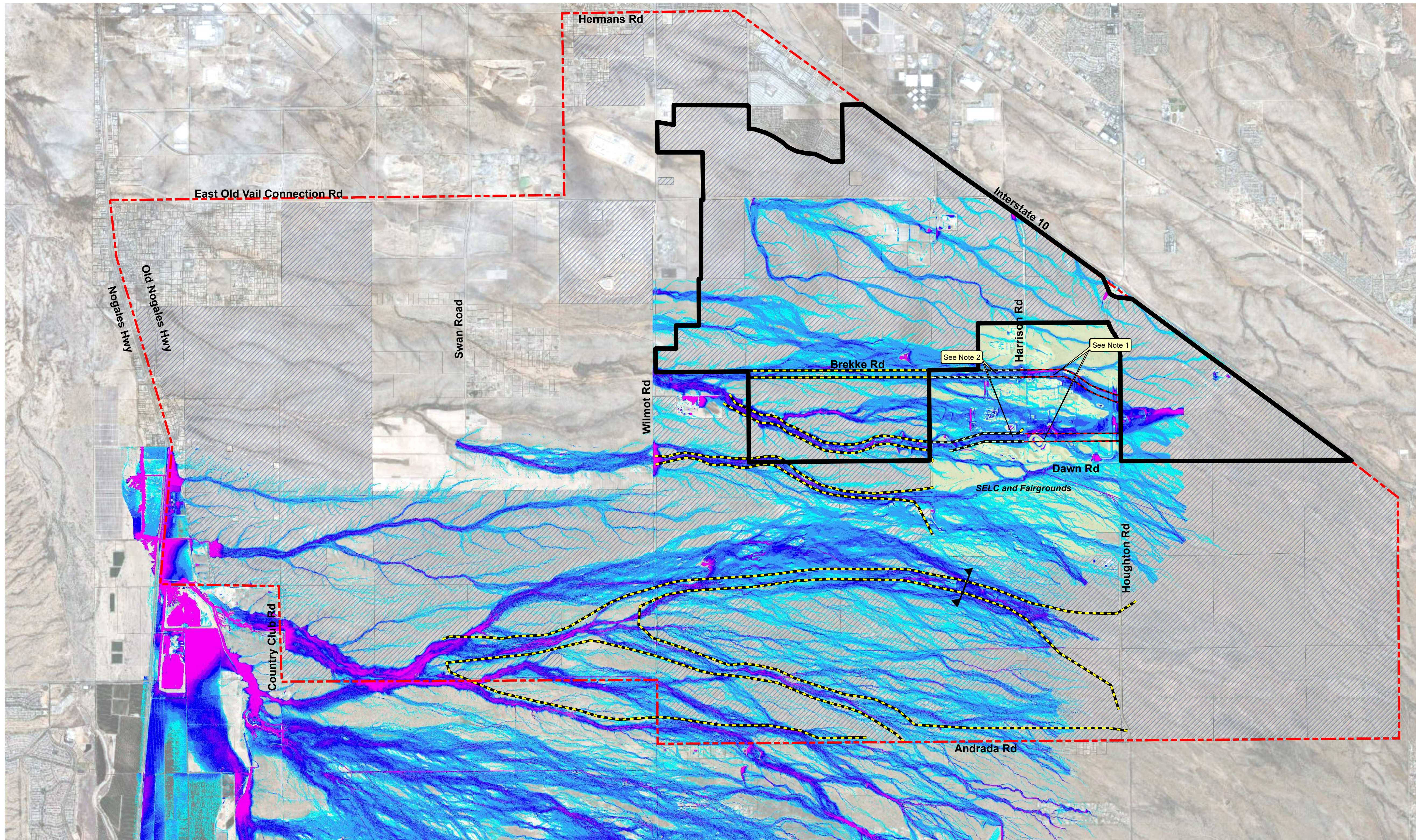


## Preliminary Corridor Modeling

A two-dimensional floodplain model was developed in HEC-RAS utilizing available LiDAR data and flow hydrographs from the Lee Moore Wash watershed study. The model covered the more dispersive floodplains within the study area where RFCD has delineated very wide and/or dispersive flow corridors, as shown in Exhibits 6 & 7 of the RITA 10 RSSP Amendment Narrative (pages 16 & 17). The purpose of the effort was to develop reduced flow corridor widths that are more realistic for large-scale development but also consistent with the locations of greatest potential flows (Figures 1 & 2 below – existing flow depths with and without Pima County’s modifications), existing/planned Pima County corridors, and a more naturalistic approach preferred by both the City and Pima County RFCD staff. The alignment and approximate width of the corridors are shown in Figure 3, as well as the results of the preliminary hydraulic model. These corridors generally align with the greatest flows and are subject to change based on further analysis.

