

CASTLE ROCK WATER

DOWNTOWN INFRASTRUCTURE TOWN COUNCIL UPDATE

SEPTEMBER 16, 2025



DOWNTOWN INFRASTRUCTURE BACKGROUND

- Define Downtown
 - ✓ Perry to the East
 - ✓ Plum Creek to the West
 - ✓ Plum Creek Blvd. to the South
 - ✓ Wolfensberger to the North
- Customer Base
 - ✓ 5 residential single family customers, 6 multifamily
 - ✓ 80 commercial customers
 - ✓ 11 irrigation only
 - ✓ 76,000 gallons per day water usage / 67,000 gallons per day sewer usage
 - ✓ 387 equivalent stormwater SFEs

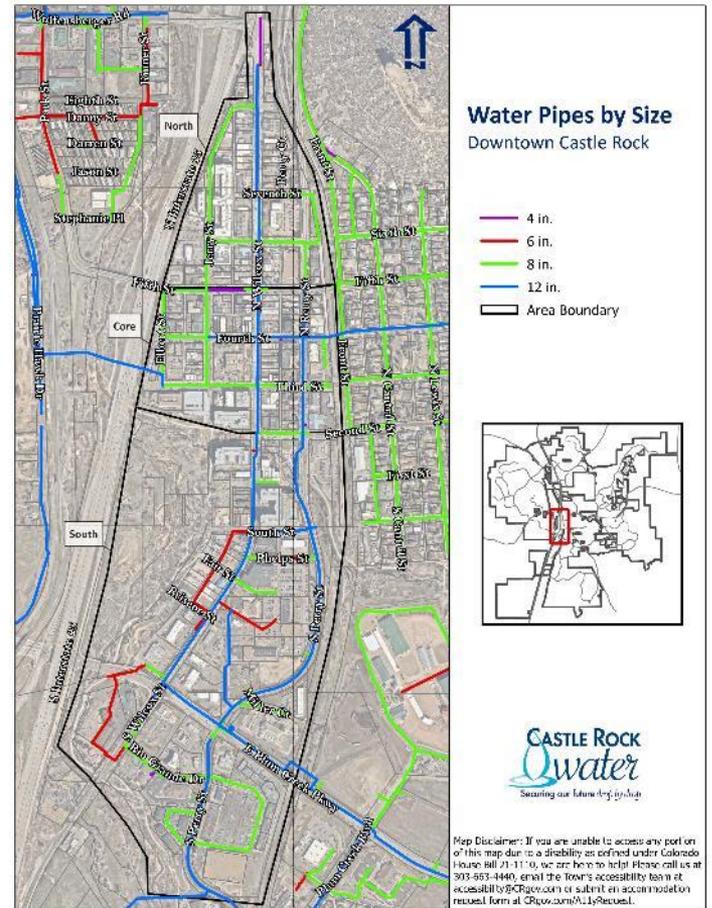


Downtown

DOWNTOWN INFRASTRUCTURE

EXISTING WATER INFRASTRUCTURE

- Mostly 8-inch and 12-inch piping
- Two main connections – 12 in on Third Street and Pressure Reducing Valve at Perry and Plum Creek Blvd.
- Currently can meet all demands and fire flows in Downtown – 1,500 gallons per minute minimum
- Treatment sources - Plum Creek Water Purification Facility (PCWPF) and Meadows – Yellow Zone
- Water Resources - Implied Consent Area

