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# **Appendix H**

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## MEMORANDUM

DATE: April 28, 2023  
TO: Timur Tecimer  
Overton Moore Properties  
FROM: Erin Slezak, PE  
Dan Schaaf, PE  
SUBJECT: SMP 40 Flood Study  
JOB #: OMPC.01.22

### Introduction

Schaaf & Wheeler has been contracted by Overton Moore Properties to analyze the Arroyo Mocho models and mapping to determine if the SMP 40 development has any impact on the floodplain or hydrologic impacts. The effective (2019) Zone 7 HEC-RAS models were utilized with the proposed development.

### Hydraulic Analysis and Results

Comparing the existing and proposed conditions, the results show that there are no significant impacts by adding the SMP 40 development. Figures 1 and 2 show the 100-year base condition flow hydrographs for the downstream cross section (called out on Figures 3 and 4) for the existing and proposed conditions. The maximum flow decreased slightly from 1,312.6 cfs to 1,311.9 cfs with the proposed development. Figures 3 and 4 show the maximum depth of flooding for a 100-year event, which has no significant change. For comparison, Figures 5 and 6 show the original Zone 7 100-year hydrograph and floodplain.

### Conclusion

There is no significant impact by adding the SMP 40 development. The results are comparable to the Zone 7 floodplain results.

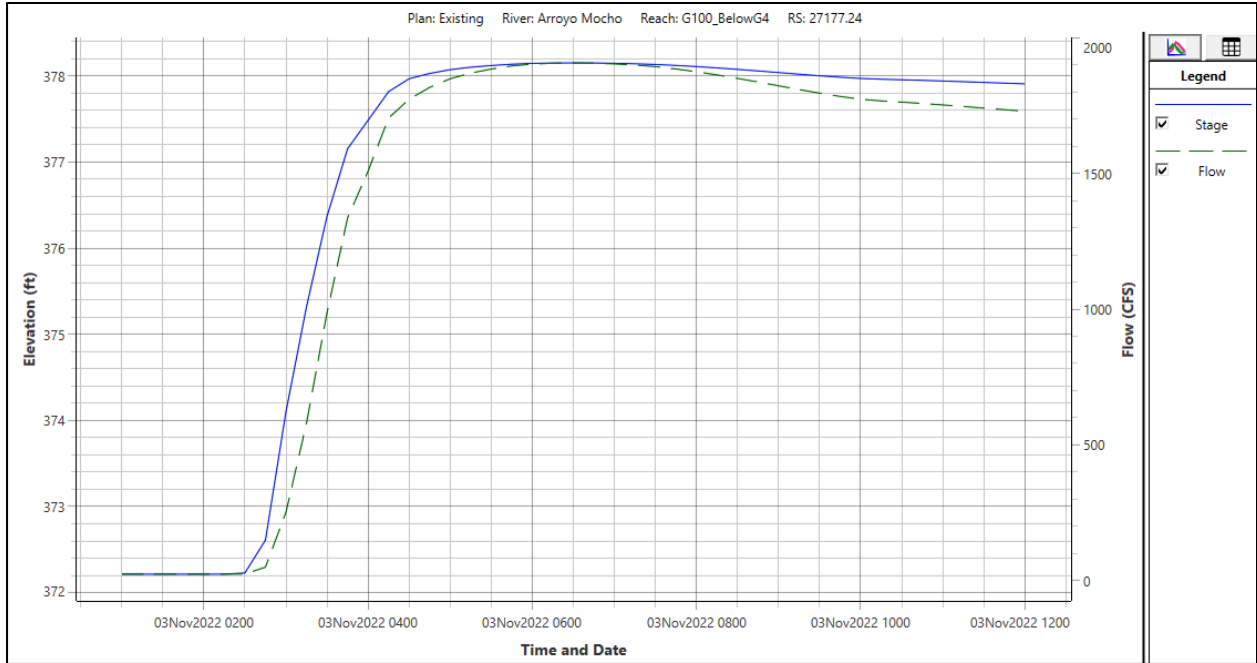


Figure 1: 100-year flow hydrograph for existing condition.

