

# June Lake Flood Preparedness

## 05-April-2023

# Anticipated Flood Potential

Discussion with Greg Reis (MLC hydrologist familiar with JL)

- The snowpack in the Rush Creek drainage is higher than at any time on record – recent data show Gem Pass SWE to be significantly above previous levels on record, by approximately 40%.
- By March 1, snowpack and river discharge projections were already at 2018 levels, but high March precip has increased this significantly. A more accurate update based on detailed Apr. 1 data is due out next week.
- Due to significantly larger east-side and mid-elevation snowpack compared to 2018, there is an expectation of possible flooding along Reverse Creek. Fern and Yost Creeks are the largest tributaries to Reverse Creek, with Yost Creek likely having the largest impact in Clark and Peterson Tracts.

# Biggest concern: Attempting to be prepared early

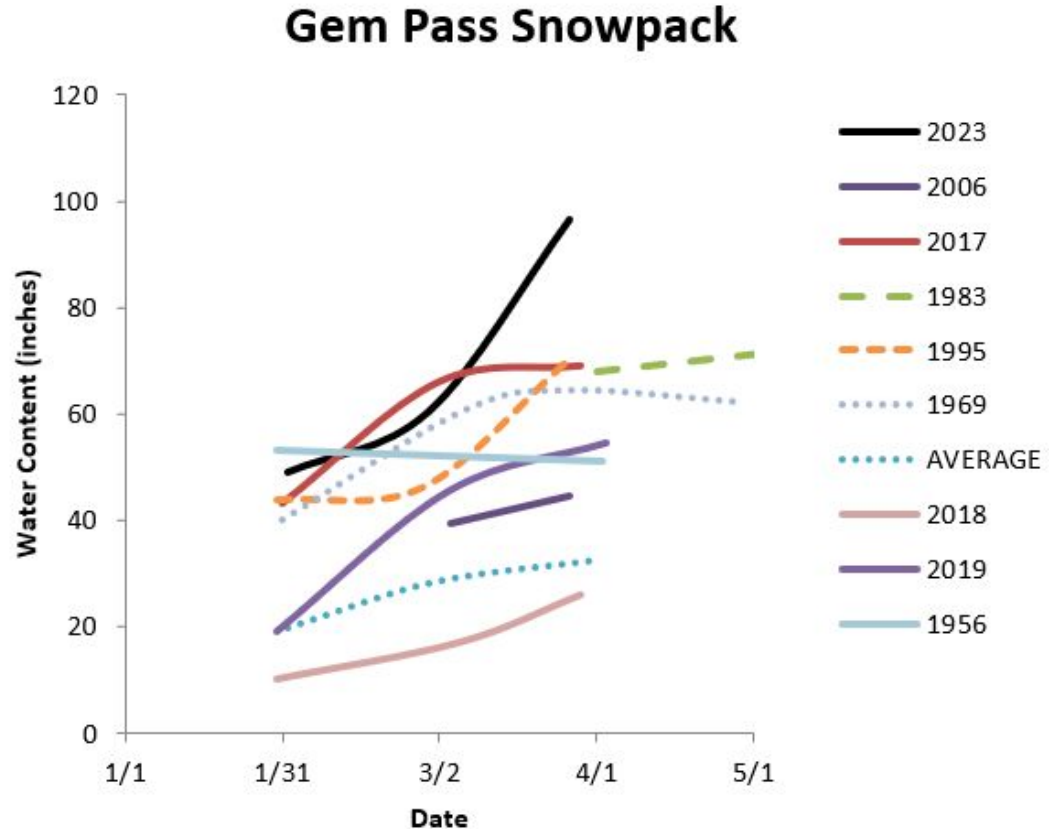
- Early outreach to potentially affected residents
- Early estimation and staging of required resources
- Early planning for volunteer assistance to distribute resources
- Work with County to estimate risks and define how to apply County resources
- Work with Caltrans to define preventative maintenance, e.g., inspecting culverts and cleaning if necessary.
- Work with Emergency Services

# Anticipated runoff for Rush Creek (Mar. 1 estimate)

<b>2022</b>	<b>Apr-Jul</b>	<b>Apr-Sep</b>	<b>Apr-Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Lee Vining</b>	55,500	68,800	80,900	2,490	11,520	21,570	19,910	9,700	3,590
% Normal	167%	177%	175%	93%	131%	169%	224%	253%	195%
<b>Walker</b>	5,300	7,200	9,300	300	1,030	2,010	2,010	1,240	590
% Normal	172%	188%	177%	127%	149%	163%	217%	256%	222%
<b>Parker</b>	8,700	11,900	14,300	680	1,610	2,690	3,690	2,230	1,050
% Normal	160%	166%	161%	149%	150%	139%	187%	194%	179%
<b>Rush</b>	85,300	102,200	112,700	3,520	19,810	31,380	30,630	12,960	3,910
% Normal	185%	202%	195%	80%	139%	179%	310%	409%	314%
<b>Mono Total</b>	<b>154,800</b>	<b>190,100</b>	<b>217,200</b>	<b>6,990</b>	<b>33,970</b>	<b>57,640</b>	<b>56,230</b>	<b>26,140</b>	<b>9,140</b>
% Normal	<b>176%</b>	<b>190%</b>	<b>184%</b>	<b>90%</b>	<b>137%</b>	<b>172%</b>	<b>259%</b>	<b>303%</b>	<b>232%</b>

