

# Post-Wildfire Flooding Update

January 24, 2023





# Objectives for Tonight

- Museum Fire and Pipeline Fire map and brief history
- Spruce Wash Watershed progress update
- November bond success and actions since
- Schultz Creek progress update
  
- Council Discussion and Questions



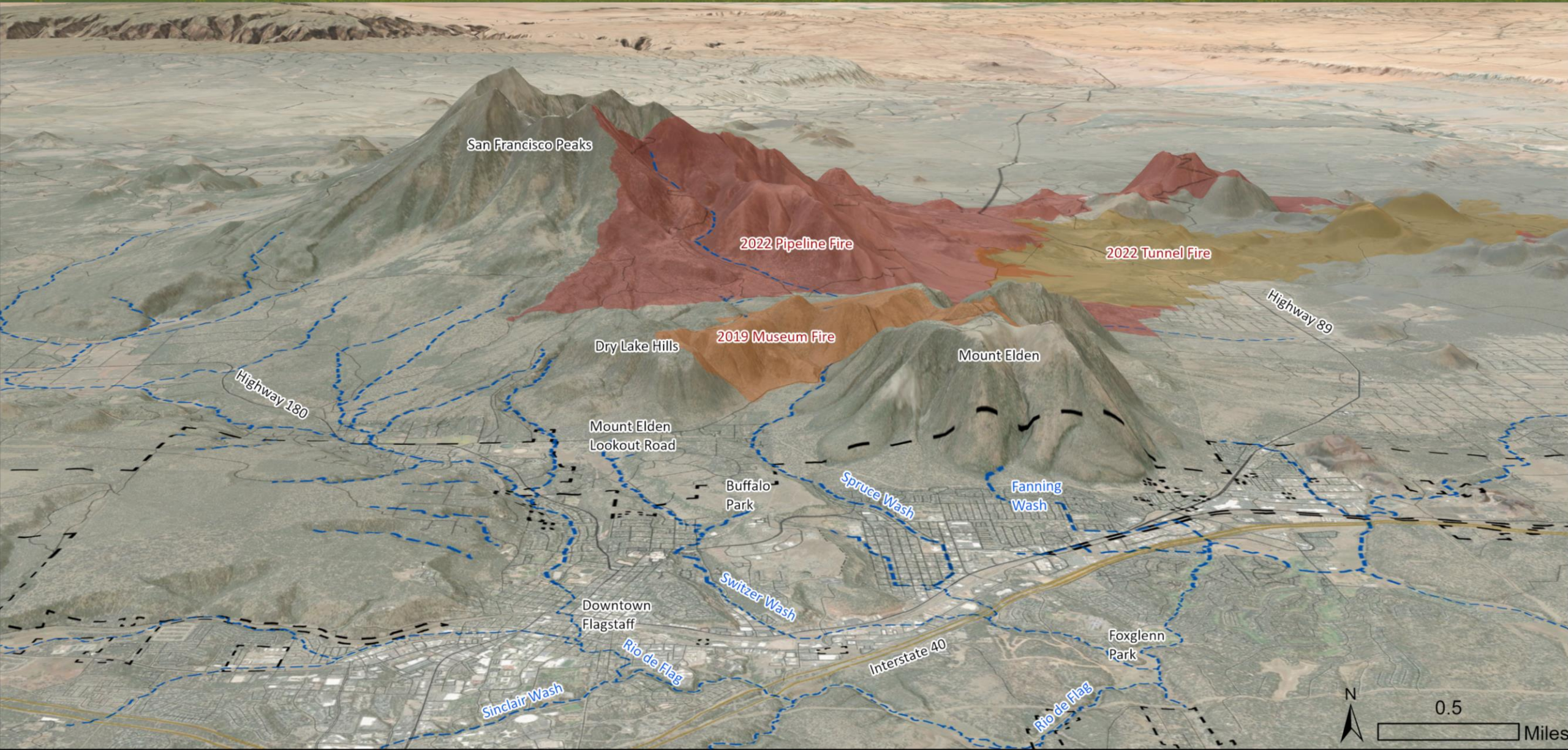
# Fire/Flood History

- 2019 Museum Fire in Dry Lake Hills
- 2022 Pipeline Fire in Schultz Pass
  - 2021 Spruce Wash Flooding (Museum Fire)
  - 2022 Schultz Creek Flooding (Pipeline West)

*Post wildfire flooding mitigation development is ongoing and some of the best work in the nation is occurring as quickly as possible.*



# Overall Map



San Francisco Peaks

2022 Pipeline Fire

2022 Tunnel Fire

2019 Museum Fire

Dry Lake Hills

Mount Elden

Highway 89

Highway 180

Mount Elden  
Lookout Road

Buffalo  
Park

Spruce Wash

Fanning  
Wash

Downtown  
Flagstaff

Switzer Wash

Interstate 40

Foxglenn  
Park

Sinclair Wash

Rio de Flag

Rio de Flag



0.5

Miles

# Spruce Wash





# Feasibility Study Phase II

- Spruce Wash Watershed Management Plan (Feasibility Phase II) includes:
  - Updated hydrology for current watershed conditions
  - Concept design for a suite of projects to mitigate flooding in the Grandview and Sunnyside neighborhoods
  - Mapping the benefit of implementation of the suite of projects (new exhibits showing flood depths)

The watershed has not recovered – flood risk exists and these projects are critical to reducing the risk.