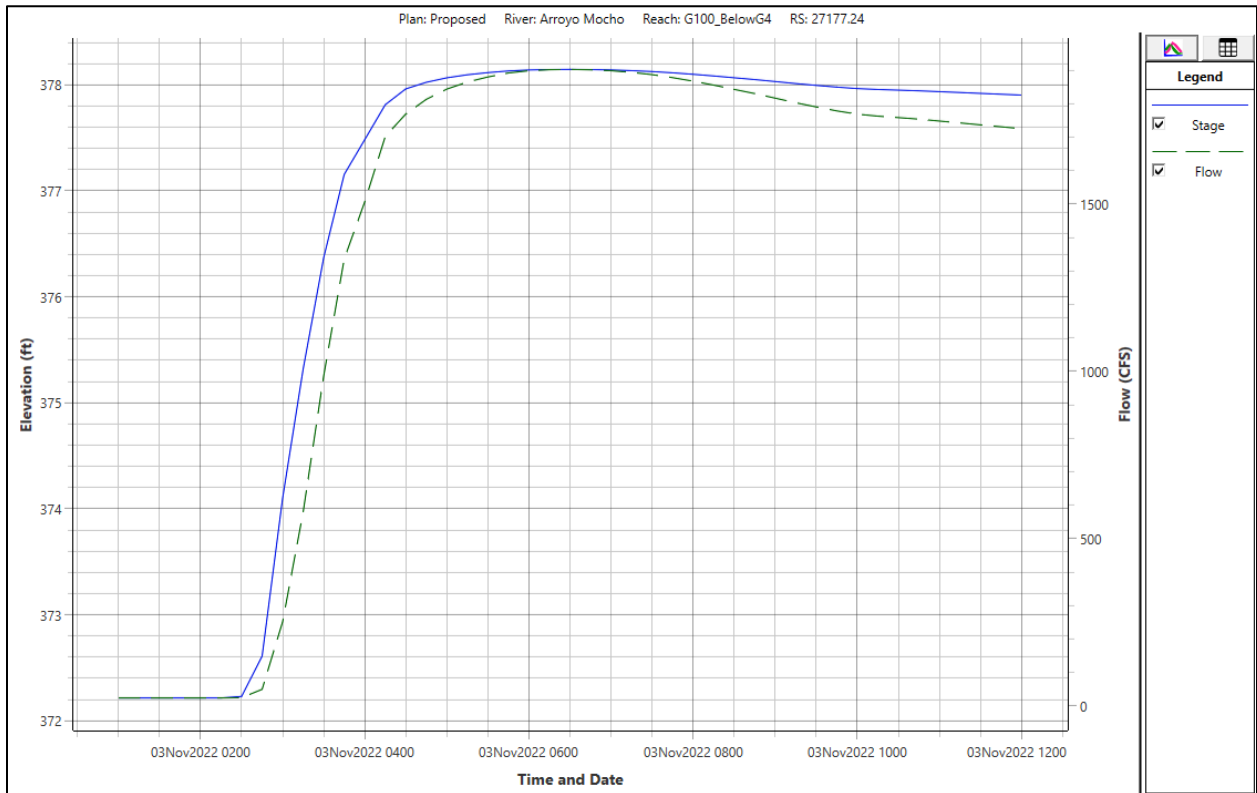


Figure 2: 100-year flow hydrograph of proposed conditions.

