


City of Safford
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Graveyard Wash Flood Retarding Structure Rehabilitation Project Supplemental Watershed Plan No. 2


- Scoping Meeting -

Sponsor: City of Safford



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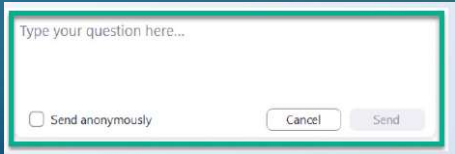
Graveyard Wash FRS Rehabilitation

To submit a question:

Click on the Q&A button at the bottom of the screen



Type your question in the Q&A window



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Graveyard Wash FRS Rehabilitation

Welcome and Introductions

Sponsor – City of Safford
Lance Henrie – Public Works Director/City Engineer

Natural Resources Conservation Service (NRCS)
Trevor Towers – Hydraulics and Hydrology Engineer

Jones & DeMille Engineering
Jenna Jorgensen – Planning Lead
Hayden Coombs – Project Engineer

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Website:

<https://graveyardwash.com/>

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Watershed Plan Development



WHAT IS A WATERSHED PLAN
& WHY DO WE DO THEM?



WHO IS INVOLVED?



WATERSHED PLANNING
PROCESS

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What is a Watershed Plan?

1. It's a tool!
2. Gives us the ability to document how the project meets the requirements of:
 - Public Law 83-566: The Watershed Protection and Flood Prevention Act (PL-566)
 - The National Environmental Policy Act (NEPA)
 - NRCS Watershed Planning Policy

Watershed Plans

PL-566

NEPA

NRCS Planning Policies

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PL-566 Program Overview

General Usage:

- Preventing damage from erosion, floodwater, and sediment
- Furthering conservation, development, utilization, and disposal of water
- Furthering conservation and proper utilization of land

Authorized Purposes

Watershed structure rehabilitation

Flood prevention (flood damage reduction)

Watershed protection

Public recreation

Public fish and wildlife

Agricultural water management

Municipal and industrial water supply

Water quality management

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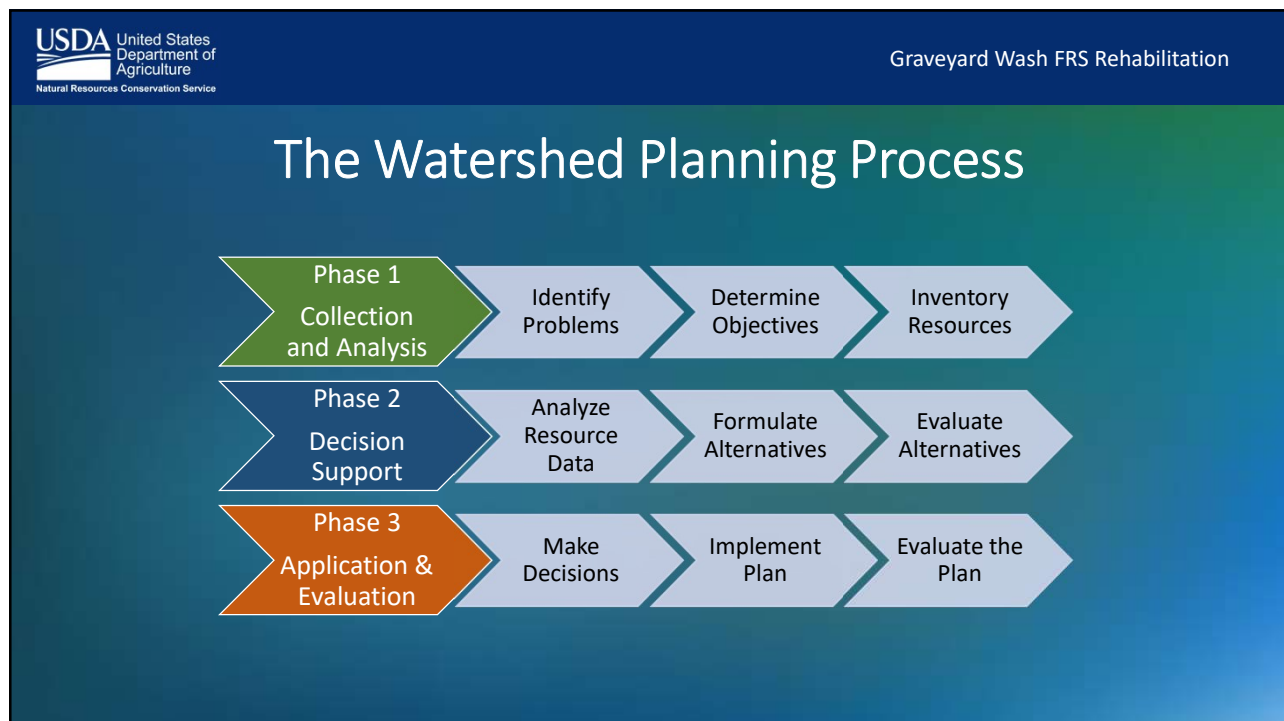
National Environmental Policy Act