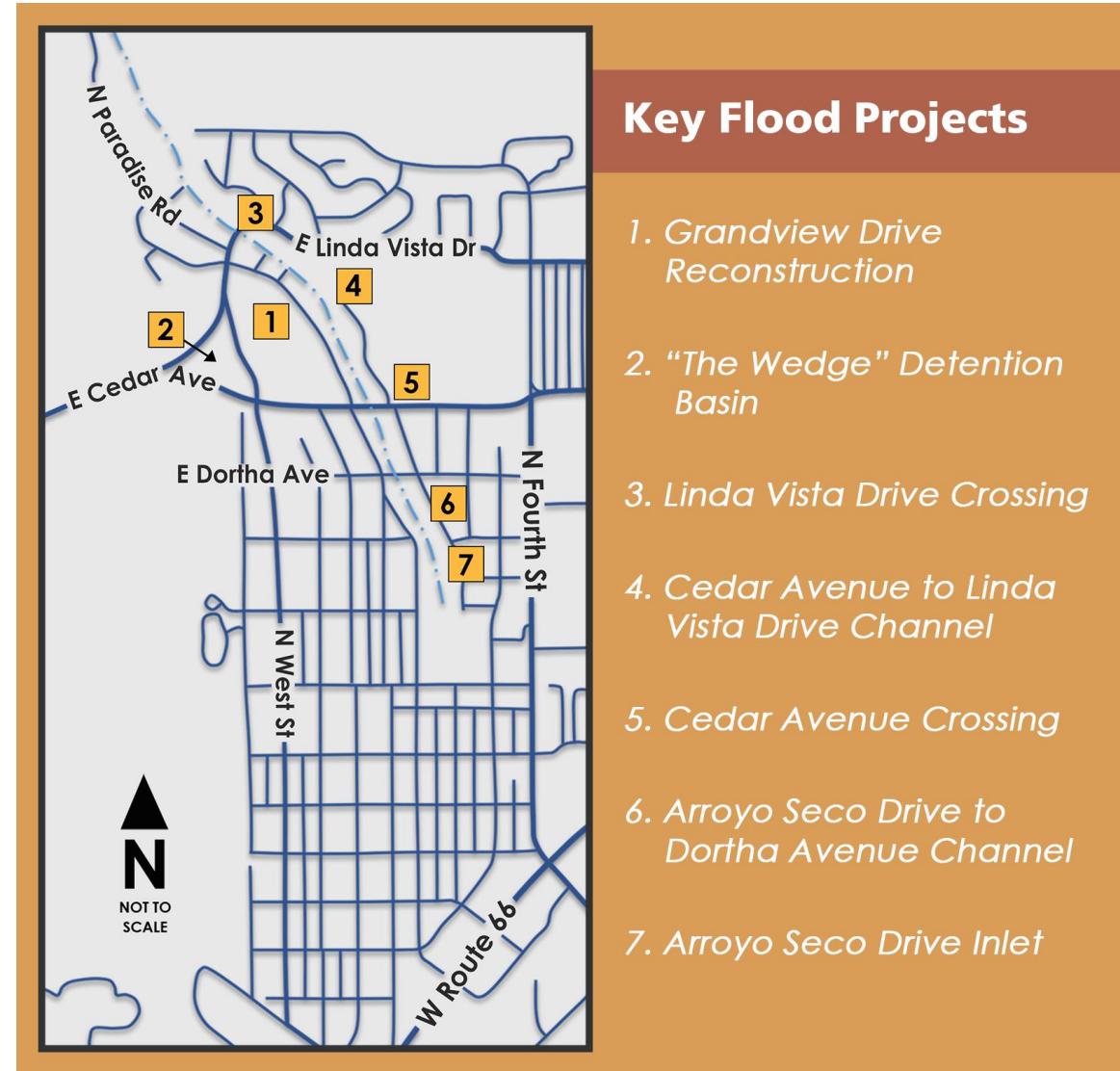
# Feasibility Study Phase II

## • Recommended Projects:

- Reconstruct Grandview
- Upsize Linda Vista Crossing
- Improve Cedar to Linda Vista Channel
- Upsize Cedar Crossing
- Improve Dortha to Arroyo Seco Channel
- Construct Permanent Inlet at Arroyo Seco Townhomes

