June 2, 2017

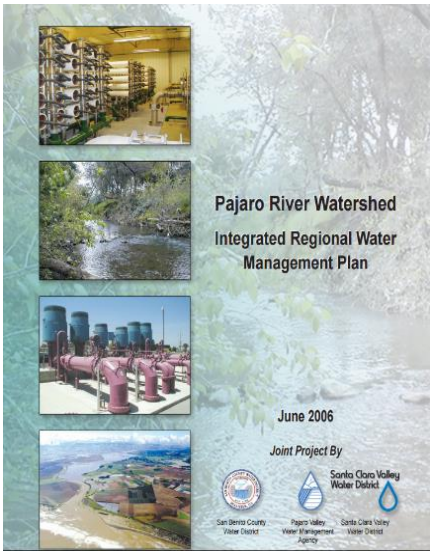
Thomas Fellenz
Interim Chief Executive Officer
California High-Speed Rail Authority
770 L Street, Suite 620
Sacramento, CA 95814

Dear Mr. Fellenz:

We are writing to express our strong support for a viaduct High Speed Rail design through the Coyote Valley and the Soap Lake Floodplain in southern Santa Clara County and northern San Benito County. Significant public investments have already been made in these areas to protect and support functional floodplains, wildlife connectivity, climate resilience, and productive agriculture. A viaduct design is the only viable alternative that would be able to preserve these investments in natural infrastructure and in our local economy.

