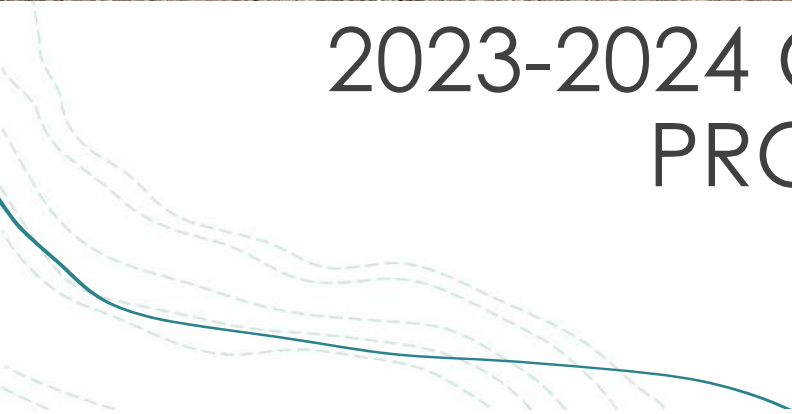




2023-2024 CAPITAL IMPROVEMENT PROGRAM UPDATE

April 17, 2024



AGENDA

Capital Improvement
Program (CIP) Overview

Construction Projects

Design Projects



Presentation title

CAPITAL IMPROVEMENT PROGRAM STAFF

MOLLY TRUJILLO
CIP MANAGER

JON NELSON
CIP PROJECT
MANAGER

NICOLE HARWELL
CIP PROJECT
MANAGER



CAPITAL IMPROVEMENT PROGRAM (CIP)

Projects Include:

- Stream Channel Improvements
 - Grade Control
 - Bank Stabilization
- Regional Water Quality and Detention Ponds
- Culvert Crossings
- Storm Sewer System Improvements
- Pipe Rehabilitation (separate presentation)
- Drone Inspections (future presentation)

CAPITAL IMPROVEMENT PROGRAM (CIP)

SEMSWA CAPITAL PROJECT PRIORITIZATION
 10+ YEAR PLAN FUTURE PROJECTS (NOT YET BUDGETED FOR)
 SORTED BY RANKING
 RANKED ON: 8/22/2023 - Updated added Project on 9/11/2023

4	Critical
3	Severe
2	Moderate
1	Minor
0	None

Project	Basin	TION/PRO City / County	RATING CATEGORIES & SCORING				ADJ RANK
			FUNCTION (40%)	SAFETY (30%)	EXTNL (20%)	ENVRM (10%)	
Finney Creek Tower Rd to Orchard Rd	Finney Creek	City	3	2	2	2	1
Big Dry Creek Reach 7 Upstream Cherrywood Cir to 4th Street Park	Big Dry Creek	City	3	2	2	1	2
Cherry Creek Ingot and Tributary Upstream Parson Road	Cherry Creek	City	2	2	2	0	3
Boise Creek Jordan Road to Pond D-2 Stormwater Improvements	Boise Creek	City	2	2	2	0	4
Big Dry Creek Reach 10 Cherry Knoll Park Upstream of Argusson Rd	Big Dry Creek	City	1	2	2	1	5
Cottonwood Creek Downstream of Easter Ave (Reach C-9)	Cottonwood Creek	City	2	1	1	2	6
Leone Tree Creek Pond L-1 Restroom	Leone Tree Creek	City	2	1	1	2	7
Big Dry Creek Hubbs Road Tributary Colorado Blvd to Argusson Rd	Big Dry Creek	City	2	1	1	1	8
Big Dry Creek Reach 8 Backwood Park to University	Big Dry Creek	City	2	1	1	1	9
Cottonwood Creek Upstream inner trees Drive East (Reach C-13)	Cottonwood Creek	County	2	1	1	1	10
Little Dry Creek Headwall Upstream of Spruce St.	Little Dry Creek	City	2	1	1	1	11
Spring Creek Otero to Mineral Ave	Spring Creek	City	2	1	1	1	12
Big Dry Creek Hubbs Road Tributary at Argusson Rd Stormwater Improvements	Big Dry Creek	City	2	2	0	0	13
Finney Creek Reach 7 Phase 2	Finney Creek	County	1	2	1	2	14
Big Dry Creek Tributary A University to Jamison Ave	Big Dry Creek	City	1	2	1	1	15
Little Dry Creek Liberty Hills Tributary at Fairfax Way	Little Dry Creek	City	1	2	1	1	16
Little Creek Drainage Improvements Geddes Ave to Pennsylvania St	Little Creek	City	2	1	1	0	17
Little Creek Floodplain Improvements Pennsylvania St to Broadway	Little Creek	City	2	1	1	0	18
Leone Tree Creek Tributary Stormwater at Revere Place	Leone Tree Creek	City	2	1	1	0	19
Cottonwood Creek East to Inverness Dr (Reach C-10)	Cottonwood Creek	County	1	1	2	1	20
Cottonwood Creek Tributary C Downstream of Inverness Dr W (Reach D-2)	Cottonwood Creek	County	1	1	2	1	21
Spring Creek Mineral Ave to Dry Creek Rd	Spring Creek	County	2	1	0	1	22
Cherry Creek Tributary at Bear Park	Cherry Creek	County	1	1	2	1	23
Greenwood Gulch at Fales Center Park	Greenwood Gulch	City	1	2	0	1	24
Big Dry Creek Reach 12 Phase 2 D/S of Dry Creek Rd (and D/S of previous project)	Big Dry Creek	City	1	1	1	1	25
Cottonwood Creek Calix West Road to IEC Pond (Reach C-7)	Cottonwood Creek	City	1	1	1	1	26
Cottonwood Creek Downstream Inverness Drive East (Reach C-15)	Cottonwood Creek	County	1	1	1	1	27
Cottonwood Creek Downstream Inverness Drive South (Reach C-16)	Cottonwood Creek	County	1	1	1	1	28
Cottonwood Creek Downstream of Calix West Road (Reach C-6)	Cottonwood Creek	City	1	1	1	1	29
Cottonwood Creek Upstream Inverness Drive East (Reach C-11)	Cottonwood Creek	County	1	1	1	1	30
Little Dry Creek at Georgetown Village	Little Dry Creek	City	1	1	1	1	31
Willow Creek Fox Hill Park to US Dry Creek Road	Willow Creek	City	1	1	1	1	32
Windmill Creek Upstream of Pond M-4	Windmill Creek	County	1	1	1	1	33
Argusson-Centers - Mainline Improvements - Gas Cuts to Horner Rd	Gas Creek	County	1	1	1	0	34
Argusson-Centers - Gas Cuts to Whitecreek - Down South to Argusson Place	Gas Creek	County	1	1	1	0	35
Argusson-Centers - Gas Cuts and Holy St. Outside Improvements	Hazard Gulch	County	1	1	1	0	36
Cottonwood Creek Tributary C Downstream of Inverness Dr E (Floodplain) (Reach F-2)	Cottonwood Creek	County	1	1	1	0	37
Willow Creek East Tributary	Willow Creek	City	1	1	1	0	38
Big Dry Creek Hubbs Road Tributary Argusson Rd to University Blvd	Big Dry Creek	City	1	1	0	0	39
Big Dry Creek Reach 15 Colorado Blvd to Dry Creek Rd	Big Dry Creek	City	1	1	0	1	40
Cottonwood Creek Hazards Tributary Horvath to Briarwood Ave	Cottonwood Creek	City	1	0	1	1	41
Leone Tree Creek Upstream of Spruce Parkway	Leone Tree Creek	County	1	0	1	1	42
Spring Creek Pond at Mineral Ave	Spring Creek	City	1	0	1	1	43
Windmill Creek Downstream of Inverness	Windmill Creek	City	1	0	1	1	44
Windmill Creek Potomac St to Blackhawk St	Windmill Creek	City	1	0	1	1	45
Cottonwood Creek Potomac 1st & 2nd Streets to 4th St of Roundabout	Cottonwood Creek	City	1	0	0	1	46
Windmill Creek Blackhawk Water Quality Pond	Windmill Creek	City	1	0	0	0	47
Boise Creek Bioswale Flow to Pond D-2	Boise Creek	City	0	0	1	1	48
Inverness Creek Hampden Ford Retention	Inverness Creek	County	0	0	0	2	49

Projects Identification

- Major Drainageway and Outfall Master Plans
- FEMA Floodplain Mapping
- Stream Inventory and Asset Management Data
- Staff field observations
- Partner agency requests

