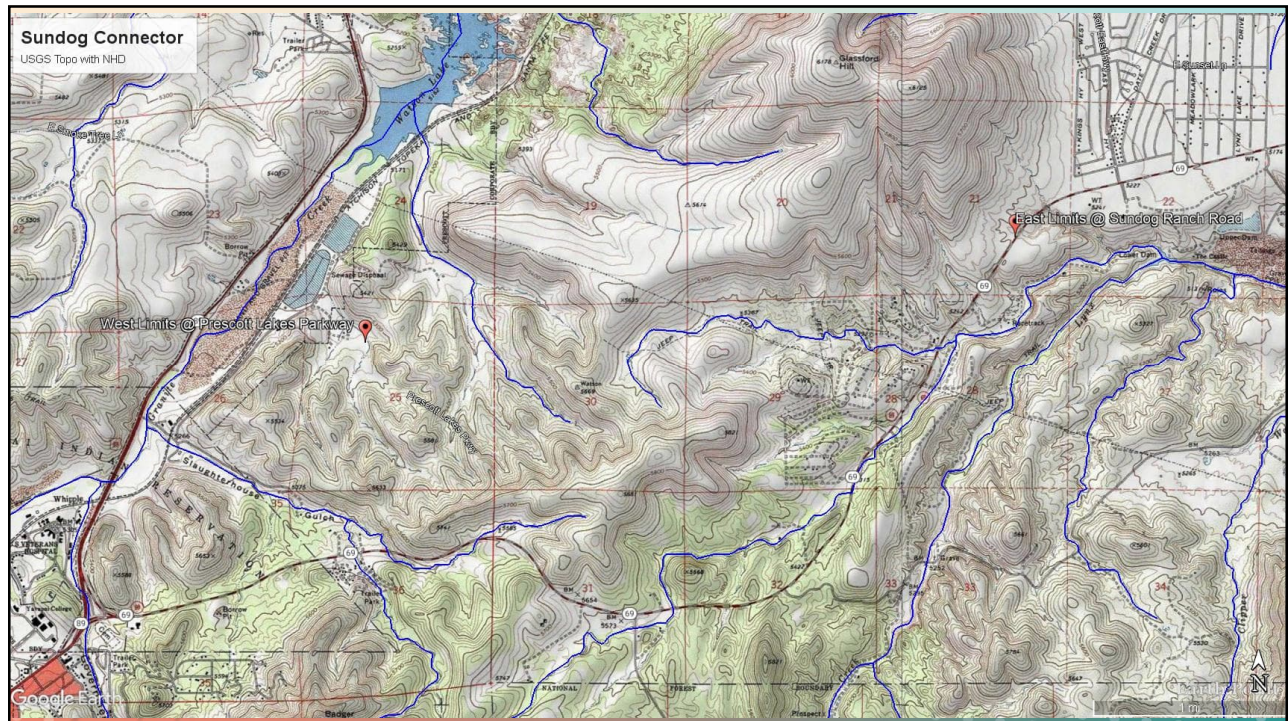
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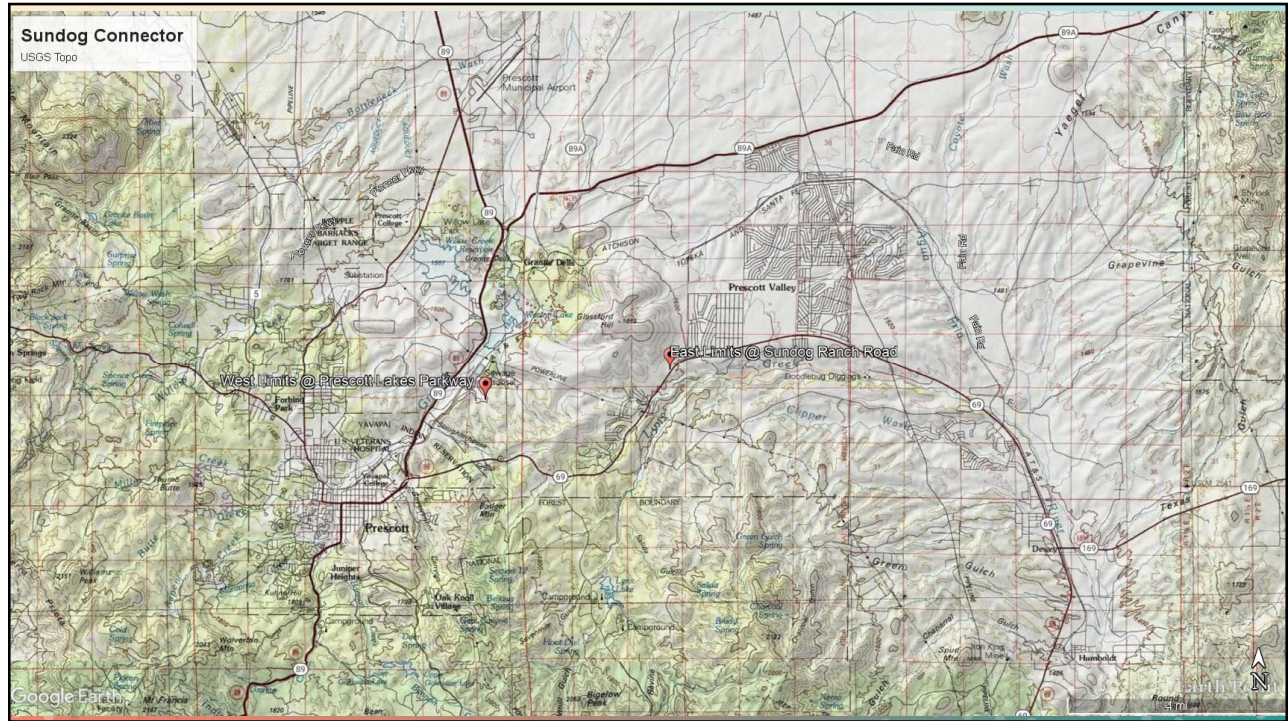
