

Rescue Plan Act Funding Recommendations

April 4, 2022



UNIONCOUNTY
north carolina

Board Action

A. COVID-19 Mitigation

10% Allocation; \$4.65M

Fund COVID-19 mitigation efforts, medical expenses, behavioral healthcare, and certain public health and safety staff.

B. Strategic Investments in County Services

70% Allocation; \$32.55M

Invest to improve access to clean drinking water, support vital wastewater and stormwater infrastructure.

C. Community and Economic Support

10% Allocation; \$4.65M

Address negative economic and supply chain impacts to workers, families, small businesses, impacted industries, and County programs (library, park/recreation, food hub)

D. Administration

5% Allocation; \$2.325M

Manage and coordinate use of funds to ensure transparency and public accountability while maintaining a robust documentation and compliance methodology.

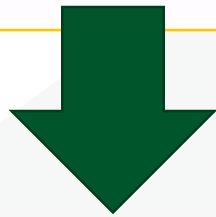
E. Hold-Back

5% Allocation; \$2.325M

Set aside as a contingency/reserve fund to provide flexibility over the period the funds are available to most appropriately respond to the changing regulatory, economic and public health environment brought on by the pandemic.

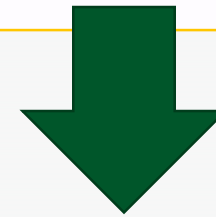
Procurement Challenges

ARPA Money needs to be Spent by December 2026



Expedited Delivery

Volatile Construction Market and Price Uncertainty



Flexible Work Packages and Contracts to Maximize \$32.5M Available

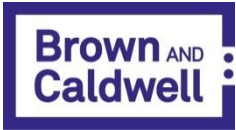
Next Steps

- Brown and Caldwell will provide recommendations tonight
- Action requested on these recommendations at next week's Budget Workshop
- April 18 BOCC Meeting
 - Additional ARPA requests from other areas
 - Request regarding Broadband

Questions



UNIONCOUNTY
north carolina



Union County

Board of County Commissioners

Water System Expansion Projects for ARPA Funding

April 4, 2022



Purpose

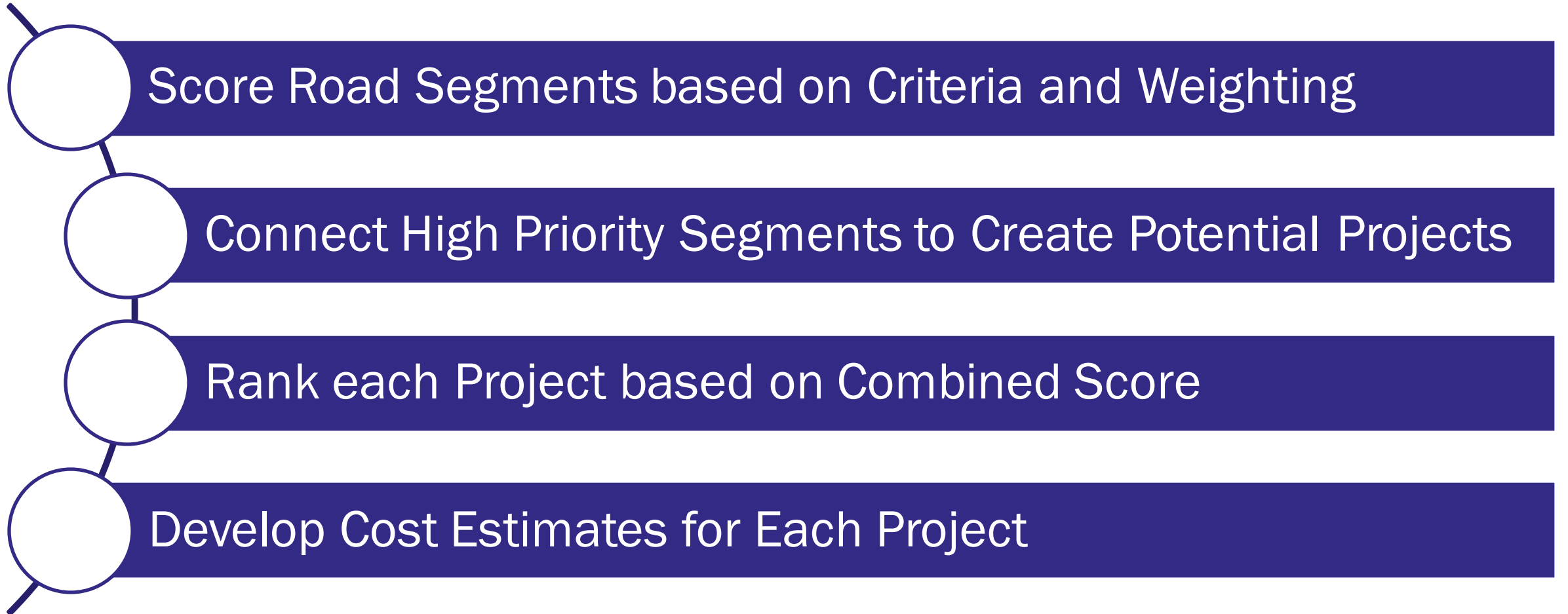
Present recommendations for water system expansion projects for \$32.5M ARPA funding

Agenda

- Approach to Project Identification and Selection
- Potential Projects and Costs
- Recommendations

Approach to Project Identification and Selection

Approach to Project Identification and Selection



Route Weighting Criteria

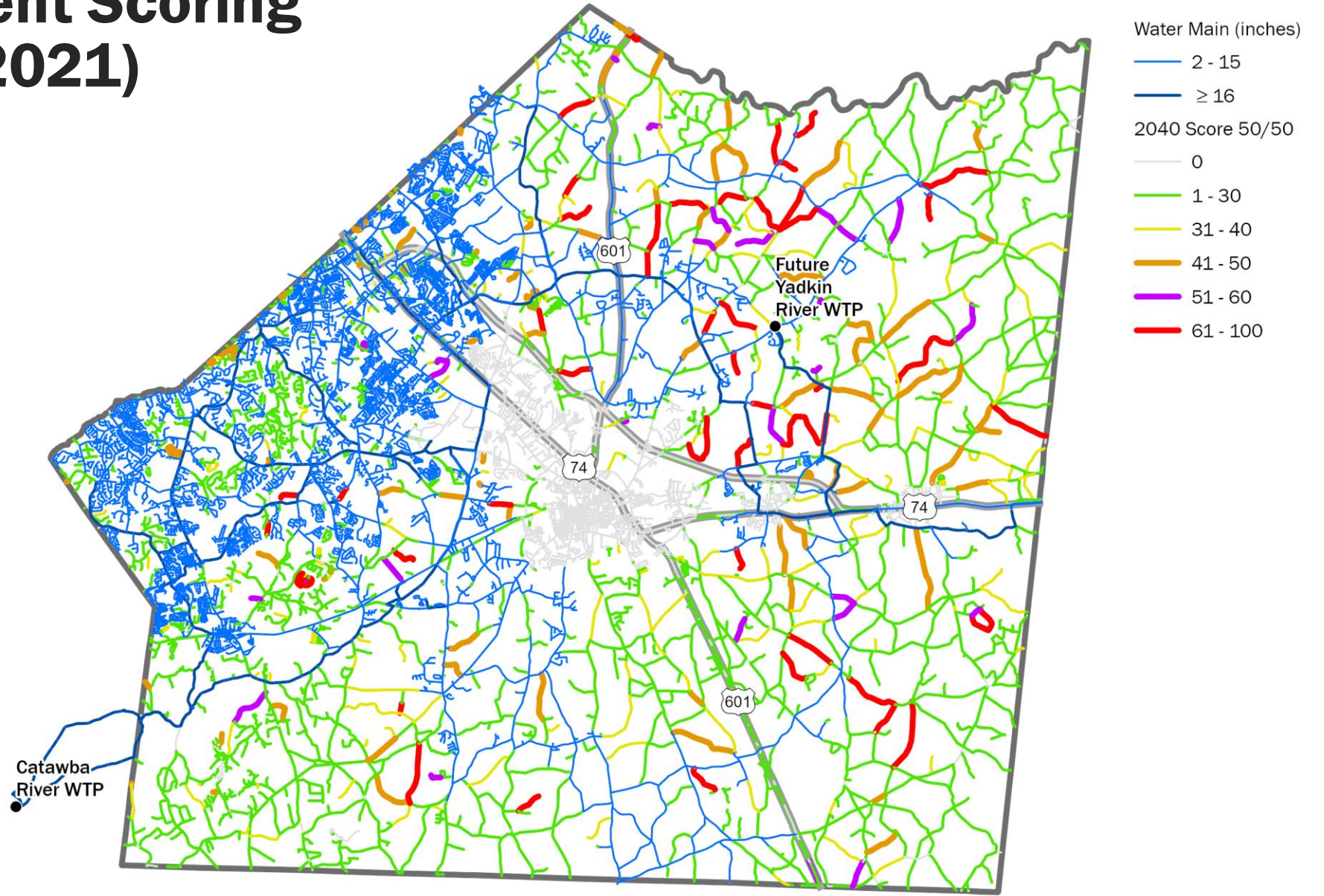
Originally Presented at Nov 12, 2021 BOCC Meeting

Criteria	Weighting
2040 Population	50%
Well Water Quality <ul style="list-style-type: none">• Arsenic• Manganese	50%