Project Ranking Criteria

- Function
- Safety
- External
- Environmental



CIP PROJECT RANKING CRITERIA

Function

- Aging infrastructure replacement
- Increased capacity needs

Safety

- Risk to Public
- Utilities
- Infrastructure

External

Requests to address drainage and flooding issues

Environment

- Increased Water Quality
- Improved Vegetation

CIP PROJECT PHASES



**ALTERNATIVES
ANALYSIS**



DESIGN



PERMITTING

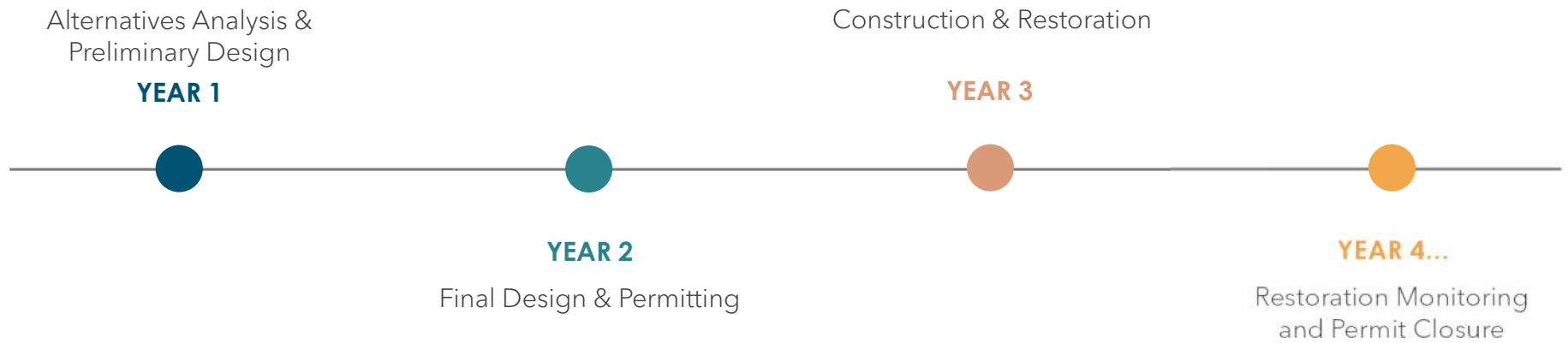


CONSTRUCTION



RESTORATION

TYPICAL PROJECT TIMELINE





CONSTRUCTION PROJECTS

Dove Creek Otero to Pond D-1 Channel Improvements²

Big Dry Creek at South Suburban Golf Course Channel Improvements¹

Little Dry Creek Hunters Hill Tributary Storm Sewer Improvements

Big Dry Creek Arapahoe Road Bridge Replacement³

Orchard Road Widening and Storm Sewer Improvements³

Unnamed Creek Reach 9 Channel Improvements¹

CONSTRUCTION PROJECTS

*Project partnerships with
MHFD¹
CCBWQA²
City of Centennial³*

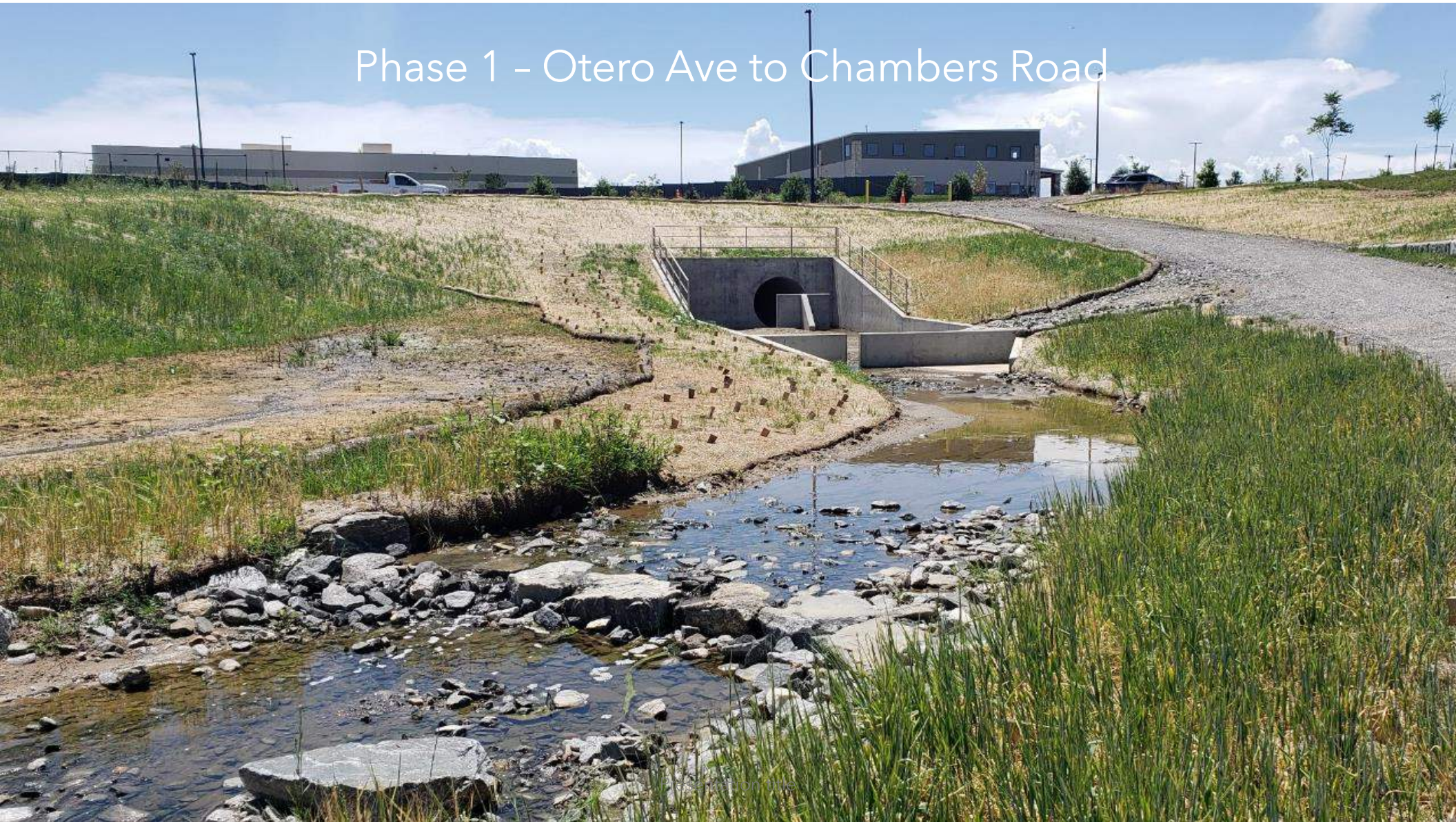


DOVE CREEK OTERO AVENUE TO BRONCOS PKWY

- Channel Stabilization and Grade Control
- Coordination with new Development Outfalls
- Pond D-1 Water Quality Improvements
- In partnership with CCBWQA



