Reflections on the SR 37 Segment B Planning Process to Date

Jessica Davenport, State Coastal Conservancy

February 23, 2018

The first environmental workshop and first three working group meetings have provided a great opportunity for transportation and wetlands folks to sit down together, share information, and learn about each other's needs and constraints, as well as explore opportunities for developing a project with multiple benefits. Through this process, we have all gained a better understanding of the landscape, land uses, and plans of the stakeholders.

The Baylands Group appreciates the transportation agencies providing this opportunity to work together. At the same time, we acknowledge a recurring tension in the process: the Baylands Group would like to see analysis of alternative alignments, in addition to analysis of design alternatives for the current alignment. By providing both technical expertise and input on the decision-making process, we hope we have added value to the design process and that our collaboration will ultimately result in a better project.

Here are some of the things we've heard and learned so far.

1. **Ecological Restoration Needs**
    a. **Lengthen Bridges to Accommodate Increased Flow of Water and Sediment.** Tidal exchange between San Pablo Bay and the Baylands north of SR 37 will increase over time due to planned restoration, unplanned levee breaches and sea level rise. The road design will need to accommodate much wider channels for Tolay Creek and Sonoma Creek and their fringing marshes. In other words, the bridges over Tolay Creek and Sonoma Creek will need to be much longer to provide adequate space for these creeks to expand. Adequate space for the channel will reduce the risk of scour to the bridge and will facilitate the flow of sediment needed to build up the elevations of areas being restored to tidal marsh. The lengthening of the bridges needs to happen soon to have the greatest benefit for planned restoration upstream.
    b. **Elevate Road to Benefit Tidal Marsh and Wildlife.** Elevating the road to connect habitat on either side can provide multiple benefits. For example, the 1,400-acre strip marsh south of SR 37 is recognized as one of the most ecologically significant tidal marshes for the endangered salt marsh harvest mouse. However, its habitat value is declining due to drainage problems. Placing a new road on a piled causeway and lowering sections of the former roadbed to allow the strip marsh to drain north to Cullinan Ranch would improve habitat quality and create a larger, continuous swath tidal marsh. It would also allow mice and many other species of wildlife to move freely between the north and south sides of the road.
    c. **Maintain Flexibility to Allow for Future Restoration Opportunities.** Some areas are not currently planned for habitat restoration, yet, given their low elevation and lack of urban development, they may present opportunities for restoration in the future. For example, Tubbs Island is currently used by the Vallejo Flood & Wastewater District as a disposal site for treated biosolids, which are incorporated into the soil there. The City of Vallejo plans to maintain this land use indefinitely, yet, given the low elevation of Tubbs Island and uncertainty about how long its levees will be maintained as sea level rises, it may be

advantageous to have a continuous causeway from the west side of Tolay Creek across Tubbs Island to the east side of Sonoma Creek to keep options open for future restoration.

2. **Access Needs**
   a. **Provide Access to Local Roads.** Those who live, work and play in the area need access to local roads. We learned about the implications of providing access to local roads from any elevated highway and discussed the potential for a smaller number of direct connections to local roads to be combined with the use of a parallel access road (frontage road) to provide connections to the remaining roads.
   b. **Provide Public Access for Recreation.** The public needs to be able to access the Baylands for birdwatching, fishing, kayaking, hunting and other recreational uses. This is particularly important for the San Pablo Bay National Wildlife Refuge and CDFW lands.
   c. **Expand the Bay Trail.** Bay Trail staff has advocated for a continuous, protected bike and pedestrian path as part of the new road.

3. **Transportation Design Considerations**
   a. **Minimize Switching between Causeway and Embankment.** We learned about the issue of differential settlement, in other words, an embankment built on bay mud and other types of soils can be expected to settle, or sink down, whereas a causeway with footings in bedrock would maintain its elevation. Every place where the road switches from causeway to embankment is an area that will have higher repair and maintenance cost to keep a smooth connection between the two segments of road.
   b. **Minimize Switching between a Northern or Southern Alignment.** We learned that it will be important to select an alignment of the elevated road either north and south of the existing roadbed and to minimize switching between the two. The selected alignment should minimize adverse impacts to existing land uses and ecological value and should take drainage patterns into consideration.
   c. **Avoid Reliance on Surrounding Landowners to Keep the Road Dry.** Some sections of the road are protected by private levees and pumps that may not be maintained over time. It is advisable to design the road to remain dry regardless of future changes in land management and land use.
   d. **Coordinate with SMART Rail Line.** The road is required to be 30 feet above the rail line where they cross. Coordination with SMART is essential because if they elevate the rail, the road would need to be further elevated. In addition, opportunities to co-locate the road and rail on a single elevated structure should be explored.
   e. **Provide Congestion Relief in the Near Term.** We learned that it is possible to restripe the road and add a movable barrier that would create a reversible third lane to help relieve rush hour congestion. However, the Tolay Creek Bridge is a pinch point, being only 40 feet wide, whereas most of Segment B is 50 to 55 feet wide. This restricts what can be done to relieve congestion while staying within the current footprint of the road.
   f. **Consider Alternative Alignments.** The Baylands Group and regulatory agencies have recommended that alternative alignments, such as an inland road or a bridge across San Pablo Bay, be considered to ensure that the least environmentally damaging alternative can be identified.