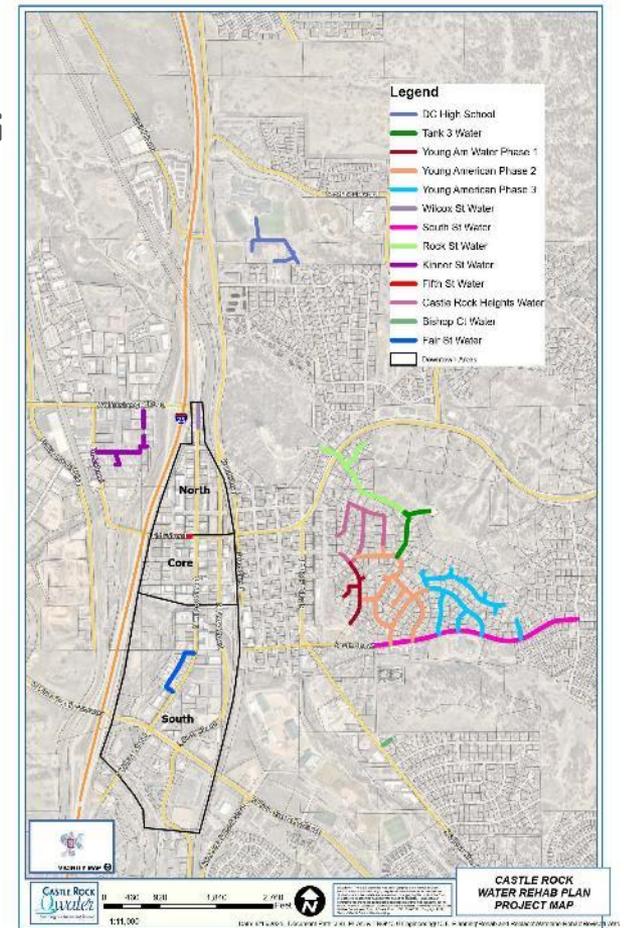


Water lines in Downtown

DOWNTOWN INFRASTRUCTURE

EXISTING AND FUTURE CHALLENGES AND REHAB PLANNING

- Water (Existing Challenges)
 - ✓ Valves are aging – needing replacement
 - ✓ Lack of Redundancy
 - ✓ Front St. to Downtown 12-inch waterline
- Water (Future Challenges)
 - ✓ Future Development sizes and related fire flow
 - ✓ Rehab Planning as Assets age
 - ✓ Costs of rehabilitation much higher
 - ✓ ADA requirements in sidewalks for valve boxes /services
 - ✓ Limitations on closures requiring night work
 - ✓ Hillside Pump Station Rehabilitation