This policy requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony by assessing the environmental effects of any proposed actions prior to making decisions.

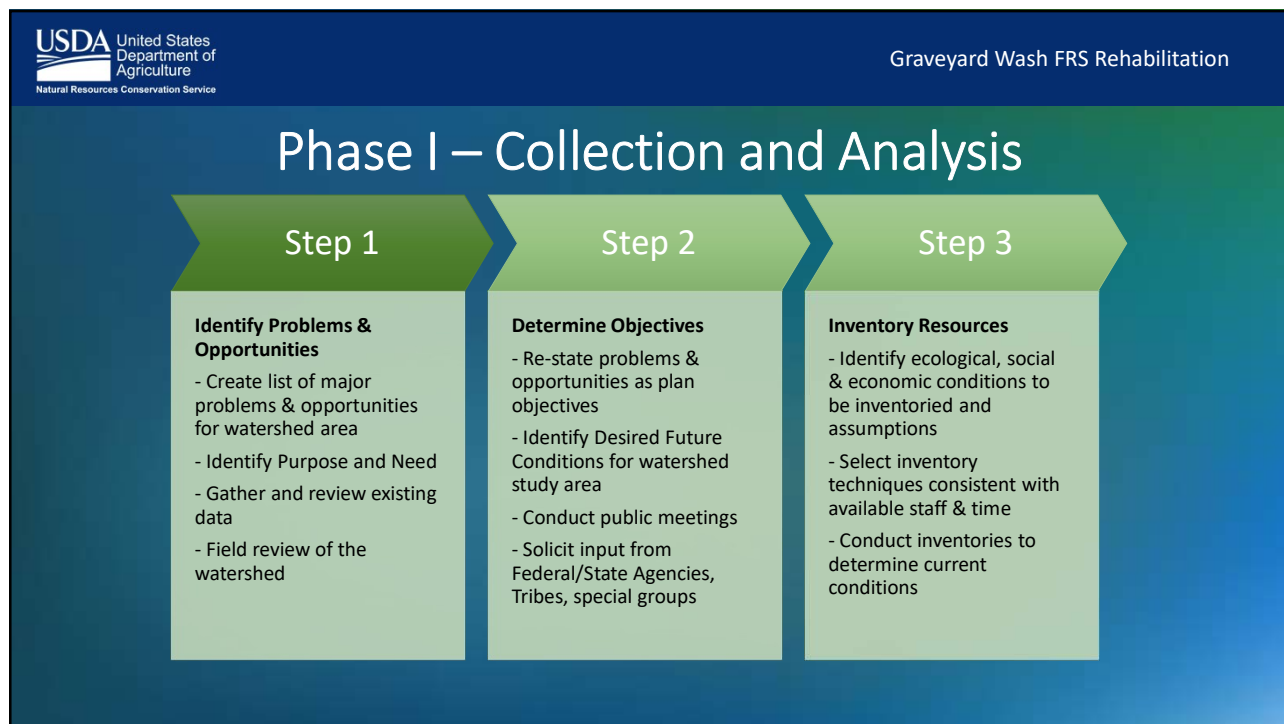
