

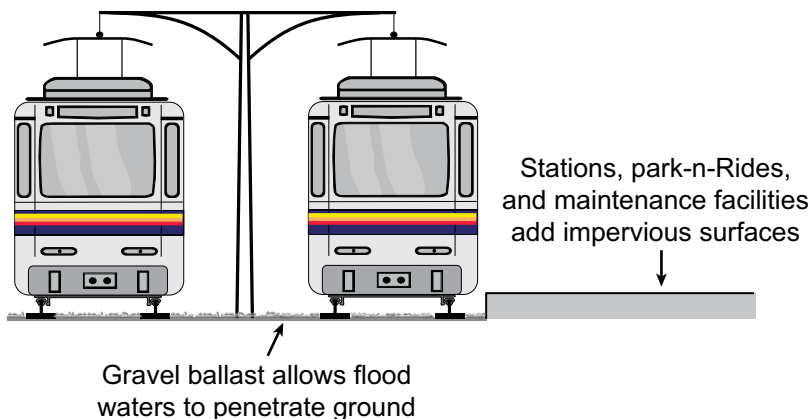
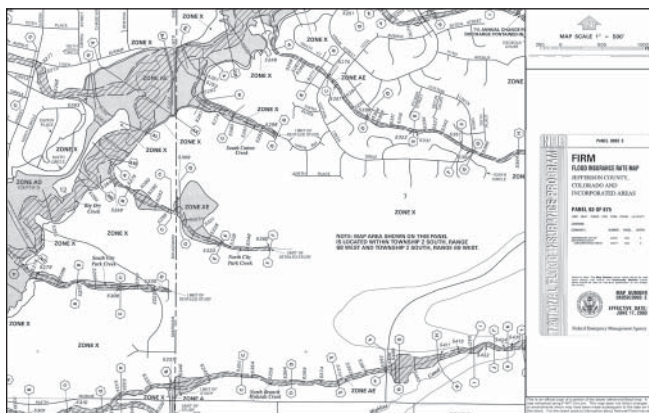
## FasTracks and Floodplains

Placement of new commuter or light rail tracks and facilities requires accommodation of drainage during minor (2 to 5 years) and major (100- to 500-year) storm events.

### PROCESS

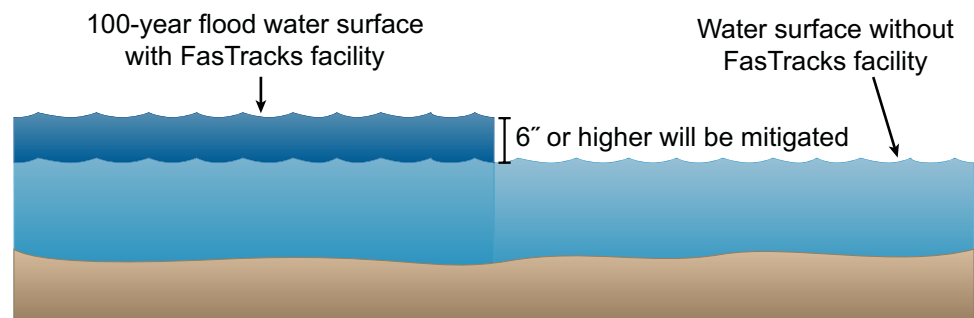
The process of determining storm drainage requirements for a FasTracks Program commuter or light rail project includes:

- Collection of existing 100-year floodplain maps (National Flood Insurance Maps) from the Federal Emergency Management Agency.
- Analysis of existing drainage patterns and existing drainage facilities (bridges and culverts).
- Identify any planned drainage projects in the area (from the local jurisdictions and the Urban Drainage and Flood Control District).
- Assess the impacts of commuter and light rail tracks, stations and maintenance facilities on existing drainage patterns and flows and on the 100-year floodplain. Commuter rail transit and light rail transit tracks are placed on gravel ballast which allows floodwater to permeate the ground. However, light rail transit and commuter rail transit stations and maintenance facilities are impervious to floodwaters.



## Will Flooding Risks Occur To Other Properties?

- The FasTracks facilities will be designed so that any encroachment in the major (100-year) floodplain will not increase flooding risks or impair the capacity of a floodplain.
- The FasTracks Program will mitigate any increase in the surface of the water during a major 100-year storm if that water surface increases more than six inches over the existing level.



## Who Pays For Drainage Improvements?

- The FasTracks Program will pay for improved drainage facilities for minor (2- to 5-year) storm events in most locations and will in all cases comply with current drainage criteria for local jurisdictions and the Urban Drainage and Flood Control District. (Note: The cities of Denver, Lakewood, Aurora and Westminster Design Criteria for minor storms are 2 to 5 years and for the Urban Drainage and Flood Control District the minor storm criteria are 2 to 10 years.)
- The FasTracks Program will work in a cooperative manner with the Urban Drainage and Flood Control District or local agencies to implement drainage improvements, consistent with the “Stakeholder Participation Policy” adopted by the RTD Board on February 20, 2007.

## Will Flooding Affect Rail Operations?

- The FasTracks Program will be designed to protect the trackway and FasTracks riders. In a 100-year storm, in some locations, there may be water that runs over the tracks and may affect rail operations for 45 minutes to an hour. In these situations, the current RTD Standard Operating Procedure for Flooded Track will be followed which requires:
  - » Train speeds may be reduced or restricted, depending on the elevation of the

flood water.

- » All trains will return to the nearest station in an emergency.
- » Whenever possible, a train will stop short of a flooded track. After the train is clear of the affected area, a brake test will be conducted.
- » Qualified RTD personnel will be dispatched to the flooded area to determine the source of water and the water depth.
- » Train operations will not proceed until the water level recedes to a safe level.
- » If necessary, passengers will be transported by bus around the flooded area.

FOR MORE INFORMATION, CONTACT:

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