Phase 1 - Otero Ave to Chambers Road



Phase 2 - Chambers Road to Broncos Pkwy

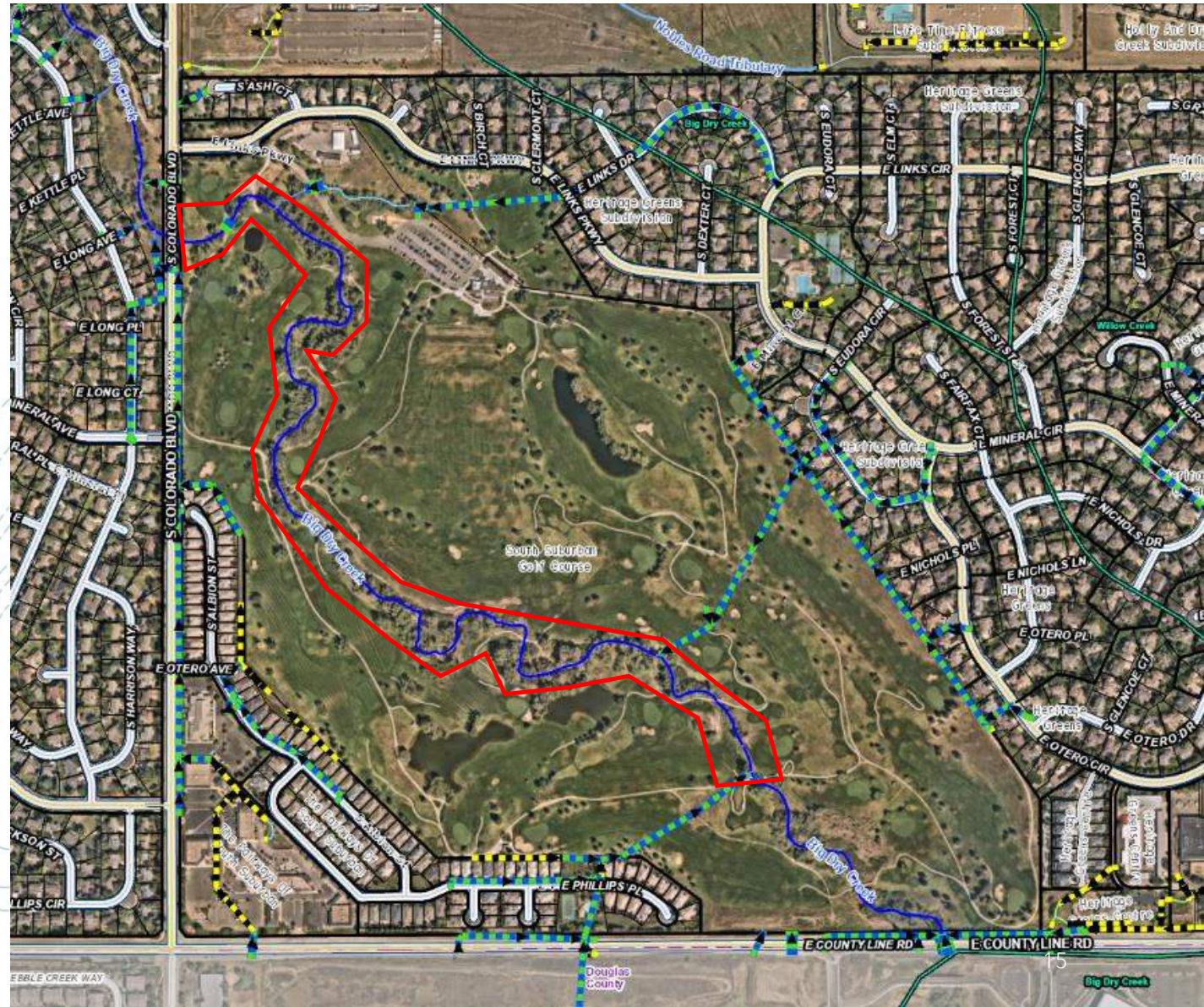


Phase 2 - Chambers Road to Broncos Pkwy



BIG DRY CREEK AT SOUTH SUBURBAN GOLF COURSE CHANNEL IMPROVEMENTS

- Channel Stabilization and Grade Control
- Improved Golf Cart and Maintenance Access Crossings
- In Partnership with MHFD and SSPRD

