



# Rainbow Valley Area Drainage Master Plan - Proposed Alternatives

## ALTERNATIVE 3 - STRUCTURAL CONVEYANCE

**Description:** This alternative provides flood protection through the construction of floodwater interception and conveyance structures. Proposed structures include a series of training berms within the fan in the planned development areas that funnels flows to multiple channels that convey the flows southwest to Waterman Wash; a single diversion channel along the apex of the alluvial fans in the Estrella planning unit that routes flows around proposed developed areas and through one or two outlets into Waterman Wash

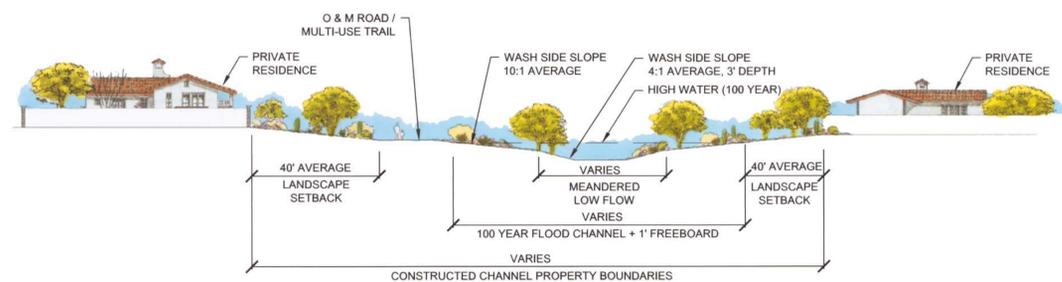
Waterman Wash or the Gila River (Estrella planning unit) (5 year flood event); a proposed channel downstream of the proposed Hassayampa Freeway adjacent to the Sonoran Desert National Monument in the Sonora planning unit that would direct flows into an existing wash that then flows into Waterman Wash; a channel upstream of the Union Pacific Railroad within the limits of proposed development in the Mobile planning unit that would then outlet flows into a newly channelized reach of Waterman Wash; and

additional alluvial fan apex basins in the Waterman-South planning unit that would outlet into channels that flow into the Waterman Wash head waters. Waterman Wash would be managed in accordance with the *Waterman Wash City of Goodyear Conceptual Corridor Study*.

**Proposed Flood Protection Method:**  
**Natural** - Soft-Structural, Semi-Soft Structural  
**Urban** - Semi-Soft Structural, Enhanced Hard Structural

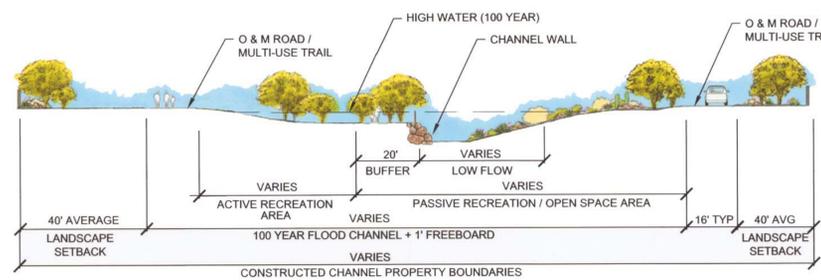
**Compatible Landscape Design Themes:**  
**Natural** - Natural Sonoran Desert Upland Riparian, Natural Lower Sonoran Desert Riparian  
**Urban** - Semi-Natural Sonoran Desert, Enhanced Desert, Desert Park