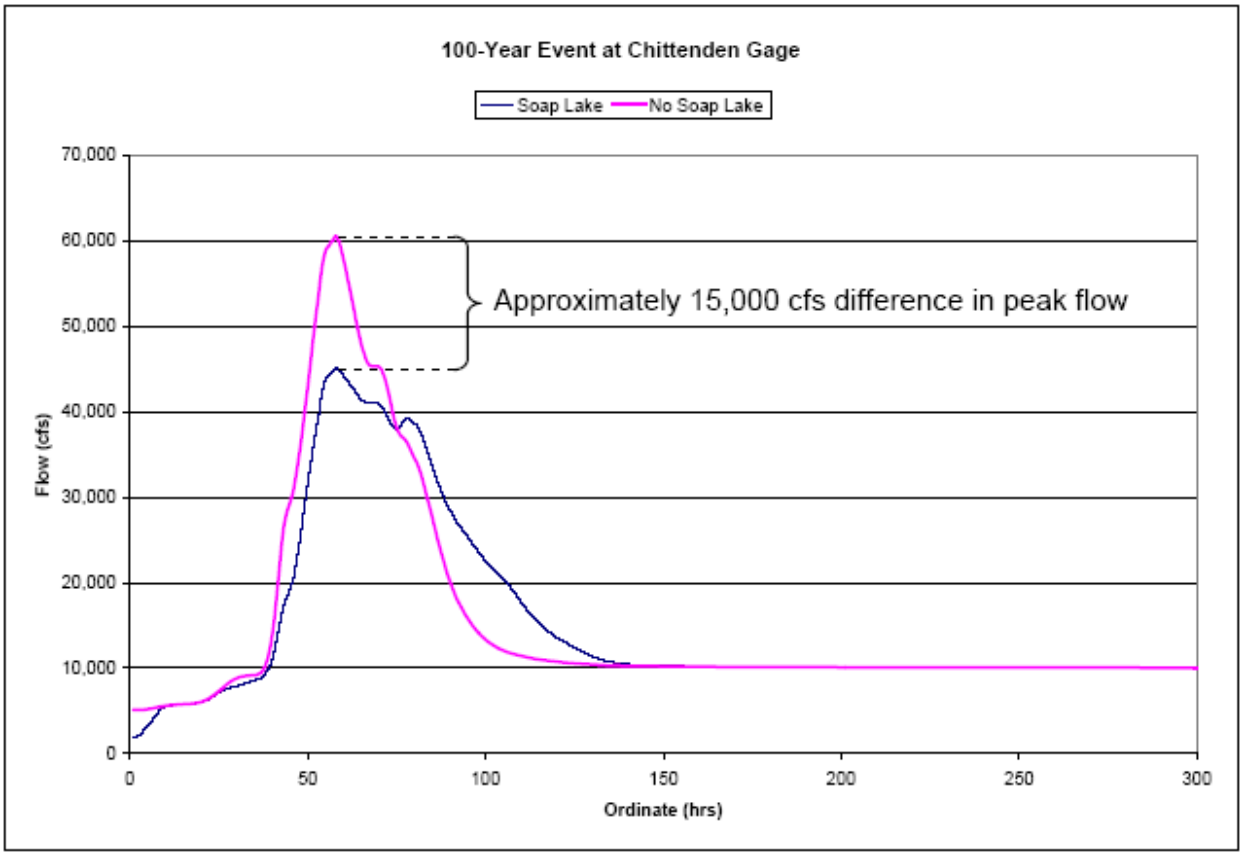
Preserving Flood Attenuation Benefits

The upper Pajaro River floodplain, also known as the Soap Lake floodplain, is comprised primarily of agricultural lands. After large storms or high rainfall periods, the floodplain holds water, as it did this past winter. If Soap Lake were developed, that water would move more quickly downstream, exacerbating the flood risk to disadvantaged communities downstream, including parts of Watsonville and Pajaro, and to some of the most productive farmland in the state. The Nature Conservancy and the Open Space Authority have protected properties within the Soap Lake floodplain using funds provided by the Pajaro River Watershed Flood Prevention Authority, the California Department of Water Resources, and the Santa Clara Valley Water District (see green Protected Land areas indicated on the Soap Lake / Coyote Valley map attached to this letter). This funding is predicated on evidence showing that preservation of agricultural properties in the upper Pajaro River floodplain acts as natural infrastructure, and is less costly than building additional levee infrastructure elsewhere in the watershed.

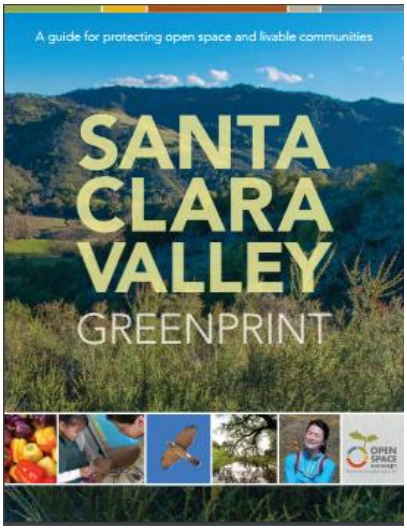


Significant water resource planning efforts in the region, many of them created within State frameworks, have been completed, and are based, in part, on the well-documented flood attenuation benefits of an intact Soap Lake floodplain. For example, the *Pajaro River Watershed Integrated Regional Water Management Plan* (*Pajaro River Watershed IRWMP*) includes a Soap Lake Floodplain Preservation Project with the stated objective of supporting "… the greater Pajaro River watershed flood prevention goal…within Soap Lake, to protect the existing flood flow storage and attenuation benefits it affords the watershed (*Pajaro River Watershed Integrated Regional Water Management Plan*, *2006*).

Extensive data has been collected to support the role a functional 9,000 acre Soap Lake floodplain plays in attenuating downstream peak flows. One example, excerpted from a 2005 Pajaro River Watershed Study, is presented in the figure below, and shows a 15,000 cubic foot per second difference in peak flows with and without preservation of the floodplain capacity of Soap Lake during a 100-year flood event.



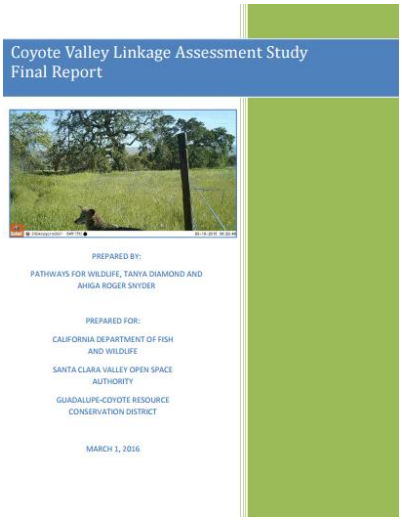
"Should Soap Lake be changed so that the floodplains no longer effectively attenuate peak flows, the downstream Lower Pajaro [levee] Project would be seriously impacted. A rough estimate of impacts was completed with the help of the Corps of Engineers. Based on these impacts, the Lower Pajaro [levee] Project may not be feasible without the Soap Lake and its attenuation of large peak flows." (*RMC Water and Environment, 2005. Pajaro River Watershed Study: Phase 3 and 4A. Pajaro River Watershed Flood Prevention Authority.)*