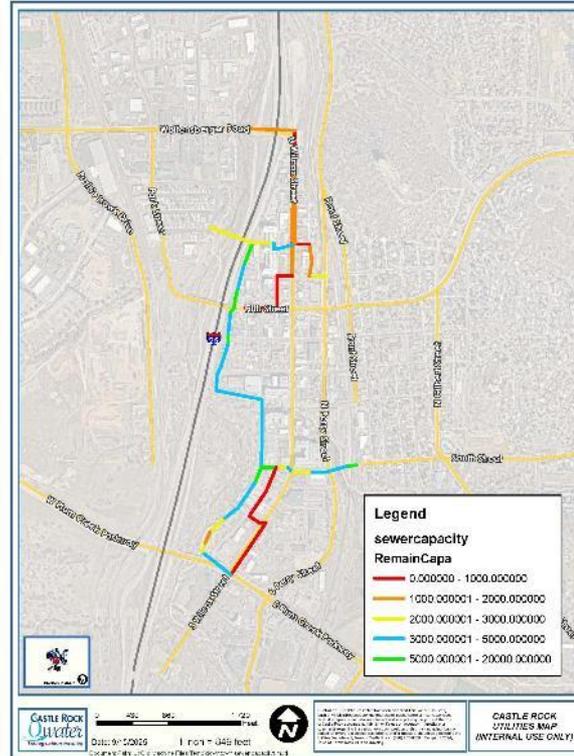


Rehab Planning for Water Lines

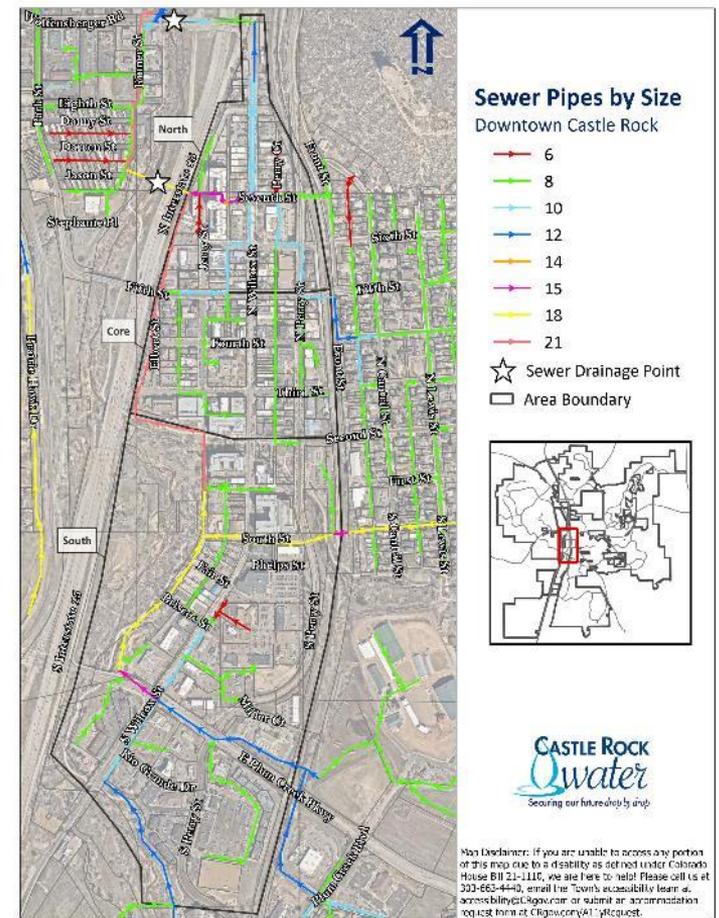
DOWNTOWN INFRASTRUCTURE

EXISTING WASTEWATER INFRASTRUCTURE

- Two defined gravity basins
 - ✓ One draining near Plum Creek and out at 7th Street
 - ✓ One draining out at Wolfensberger
- Pipe sizes ranging from 6-inch to 21-inch



Sewer Line Remaining Capacity

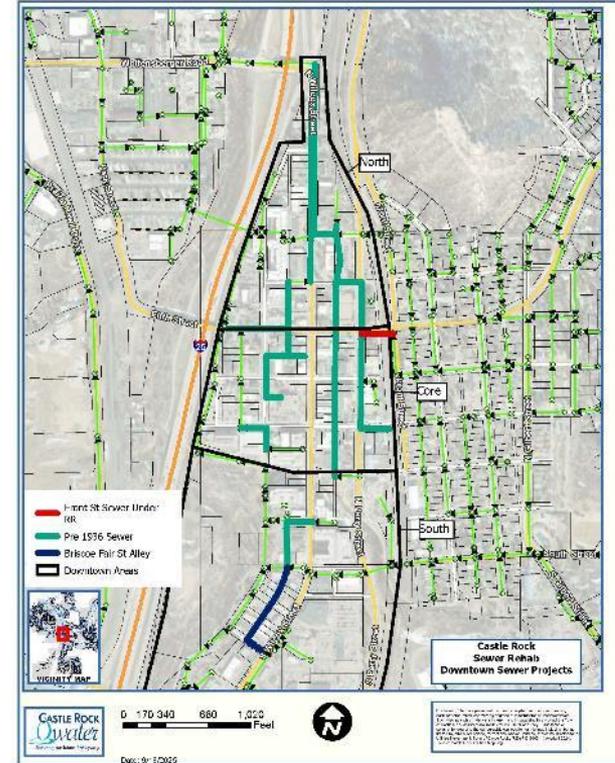


Sewer Lines in Downtown

DOWNTOWN INFRASTRUCTURE

EXISTING AND FUTURE CHALLENGES AND REHAB PLANNING

- Wastewater (Existing Challenges)
 - ✓ Bottlenecks, flat slopes and sags
 - ✓ Clusters where not well defined drainage
 - ✓ Lack of grease interceptors for commercial buildings
- Wastewater (Future Challenges)
 - ✓ Future Development sizes
 - ✓ Limitations on closures requiring night work
 - ✓ Rehab Planning as Assets age
 - ✓ Cost of rehabilitation much higher
 - ✓ Roots/infiltration and inflow/cracks, etc.
 - ✓ Installing grease interceptors