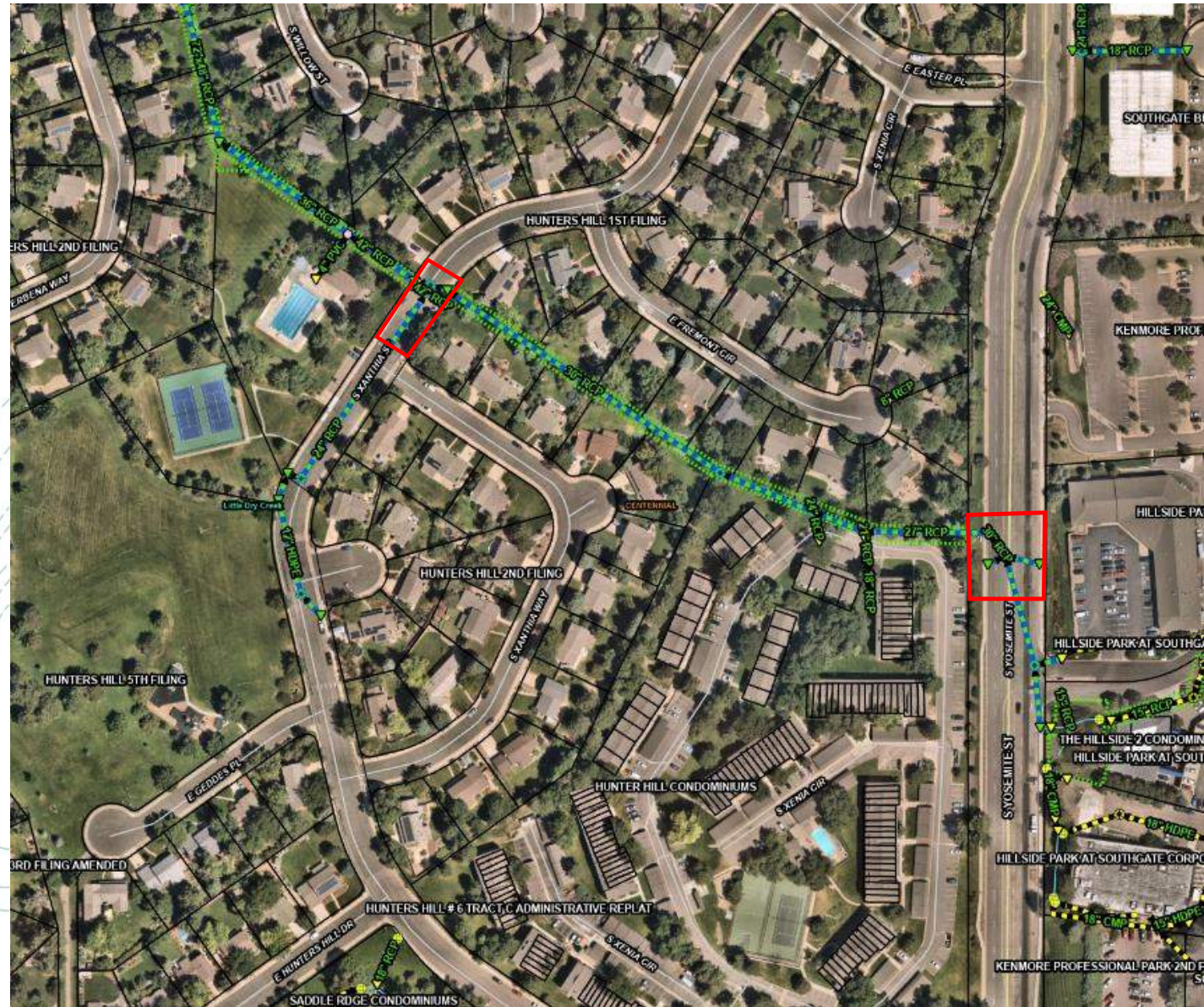




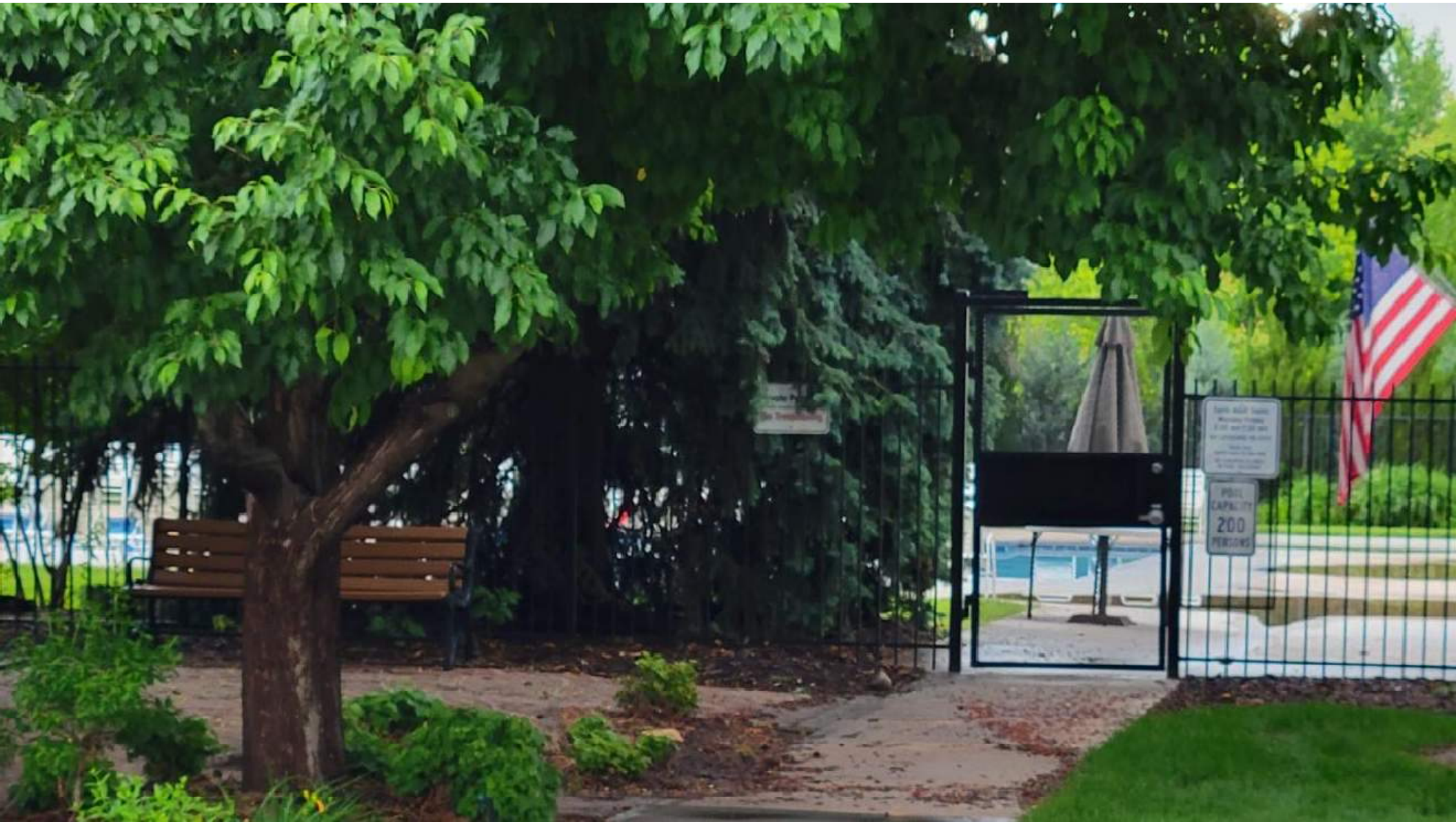


LITTLE DRY CREEK HUNTERS HILL TRIBUTARY STORM SEWER IMPROVEMENTS

- Additional Storm Sewer Inlets to Improve System Capacity

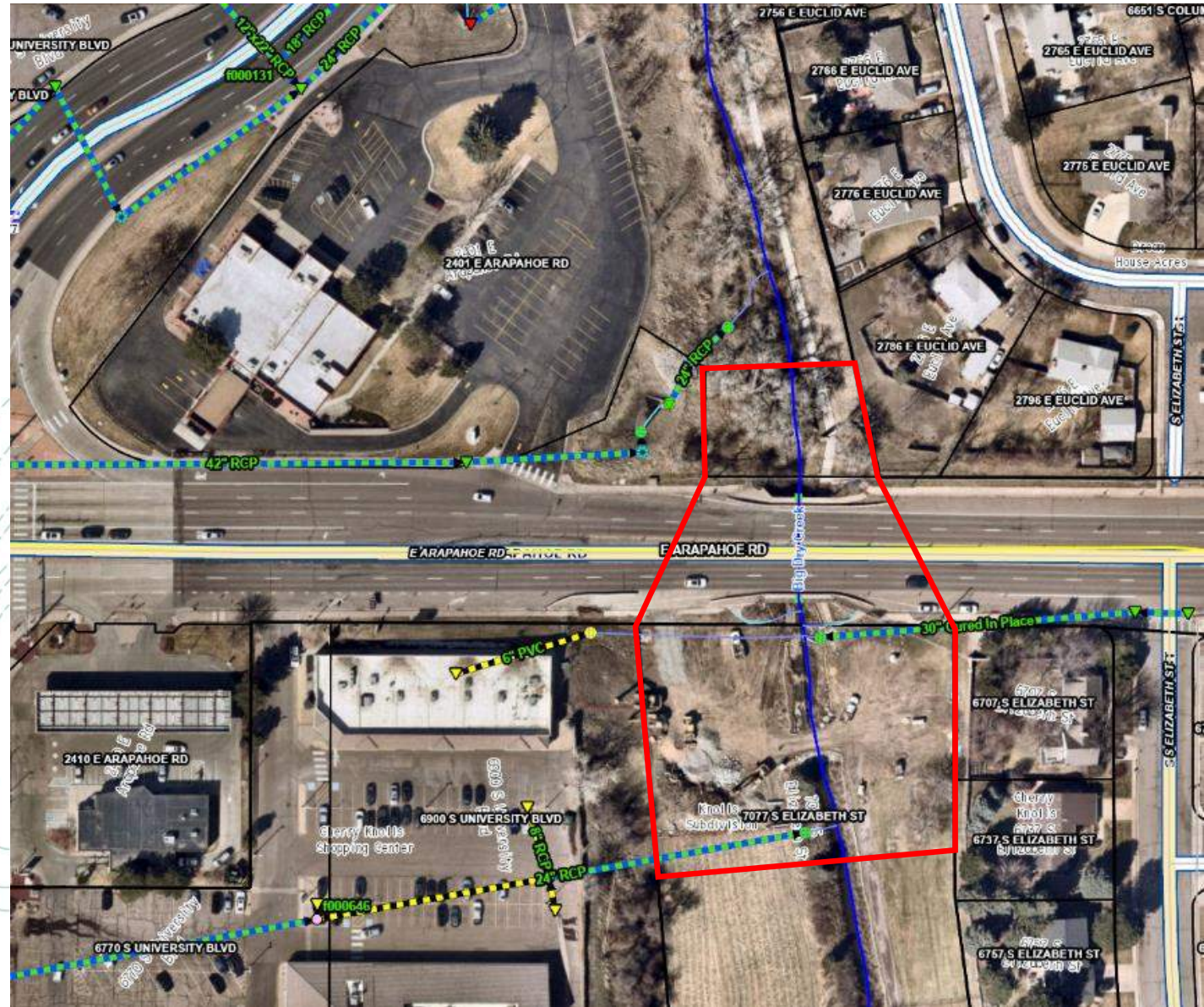






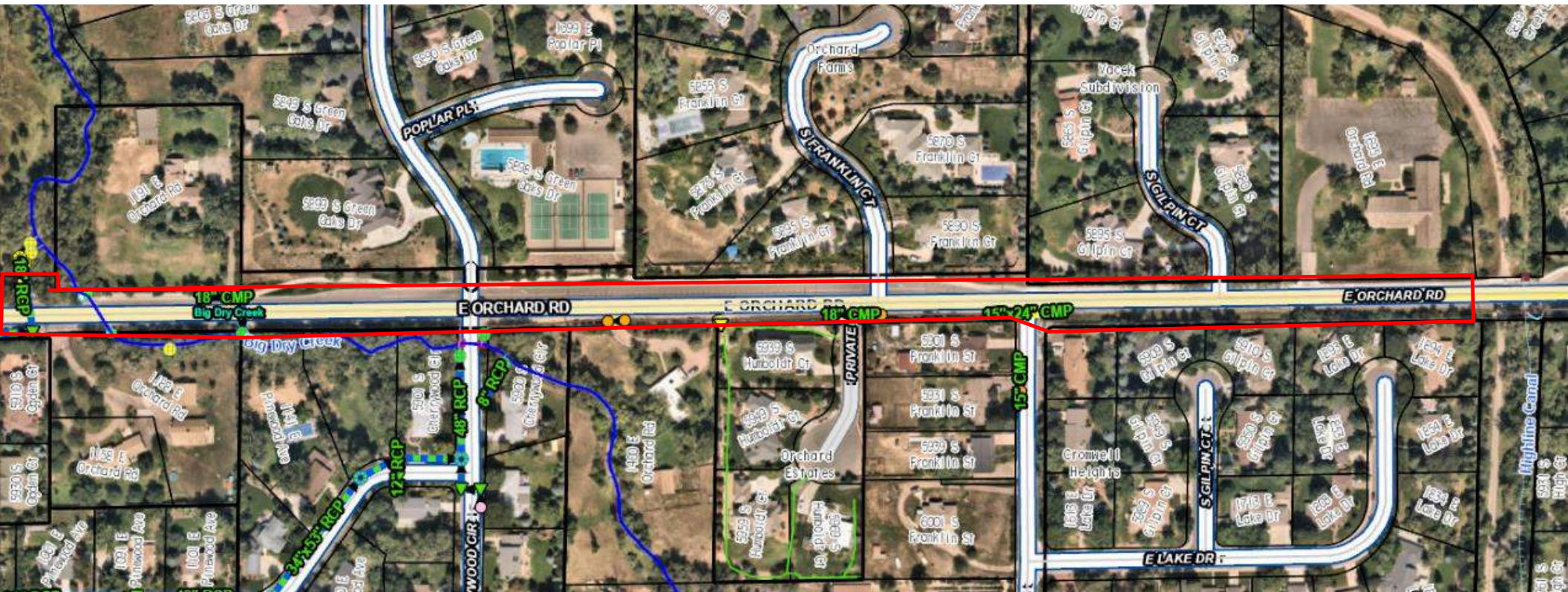
BIG DRY CREEK ARAPAHOE ROAD BRIDGE REPLACEMENT

- Channel Stabilization
- Boulder Drop Structure Replacement
- Improved Storm Sewer System
- Larger Bridge Opening to Convey Flood Flows
- In Partnership with City of Centennial