## • Not Recommended at this Time:

- The Wedge Detention Basin

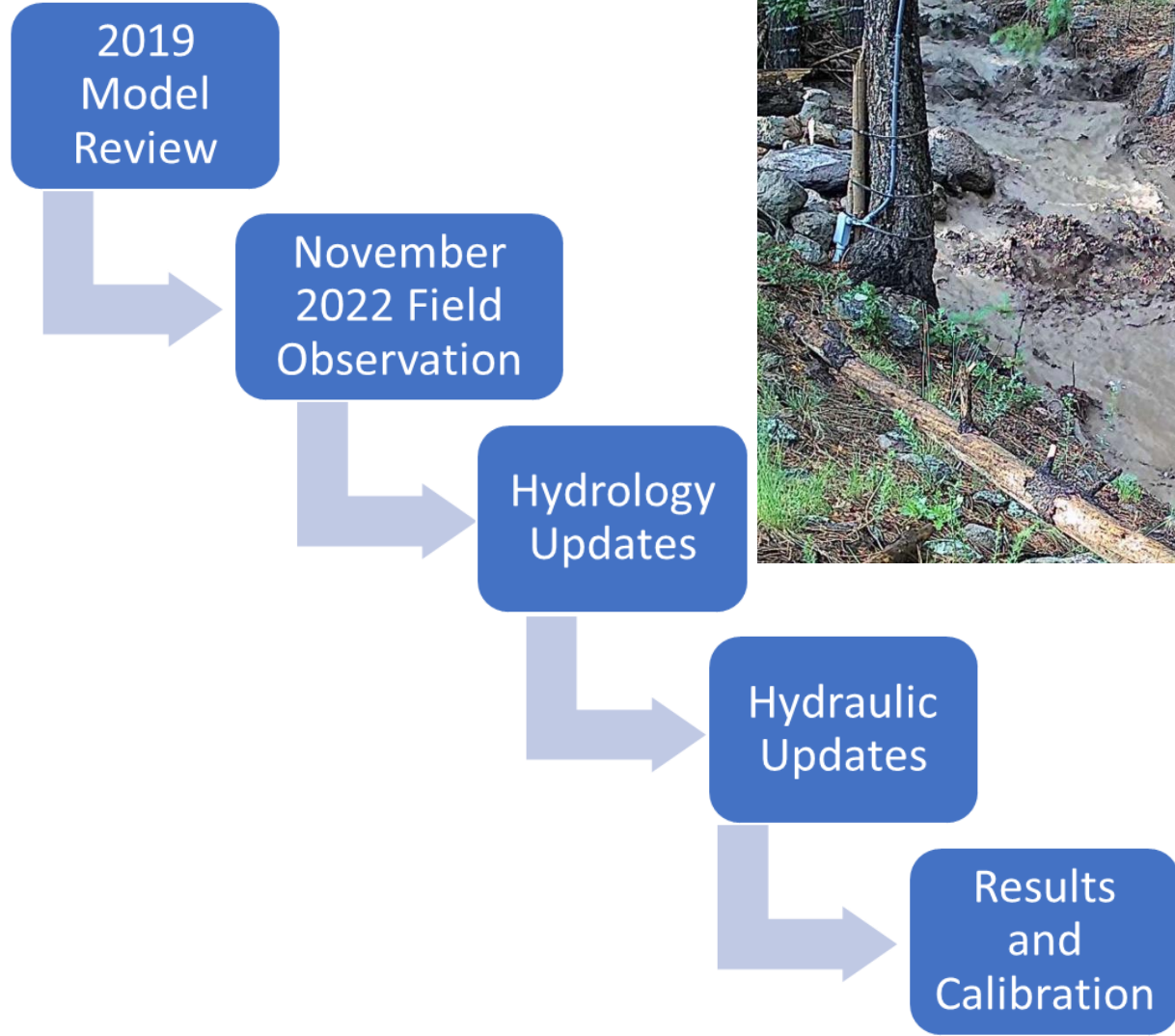






