

POTENTIAL STRUCTURAL CONCEPT FEATURES

Potential structural options could include:

- A basin to contain sediment and direct stormwater flow paths OR allow the sediment to flow through the main channel and pass downstream through the system.
- Direct stormwater to the main channel OR split water flow into two channels: a main and west channel.
- Maintain the natural character of the wash through use of native soil and vegetation.
- Stair-step the main channel with structures to prevent erosion, if there is a basin.
- Install earth berms and floodwalls in some locations where needed.
- Investigate and certify existing private walls and berms to determine if they will hold back projected stormwater flows, and retrofit them where needed.
- Preserve existing passive recreational uses along the wash (no new paths or uses).
- Improve Los Portones Drive to more effectively convey stormwater and sediment.



Example of stair-stepping on the New River in Glendale.



Example of a berm at McDowell Sonoran Preserve Gateway Trailhead.

NEXT STEPS

At the public meeting in May, the District will provide more information and seek the community's input on the potential options. Those unable to attend this meeting can comment online on the study web page or to the study's Project Manager. Once public input has been received, additional analysis will be conducted on the most acceptable and feasible option(s) to determine a recommended approach.

The following criteria will be used to evaluate potential options:

- Community input and acceptance.
- Feasibility of the potential options.
- Effectiveness in protecting the public from the hazard.
- Reduction in the size of the FEMA regulatory floodplain.
- Overall cost to the public and availability of funding sources.
- Compatibility with the surrounding environment.
- Minimal or temporary impacts to the environment

The community will have additional opportunities to review and comment on the preliminary recommendation and any potential design concepts, should a Build option be recommended. Should a No Build option be selected, the community will also be involved in the FEMA public process for the re-delineation of the floodplain.



Rawhide Wash



MORE INFORMATION/COMMENTS

Theresa Pinto, Project Manager
 tmp@mail.maricopa.gov • 602.506.8127

STUDY WEB PAGE

gis.fcd.maricopa.gov/apps/Flood-Hazard-Identification-Studies
 (Pinnacle Peak West ADMS)

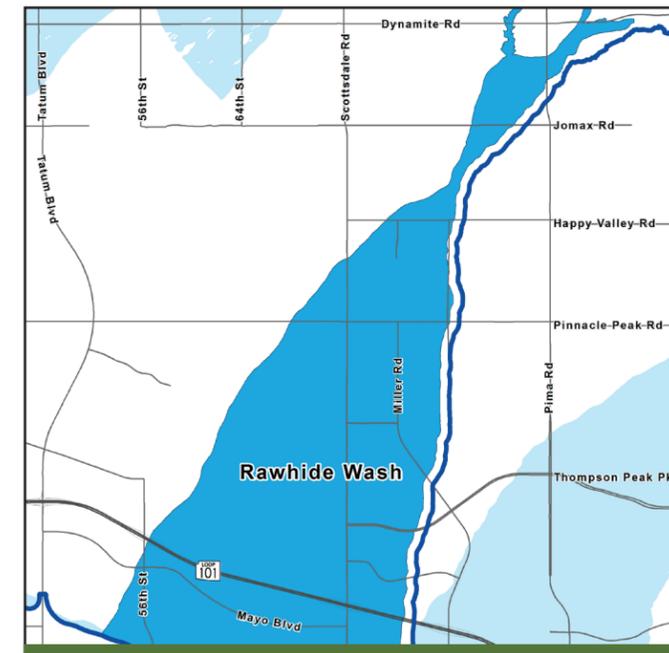


RAWHIDE WASH ALTERNATIVES BEING CONSIDERED

ABOUT RAWHIDE WASH

The Rawhide Wash floodplain is one of the largest in Maricopa County and covers more than 10 square miles from approximately Jomax and Pima roads to the southwest past Loop 101. Rawhide Wash was mapped as a 100-year regulatory floodplain by the Federal Emergency Management Agency (FEMA) and designated as an active alluvial fan. During large storms, stormwater and sediment can travel at high speeds from nearby mountains and spread out into multiple, shallow streams and washes. These streams and washes can shift during storm events, which results in an unpredictable path of floodwater and a high risk of flooding.