The model shown was done by modeling berms such as those shown in Options 1 & 2 in Figure 4, with the top widths shown for them as well, but leaving the existing ground generally similar to Option 1. The goal is to use excavation as depicted in Options 2 & 3, which is consistent with how Pima County designed its channels through the fairgrounds.

Flow depths shown in Figures 1-3 are derived from HEC-RAS modeling with proposed corridors modeled using the software’s built-in grading tools to modify the existing surface to capture and constrain flow within a corridor having a top width consistent with Option 2 & 3 in Figure 4. Flow depths shown for each option in Figure 4 are the result of normal depth calculations using the dimensions shown. More detailed modeling will be required during the PAD/PCD process, and final channelization plans will be completed as part of secondary planning.



### Legend

- Overall State Land Boundary
- ASLD Owned Parcels
- Future Flow Corridors**
- FAIRGROUNDS CHANNELS
- FUTURE SELC DEVELOPMENT
- 100-Year Flow Depths (Option 1)**
- Rita\_10\_PAD\_Boundary
- FlowCorridor
- SELC

<span style="background-color: #00BFFF; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 1.0 - 1.5	<span style="background-color: #0000FF; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 1.5 - 2.0
<span style="background-color: #00FFFF; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2.0 - 2.5	<span style="background-color: #800080; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2.5 - 3.0
<span style="background-color: #00CED1; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 0.25 - 0.50	<span style="background-color: #FF00FF; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> >3.0
<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 0.50 - 1.0	