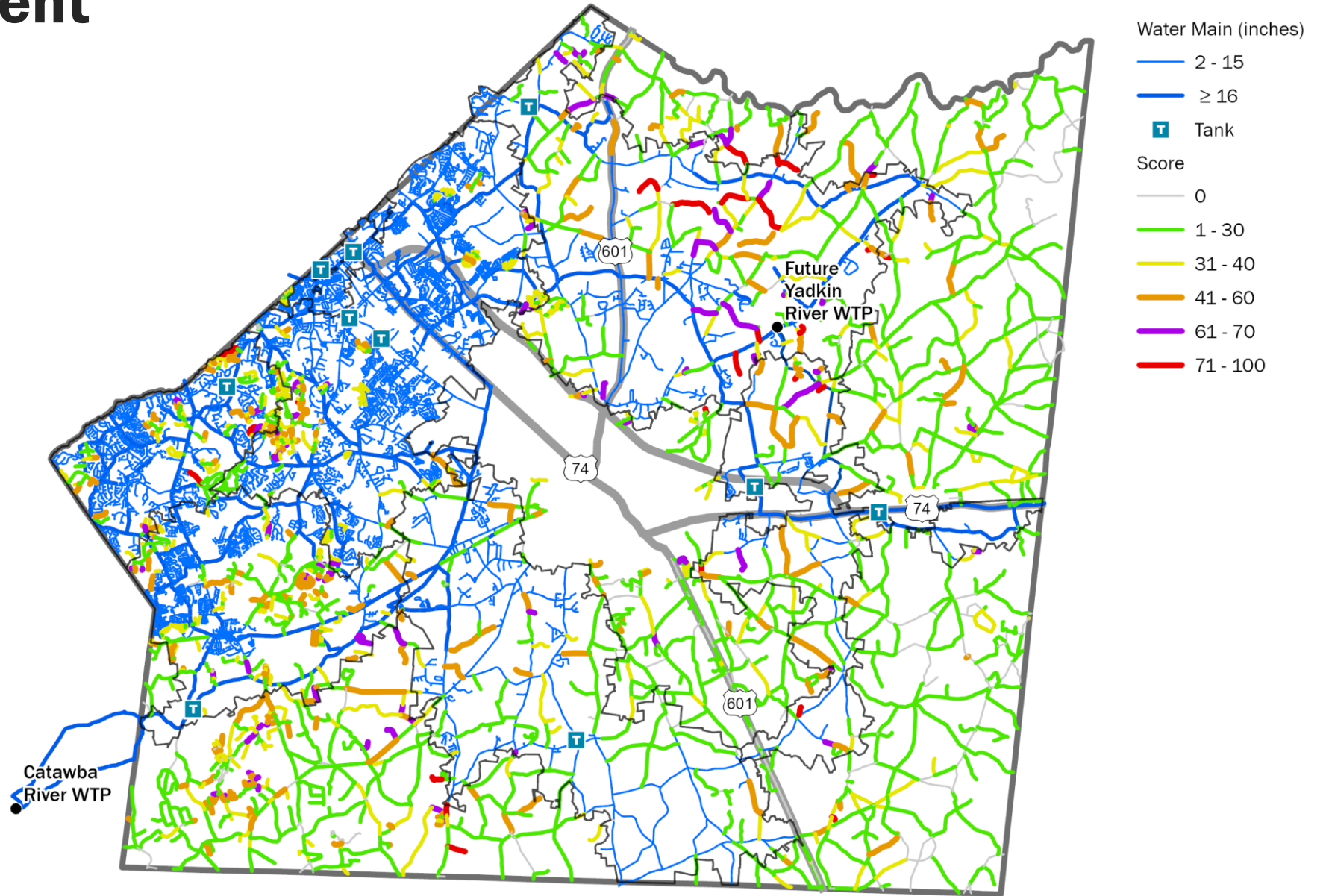
Updated based on BOCC and Staff Feedback

Criteria	Weighting
2040 Population	10%
2020 Population	30%
Well Water Quality/Quantity <ul style="list-style-type: none">• Arsenic• Manganese• Nitrate• Low Yield Wells	30%
• Short Line Program Applicants	30%

Original Segment Scoring Map (Nov 12, 2021)