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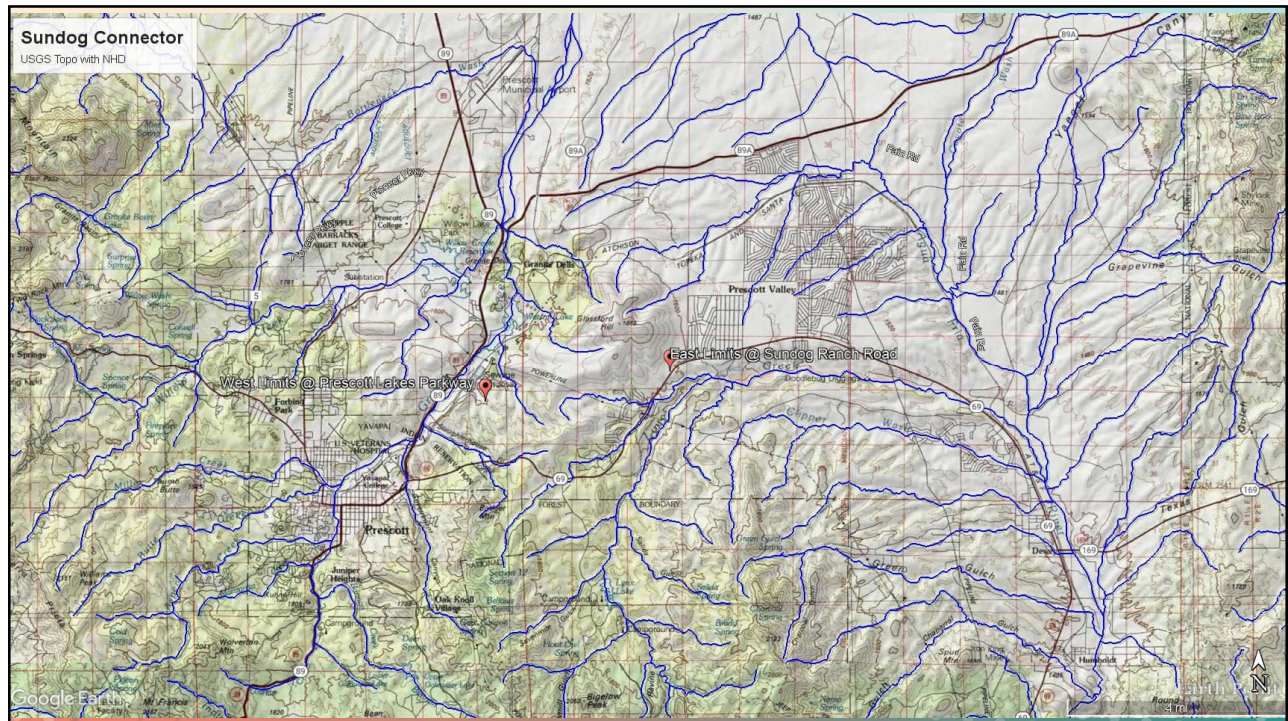
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