- Approximately 500 of the 4,000 properties within the Rawhide Wash floodplain are at potential risk of flood damage.
- Over 2,700 property owners in this area pay \$1.4 million annually in flood insurance premiums through the National Flood Insurance Program.



OPTIONS BEING CONSIDERED TO MINIMIZE FLOOD RISK

Due to the high flood risk to people and properties in the Rawhide Wash floodplain, this area is being considered for possible regional flood control measures to reduce the risk. The Flood Control District of Maricopa County (District) and its city partners are considering three potential options for Rawhide Wash: No Action, No Build and Build. The Build Option is the only option that would reduce the flood hazard and risk. No decision has been made about which of these options will be selected. Community members will have the opportunity to review and provide input on each of these options.

NO ACTION OPTION

This is the “business-as-usual” option in which no structural measures would be implemented to minimize the hazard or reduce the floodplain.

Advantages

- No potential construction-related disruption from building flood control structures.

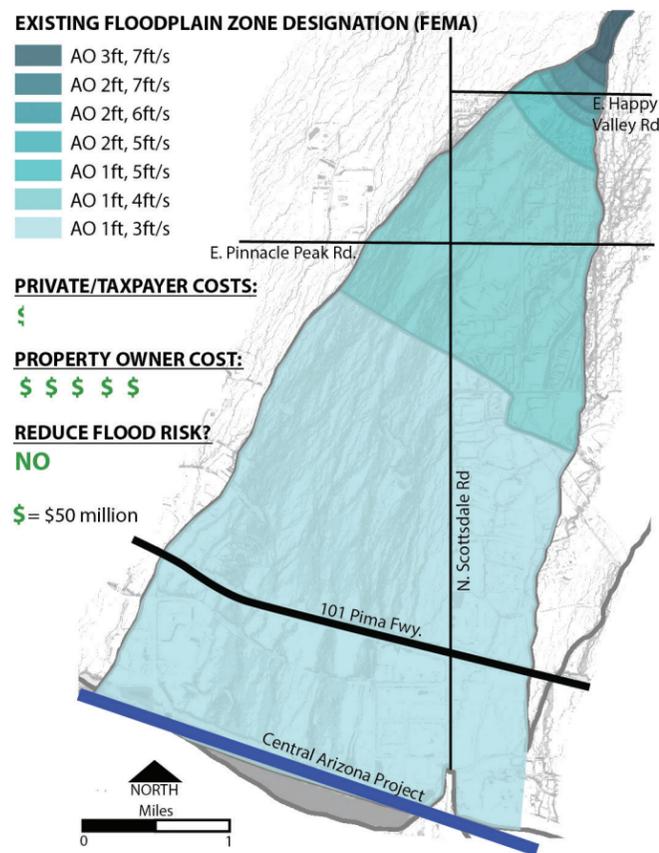
Disadvantages

- The flood hazard is not mitigated and more than 500 properties are estimated to remain at potential risk.
- More than 4,000 properties would remain in the FEMA floodplain. Current flood insurance and development requirements would remain for these property owners.
- Highest cost to property owners in the existing floodplain.
- Drainage infrastructure for future development would need to be over built to reflect the current hazards, which could result in additional land and environmental disturbance.

Estimated 50-Year Cost

- \$250-300* million property owner cost (flood insurance and development costs in floodplain). Cost ranges reflect future premiums and costs associated with development in a floodplain, such as fill to elevate structures.

*Does not include the additional cost of potential flood damages to properties, which is estimated at \$100-150 million. Some of these costs would be covered by flood insurance for those with policies.



NO BUILD OPTION

With this option, the District and partner cities would pursue a re-mapping (re-delineation) of the existing floodplain through FEMA without construction of any new flood control structure.