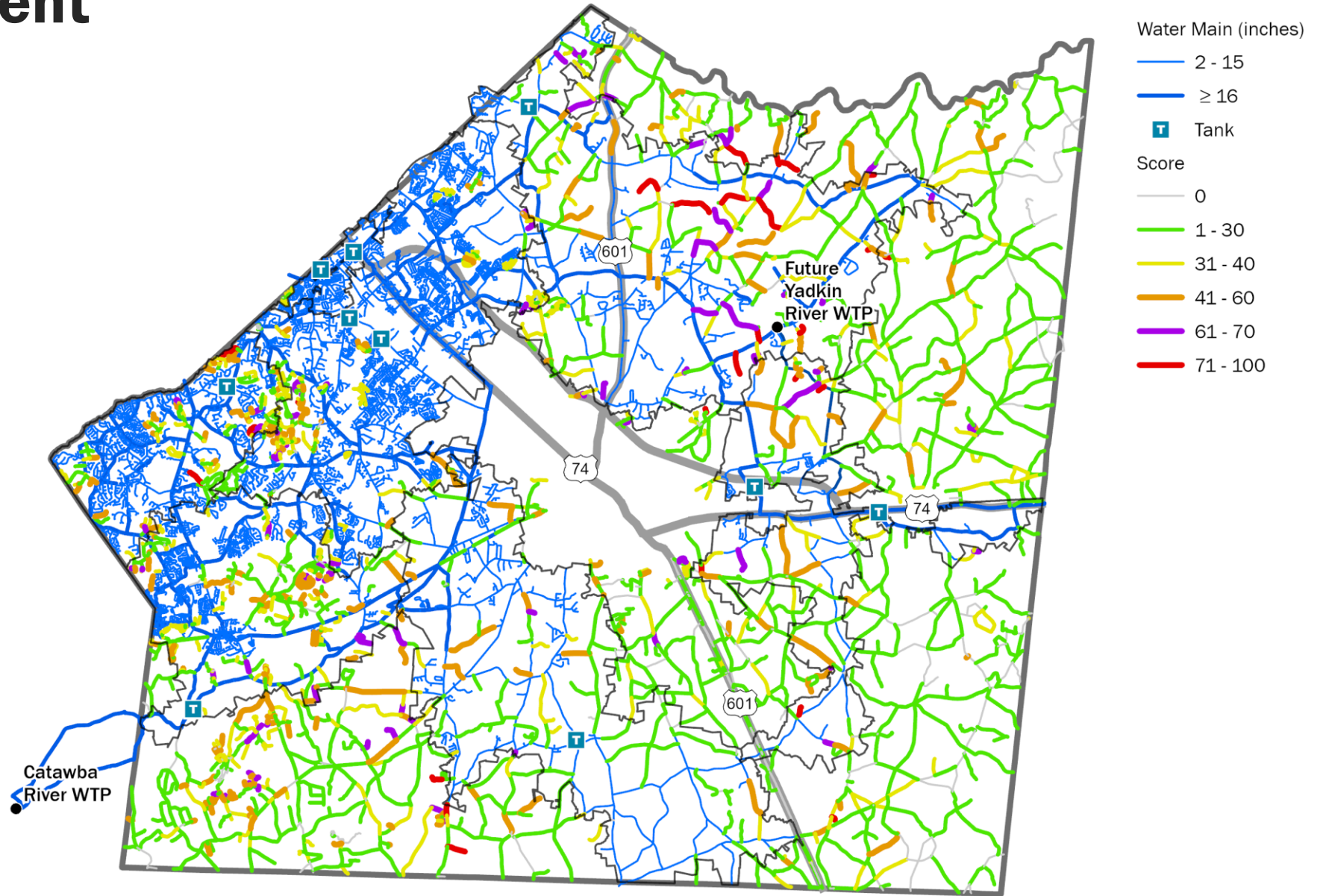


Updated Segment Scoring Map

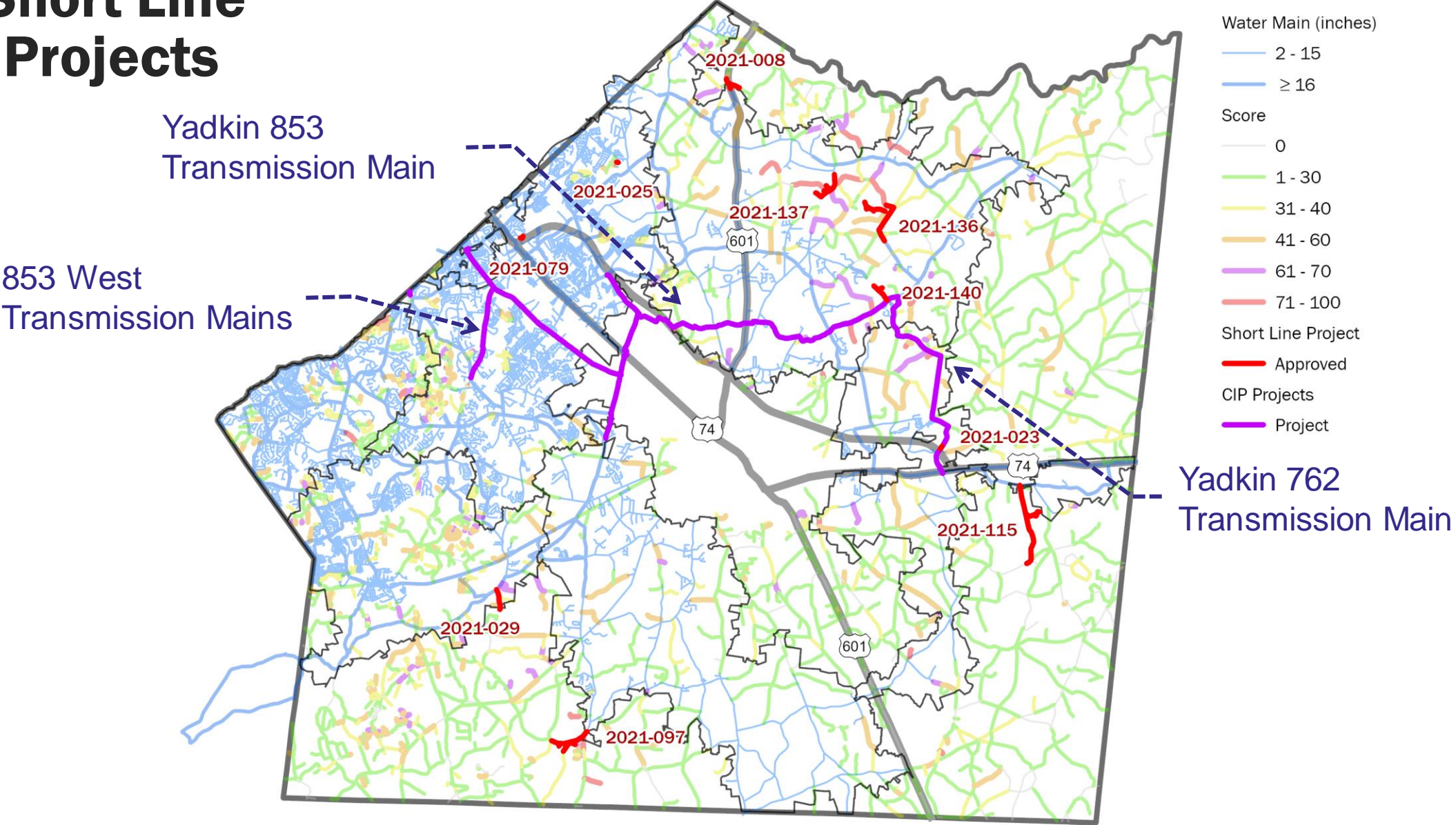


Potential Projects

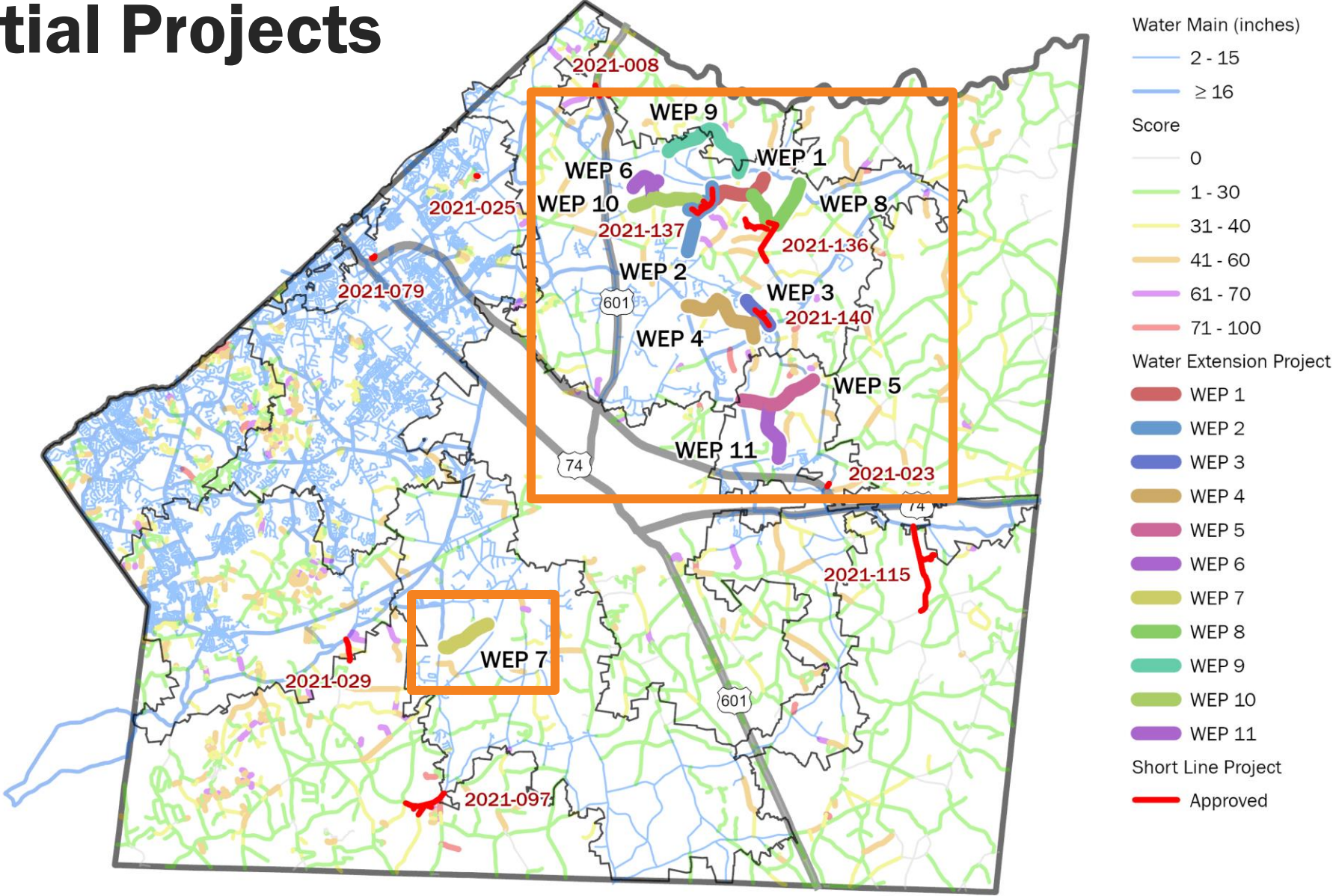
Updated Segment Scoring Map



Map of Short Line and CIP Projects



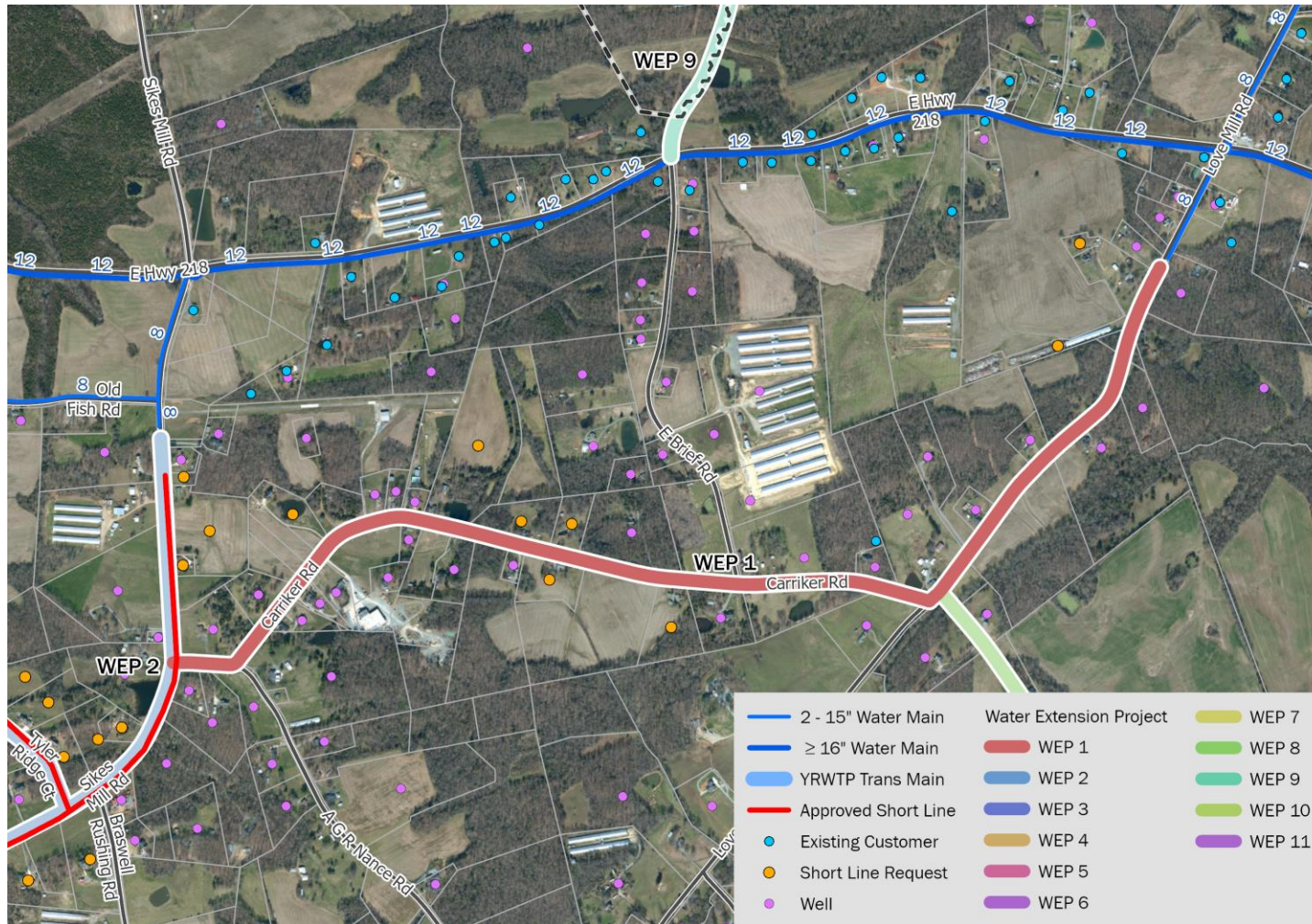
Map of Potential Projects



Pricing Assumptions

- New watermains are 12 inches (to be refined during design)
- Preliminary total project cost estimates include:
 - Construction
 - Construction Contingency
 - Easement Acquisition
 - Engineering
 - Construction Management
 - Escalation to Mid-Point of Construction
- Hydraulic considerations for sizing
 - Meeting pressure requirements
 - Fire flow
 - Proximity / Multiple interconnections to existing system

Water Expansion Project 1



Project Details:

- 2.00 miles
- 33 potential accounts (2021)
- 13 additional potential accounts (2040)
- 8 Short Line applicants
- 47 adjacent parcels
- 17 meters/mi @ 100% participation
- 6 meters/mi @ 33% participation
- Composite score = 67
- \$5.2M - \$5.8M