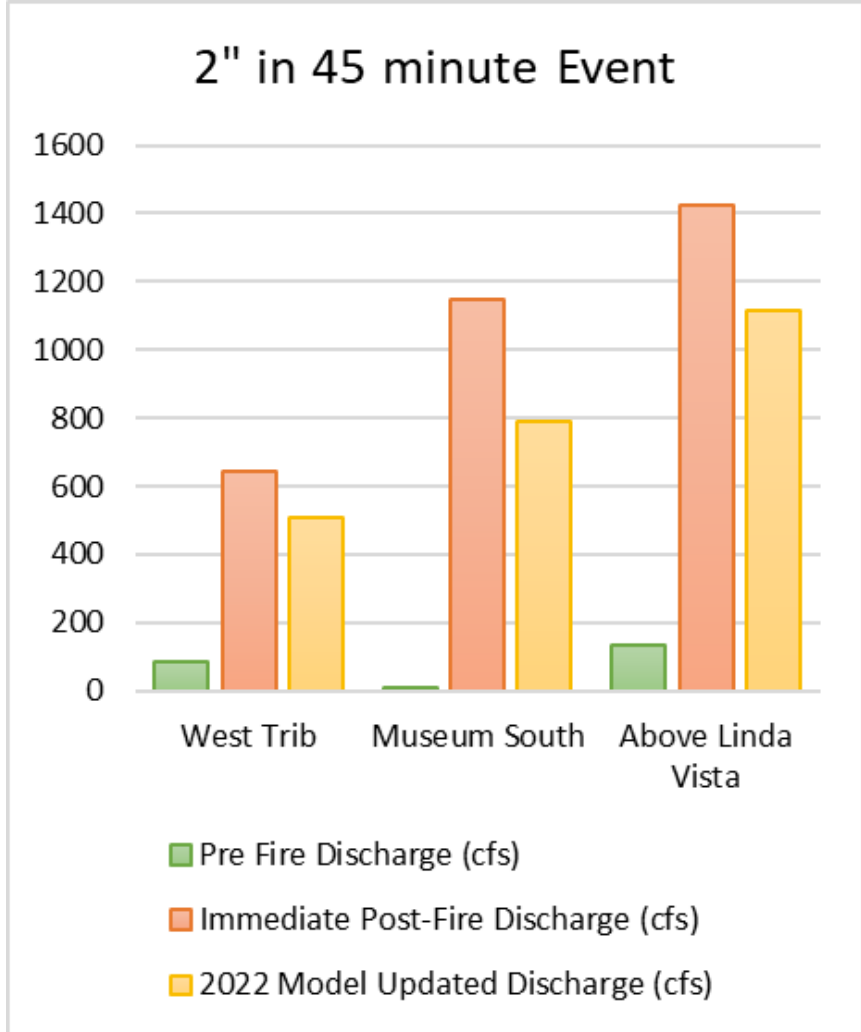
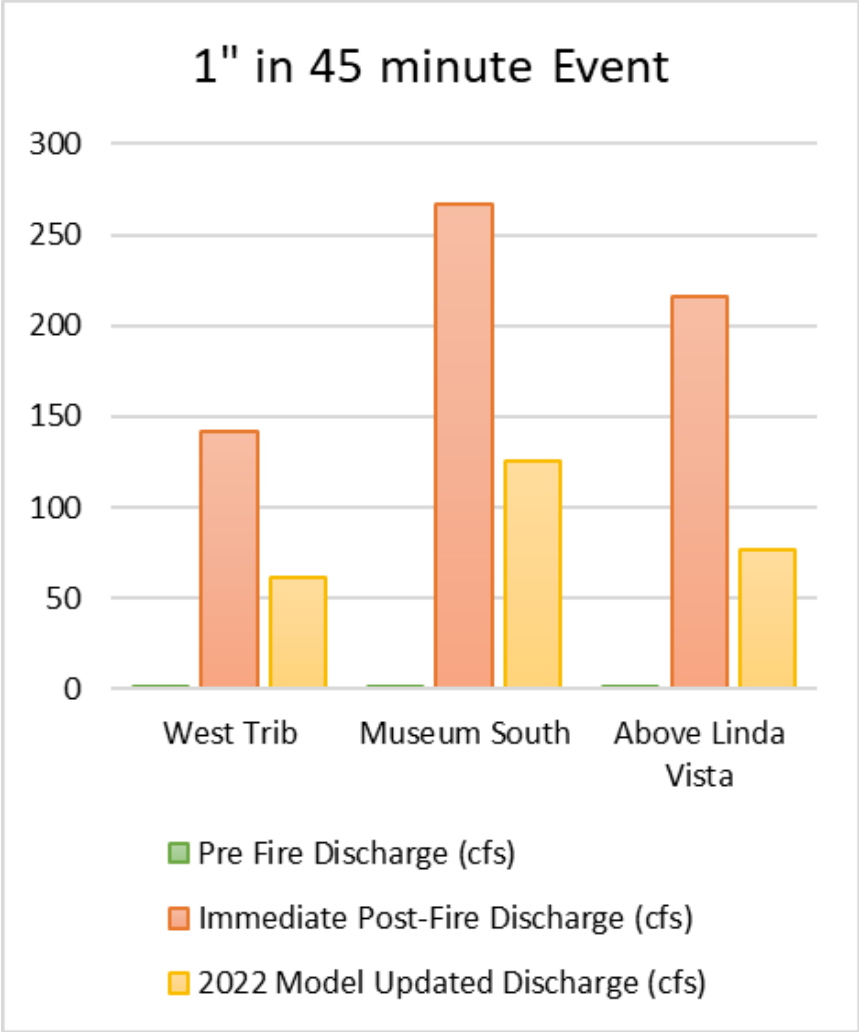
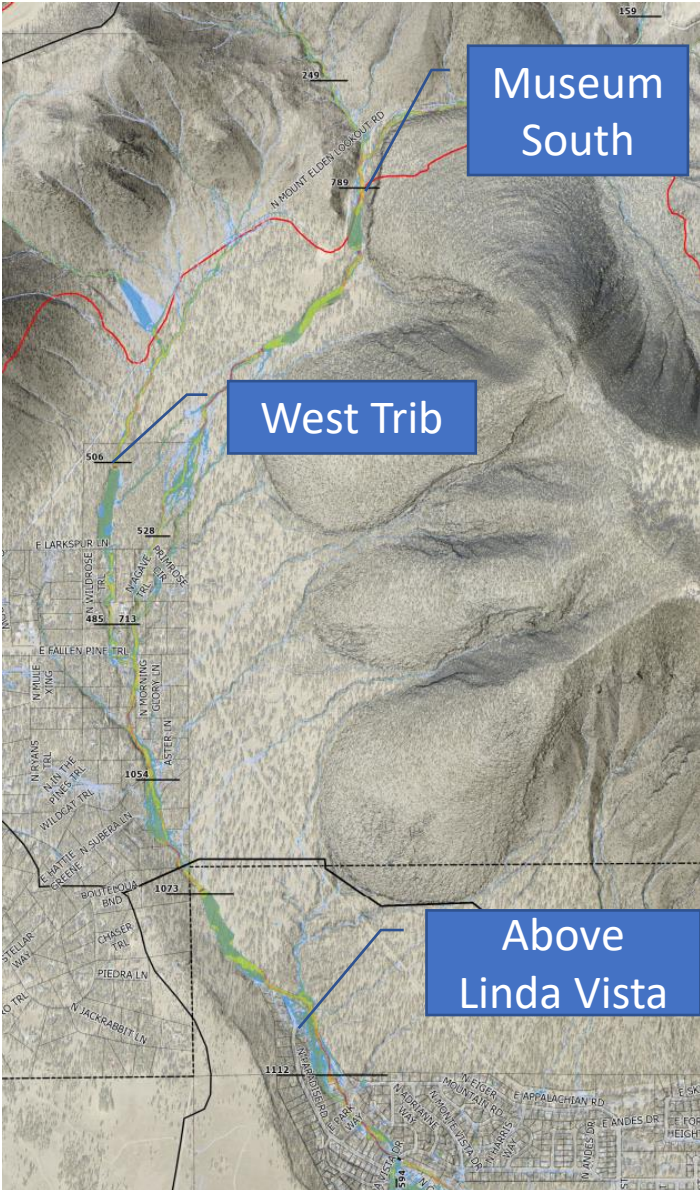