ORCHARD ROAD WIDENING

- Storm Sewer Improvements
- In Partnership with City of Centennial



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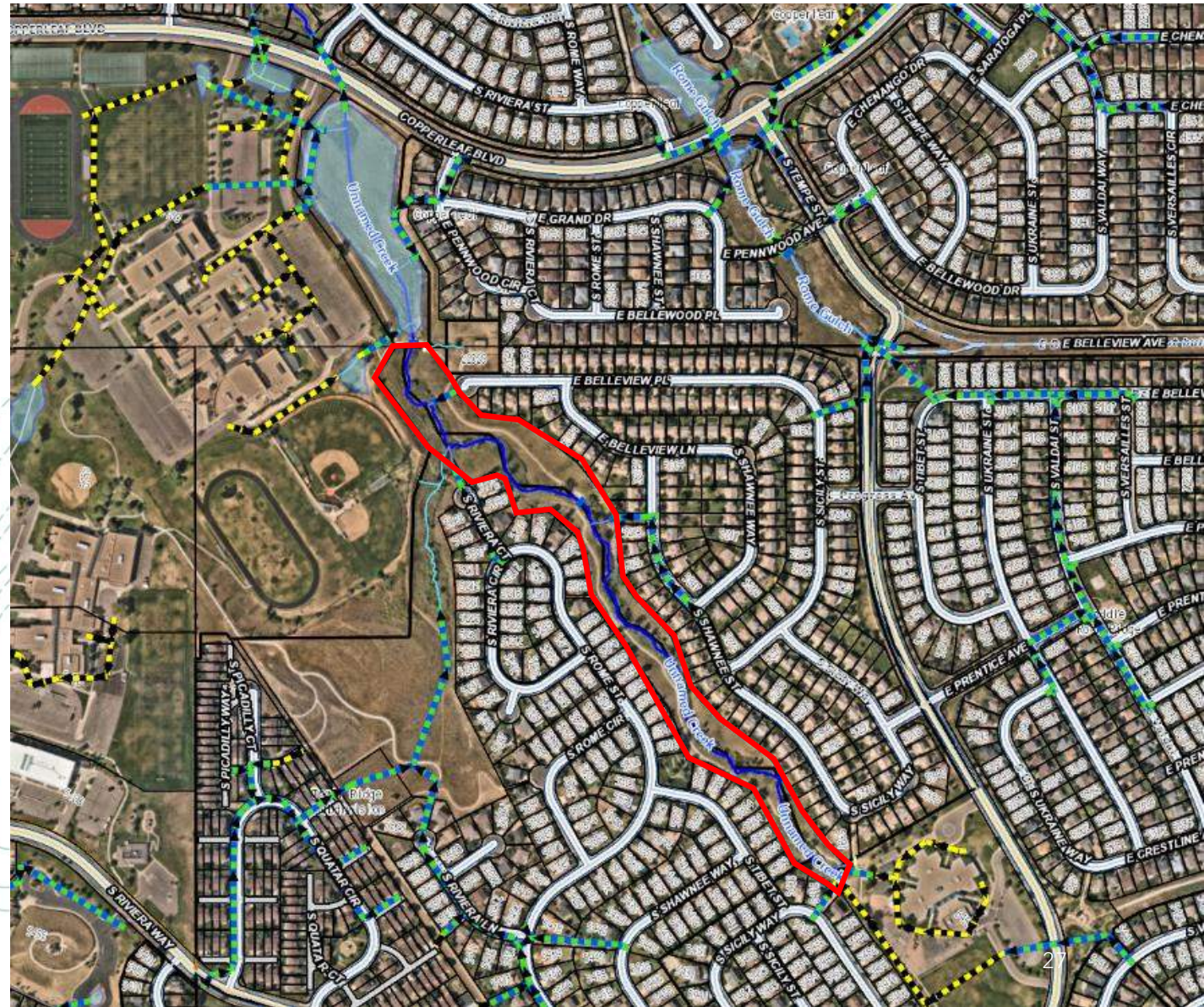
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UNNAMED CREEK REACH 9 CHANNEL IMPROVEMENTS

- Grade Control and Channel Improvements
- Improved Maintenance Path Alignment
- In partnership with MHFD









DESIGN PROJECTS

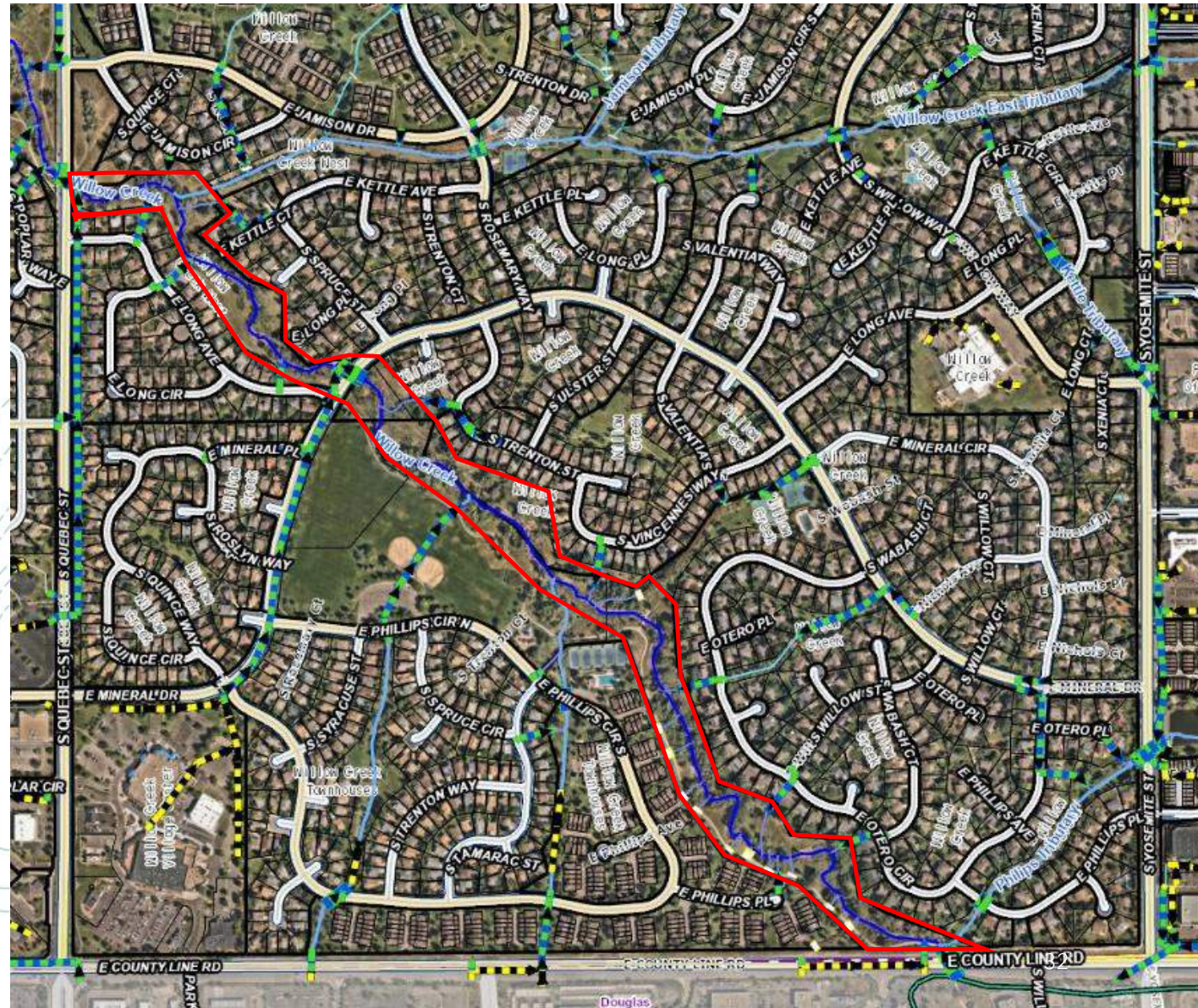
DESIGN PROJECTS

- Willow Creek County Line to Quebec Channel Improvements¹
- Piney Creek Reach 1 & 2 Parker Road to Confluence Channel Improvements²
- Cottonwood Creek Downstream of Briarwood Ave Channel and Pond Improvements=
- Piney Creek Reach 4 at Orchard Road Channel Improvements^{1,2}
- Lee Gulch at Clarkson Culvert and Channel Improvements
- Little Dry Creek Easter to Holly Dam Channel Improvements¹
- Dutch and Raccoon Creek to S. Platte Canyon Road Channel Improvements¹
- Happy Canyon Creek Jordan Rd to Broncos Pkwy Channel Improvements^{1,2}
- Cherry Creek Reaches 3 to 4 at Arapahoe Road Stream Reclamation^{1,2,4}
- West Spring Creek Downstream of Phillips Ave Channel Improvements⁵

Project partnerships with MHFD¹, CCBWQA², City of Centennial³, City of Aurora⁴, SSPRD⁵