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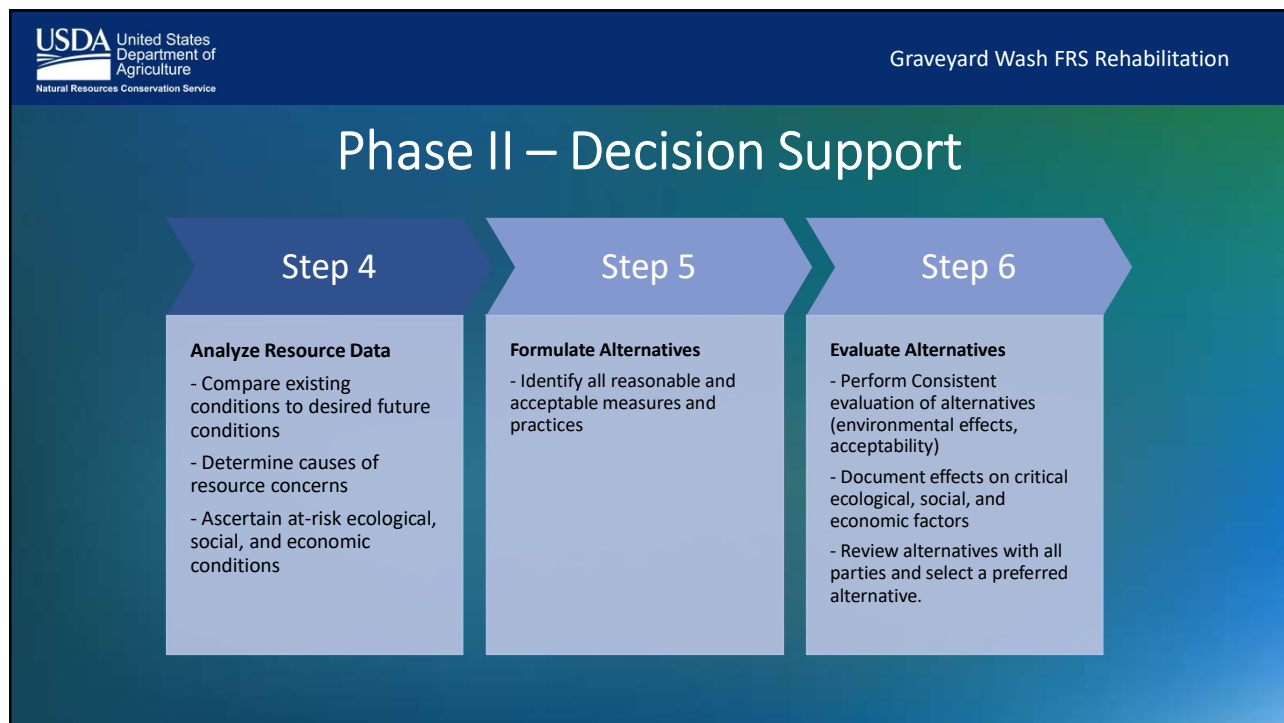
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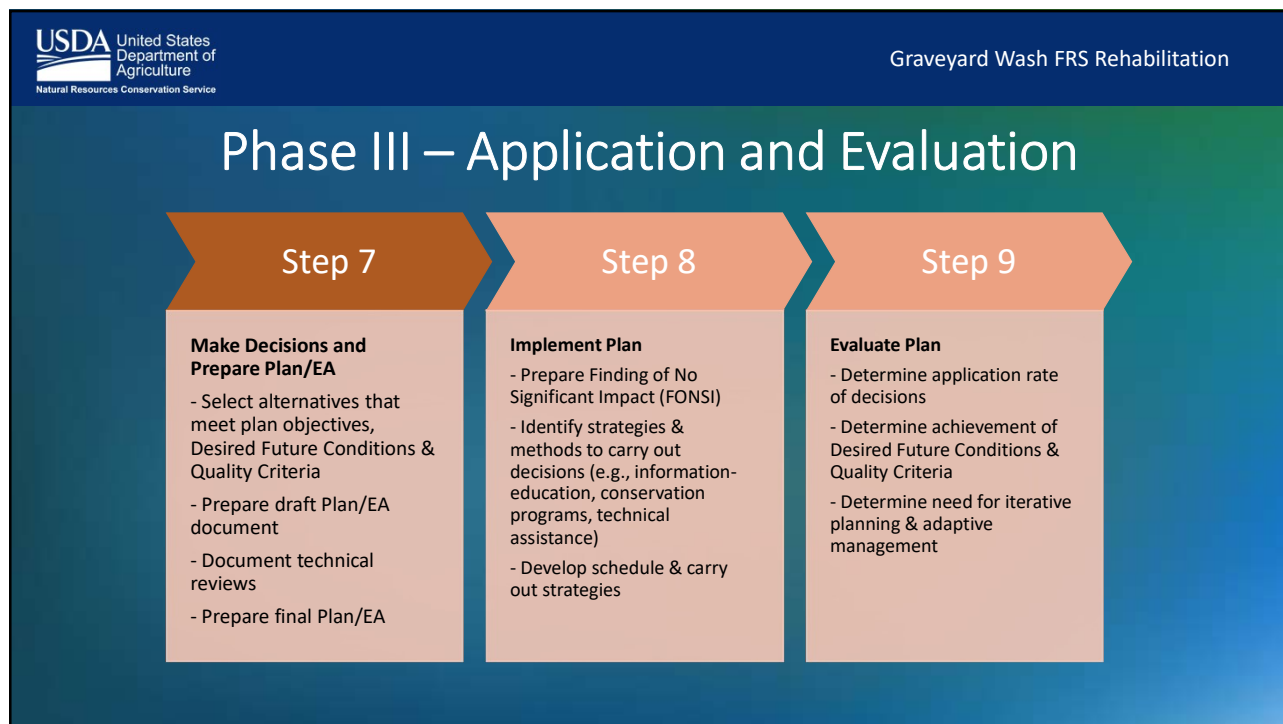
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Purpose and Need