# Spruce Wash Hydrology Update





# Modeling Summary





# November Bond Success

- \$26M through Proposition 441 for Spruce Wash/Museum Fire flood mitigation.
- Strong voter support and approved by 76%
- Spruce Wash Project Delivery kicked off the next day.



# November Bond Success

- Construction will follow the Spruce Wash Watershed Management Plan (Feasibility Study Phase II) and Engineering design.
- Intent is to greatly mitigate routine and medium sized flows off of the Museum Fire burn scar and provide life and safety mitigation for large flows.
- The watershed has recovered slightly since the 2019 Museum Fire but the flood risk is still very high, especially for moderate to large rain events.



# Mitigation Post Bond

## City-wide effort and commitment

- Water Services, Public Works and Capital Improvements
- All city internal services groups and staff required are at the table
- Community engineering consultants and contractors
- Residents and impacted citizens. Focus on the long-term improvements and provide meaningful impact.



# Spruce Wash Project Delivery

- Spruce Wash Project Delivery – Technical Advisory Committee

Intent: Discuss and coordinate work efforts between city divisions and consultants for the 2022 funded Spruce Wash Project Delivery and Engineering.



# Spruce Wash Construction

- Construction Manager at Risk (CMAR) Process
  - Request for Statement of Qualifications (SOQ) was advertised on December 15th, 2022.
  - Review of the Statements and Interviews is underway now.
  - Proposal negotiations, specifications and schedule will take place in February.
  - Council Award to selected Contractor in March.
  - Notice to Proceed and Guaranteed Maximum Price #1 (GMP) issuance in May.
  - Intent is to start construction in the Fall of 2023, after monsoons.



# Spruce Wash Project Delivery

- Survey and Design
- Project Map and overall explanation
  - Linda Vista Crossing
  - Channel Linda Vista to Cedar
  - Grandview
  - Cedar Crossing
  - Channel Cedar to Arroyo Seco
  - Arroyo Seco Inlet
  - Ponderosa Park and Killip inlet
  - Park Way Basins





# Spruce Wash Project Delivery

This is a super cool project and will likely be one of the most impactful improvements in response to the Muesum post wildfire flooding.

We thank you and the community for the support to be a part of the work.