N

0      1      2

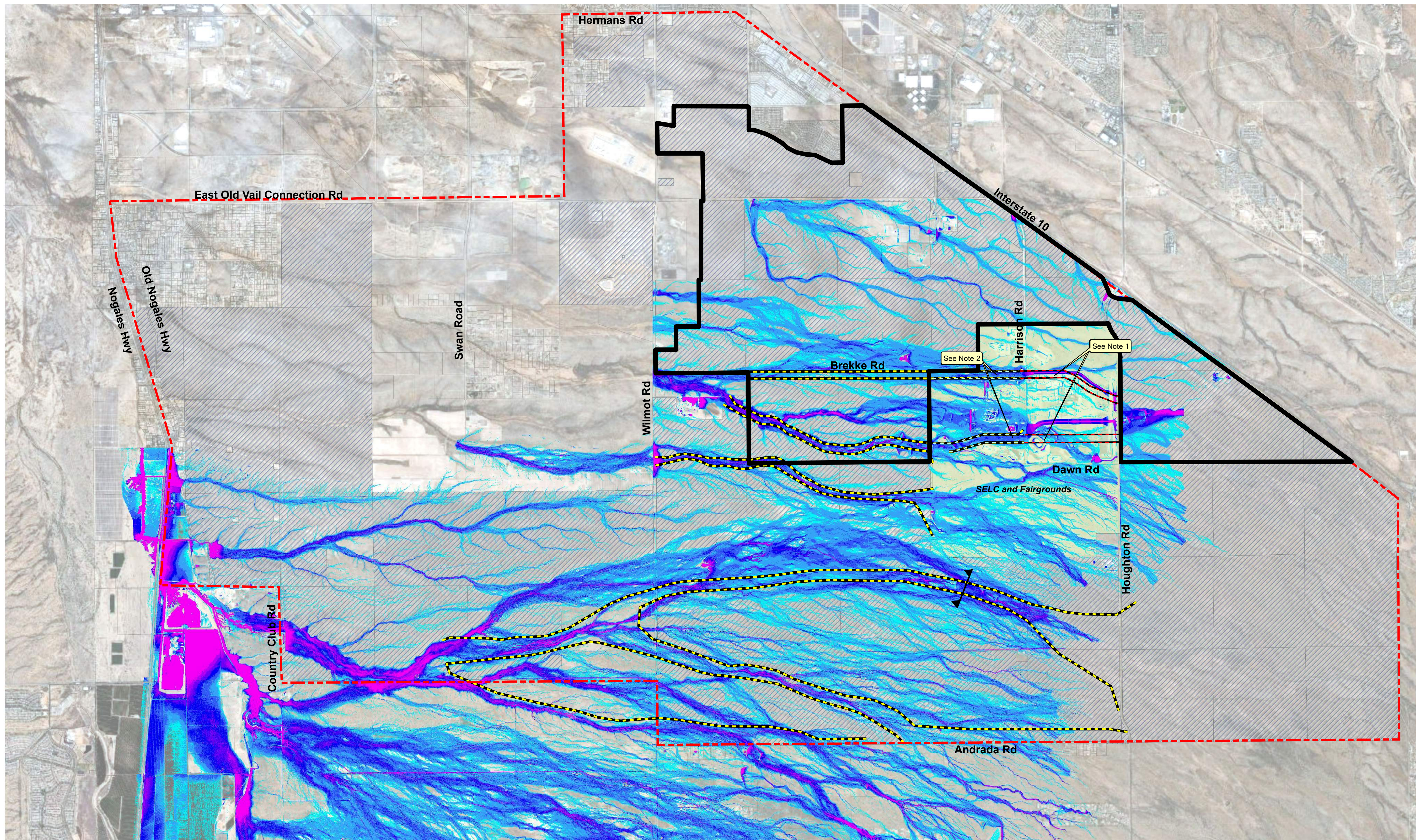
Miles

**Figure 1**  
Existing  
Flow Depths  
(Pre Fairgrounds Channels)

**PSOMAS**

**NOTES:**

- 1) North Fairground Channel Completed 2023 & Central Channel TBD
- 2) SELC Channels schedule unknown



### Legend

- Overall State Land Boundary
- ASLD Owned Parcels
- Future Flow Corridors**
- FAIRGROUNDS CHANNELS
- FUTURE SELC DEVELOPMENT
- 100-Year Flow Depths (Option 1)**
- Rita\_10\_PAD\_Boundary
- FlowCoorridor
- SELC

<span style="background-color: #42a5f5; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 1.0 - 1.5	<span style="background-color: #0000ff; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 1.5 - 2.0
<span style="background-color: #00b0f0; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 0.25 - 0.50	<span style="background-color: #800080; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2.0 - 2.5
<span style="background-color: #4169e1; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 0.50 - 1.0	<span style="background-color: #ff00ff; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2.5 - 3.0
	<span style="background-color: #ff69b4; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> >3.0