# Recent update (Apr. 5)

- Current Gem Pass snowpack 40% larger than 2017/18 and 1983/84
- River discharge estimate forthcoming from DWP



# Additional recent input from Greg Reis

- Based on historical data, Reverse Creek flow could reach as much as 300 CFS, which would be somewhat higher than 1995 flows in Reverse Creek. For comparison, 2018 Reverse Creek flow was 217 CFS. We should prepare for the possibility of 300 CFS.
- The peak year for Rush Creek flow was 1995, which had snowpack similar to 2018 and 1984, but warmer weather during the melt-off. The actual flow that year was 992 CFS. This year, we have a 40% larger snowpack, and a potential for greater flow, but actual flow will depend on the weather. We should prepare for flows higher than 992 CFS in Rush Creek, but likely not higher than 1350 CFS.
- This is all changing rapidly as the data come in, we will keep everyone updated.

# Summary of current data

<b>Possible peak flow rates (weather dependent)</b>	
<b>Location</b>	<b>What we should prepare for</b>
Reverse Creek (Peterson and Clark Tracts)	~300 CFS (comparable to 1995)
Rush Creek (Dream Mtn, Double Eagle, Hwy 158, Silver Lake)	~1300 CFS (comparable to as much as 40% larger than 1995)

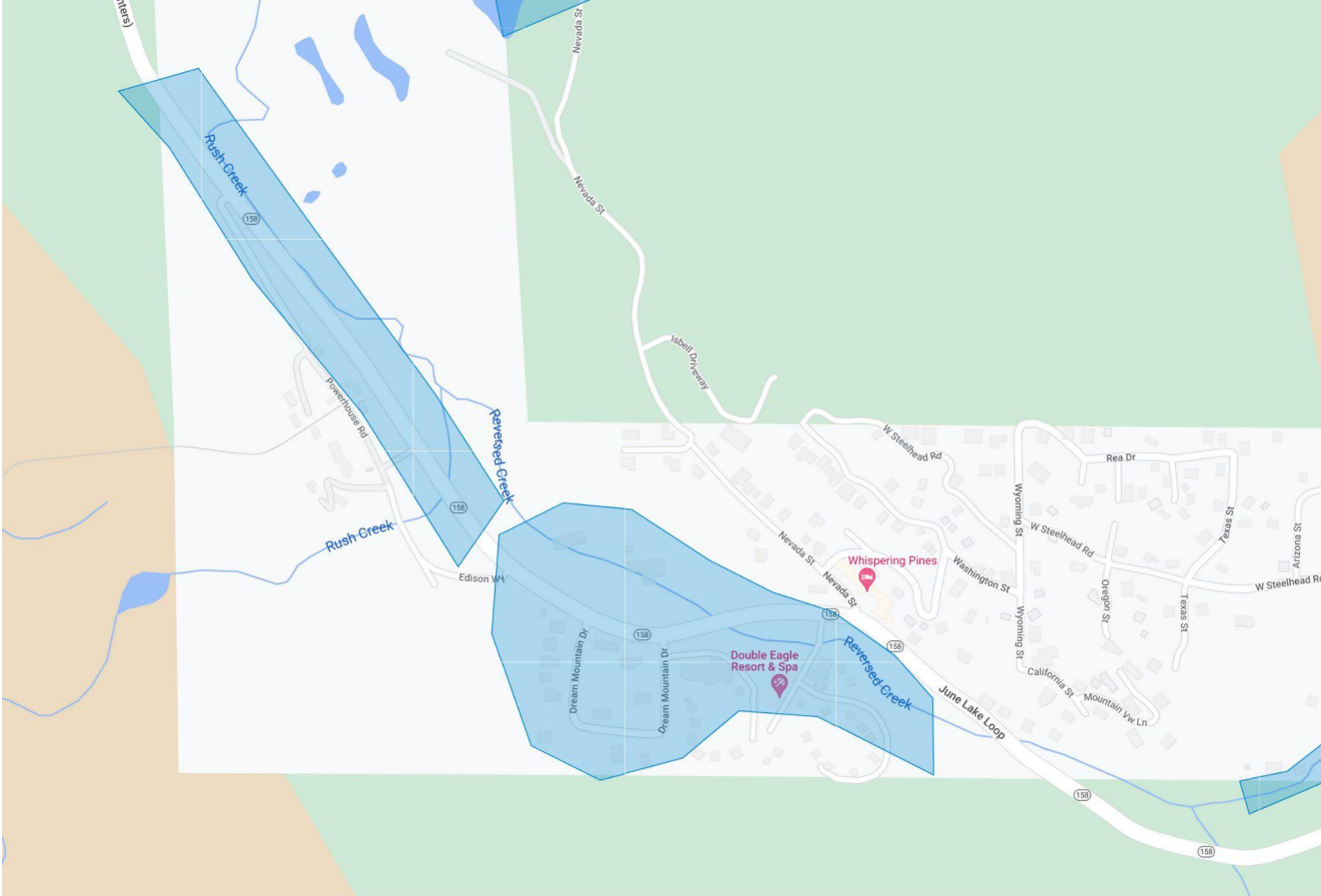
- Translating these flow rates into expected backwater levels is a complex hydrological process that will probably not be possible. We will need to make estimates with reasonable safety margin.

# Reverse Creek area





# Rush Creek area



# Silver Lake area