NATURAL LANDSCAPE DESIGN THEMES

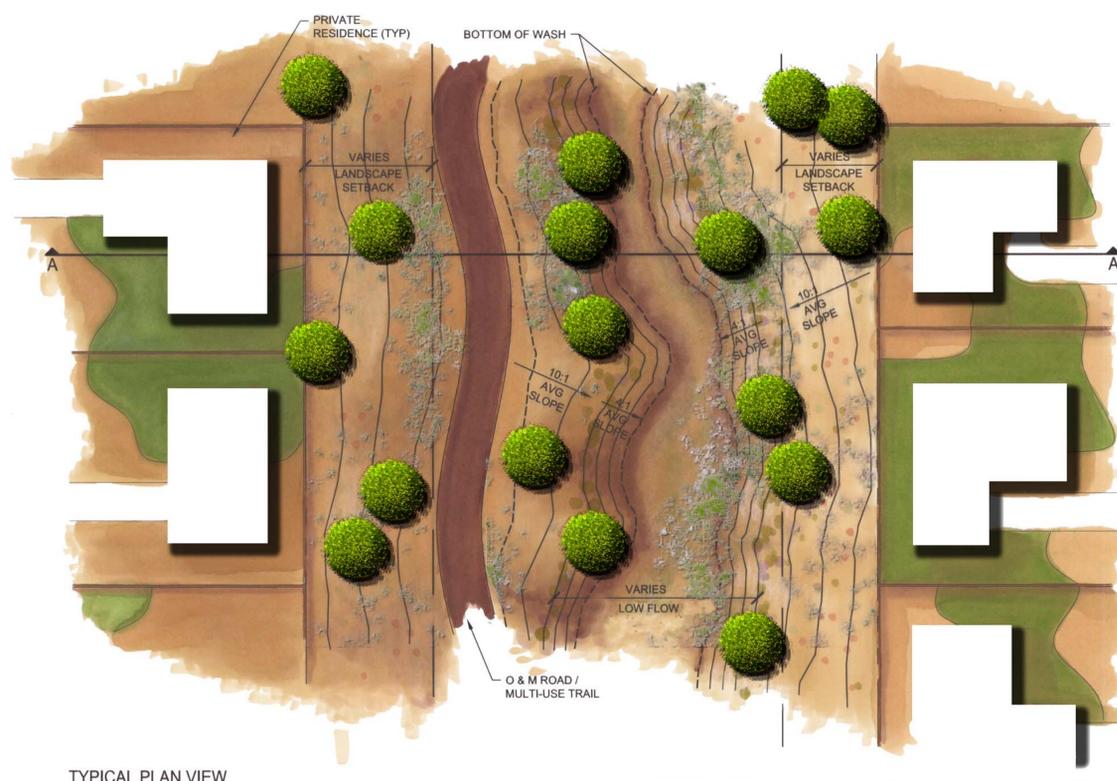


SECTION A-A

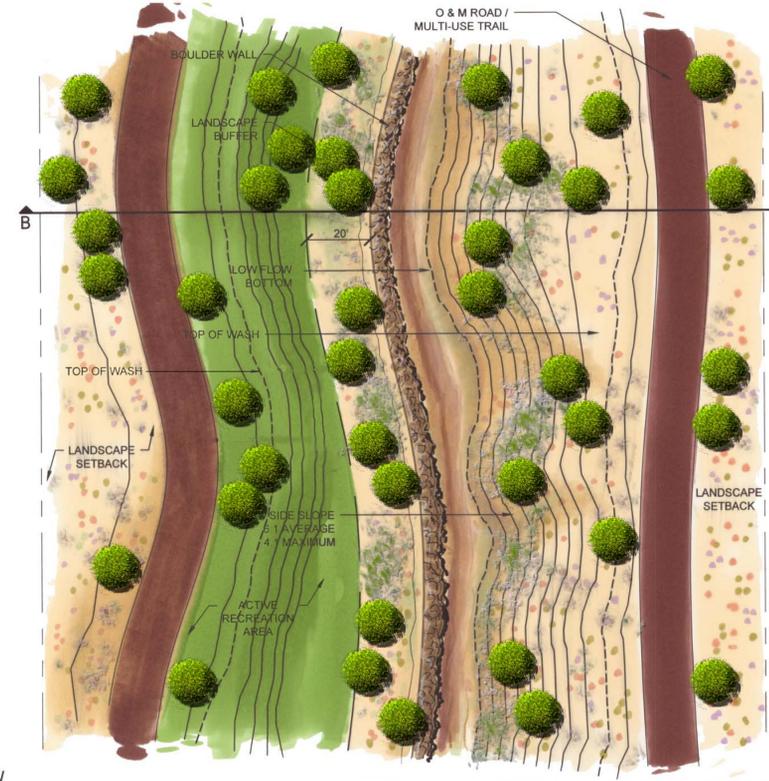
URBAN LANDSCAPE DESIGN THEMES



SECTION B-B

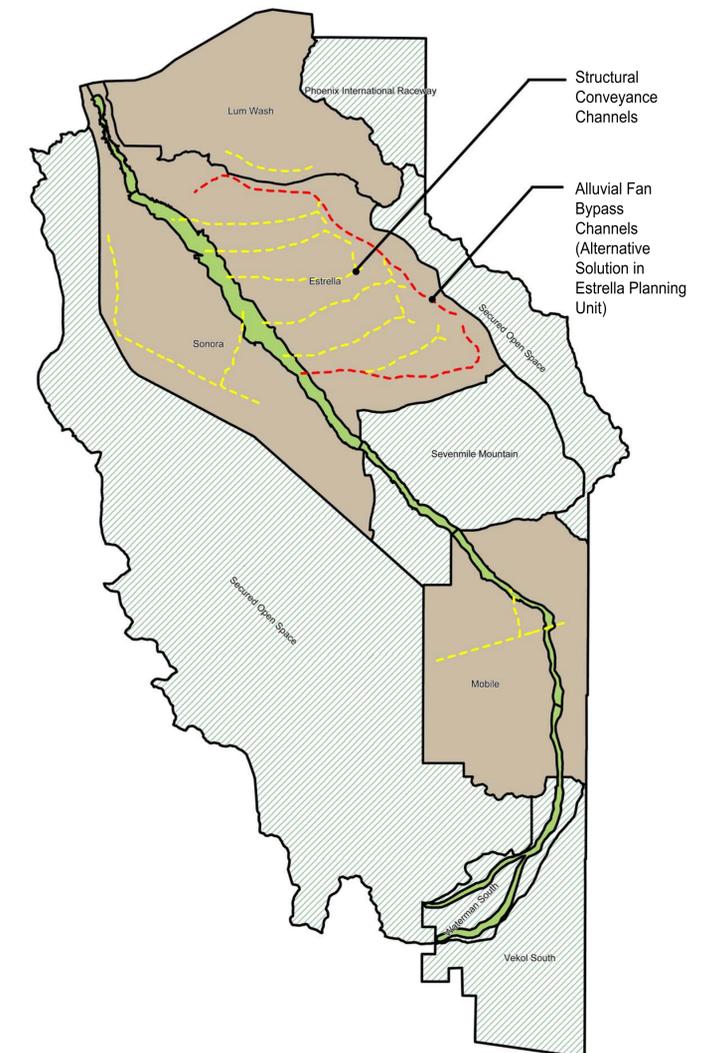


TYPICAL PLAN VIEW



TYPICAL PLAN VIEW

KEY MAP



- Planning Unit where Flood Hazard Mitigation is achieved through Structural Conveyance
- Planning Unit where Flood Hazard Mitigation is achieved through Land Use Management or Existing Regulations
- Flood Hazard Mitigation achieved through implementation of updated Waterman Wash Guidelines