Appendix C: Rail Trail Development

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C1. Rail Trail Background

Rail-trails take two forms: (1) rails-to-trails, where an abandoned or "railbanked" rail line is converted into a trail, and (2) rails-with-trails, where an active rail line or rail transit corridor is parallel to a trail. In the Delta, there are locations where both rails-to-trails and rails-with-trails may be possible. These include freight lines and passenger lines, such as the Amtrak Capitol Corridor & San Joaquins, Altamont Corridor Express (ACE), and Bay Area Rapid Transit (BART) tracks.

Rail corridors, like levees, are long, uninterrupted corridors with few street crossings. They present many advantages for trail development. Rail corridors are typically designed as elevated surfaces with good drainage and gentle grades that usually do not exceed 2%. The corridors are often at least ten feet wide since the rail ties are typically eight and one-half feet long.

Railroads were developed to link cities and towns and some towns grew around rail stations. In the Delta, early transportation was by boat, and by the mid-1850s, predominately by steamboat. Railroads only began competing with steamboats in the early 1900s. By the 1920s trucking was increasingly common and eventually replaced steamboats and trains as the primary means of transporting goods.¹ Today, there are many active and out of service rail corridors to and throughout the Delta. They could be used to establish rail trails that could enhance recreational access and circulation in the Delta region.

C2. Rails-to-Trails & Railbanking

Rails-to-trails occupy rail corridors that are not in use (either abandoned or railbanked) for the construction of a trail. A rail-to-trail project developer may gain control of an out of service rail corridor through railbanking (described below), property acquisition, or easement agreements. Property acquisition requires the corridor be officially abandoned through a federal process.

¹ https://visitcadelta.com/stories/delta-narratives/tales-of-a-river/

Railbanking, established in 1983 as an amendment to Section 8(d) of the National Trails System Act, is a voluntary agreement between a railroad and a trail developer to use an out-of-service rail corridor as a trail until a railroad might need the corridor for rail service in the future.

When a railroad files for abandonment with the Surface Transportation Board (STB), the trail developer will work directly with the railroad — via sale, donation, or lease — to temporarily acquire the railroad corridor to convert it into a trail. Tracks and ties on a railbanked line may be removed, but bridges, trestles, tunnels, and culverts typically must remain in place. Because a railbanked corridor may be converted back to an active rail line, railbanking provides an option for railroads to preserve the linear right-of-way by preventing subdivision of the land, which can occur if the railway is abandoned.

Railbanking Opportunities: ²

- Trains are running, but the railroad is not profitable potential railbanking opportunity
- Trains are not running potential railbanking opportunity
- The railroad is undergoing abandonment proceedings with the Surface Transportation Board act immediately for railbanking

C3. Rails-with-Trails

Rails-with-trails, where the trail is placed adjacent to an active rail line, allows the use of a continuous corridor that might not otherwise be accessible. By the end of 2018, there were 917 miles of rails-with-trails identified across 47 states.³

Rails-with-trails are typically more complicated to design and construct because of limited corridor width/right-of-way, adjacent drainage ditches, varying grades, and rail line safety. Where a trail is constructed adjacent to an active, or potentially active rail line, the California Public Utilities Commission (CPUC) regulates the safety of rail operations, including rail crossings. Rules established by the CPUC include General Order No. 26D, which states that the edge of a trail must be at least ten feet from the center line of a rail line. Many private rail lines may require a wider separation.

Additional complications may occur when rail lines cross a trail or roadway at an angle, creating a hazard for bicycle wheels to catch in the space between the tracks and the pavement. To eliminate this concern, the trail design should approach the rail crossing at a perpendicular angle. A perpendicular crossing increases visibility for the trail users.

Since 2000, rails-with-trails are increasingly common along passenger rail and rail transit lines with adequate separation distances.⁴ Rails-with-trails are now recognized as an asset to not only the surrounding communities but also to the public transit network as they facilitate multi-modal transportation. Where the trail follows a passenger line, the trail can create direct access to a station.

Rails-with-Trails Opportunities: ⁵

• Trains are running, and the railroad is profitable — potential rails-with-trails opportunity

C4. Contamination Along Rail Corridors

The soil along rail corridors is commonly contaminated. Contamination can occur if the rail line carried hazardous substances and there was a spill. Contamination can also originate from locomotive combustion byproducts, industrial uses alongside the corridor, or from pesticides used to control plant growth along the

² https://www.railstotrails.org/build-trails/trail-building-toolbox/acquisition/corridor-research/

³ Rails-with-Trails: Best Practices and Lessons Learned, May 2021.

⁴ Rails-with-Trails: Best Practices and Lessons Learned, May 2021.

⁵ https://www.railstotrails.org/build-trails/trail-building-toolbox/acquisition/corridor-research/

right of way. Traditional Phase I and Phase II Environmental Assessments (ESA) will find the common contaminants but may overlook contamination from spills.

The hazardous substances related to rail use differ from the hazardous substances in a traditional industrial setting. Unlike fixed facilities where spills come from tanks, pipes, or processes that do not change in physical location, the pesticides or combustion by-products distribution can be unpredictable along the right of way. Care must be taken to design a plan of assessment that takes this into account, recognizing that the objective of the assessment is to produce an accurate, useful, and cost-effective data set.

Types of Contaminants: ⁶

- Railroad ties, usually treated with chemicals such as creosote
- Coal ash and cinder containing lead and arsenic
- Spilled or leaked liquids such as oil, gasoline, cleaning solvents, etc.
- Herbicides
- Fossil fuel combustion products (PAHs)
- Roofing shingles (asbestos)
- Air compressors
- Transformers and Capacitors
- Metals

C5. Rail Trails Opportunities for the Delta Trail

To determine which rail corridors in the Delta may be candidates for rails-to-trails or rails-with-trails, the corridor status must be known. Possible sources for corridor status research are noted on the following page.

For information on a corridor's status consult:7

- Surface Transportation Board website
- Local and County tax assessors' offices
- City planning departments
- The State Department of Transportation
- Recreational Trails Program State Administrators
- State historic preservation officers and the National Register of Historic Places for corridor's historic significance

Rail trail opportunities in the delta:

- Active rail lines to consider rail with trail in the Delta include:
 - o Amtrak Capital Corridor between Martinez-Fairfield-Sacramento
 - o Amtrak San Joaquins between Martinez-Antioch-Stockton-Lodi-Sacramento
 - o Altamont Corridor Express between Tracy-Lathrop/Manteca-Stockton
 - Bay Area Rapid Transit (BART) between North Concord/Martinez-Pittsburg/Bay Point-Pittsburg Center-Antioch
- Transit to trail opportunities existing at all the above locations as well

⁶ https://www.railstotrails.org/build-trails/trail-building-toolbox/acquisition/environmental-contaminants/ ⁷ https://www.railstotrails.org/build-trails/trail-building-toolbox/acquisition/corridor-research/



Figure C-1: Map of rail lines, including BART, ACE, Amtrak, and freight lines.