Purpose: Preserve and increase flood protection downstream of Graveyard Wash Flood Retarding Structure (FRS).

Need: Bring the dam and spillway facilities into compliance with current federal and state standards.

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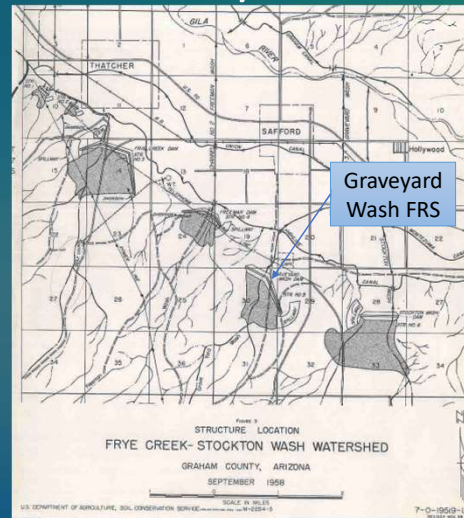
Graveyard Wash FRS History

- Frye Creek – Stockton Wash Watershed Work Plan prepared in 1958
 - Included six dams and four flood channels
- First supplemented in 1961
 - “Supplemental watershed plan” documents a change in the purpose, scope, or major feature of an existing plan
 - Deleted 2 dams, added 1 dam, modified 1 flood channel

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Graveyard Wash FRS History

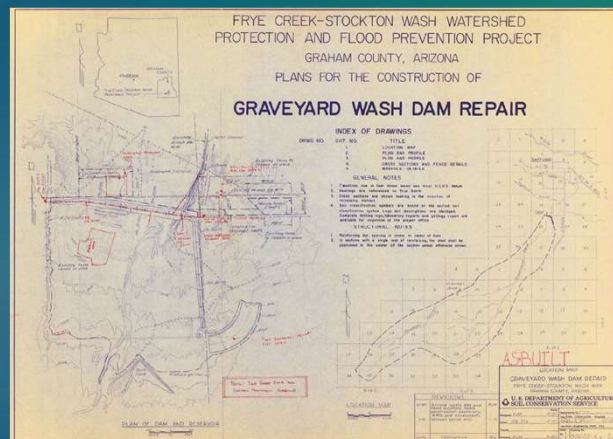
- Constructed in 1964
- Graveyard Wash detention basin was one of several proposed dams
- Provide flood protection for the City of Safford and Graham County



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Graveyard Wash FRS History

- In 1978, a large storm caused the reservoir to rise within a few inches of the auxiliary spillway crest
 - Several leaks and cracks were observed on the left portion of dam
 - Repairs were made to the dam in 1981