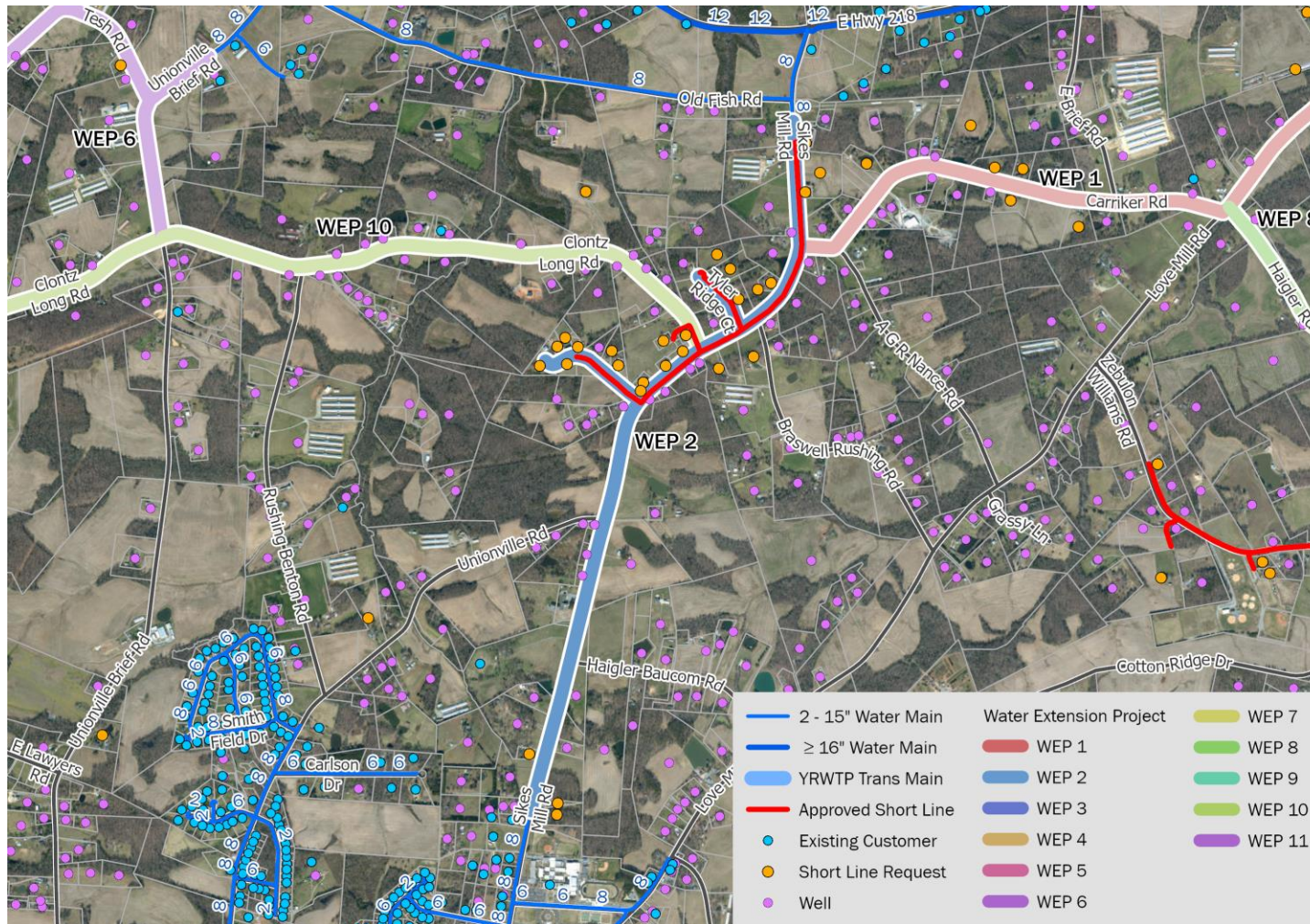
Cost per potential 2021 account:

- \$158k - \$176k @ 100% participation
- \$478k - \$533k @ 33% participation

Interdependencies:

- Must build WEP 2 before WEP 1

Water Expansion Project 2 (replaces 2021-137)



Project Details:

- 2.76 miles
- 49 potential accounts (2021)
- 29 additional potential accounts (2040)
- 20 Short Line applicants
- 54 adjacent parcels
- 20 meters/mi @ 100% participation
- 7 meters/mi @ 33% participation
- Composite score = 63
- \$6.8M - \$7.6M

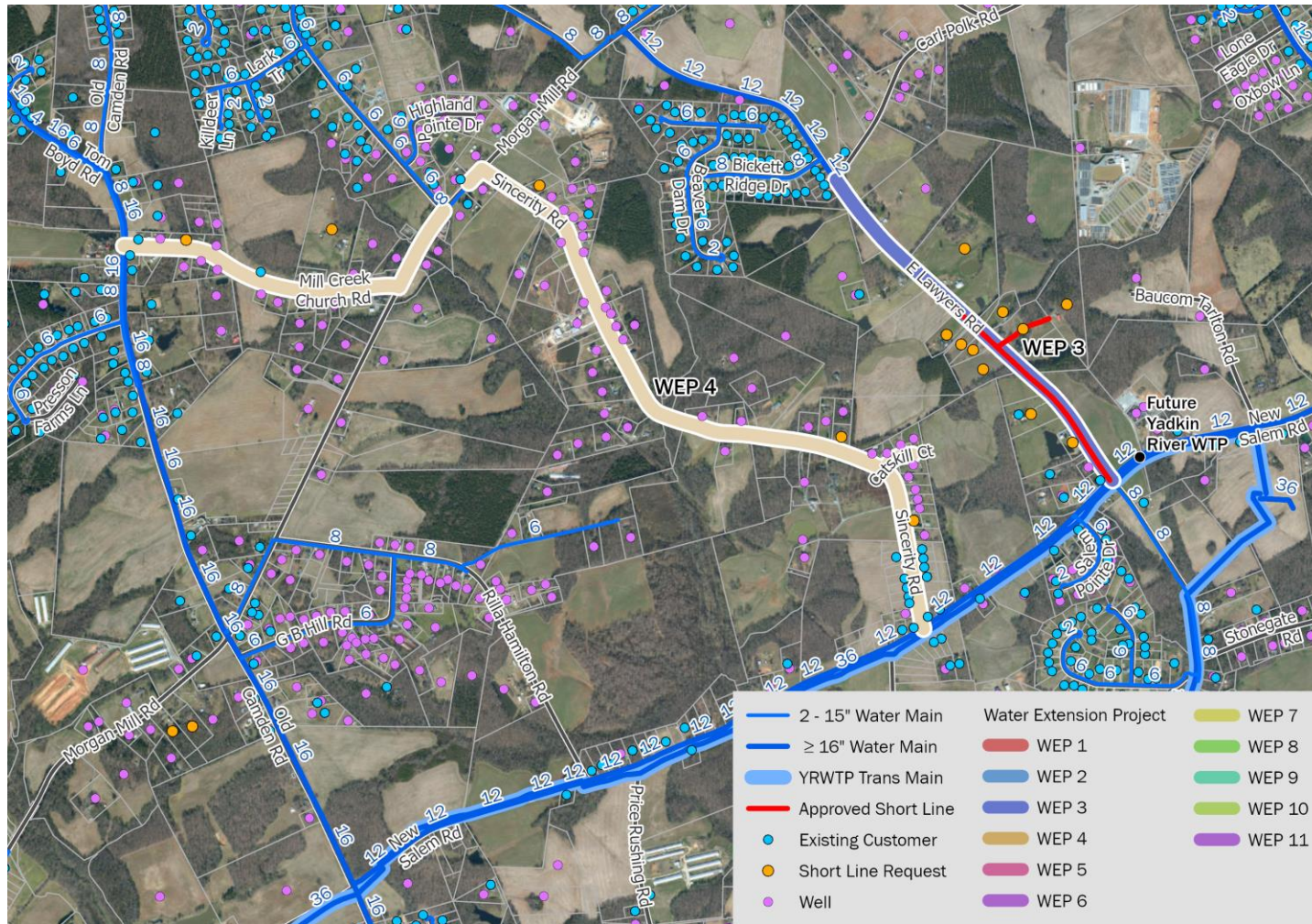
Cost per potential 2021 account:

- \$139k - \$155k @ 100% participation
- \$421k - \$470k @ 33% participation

Interdependencies:

- None

Water Expansion Project 3 (replaces 2021-140)



Project Details:

- 1.05 miles
- 12 potential accounts (2021)
- 7 additional potential accounts (2040)
- 10 Short Line applicants
- 28 adjacent parcels
- 11 meters/mi @ 100% participation
- 4 meters/mi @ 33% participation
- Composite score = 63
- \$2.7M - \$3.1M