Further to the north, the Coyote Valley, at the southern edge of urban San Jose, also allows floodwaters to spread during severe storm events. According to the Open Space Authority's *Santa Clara Valley Greenprint*, published in 2014, the Coyote Valley represents the largest remaining undeveloped floodplain in the Coyote Creek watershed, as well as the largest remaining freshwater wetland in Santa Clara County. Given the tragic flooding in February, 2017 along Coyote Creek near downtown San Jose, High Speed Rail designs should not preclude any opportunity to preserve and enhance the natural floodwater retention capacity of the upstream Coyote Valley. The westernmost High Speed Rail alignment alternative cuts between Coyote Creek and the floodplain. If this alignment were chosen and implemented as an embankment, it would sever Coyote Creek from the 100-year floodplain. A viaduct would be essential to preserving this unique opportunity to allow large flows to safely spread, well upstream of Santa Clara Valley's dense urban population.

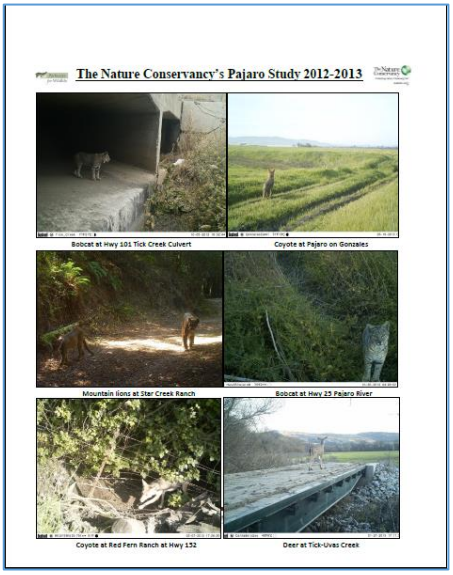
<u>Habitat Connectivity</u>

Numerous studies identify Coyote Valley and the Upper Pajaro River Basin as the only two locations that provide habitat connectivity between the Diablo and Santa Cruz Mountains ranges—which together include over 1.1 million acres of protected habitat. These two areas are both needed for robust connectivity, and they are the centerpiece in long-standing goals from many stakeholders to maintain and enhance ecological connectivity and climate change resilience for nature. With anticipated greater extremes of temperature and rainfall, animals and plants will need larger connected landscapes in order to adapt, making broad, permeable habitat linkages essential. Viaducts could preserve this landscape-scale permeability that long-term biodiversity demands. Strong scientific evidence collected in these areas, detailed below, suggests that culverts cut through an embankment cannot replicate the function of a matrix of open lands.



As recently as 2016, on behalf of the California Department of Fish and Wildlife (CDFW), the Guadalupe-Coyote Resource Conservation District, and the Open Space Authority, and made possible by a CDFW Local Assistance Grant, researchers at Pathways for Wildlife conducted a study of wildlife movement in the Coyote Valley. The study, through the use of wildlife cameras, computer modeling, and peer-reviewed scientific studies (*Coyote Valley Linkage Assessment Study, California Department of Fish and Wildlife, the Guadalupe-Coyote Resource Conservation District, and the Open Space Authority, Pathways for Wildlife, 2016*), confirms that Coyote Valley provides a vital land link between the Santa Cruz Mountains and the Diablo Range—which together include over 1.1 million acres of open space habitat and an estimated $3.5 billion of direct conservation investment by public and private partners.

As a follow-up to the wildlife study cited above, the Open Space Authority is currently working with a team of scientists to design a landscape linkage for the Coyote Valley that would represent a resilient habitat supportive of wildlife movement across the Valley. The linkage design is still under development, and current indications are very strong that the Coyote Valley can be enhanced to better serve wildlife connectivity and hydrologic functions such as floodwater spreading if the linkage is designed to be sufficiently open and permeable.



Further south, a wildlife research study conducted across the Soap Lake Floodplain in 2013, also undertaken by Pathways for Wildlife, deployed camera traps over two years across the floodplain and adjacent foothills. Wildlife movement through the floodplain and associated drainages connects the Diablo and Santa Cruz Mountain ranges (at least 5 million acres total). That study found, unexpectedly, that although many species of wildlife prefer to cross the floodplain where there is cover, including through riparian areas, they also frequently cross through relatively open areas, including pasture and other agricultural lands. (*The Nature Conservancy. 2013. Pajaro Study 2012-2013. Prepared by Tanya Diamond and Ahiga Snyder)*.

Climate Resilience

The elements referred to above—habitat connectivity, floodplains and natural infrastructure—are absolutely critical elements for regional climate change resilience. Maintaining plant and animal genetic diversity depends on keeping wildlife linkages open and functional to facilitate species migration and dispersal. The anticipated increase in extreme weather events—with the potential for both flood and drought conditions—makes the protection of broad, unobstructed floodplains crucial. A viaduct design through Coyote Valley and Soap Lake provides the only option with sufficient flexibility in the face of an uncertain future.