**FLOW DEPTHS**

N

0      1      2

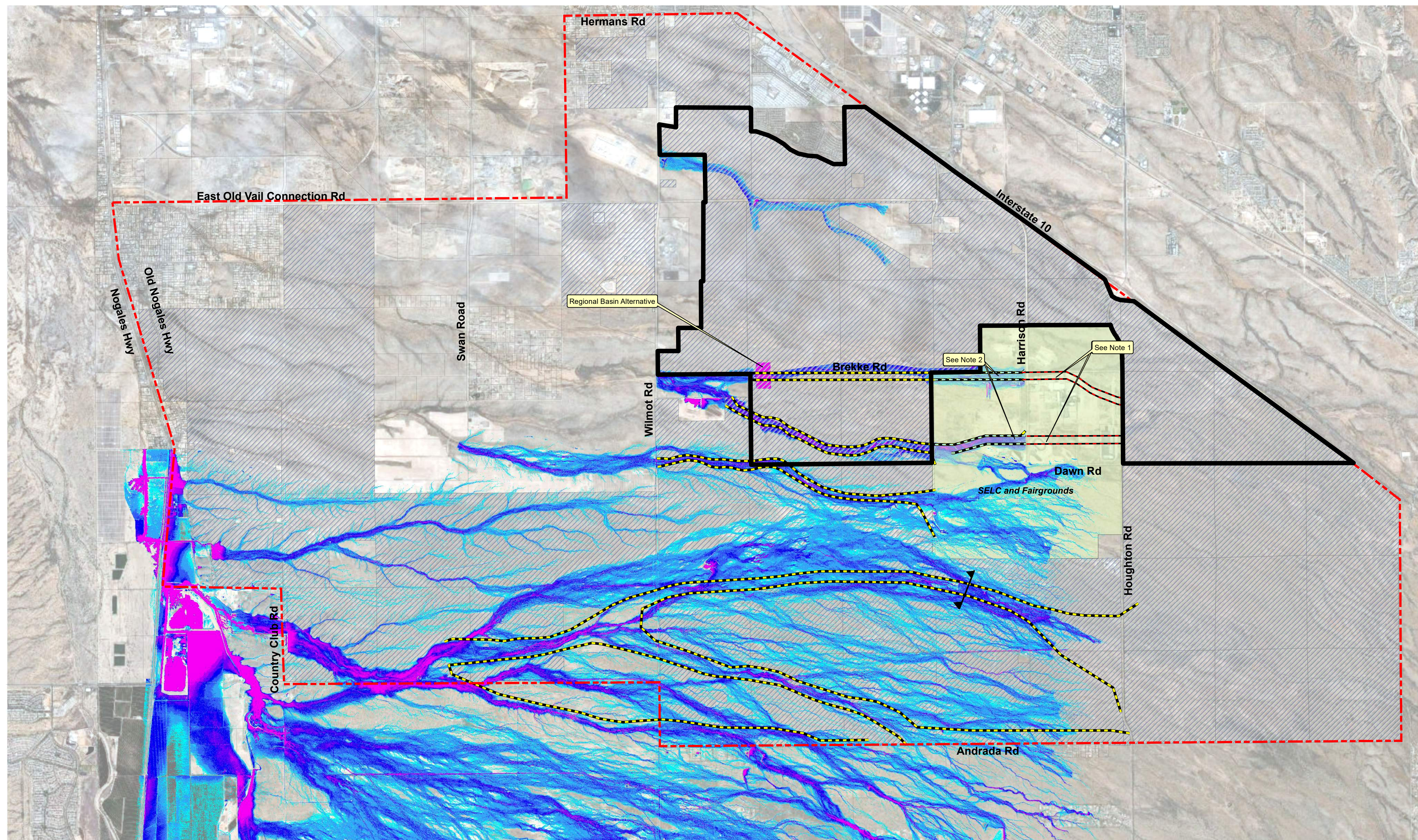
Miles

**Figure 2**  
Existing Flow Depths  
(With Fairgrounds Channels)

P S O M A S

**NOTES:**

- 1) North Fairground Channel Completed 2023 & Central Channel TBD
- 2) SELC Channels schedule unknown



### Legend

- Overall State Land Boundary
- ASLD Owned Parcels
- Future Flow Corridors**
- FAIRGROUNDS CHANNELS
- FUTURE SELC DEVELOPMENT
- 100-Year Flow Depths (Option 1)**
- Rita\_10\_PAD\_Boundary
- FlowCooridoor
- SELC

<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 1.0 - 1.5	<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 1.5 - 2.0
<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2.0 - 2.5	<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 2.5 - 3.0
<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> >3.0	

**FLOW DEPTHS**

<span style="background-color: #00FFFF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 0.25 - 0.50	<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> >3.0
<span style="background-color: #0000FF; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> 0.50 - 1.0	

N

0      1      2

Miles

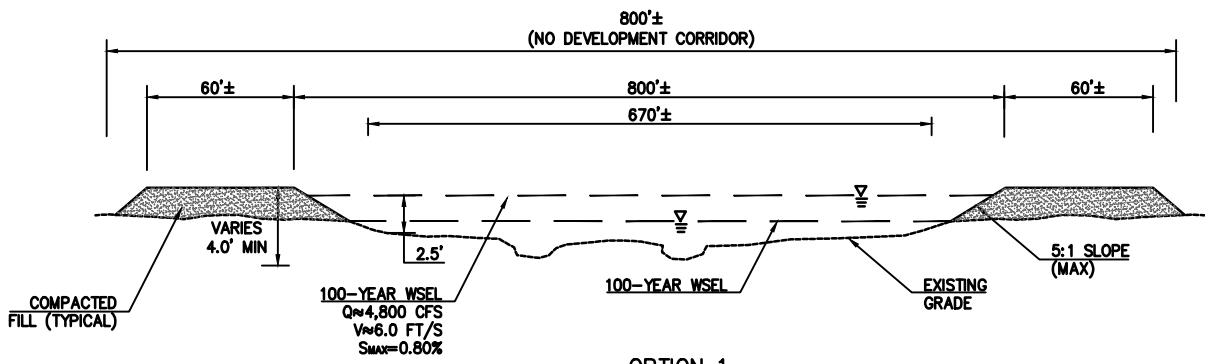
**Figure 3**  
**Proposed Flow Depths**  
**(With Fairgrounds**  
**Channels)**