WILLOW CREEK QUEBEC TO COUNTY LINE

- Channel Stabilization and Grade Control
- In Partnership with MHFD

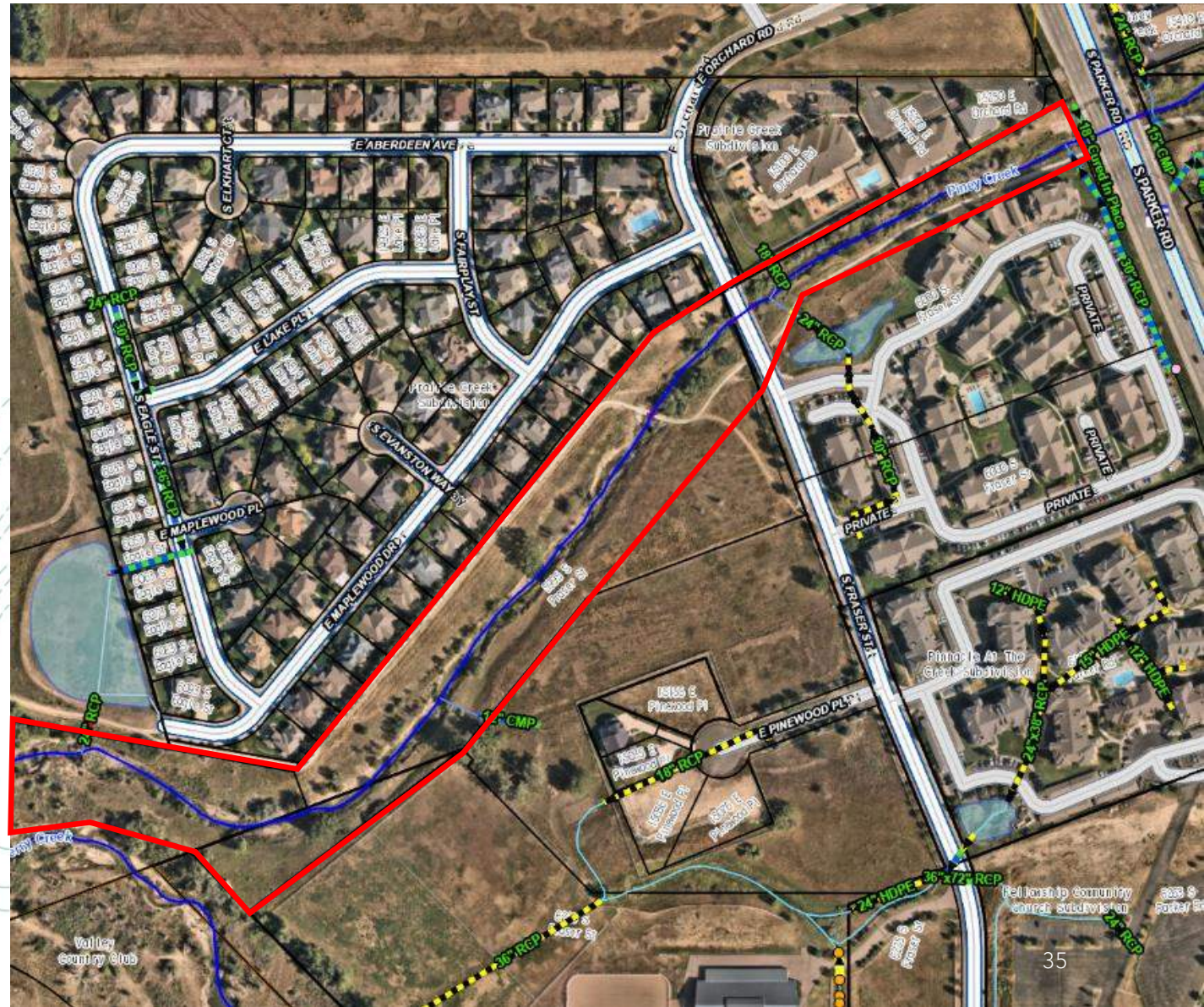






PINEY CREEK REACH 1&2 PARKER ROAD TO CHERRY CREEK CONFLUENCE

- Channel Stabilization and Grade Control
- Exposed Utility Crossing
- In Partnership with CCBWQA