Agricultural economy

According to a 2015 report from the Santa Clara County Agricultural Commissioner's office, "Over the last 30 years the land being farmed has declined from a peak of 40,000 acres in the late 1980s to the current level of 20,000 acres." In the early 1900's, the Valley of Heart's Delight—which is how Santa Clara Valley had been referred to during its agricultural prime—comprised 100,000 acres of farmland. Protecting as much as possible of the remaining farmland is crucial for our region's heritage, especially as the County of Santa Clara applies for National Heritage Area status. The economic value of agriculture is significant, with $279M in gross production annually and "a total of $1.6 billion in output value, that contributes a total of $832 million annually to the Santa Clara County economy and employs 8,110 people annually." (*Santa Clara County 2015 Crop Report. 2015. County of Santa Clara Office of the Agricultural Commissioner*)

Many organizations, including The Nature Conservancy, the Santa Clara Valley Open Space Authority, the Santa Clara Valley Water District, the Silicon Valley Land Conservancy, the San Benito Agricultural Land Trust, and the California Department of Fish and Wildlife, have invested millions of dollars in permanent protection and restoration of over 4,500 acres of agricultural properties throughout the 9,000 acre Soap Lake floodplain. Not

only do these investments support local agriculture, create a matrix of forest and corridors adjacent to agricultural lands for wildlife connectivity, and provide floodplain function in place to protect downstream communities, they also leverage over $3 billion of investment in the adjacent upland mountain ranges, accomplished by a host of public and private partners over more than 30 years of engagement. This investment in our local agricultural production infrastructure and our regional heritage must be protected by minimizing the footprint and disturbance of High Speed Rail on all agricultural lands, and especially those agricultural lands that have been permanently protected.

Regional Conservation Investment Strategy (RCIS)

Santa Clara Valley hosts an innovative Regional Conservation Investment Strategy (RCIS) authorized under AB 2087 (Levine, 2016). The draft RCIS identifies the Coyote Valley and Soap Lake floodplains as high conservation priorities for their wildlife connectivity, floodwater spreading, and other natural resource attributes. Preservation of these functions through a viaduct design also provides an opportunity to align High Speed Rail with the mitigation hierarchy (avoid—minimize—compensate) through planning and design standards consistent with the RCIS goals, and for High Speed Rail to invest in protecting these areas for advance mitigation, thereby contributing to the accomplishment of the RCIS vision.

Sustainable Infrastructure

Consistent with state policies that promote sustainable infrastructure (AB 32, SB 375, AB 857, AB 2087, and Executive Order B-30-15) to protect our natural and working lands, prioritize natural infrastructure and meet our climate goals, it is imperative that the project be built in a manner that protects and enhances the natural and agricultural values and services of the landscape.

Conclusion

Through this vital southern Santa Clara County and northern San Benito County landscape, a High Speed Rail alignment using an embankment design with individual culverts, or short sections of viaduct over riparian areas, would prohibit the Soap Lake floodplain and the Coyote Valley from providing their many benefits to people and nature. These unique landscapes function as corridors, both for wildlife and water. The embankment design is not an appropriate option. A full viaduct design, along with the necessary mitigation to compensate for the environmental impacts it creates, is the only viable alternative to protect public and private conservation investments, and provide a multiple-benefit solution, allowing train infrastructure to coexist with natural infrastructure.

We greatly appreciate the open, productive conversations in which we have engaged with the High Speed Rail Authority over the past 12-16 months. Extensive institutional knowledge and local studies about natural resources have been shared with the High Speed Rail Authority in the spirit of open communication and collaboration. We very much wish to continue this collaborative approach, working together to reach common objectives.

Sincerely,

Andrea Mackenzie
General Manager
Santa Clara Valley Open Space Authority

Walter T. Moore

Walter Moore
President
Peninsula Open Space Trust

Abigail Ramsden
Conservation Planning Project Director
The Nature Conservancy of California

cc: Dan Richard, Chair, High Speed Rail Authority
Mark McLoughlin, Director of Environmental Services, High Speed Rail Authority
Ken Alex, Director, Office of Planning and Research
Brian Kelly, Secretary, California State Transportation Agency

Attachment: Map showing Soap Lake Floodplain and Coyote Valley and proposed High Speed Rail alignments