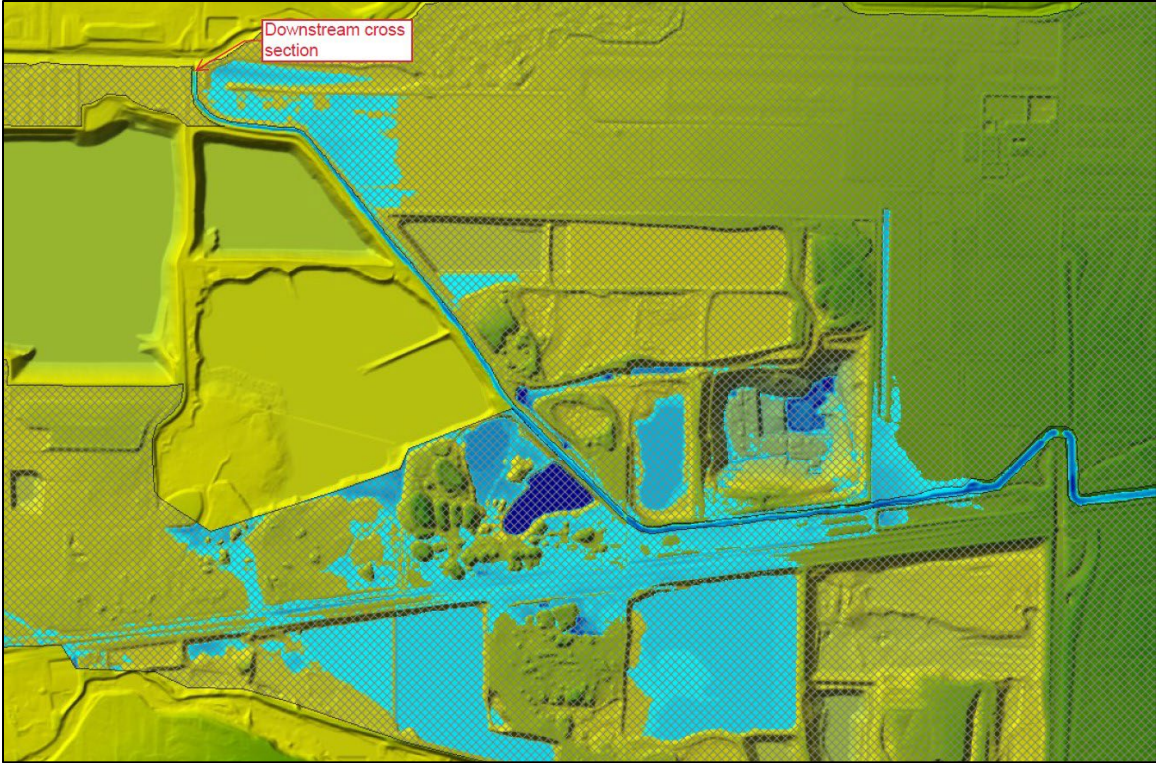


Figure 3: 100-year floodplain depicting existing conditions.



Figure 4: 100-year floodplain with proposed development.