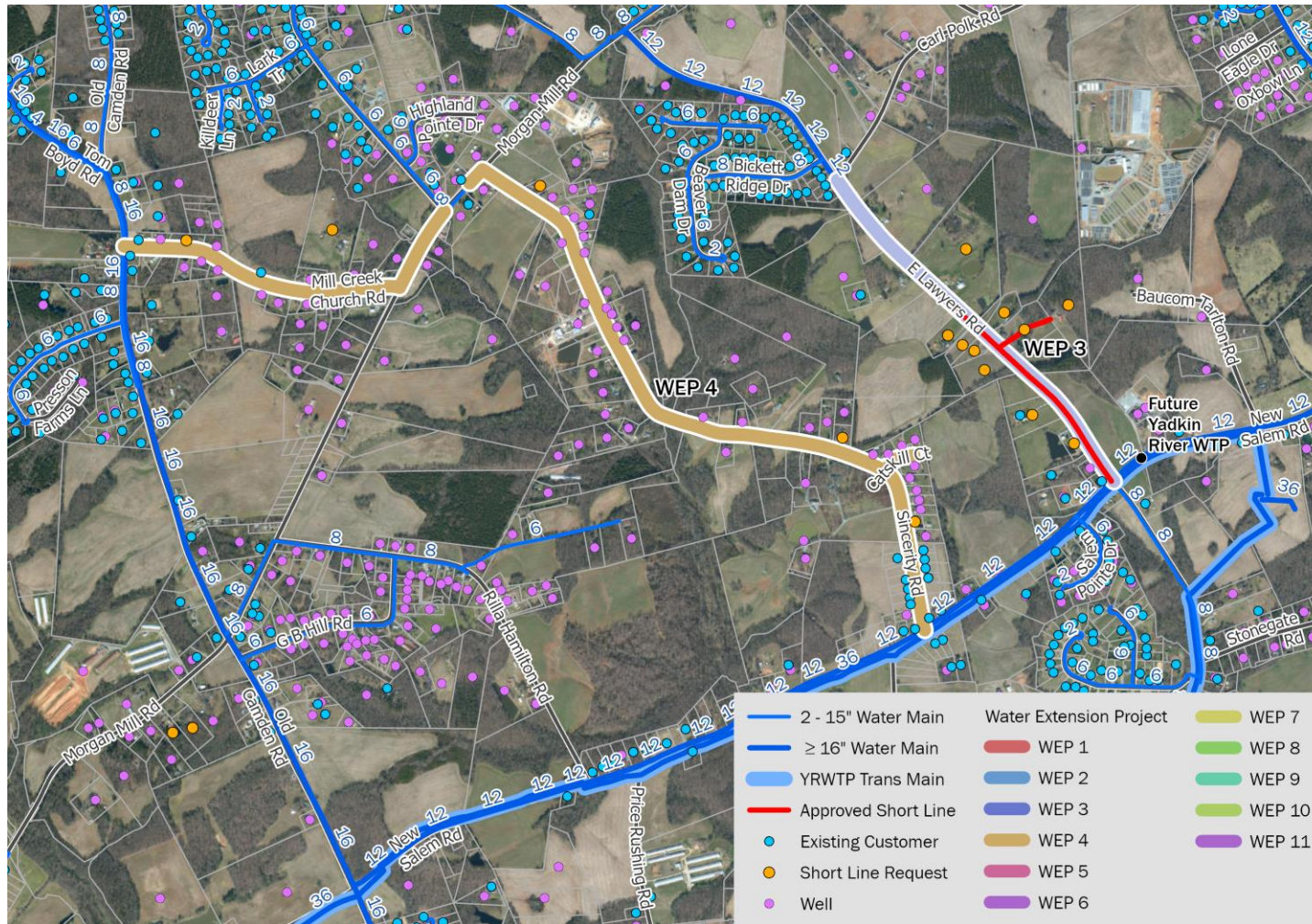
Cost per potential 2021 account:

- \$225k - \$258k @ 100% participation
- \$682k - \$783k @ 33% participation

Interdependencies:

- None

Water Expansion Project 4



Project Details:

- 2.91 miles
- 81 potential accounts (2021)
- 44 additional potential accounts (2040)
- 5 Short Line applicants
- 112 adjacent parcels
- 29 meters/mi @ 100% participation
- 10 meters/mi @ 33% participation
- Composite score = 62
- \$8.3M - \$9.2M

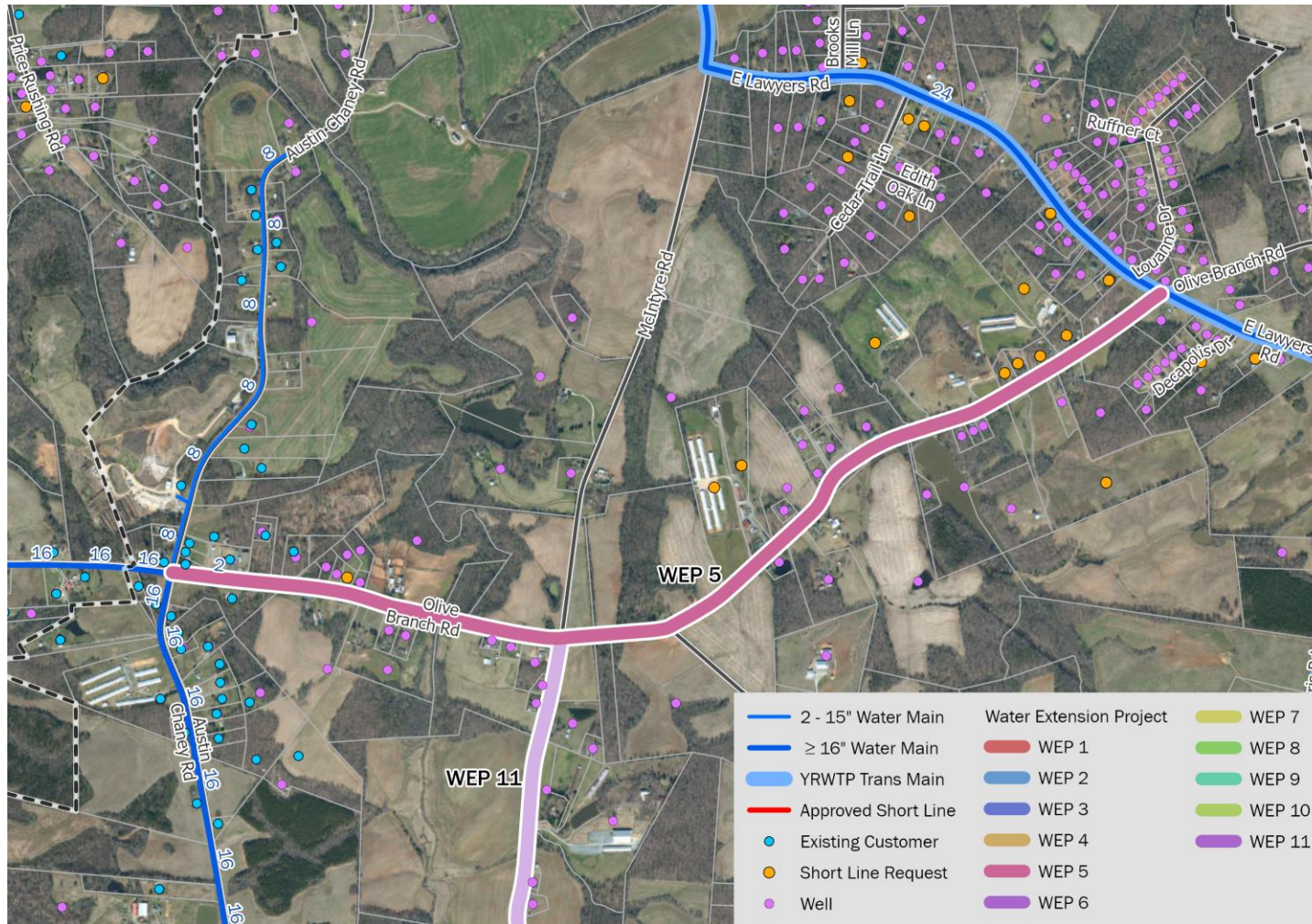
Cost per potential 2021 account:

- \$102k - \$114k @ 100% participation
- \$311k - \$344k @ 33% participation

Interdependencies:

- None

Water Expansion Project 5



Project Details:

- 2.45 miles
- 38 potential accounts (2021)
- 104 additional potential accounts (2040)
- 10 Short Line applicants
- 54 adjacent parcels
- 16 meters/mi @ 100% participation
- 5 meters/mi @ 33% participation
- Composite score = 58
- \$6.5M - \$7.2M

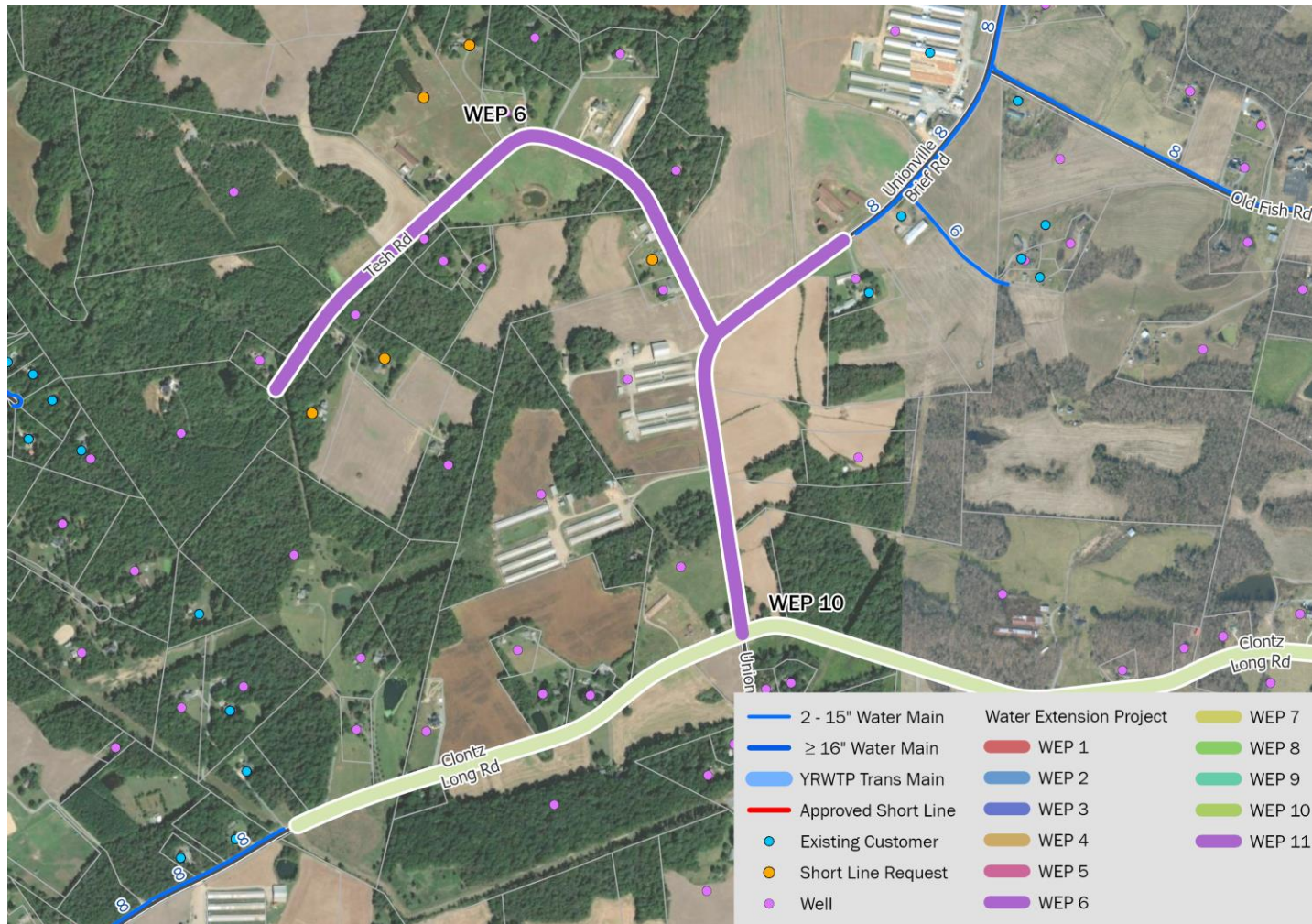
Cost per potential 2021 account:

- \$171k - \$189k @ 100% participation
- \$518k - \$574k @ 33% participation

Interdependencies:

- None

Water Expansion Project 6



Project Details:

- 1.47 miles
- 22 potential accounts (2021)
- 12 additional potential accounts (2040)
- 5 Short Line applicants
- 28 adjacent parcels
- 15 meters/mi @ 100% participation
- 5 meters/mi @ 33% participation
- Composite score = 57
- \$3.8M - \$4.3M

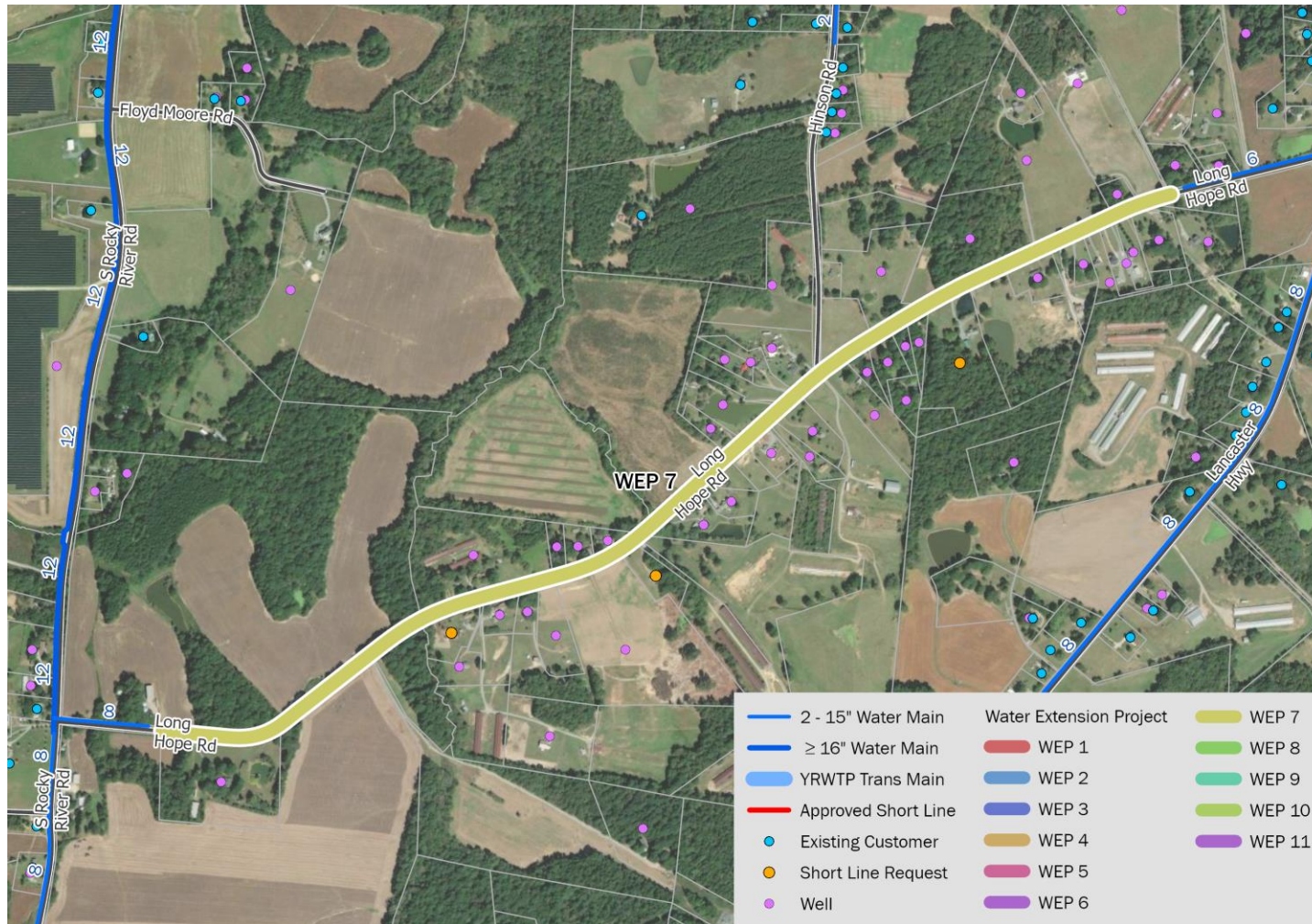
Cost per potential 2021 account:

- \$173k - \$195k @ 100% participation
- \$523k - \$592k @ 33% participation

Interdependencies:

- Must build WEP 2&WEP 10 before WEP 6

Water Expansion Project 7



Project Details:

- 1.54 miles
- 43 potential accounts (2021)
- 32 additional potential accounts (2040)
- 3 Short Line applicants
- 54 adjacent parcels
- 28 meters/mi @ 100% participation
- 9 meters/mi @ 33% participation
- Composite score = 55
- \$4.0M - \$4.5M

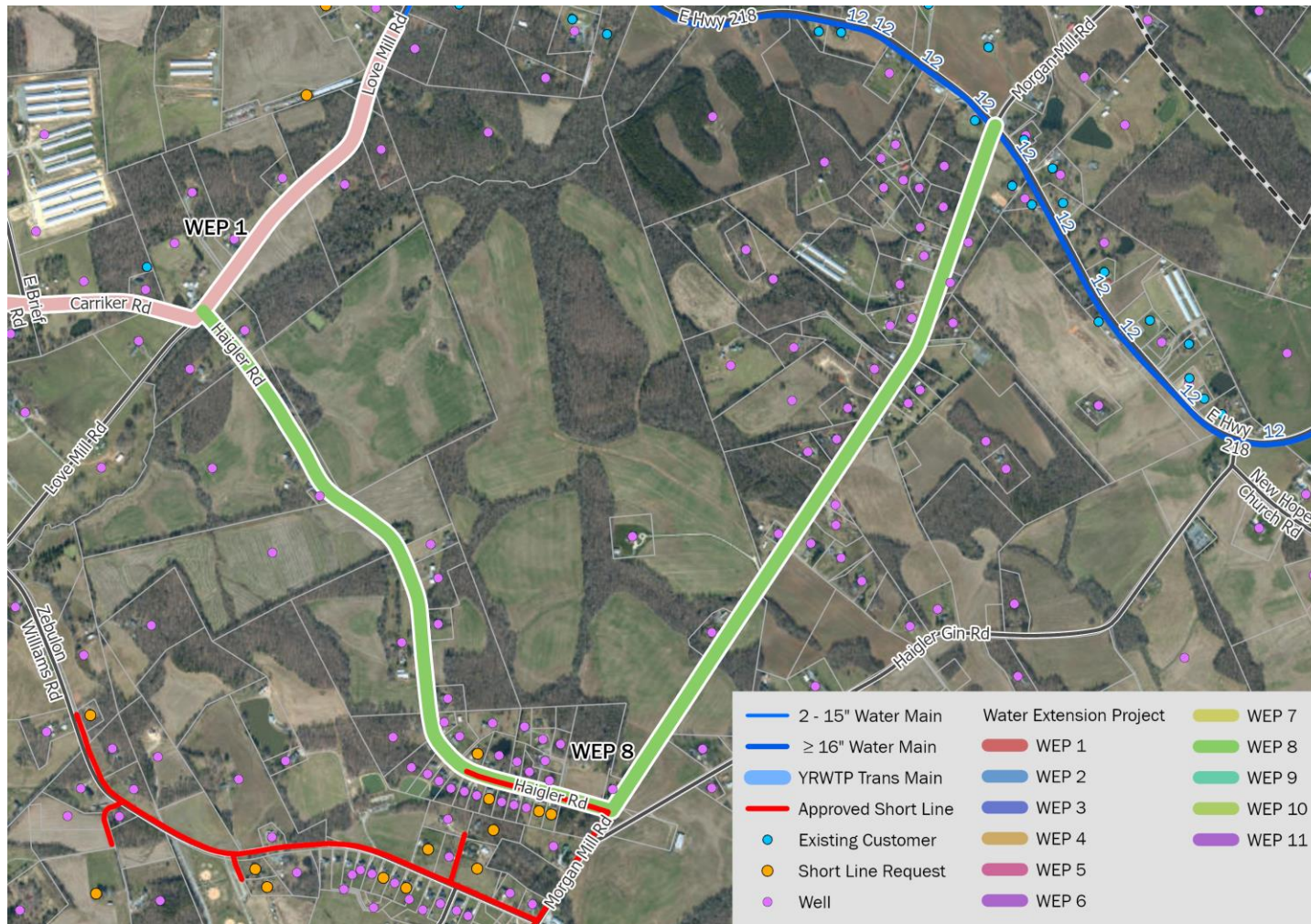
Cost per potential 2021 account:

- \$93k - \$105k @ 100% participation
- \$282k - \$317k @ 33% participation

Interdependencies:

- None

Water Expansion Project 8 (replaces part of 2021-136)



Project Details:

- 2.72 miles
- 75 potential accounts (2021)
- 6 additional potential accounts (2040)
- 5 Short Line applicants
- 76 adjacent parcels
- 28 meters/mi @ 100% participation
- 9 meters/mi @ 33% participation
- Composite score = 53
- \$9.6M - \$10.8M