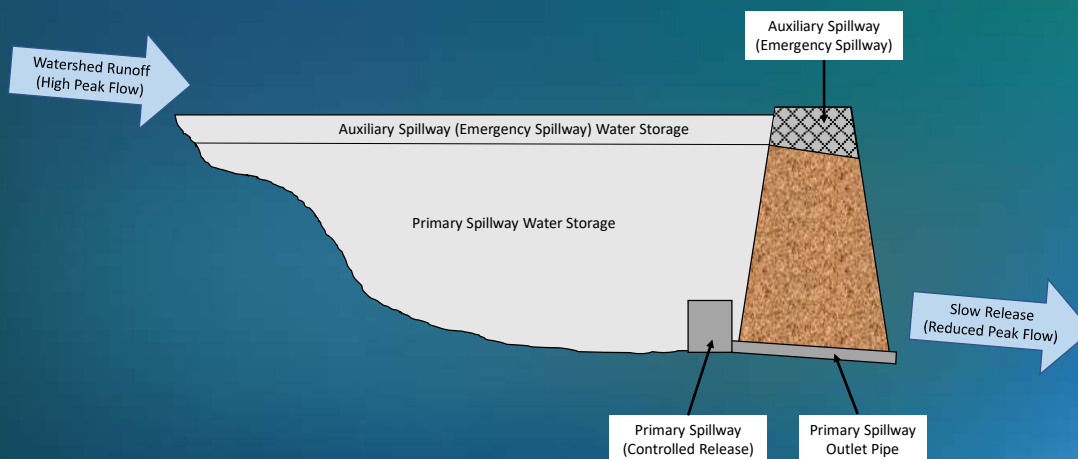
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Graveyard Wash FRS History

- 1981 – Phase I Inspection Report (ADWR)
- 2004 – Hydrology Report (Kimley-Horn & Associates)
- 2005 – Individual Structure Assessment (Kimley-Horn & Associates)
- 2016 – Rehabilitation Assessment Report (NRCS-AZ)
- 2021-Present – Supplemental Watershed Plan-EA
 - The NRCS PL-566 program provides an opportunity for thorough analysis and the development of alternatives

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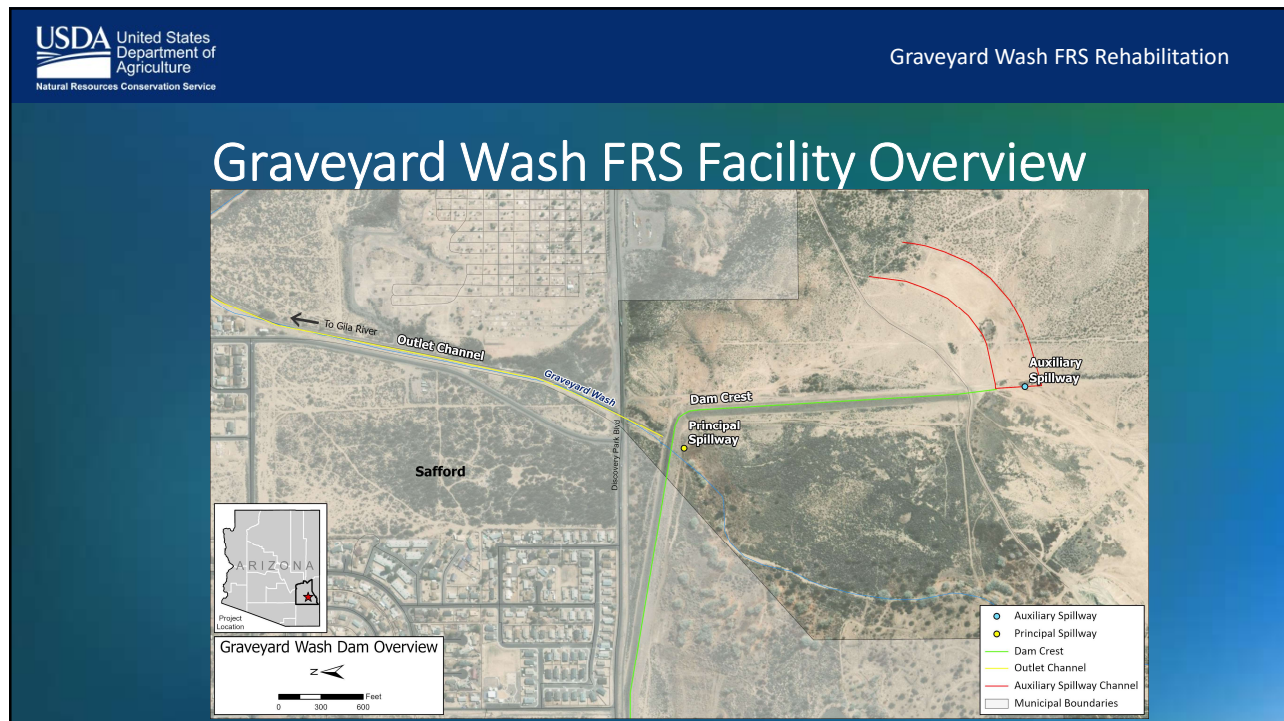
Detention Basin Function Overview