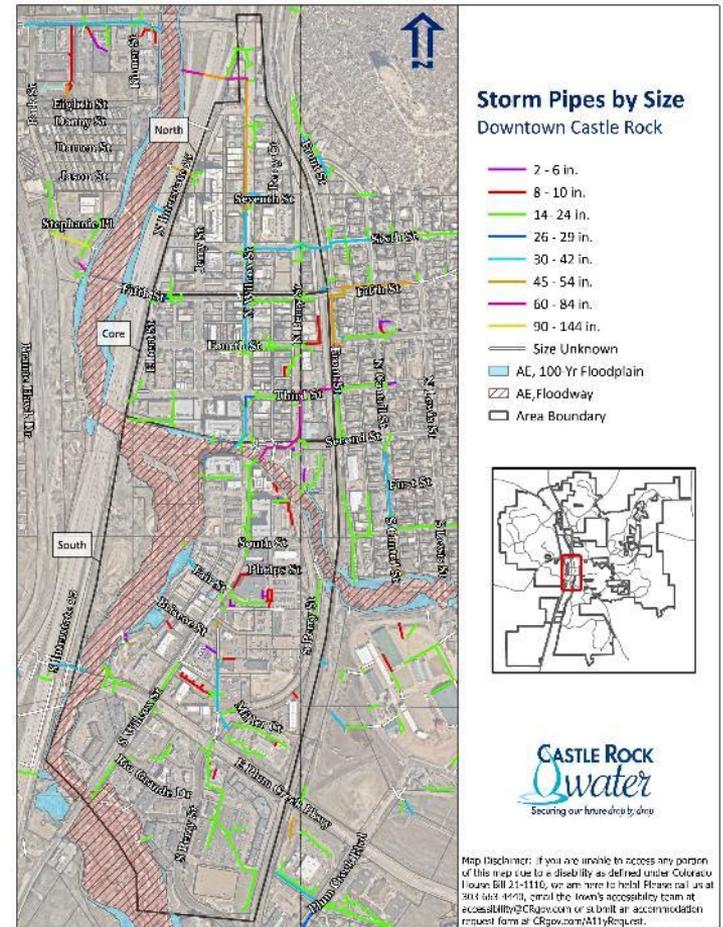


Rehab Planning for Sewer Lines

DOWNTOWN INFRASTRUCTURE

EXISTING STORMWATER INFRASTRUCTURE

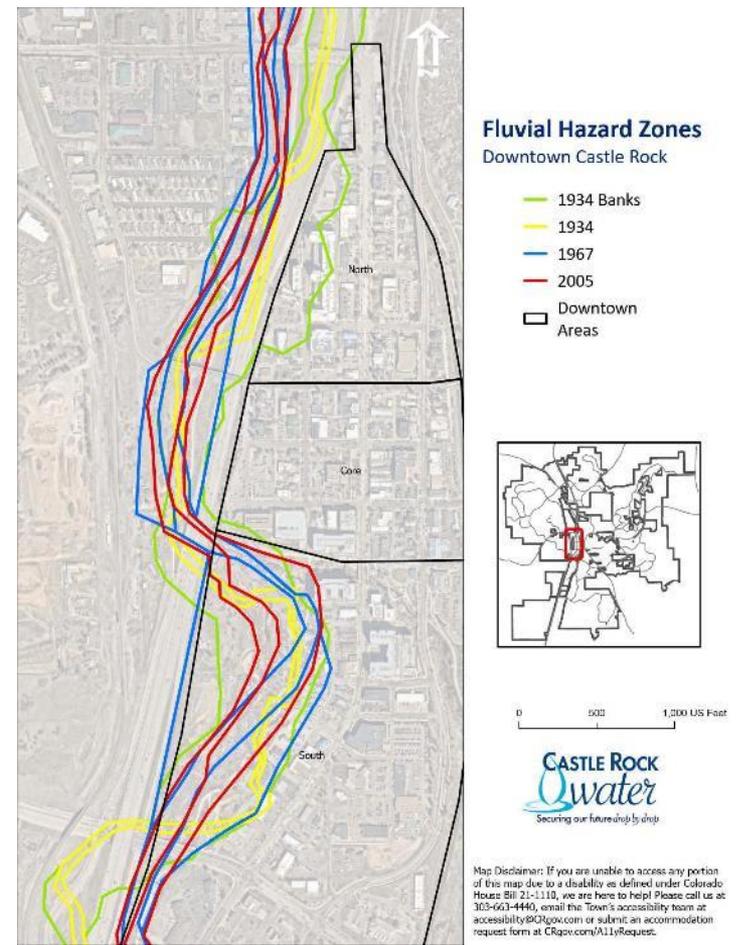
- Two natural drainage ways
 - ✓ East Plum Creek
 - ✓ Sellars Gulch
- Pipe sizes ranging from 4-inch to 84-inch
 - ✓ Installed from 1985 – 2024
 - ✓ Material – Corrugated Metal Pipe, Reinforced Concrete Pipe, Plastic
- Water Quality Treatment
 - ✓ Ponds
 - ✓ Underground treatment



Storm Lines in Downtown

DOWNTOWN INFRASTRUCTURE FLOODPLAINS

- Main area of concern is Reach 3 of East Plum Creek and the confluence with Sellars Gulch