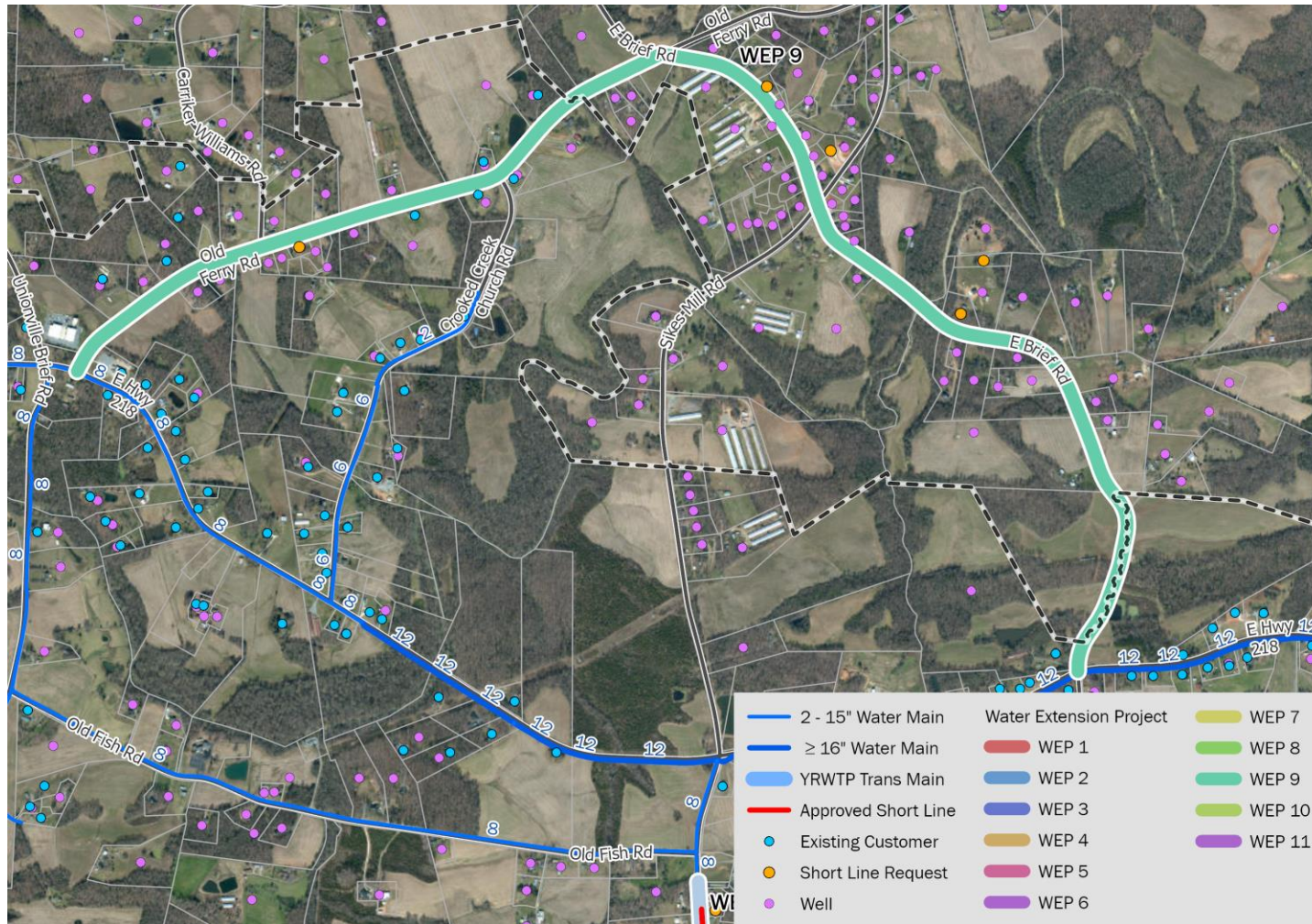
Cost per potential 2021 account:

- \$128k - \$144k @ 100% participation
- \$388k - \$436k @ 33% participation

Interdependencies:

- Must build WEP 1 & WEP 2 before WEP 8

Water Expansion Project 9



Project Details:

- 3.34 miles
- 67 potential accounts (2021)
- 22 additional potential accounts (2040)
- 5 Short Line applicants
- 80 adjacent parcels
- 20 meters/mi @ 100% participation
- 7 meters/mi @ 33% participation
- Composite score = 48
- \$8.8M - \$9.9M

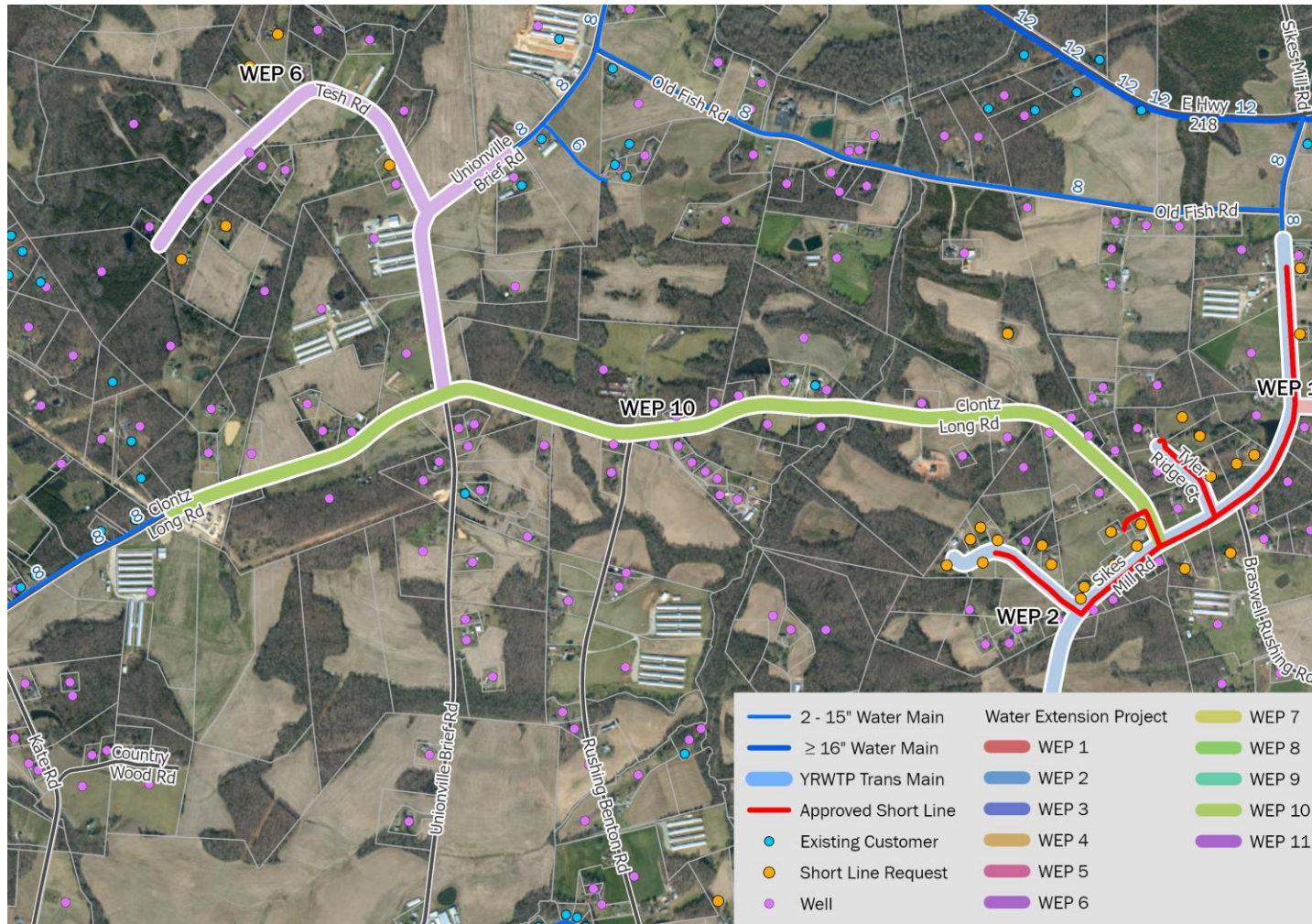
Cost per potential 2021 account:

- \$131k - \$148k @ 100% participation
- \$398k - \$448k @ 33% participation

Interdependencies:

- None

Water Expansion Project 10



Project Details:

- 2.34 miles
- 41 potential accounts (2021)
- 14 additional potential accounts (2040)
- 5 Short Line applicants
- 37 adjacent parcels
- 18 meters/mi @ 100% participation
- 6 meters/mi @ 33% participation
- Composite score = 47
- \$6.1M - \$6.8M

