Santa Barbara County Public Works Department - Executive Summary

Santa Maria River Channel Realignment - Agriculture, Environment & Natural Resources

Overview—Santa Barbara County Public Works designed and implemented an expedited plan to reestablish the Santa Maria River within a short three-month timeframe using local funds. The plan focused on strategically moving 1 million cubic yards of material in 43 days before the Governor's executive order would expire.

Challenge - Historic winter storms in 2023 left significant debris within the Santa Maria River that caused multiple breakouts and reduced the river's capacity to move high water flows. These breakouts created a new river alignment and caused flooding and damage to public facilities, including the City of Guadalupe wastewater treatment plant, West Main St., and the County access road to the Guadalupe Dunes – the region's only public coastal access park. Additionally, hundreds of acres of agricultural properties were impacted. A neighborhood and church along Pioneer Street in Guadalupe and two homes in the unincorporated area were under imminent threat with the forecasted 2023-24 El Niño winter season. On August 4, 2023, Governor Newsom issued an executive order allowing emergency repairs, sediment removal, and vegetation management in waterways. Despite the executive order and proclaimed emergency, State and Federal Government agencies declined to provide funding. This required the County to create and implement a response by the November 1, 2023 deadline. If the County didn't take action, the flooded areas would continue to cut off beach access, impair operations of the wastewater treatment plant, and homes and properties in Guadalupe along with acres of farmland could be lost. Meanwhile the winter storm season in late 2023 was rapidly approaching with threats of further intense rains.

Solution – Following many public requests from many Guadalupe residents to help protect their community, the Board of Supervisors approved a plan and funding to realign the floodwaters back to the previous river corridor and create temporary solutions to prevent future flood damage. $8 million in local funding was approved to move one million cubic yards of material out of the river bottom and reestablish the channel. For context, a one million cubic yard structure the size of a football field would be about 470 feet tall. The project was completed in six weeks. Another critical part of the emergency sediment project was to install native vegetation for both habitat restoration and soil stability along the berms. The County undertook an emergency contract to perform native plant installations. To date, $4.8 million – mainly from ARPA funds and general fund - has been spent on the project with additional funding set aside for maintenance.

Innovation—Designing and funding a river realignment project near the coast within a three-month window with local funds required creative thinking and dedication. Typically, a project like this, where a significant amount of material is moved, would be a lengthy process, often involving only one contractor. A creative and strategic vision was required in order to complete the project in a timely manner in light of the storm damage. Due to the need to work within a short timeframe to preserve homes and properties for the disadvantaged community of Guadalupe,

the Public Works team created an expedited plan, involving multiple contractors, that would highlight a unique approach to moving the material along the river. By starting on the opposite ends of the project and working toward the middle, time and funding for the two contractors was spent more efficiently. Moving one million cubic yards of material in 43 days required the contractors to move an average of roughly 25,000 cubic yards per day every 24 hours, seven days a week – or the equivalent of a football field sized structure nearly 11 feet tall. Strategically planning the contract work allowed the project to be built in a quicker and more resourceful manner before the impending winter storm season.

Results - While winter 23-24 experienced lower storm intensity than the previous year, the project protected the disadvantaged community of Guadalupe. With the river reestablished, the County completed projects to resume access to the coast and Guadalupe Dunes Park by Spring 2024.

Replicability – With the increased potential for flooding due to climate change, stretched resources, and the importance of maintaining environmental stewardship in infrastructure projects, developing resourceful and unique ways to solve critical infrastructure issues is essential. The implementation of the Santa Maria River Channel Realignment Project and creation of a strategic plan to complete the project quickly was efficient with both time and money, and it was also effective. Future disasters could use this project as a template, exploring opportunities to coordinate multiple contractors and re-use existing native materials to avoid contract and material delays.

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Additional Materials https://cosantabarbara.box.com/s/dwdxiv8yep2ecs9ehco2pygkvgh0izwo