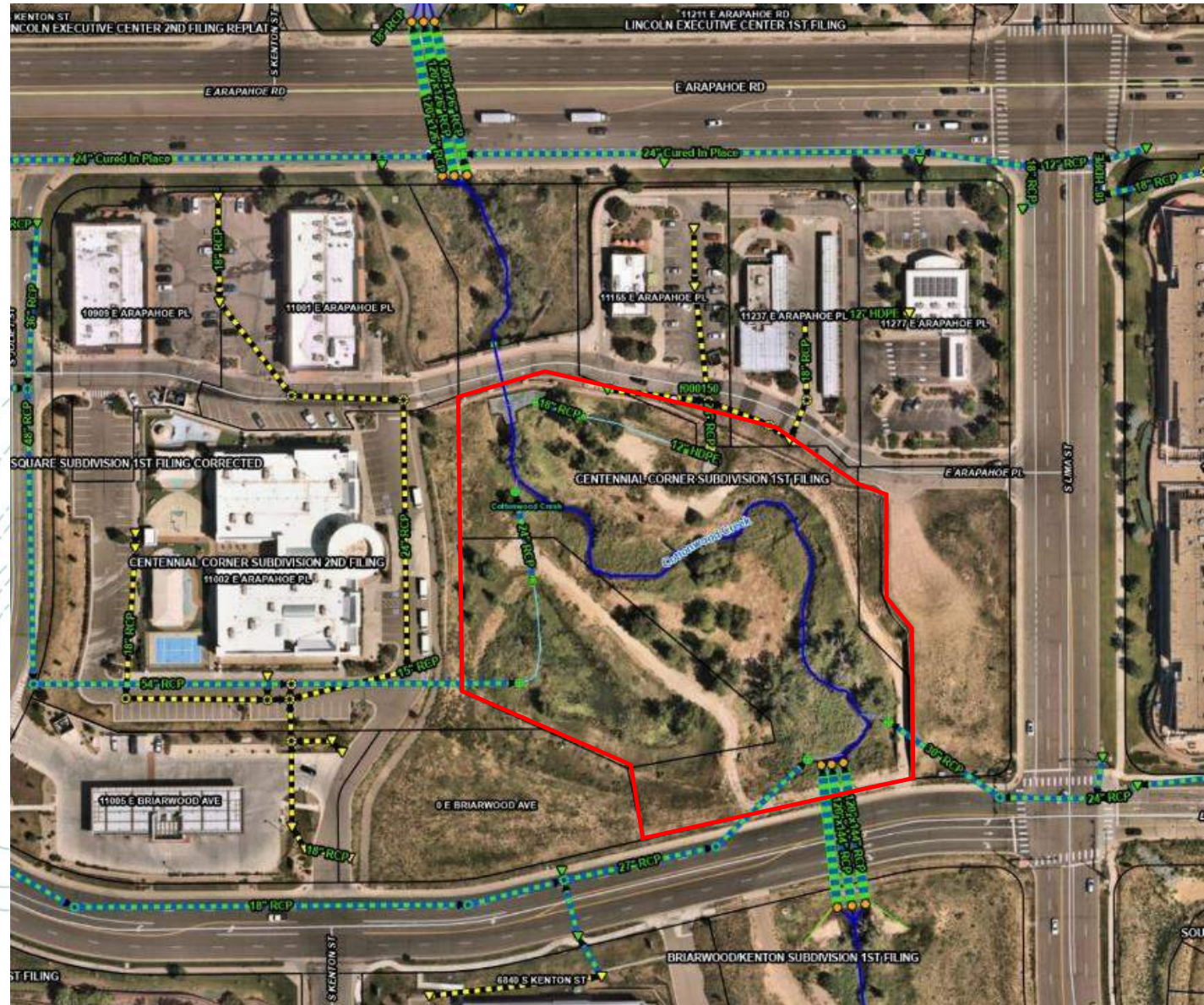






COTTONWOOD CREEK DOWNSTREAM OF BRIARWOOD AVENUE CHANNEL AND POND IMPROVEMENTS

- Channel Stabilization and Grade Control
- Retrofit Development Ponds







PINEY CREEK REACH 4 AT ORCHARD CHANNEL IMPROVEMENTS

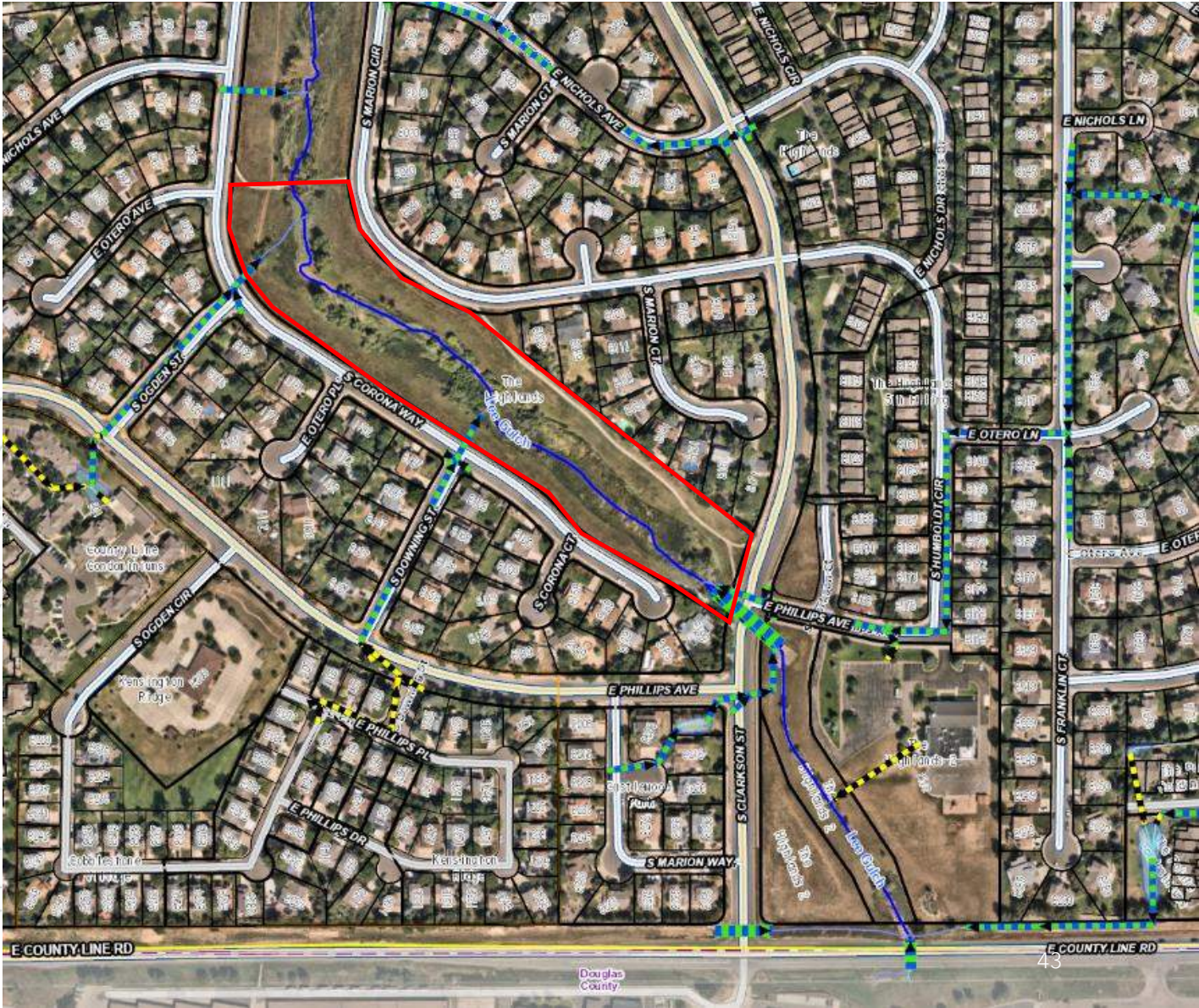
- Channel Stabilization and Grade Control
- In Partnership with MHFD and CCBWQA





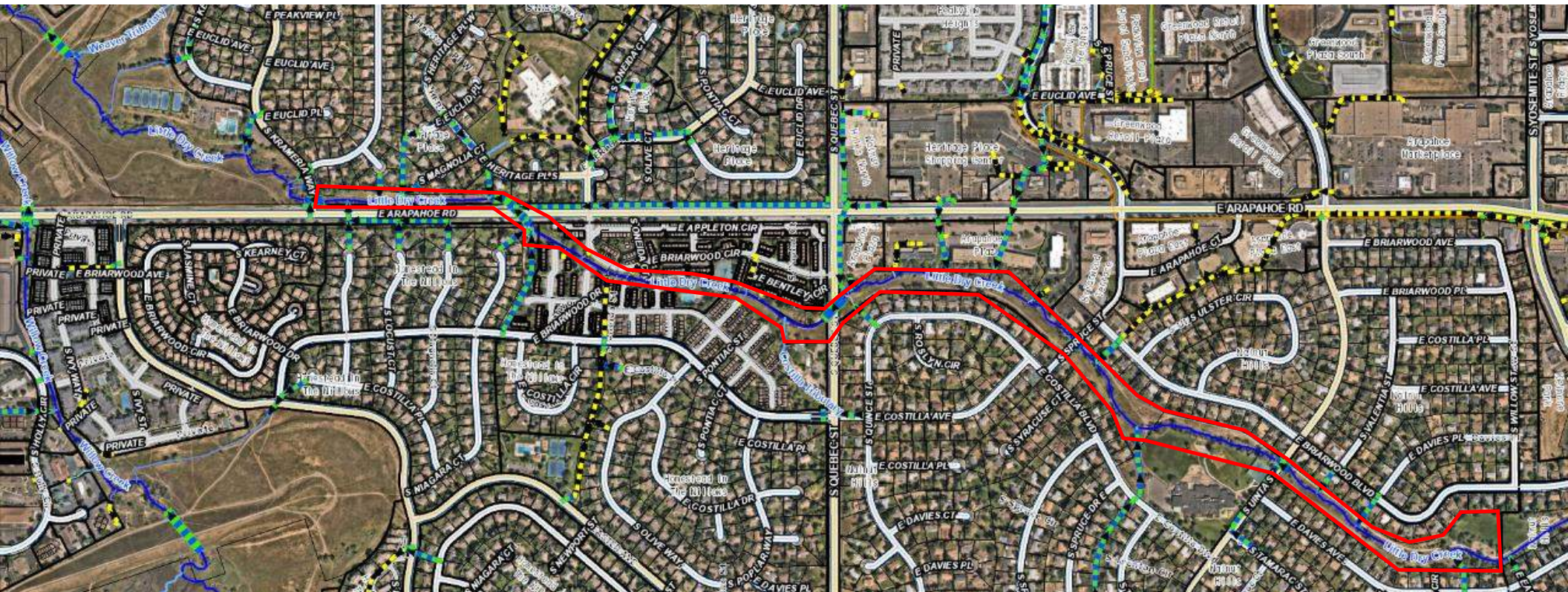
LEE GULCH AT CLARKSON

- Channel Improvements to Restore Flood Conveyance Capacity
- Restore Culvert Capacity







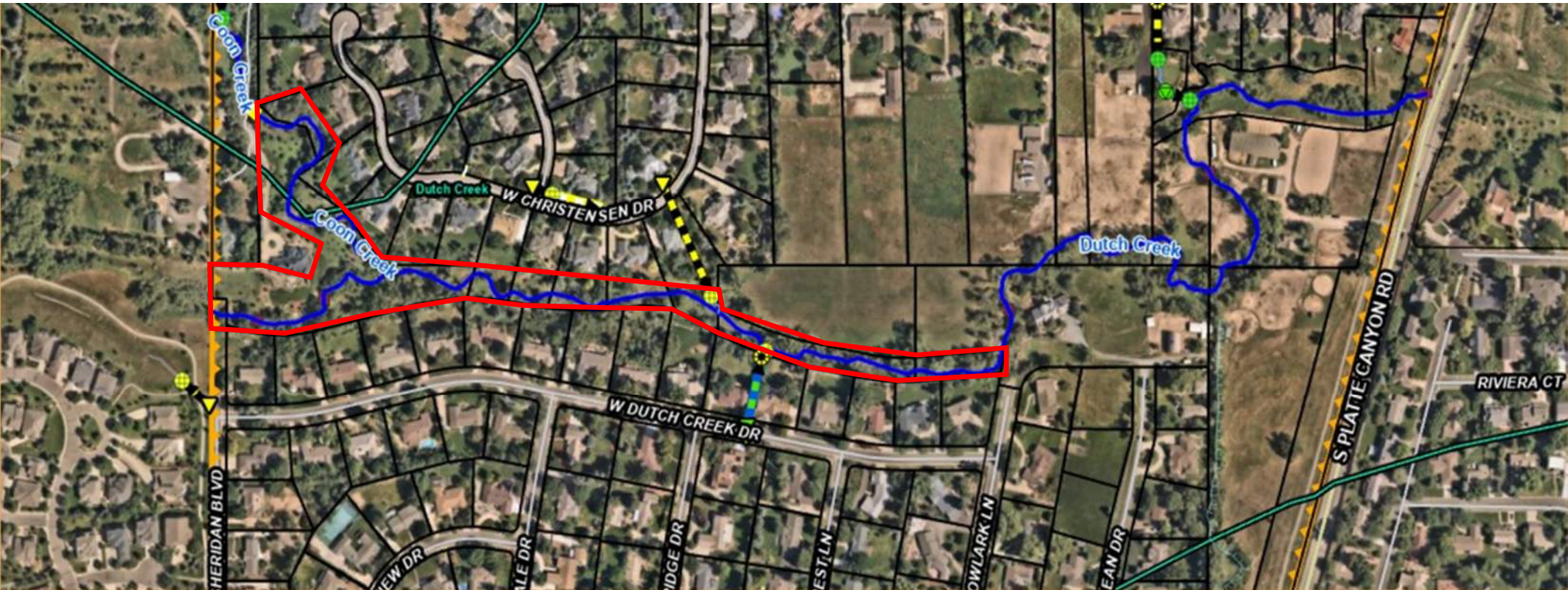


LITTLE DRY CREEK EASTER TO HOLLY DAM

- Channel Stabilization, Grade Control needed for exposed sanitary sewer manholes
- In Partnership with MHFD