Advantages

- If approved by FEMA, the size of the existing floodplain could be reduced. The extent of the reduction is still uncertain without further detailed analysis.
- Would remove flood insurance and development requirements for properties no longer in the floodplain.
- No potential construction-related disruption from building flood control structures.

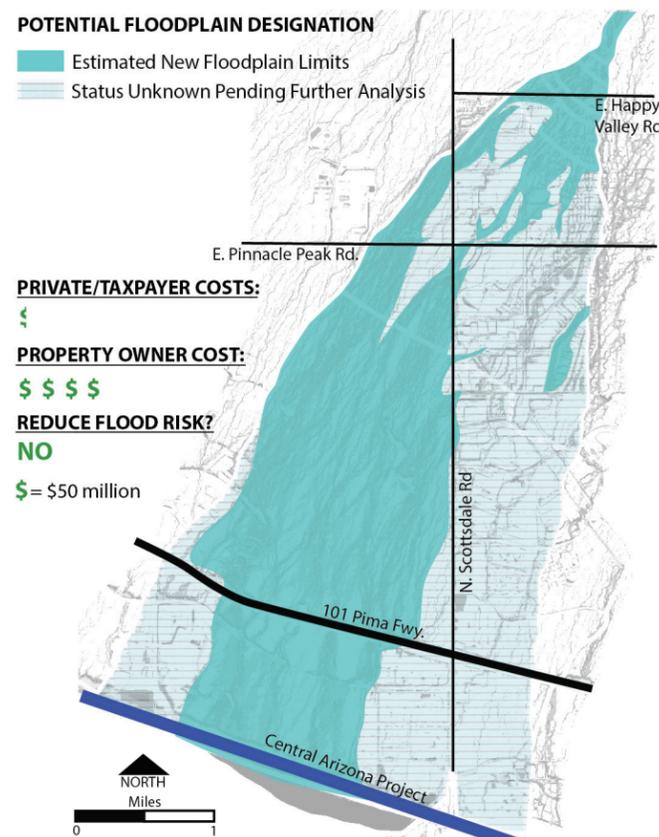
Disadvantages

- The flood hazard would not be mitigated and more than 500 properties would remain at potential risk of flooding.
- Many properties would likely still remain in the FEMA floodplain; existing flood insurance and development requirements would continue for these property owners.
- Re-delineation is a lengthy process that can take up to 10 years to go into effect.
- The extent of the potential floodplain reduction is uncertain and re-delineation is not guaranteed to be approved by FEMA.

Estimated 50-Year Cost

- \$200-250* million property owner costs (flood insurance and development costs in floodplain).
- \$500,000 government/taxpayer costs (floodplain re-delineation)

*Does not include the additional cost of potential flood damages to properties, which is estimated at \$100-150 million. Some of these costs would be covered by flood insurance for those with policies.



BUILD OPTION

With this option, flood control structures would be built to mitigate the flood hazard. Potential flood mitigation structures would be located at the upper end of the Rawhide Wash alluvial fan floodplain near Happy Valley and Hayden roads to concentrate and convey stormwater flows downstream along the Rawhide Wash main channel to the existing bridge on Pinnacle Peak Road just east of Scottsdale Road.

- A request to officially re-map the effective floodplain would be submitted to FEMA based on the new floodplain with a structure in place.
- The estimated timeline to design and build flood control structures and re-map the floodplain is approximately eight years. The re-delineation process would be faster than with a No Build option, due to the mitigation of the flood hazard.
- A structure will not protect all properties in the floodplain.

Advantages

- Mitigates the most severe of the flood risks associated with Rawhide Wash.
- Removes the regulatory floodplain from more than 3,400 properties and eliminates flood insurance and development requirements for those property owners.
- Lowest overall cost to the community.

Disadvantages

- Likely disruptive investigation and retrofit of some private walls along Rawhide Wash.
- Environmental impacts during and immediately following construction.

Estimated 50-Year Cost

- \$15-50 million government/taxpayer cost (design, construct and maintain structures; floodplain re-delineation).
- \$10-20 million property owner costs (flood insurance and development costs in remaining floodplain).