**P S O M A S**

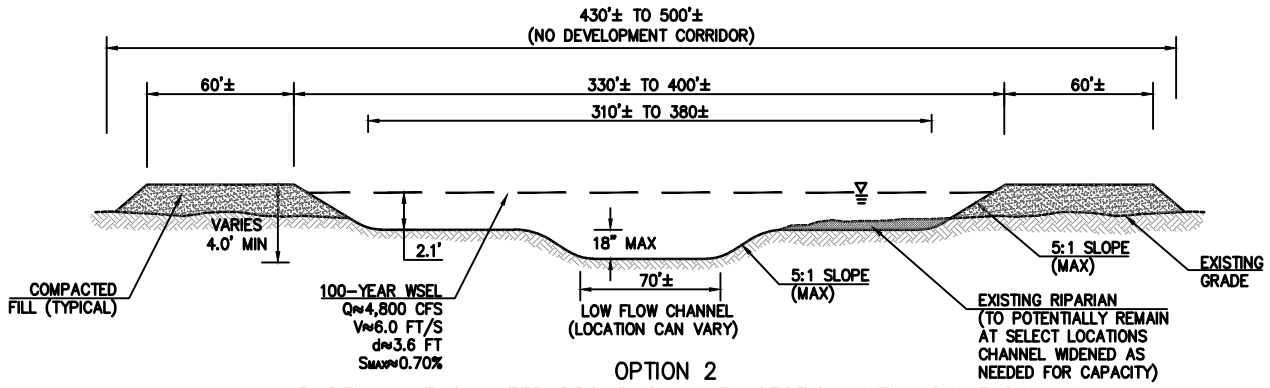
**NOTES:**

1) North Fairground Channel Completed 2023 & Central Channel TBD

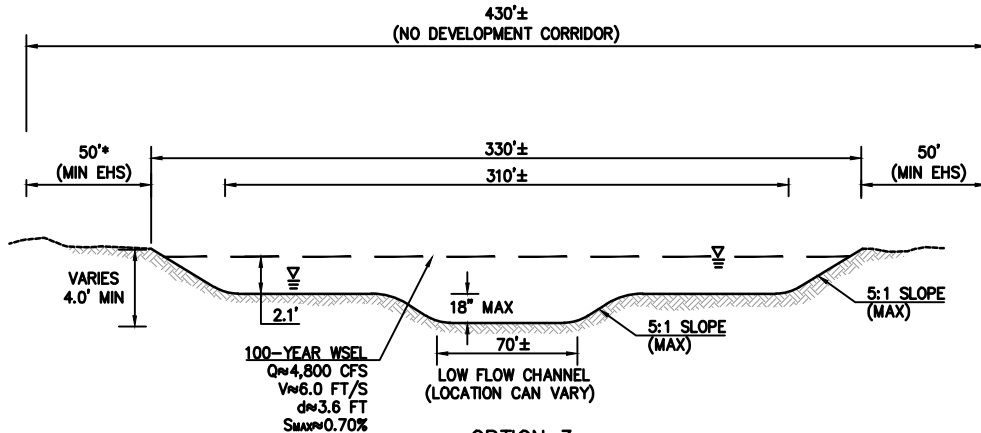
2) SELC Channels schedule unknown



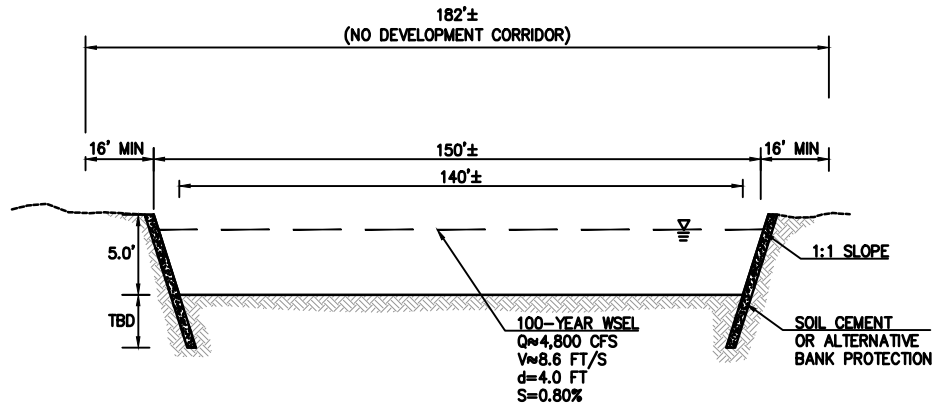
OPTION 1  
 10-YR FLOW CORRIDOR WITH FLOODPLAIN ENCROACHMENT  
 (EXTENSIVE FILL REQUIRED)



OPTION 2  
 PARTIALLY EXCAVATED BROAD CHANNEL SECTION WITH LOW-FLOW  
 (BALANCED EARTHWORK SCENARIO)



OPTION 3  
 FULLY EXCAVATED BROAD CHANNEL SECTION WITH LOW-FLOW  
 (LARGE CUT VOLUME)



OPTION 4  
 FULLY EXCAVATED TRAPEZOIDAL CHANNEL  
 (LARGE CUT VOLUME)

Figure 4  
 Drainage Corridor  
 Typical Sections