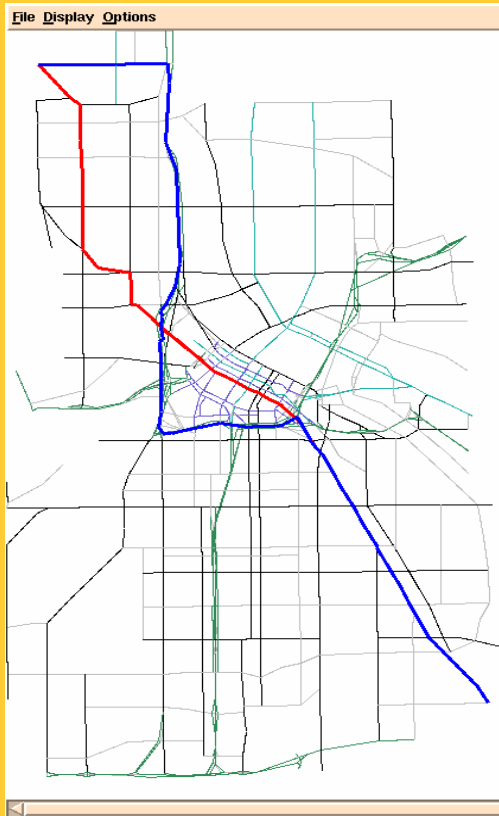


# Learning Objectives

- After this segment, students will be able to
  - Describe 3 simple spatial networks
  - List simple queries on example spatial networks