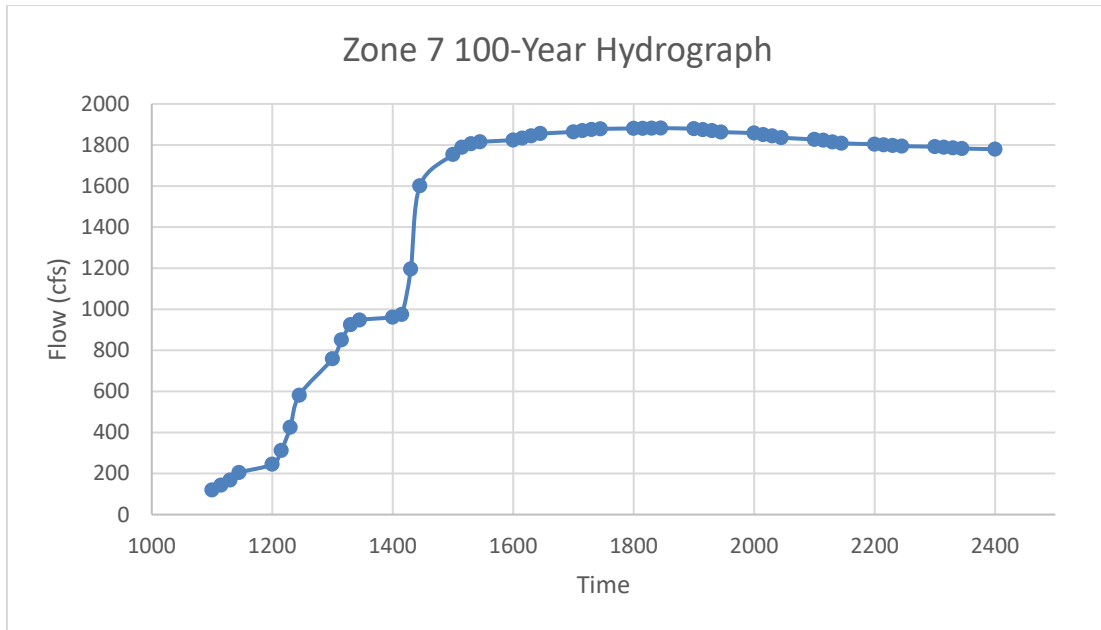


Figure 5: Zone 7 original 100-year hydrograph.

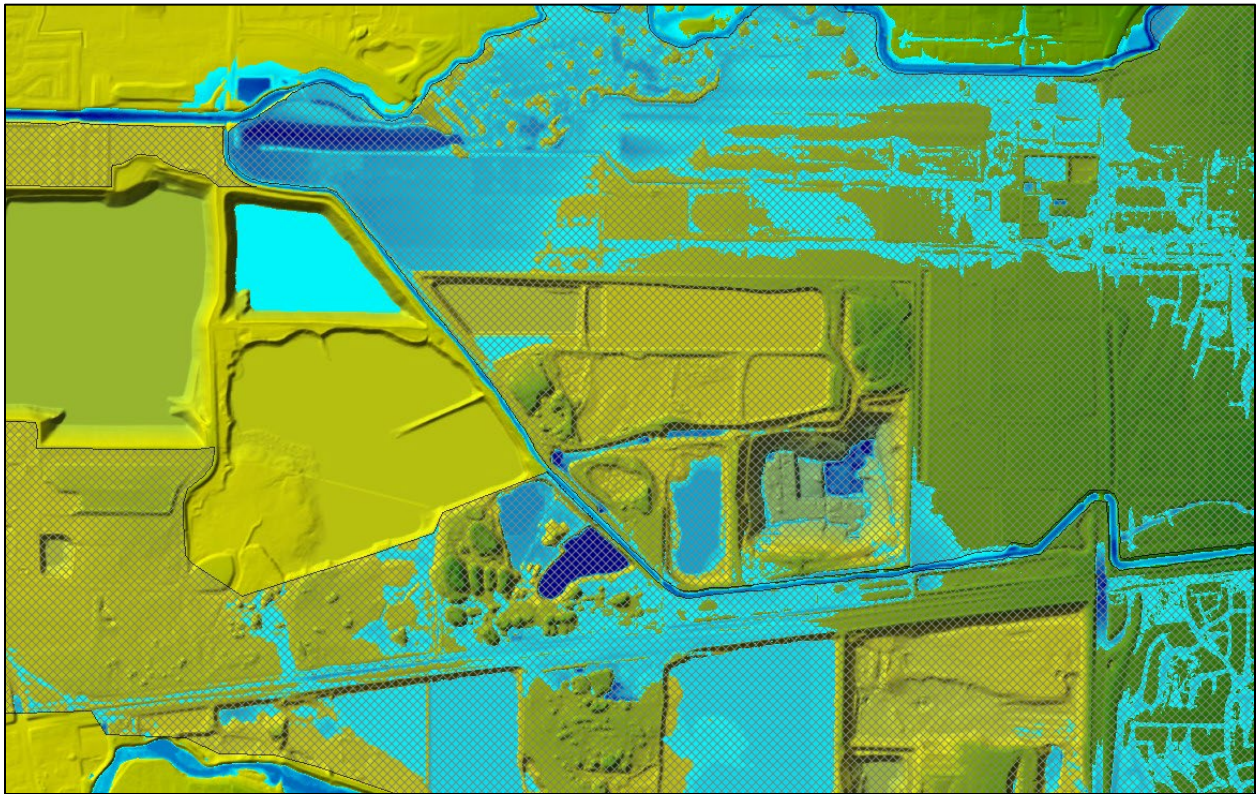


Figure 6: Zone 7 original 100-year floodplain.