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Graveyard Wash FRS Photos



(Aerial view is looking north)

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Graveyard Wash FRS Photos



(Aerial view is looking southwest toward Mount Graham)

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Graveyard Wash FRS Photos



Principal Spillway



Principal Spillway Outlet



Outlet Channel

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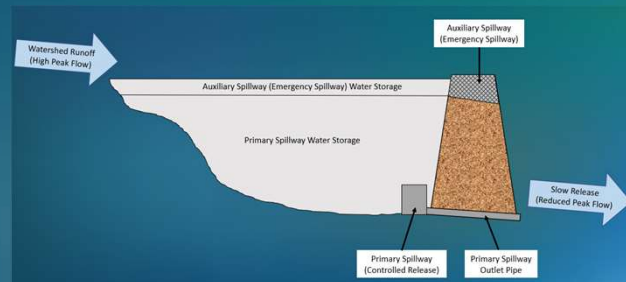
Evaluation of Graveyard Wash FRS

- Evaluate the existing dam to NRCS and Arizona Department of Water Resources (ADWR) criteria
- Scope of engineering analysis:
 - Field observations and dam inspection
 - Hydrologic and hydraulic evaluation
 - Geotechnical and seismic evaluation
 - Capacity of outlet channel
 - Identify deficiencies
 - Develop conceptual design alternatives

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Noted Deficiencies

- Does not meet current NRCS or ADWR criteria
 - Auxiliary spillway storage and capacity is not sufficient for very large storm events
 - To be determined:
 - Geotechnical and seismic criteria
 - Outlet channel capacity



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Alternatives to Consider

PL-566 Standard Alternatives (for comparison):

1. Rehabilitation (30% design)
2. Non-Structural
3. Federal Decommissioning
4. No Federal Action
5. Other Public-Identified

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Purpose of this Planning Phase

Federal funds = NEPA

(National Environmental Policy Act)

*Federal lands and federal permits also invoke NEPA requirements

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NEPA aims to:

1. Consider environmental consequences
2. Inform the public

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40 CFR 1501.9 - Scoping

“Agencies shall use an early and open process to determine the scope of issues for analysis . . .”

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Issues to consider



Air Quality



Cultural Resources



Water Resources



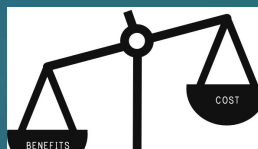
Land Uses



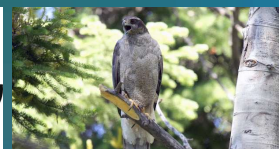
Visual Resources



Policy and Regulation



Economics



Wildlife

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Questions to identify the scope:

- Are there concerns with the possible outcomes?
- What are the most important environmental concerns?
- Is there any controversy?
- What other environmental laws apply?
- When does the decision need to be made?

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Schedule (Phase I)

Public scoping comment period:
April 5 - May 5 (30 days)

Draft Plan-EA/30% Design: estimated fall 2022

- 45-day comment period

Final Plan-EA & Decision: estimated spring 2023

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Future Phases

Upon publication of the Draft Plan-EA, City of Safford can request Design (Phase II) and Construction (Phase III) funding

- Design can be prepared concurrent with the end of Phase I
- Other permitting is typically completed during Phase II

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Comments

Online: <https://graveyardwash.com/>

Email: comment@graveyardwash.com

Call: Jenna Jorgensen (435) 896-8266

Mail: Jenna Jorgensen
 Jones and DeMille Engineering
 1535 S. 100 W., Richfield, UT 84701

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