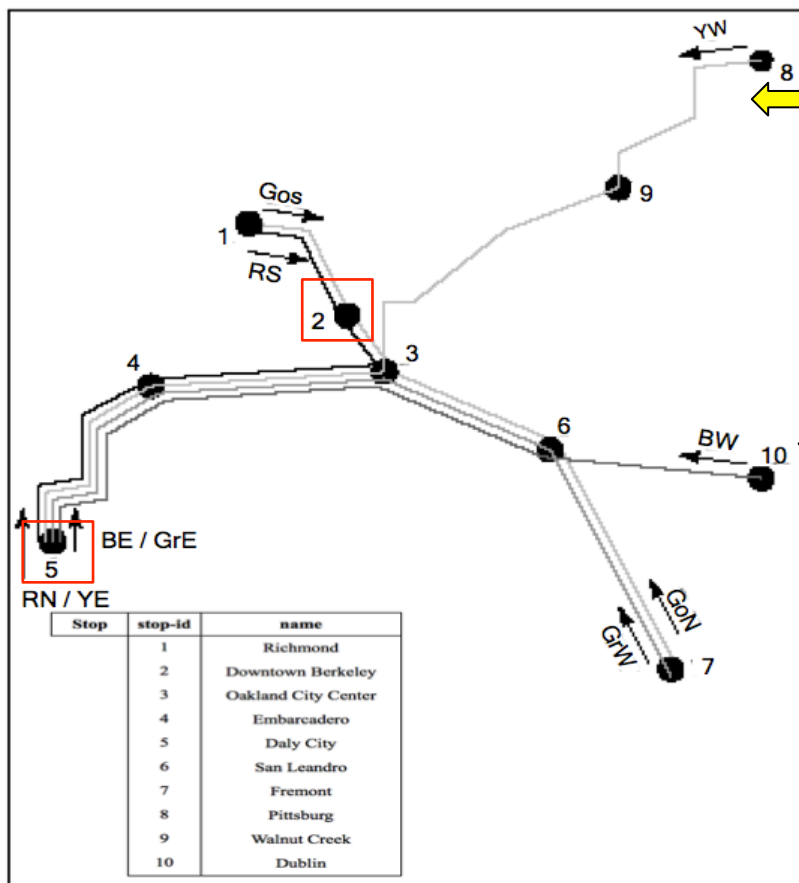


# Spatial Network Query Example



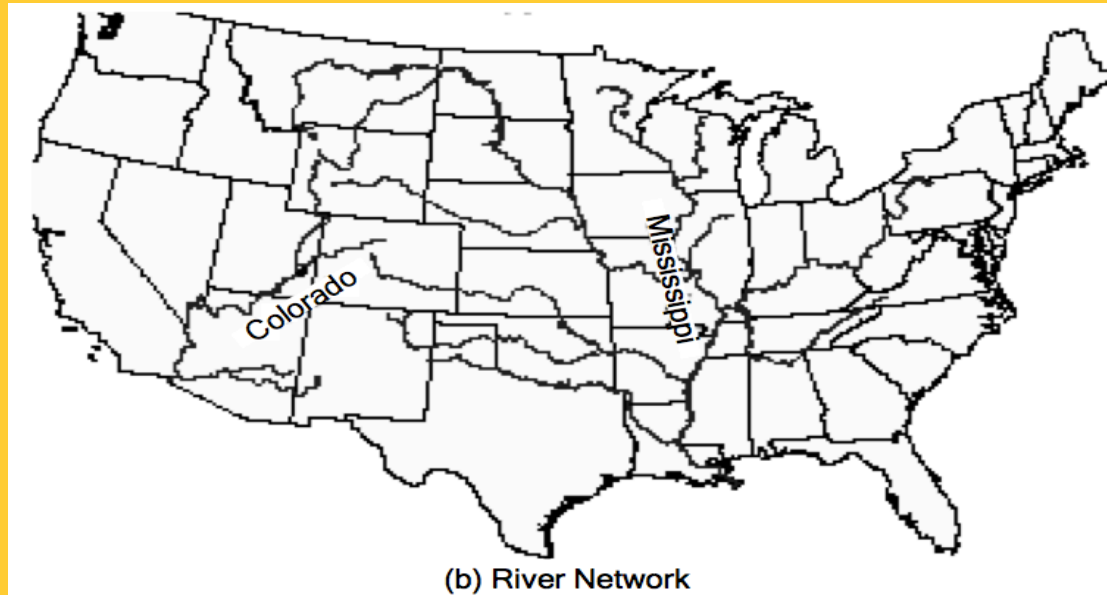
1. Find shortest path from a start-point to a destination
2. Find nearest hospital by driving distance
3. Find shortest route to deliver packages to a set of homes
4. Allocate customers to nearest service center

# Railway Network & Queries



1. Find the number of stops on the Yellow West (YW) route.
2. List all stops which can be reached from Downtown Berkeley (2)
3. List the routes numbers that connect Downtown Berkeley (2) & Daly City (5)
4. Find the last stop on the Blue West (BW) route

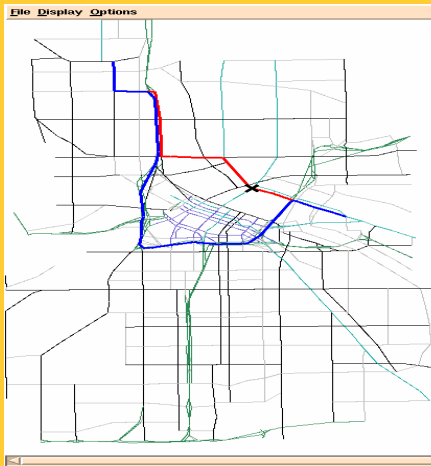
# River Network & Queries



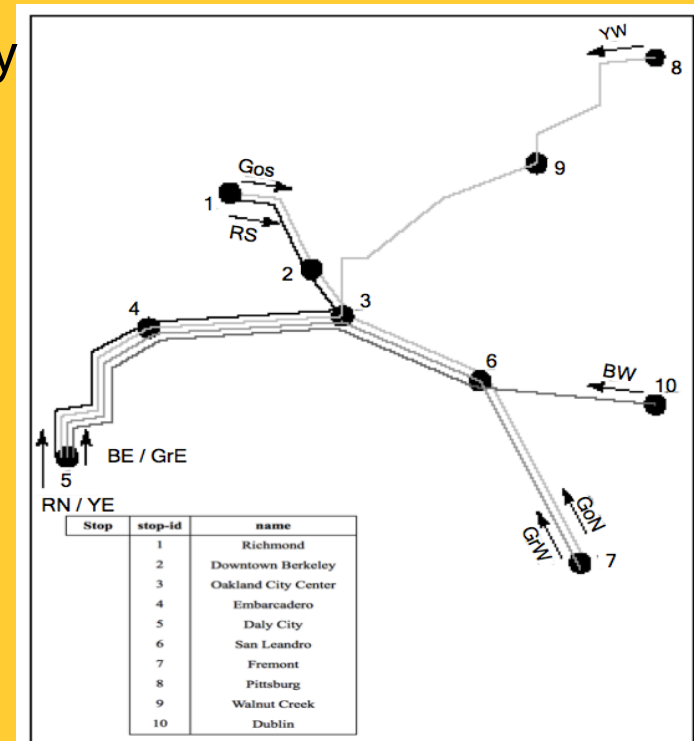
1. List the names of all direct and indirect tributaries of Mississippi river
2. List the direct tributaries of Colorado
3. Which rivers could be affected if there is a spill in North Platte river

# Spatial Networks: Three Examples

## A Road Network



## A Railway Network



## A River Network



(b) River Network