DUTCH AND RACCOON CREEK TO S. PLATTE CANYON ROAD CHANNEL IMPROVEMENTS

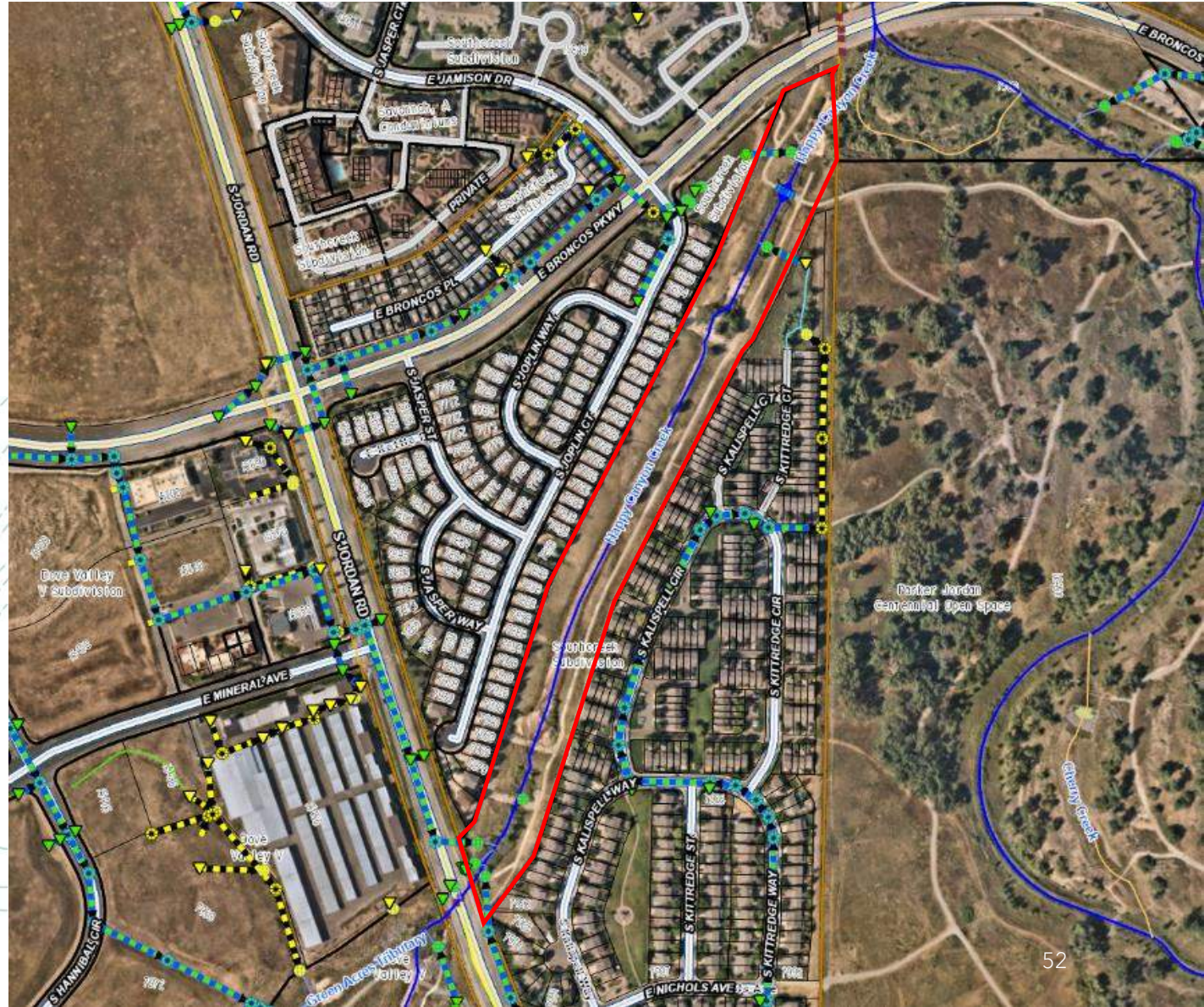
- Channel Stabilization and Grade Control
- In Partnership with MHFD





HAPPY CANYON CREEK

- Channel Stabilization and Grade Control
- Proposed Permanent Sediment Catchment Facility
- In partnership with MHFD and CCBWQA









CHERRY CREEK REACHES 3 TO 4 AT ARAPAHOE ROAD STREAM RECLAMATION

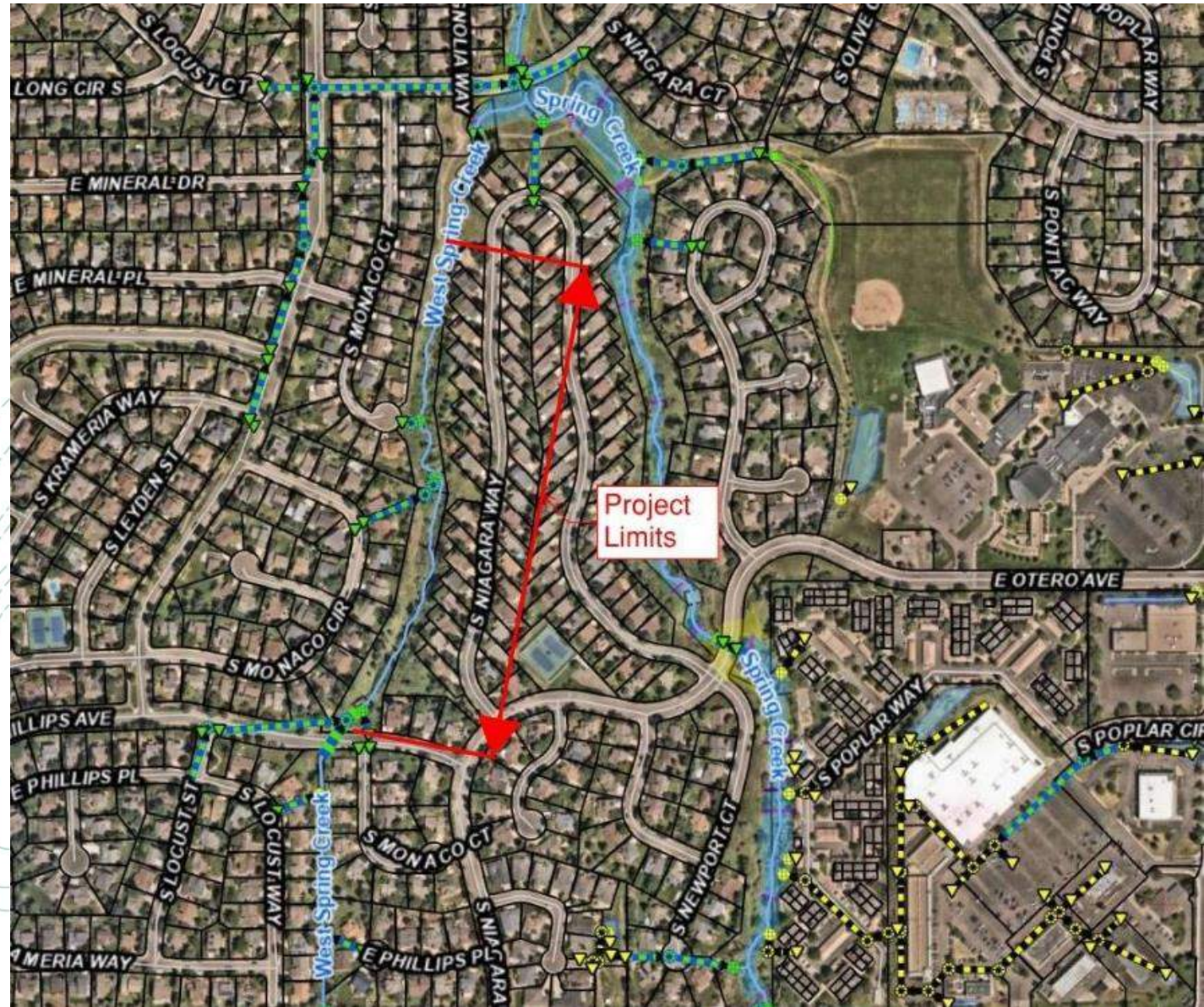
- Channel Reclamation
- In Partnership with MHFD & CCBWQA





WEST SPRING CREEK DOWNSTREAM OF PHILLIPS AVENUE CHANNEL IMPROVEMENTS

- Channel Stabilization and Grade Control
- Replace Timber Retaining Walls
- In Partnership with SSPRD





THANK YOU