# Schultz Creek





# Schultz Creek Project Delivery

- Mitigating the flood threat for Stevanna Way, Coconino Estates, downtown, and Southside as a result of the Pipeline Fire.
  - Detention Basins – Complete and functioning
  - Basins to Hwy 180 (two projects)
  - Hwy 180 Crossing (in design and survey)
  - Hwy 180 to Rio (in design and survey)
  - Frances Short Pond



# Schultz Basins

- Completed in October 2022 (less than 4 months post-fire)
- Provide a great benefit but still considerable flood threat

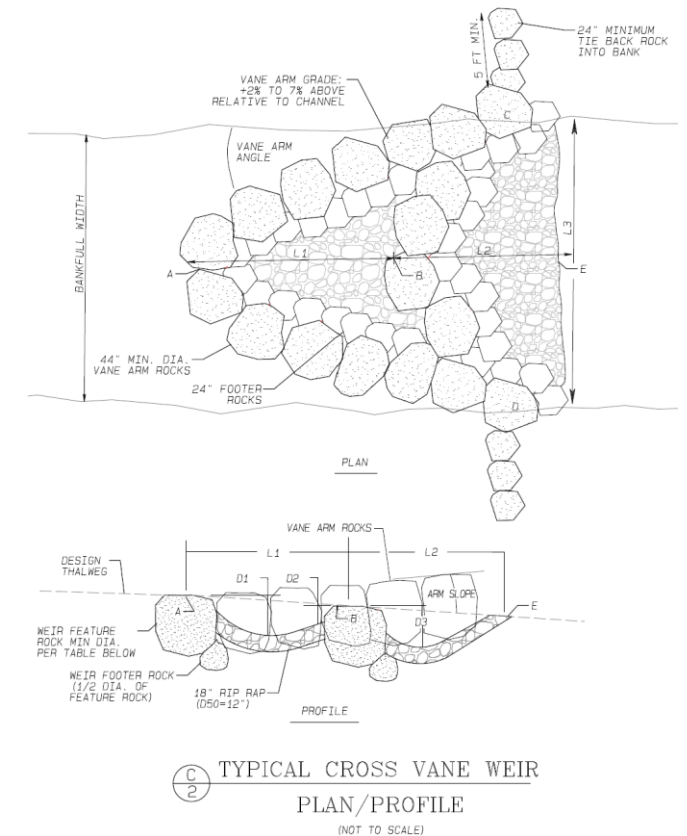




# Schultz Creek



- Schultz Creek between Basins and Highway 180
  - County project – Elden Lookout Road culvert
  - City project – channel stabilization