- Fluvial Hazard Zones

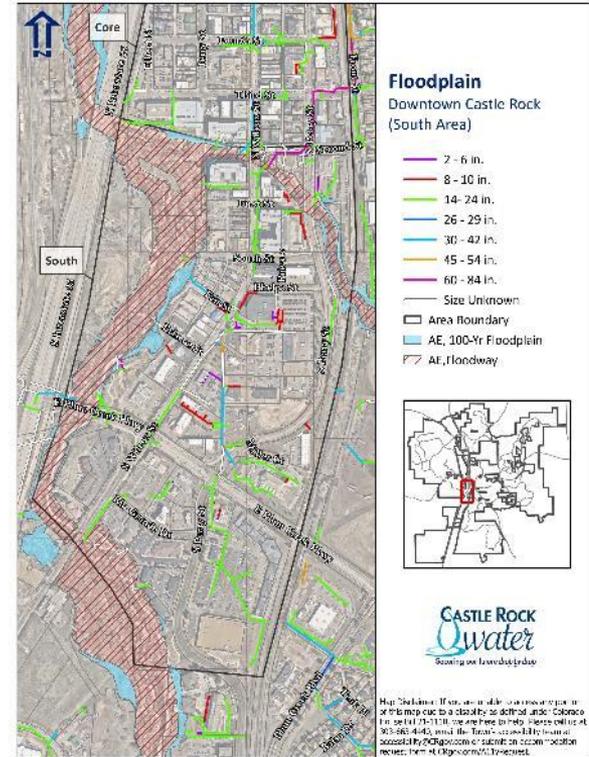


Fluvial Hazard Zones

DOWNTOWN INFRASTRUCTURE

EXISTING AND FUTURE STORMWATER CHALLENGES AND REHAB PLANNING

- Stormwater (Existing Challenges)
 - ✓ Lack of Revenue to fulfill master plan recommendations – EPC/Sellars Gulch Confluence – Reach 3
 - ✓ Areas needing stabilization or other improvements
- Stormwater (Future Challenges)
 - ✓ Future Developments providing water quality
 - ✓ Rehab Planning as Assets age
 - ✓ Limits on closures requiring night work
 - ✓ Updating watershed master plan (circa 2009)



Flood Plain Downtown



QUESTIONS?