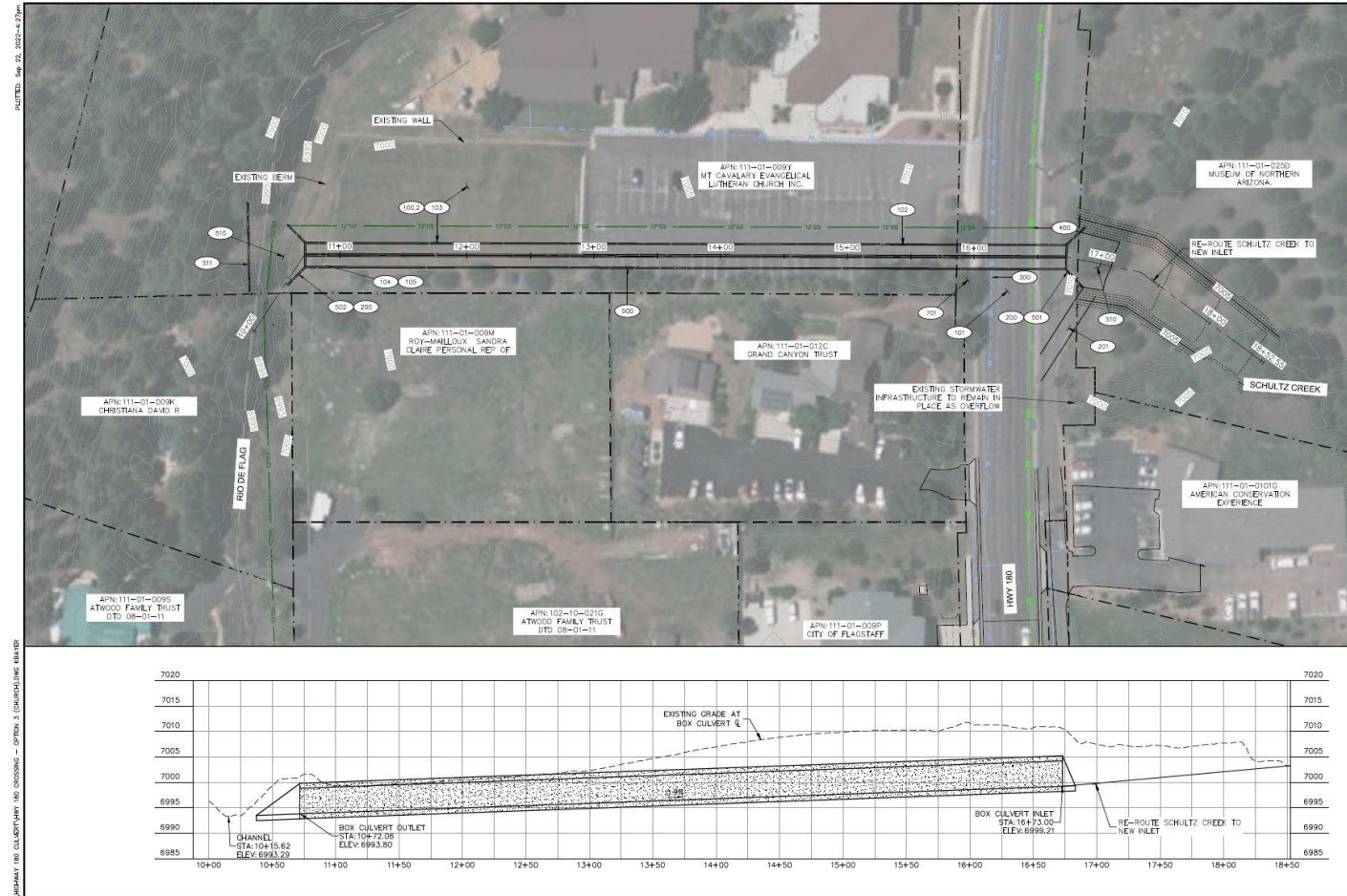




# Schultz Creek at Hwy 180



- In design and survey
- Property rights and acquisitions
- Funding



### CITY IMPROVEMENT KEYNOTES

100	6,100 CY	EARTHWORK (CUT) INCLUDING CHANNEL RE-ROUTE (TRAPEZOIDAL CHANNEL 40' BOTTOM WIDTH WITH AN APPROX. DEPTH OF 6 FEET AND 2:1 SIDE SLOPES)
100.2	1,600 CY	EARTHWORK (FILL) FOR MIN COVER ON BOX CULVERT
101	500 SY	DEMO & REPLACE HWY 180 ROAD SECTION
102	2,000 SY	DEMO & REPLACE LOCAL ROAD SECTION
103	22,000 SF	DEMO & REPLACE 500
104	100 SY	DEMO STORM DRAIN
105	1 EA	DEMO OUTLET STRUCTURE
200	100 LF	INSTALL GUARD RAILING
201	900 SF	CONSTRUCT CONCRETE STRUCTURAL SECTION PER DETAIL '1' FOR MAINTENANCE ACCESS
300	1 LS	VERTICALLY REALIGN 20" DUCTILE IRON WATER MAIN
400	1 LS	REALIGN EXISTING SEWER MAIN
500	600 LF	INSTALL DOUBLE 8'X8' PRECAST BOX CULVERT
501	1 EA	INSTALL INLET HEADWALL
502	1 EA	INSTALL OUTLET HEADWALL
600	500 SY	INSTALL ROCK RIP-RAP PROTECTION
700	70 LF	CONSTRUCT CHANNEL BANK PROTECTION WALL
701	1 EA	DRY UTILITY RELOCATIONS
800	47,600 SF	PROPERTY ACQUISITIONS FOR EASEMENTS

**OPTION 3 PLAN & PROFILE**

7/9 Kellor Place  
 Sedona, AZ 86336  
 928.282.2058 fax  
 www.swhi.com

**SWI**  
 Shephard Weanitzer, Inc.

ARIZONA  
 PROFESSIONAL ENGINEER  
 No. 123456789

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

REVISIONS:

NO.	DESCRIPTION	DATE	BY

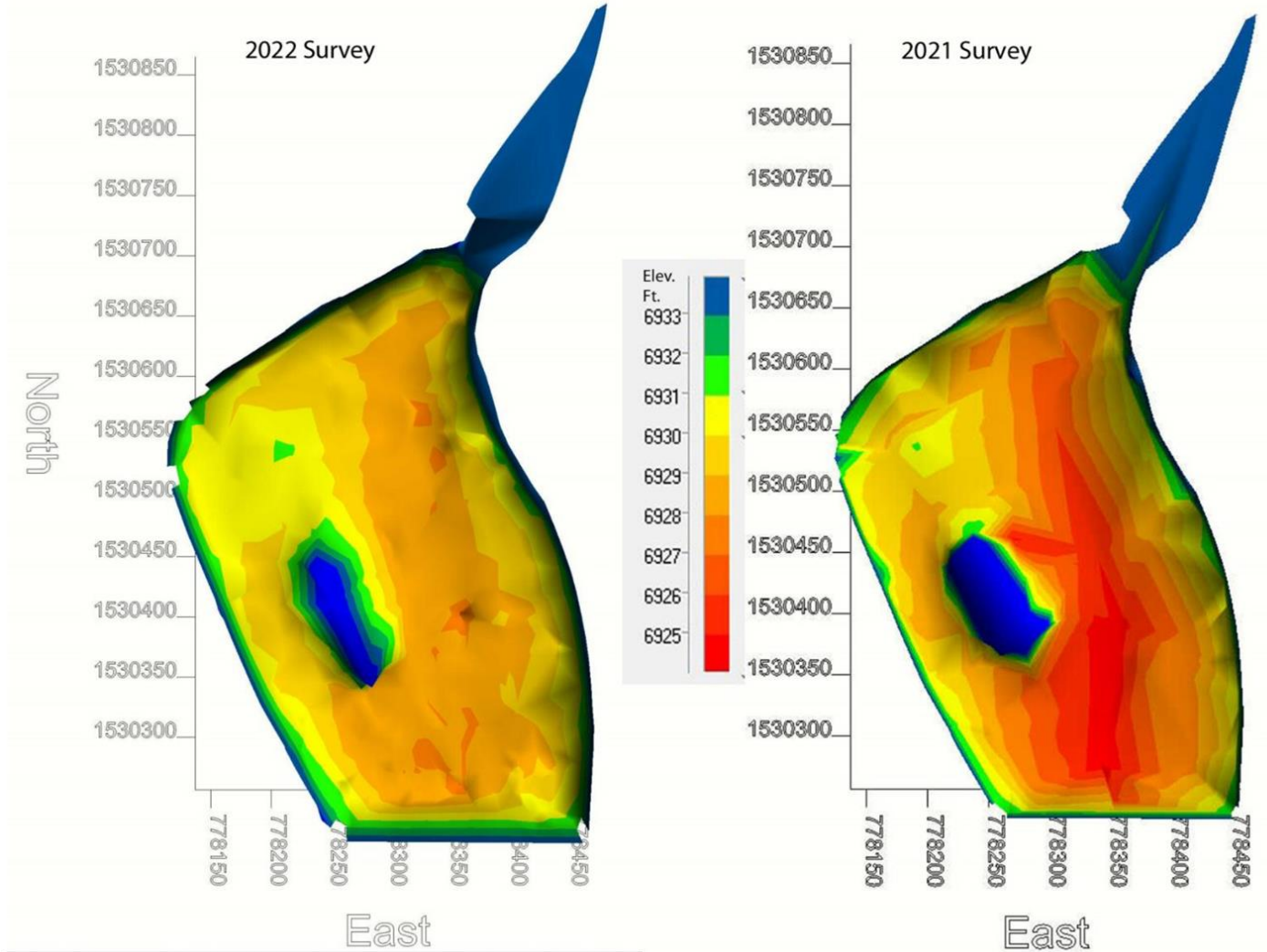
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PRELIMINARY  
NOT FOR CONSTRUCTION,  
BIDDING OR RECORDING



# Frances Short Pond

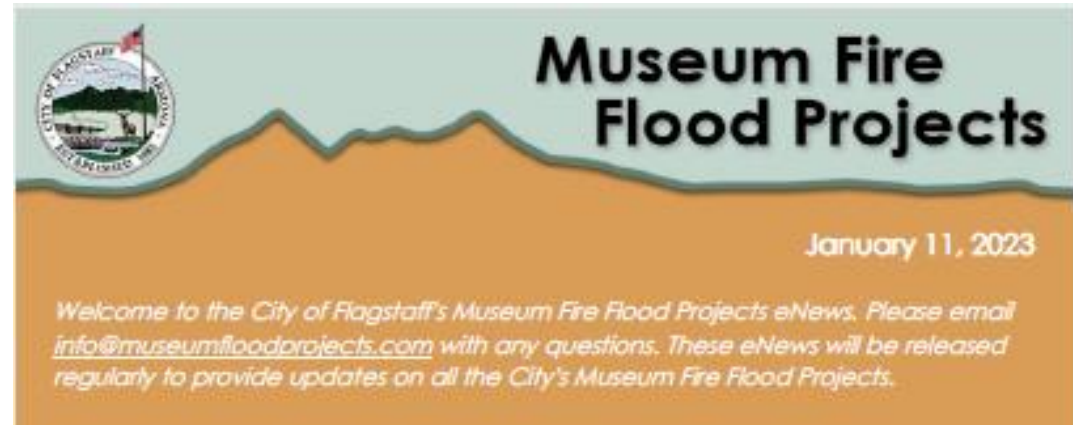




# Communications Update



- Public Affairs working with BetaPR
- Tools include:
  - E-newsletters (EN/ SP)
  - Physical bulletin boards
  - Banners & sandwich boards
  - Frequently updated websites
  - Mailers & door-to-door flyers
  - Email communications
  - Community meetings





# Spruce Wash Community Meeting Notice

February 2

City Hall

6 p.m.



## Only for Spruce Wash/ Museum Flood Area



**Community meeting**  
for residents impacted by  
post-wildfire flooding in the  
Museum Flood Area

Thursday, February 2 from 6:00 – 7:30 p.m.  
at Flagstaff City Hall (211 W Aspen Ave)



CITY OF  
**FLAGSTAFF**

# Museum Flood Area Communications

How to stay connected



For more information and to sign up to receive updates, visit

[MuseumFloodProjects.com](https://www.museumfloodprojects.com)

Questions?

[info@museumfloodprojects.com](mailto:info@museumfloodprojects.com)

928-213-2102



# Pipeline West Communications

How to stay connected

For more information and to sign up to receive updates, visit

[Flagstaff.az.gov/PipelineWest](https://Flagstaff.az.gov/PipelineWest)

Questions?

[info@pipelinewestflooding.com](mailto:info@pipelinewestflooding.com)

SCAN ME

[928-213-2102](tel:928-213-2102)



# Discussion