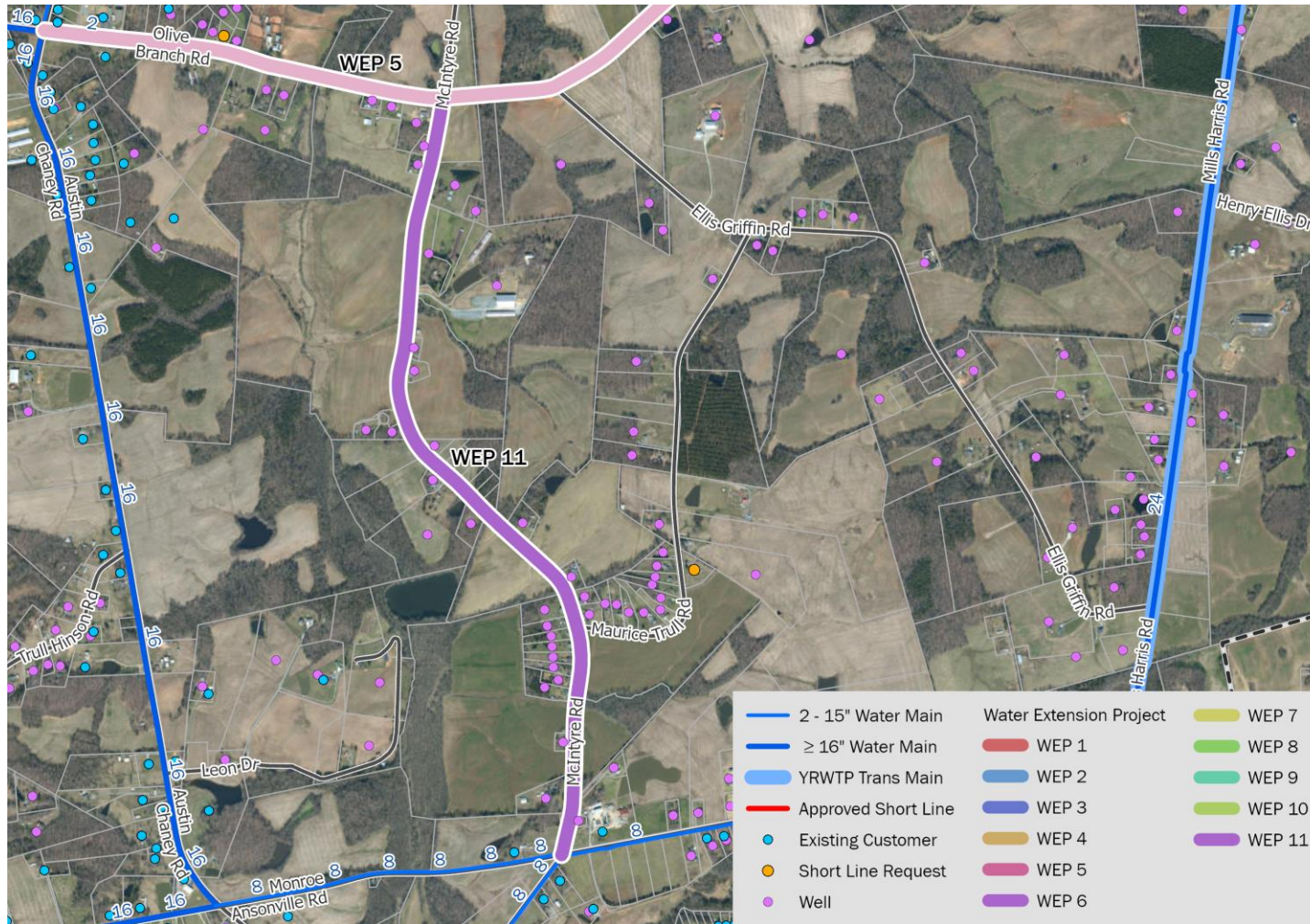
Cost per potential 2021 account:

- \$149k - \$166k @ 100% participation
- \$451k - \$503k @ 33% participation

Interdependencies:

- Must build WEP 2 before WEP 10

Water Expansion Project 11



Project Details:

- 1.79 miles
- 31 potential accounts (2021)
- 180 additional potential accounts (2040)
- 0 Short Line applicants
- 51 adjacent parcels
- 17 meters/mi @ 100% participation
- 6 meters/mi @ 33% participation
- Composite score = 38
- \$4.6M - \$5.2M

Cost per potential 2021 account:

- \$148k - \$168k @ 100% participation
- \$450k - \$508k @ 33% participation

Interdependencies:

- Must build WEP 5 before WEP 11

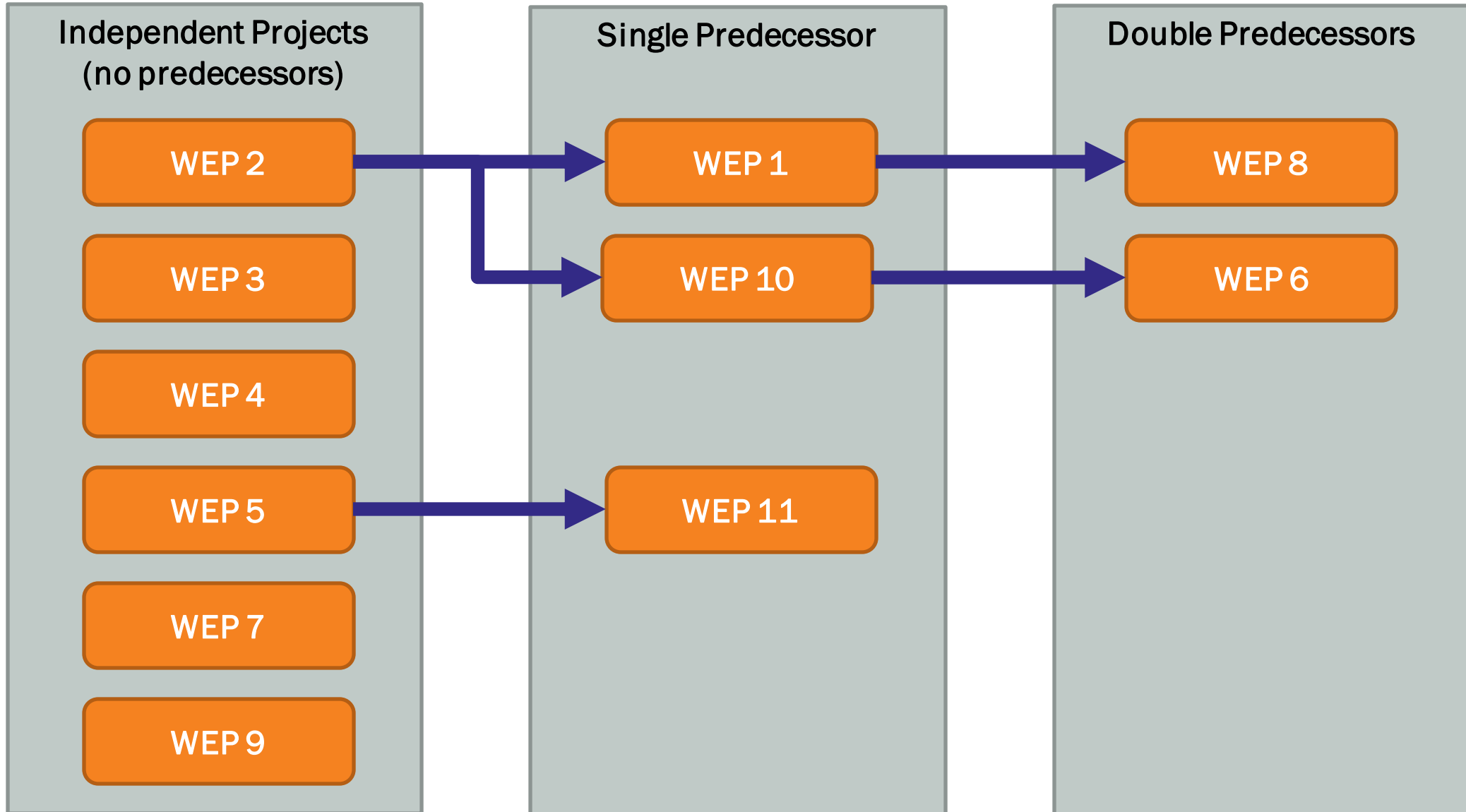
Summary

Project Number	Pipe Length (miles)	Potential Accounts (2021) ¹	Additional Potential Accounts (2040) ²	Short Line Applicants	Preliminary Estimated Cost	Estimated Cost per Account (2021 @ 33%)	Composite Score
1	2.00	33	13	8	\$5.2M – \$5.8M	\$478k – \$533k	67
2	2.76	49	29	20	\$6.8M – \$7.6M	\$421k – \$470k	63
3	1.05	12	7	10	\$2.7M – \$3.1M	\$682k – \$783k	63
4	2.91	81	44	5	\$8.3M – \$9.2M	\$311k – \$344k	62
5	2.45	38	104	10	\$6.5M – \$7.2M	\$518k – \$574k	58
6	1.47	22	12	5	\$3.8M – \$4.3M	\$523k – \$592k	57
7	1.54	43	32	3	\$4.0M – \$4.5M	\$282k – \$317k	55
8	2.72	75	6	5	\$9.6M – \$10.8M	\$388k – \$436k	53
9	3.34	67	22	5	\$8.8M – \$9.9M	\$398k – \$448k	48
10	2.34	41	14	5	\$6.1M – \$6.8M	\$451k – \$503k	47
11	1.79	31	180	0	\$4.6M – \$5.2M	\$450k – \$508k	38
Total	23.4	492	463	76	\$66.4M – \$74.4M	\$450k – \$508k	

¹ Potential Accounts (2021) indicates unserved existing residents

² Potential Accounts (2040) indicates new residents due to growth

Project Interdependence



Summary

Project Number	Pipe Length (miles)	Potential Accounts (2021) ¹	Additional Potential Accounts (2040) ²	Short Line Applicants	Preliminary Estimated Cost	Cumulative Preliminary Estimated Cost	Composite Score
1	2.00	33	13	8	\$5.2M – \$5.8M	\$5.2M – \$5.8M	67
2	2.76	49	29	20	\$6.8M – \$7.6M	\$12.0M – \$13.4M	63
3	1.05	12	7	10	\$2.7M – \$3.1M	\$14.7M – \$16.5M	63
4	2.91	81	44	5	\$8.3M – \$9.2M	\$23.0M – \$25.7M	62
5	2.45	38	104	10	\$6.5M – \$7.2M	\$29.5M – \$32.9M	58
6	1.47	22	12	5	\$3.8M – \$4.3M	\$33.3M – \$37.2M	57
7	1.54	43	32	3	\$4.0M – \$4.5M	\$37.3M – \$41.7M	55
8	2.72	75	6	5	\$9.6M – \$10.8M	\$46.9M – \$52.5M	53
9	3.34	67	22	5	\$8.8M – \$9.9M	\$55.7M – \$62.4M	48
10	2.34	41	14	5	\$6.1M – \$6.8M	\$61.8M – \$69.2M	47
11	1.79	31	180	0	\$4.6M – \$5.2M	\$66.4M – \$74.4M	38

¹ Potential Accounts (2021) indicates unserved existing residents

² Potential Accounts (2040) indicates new residents due to growth

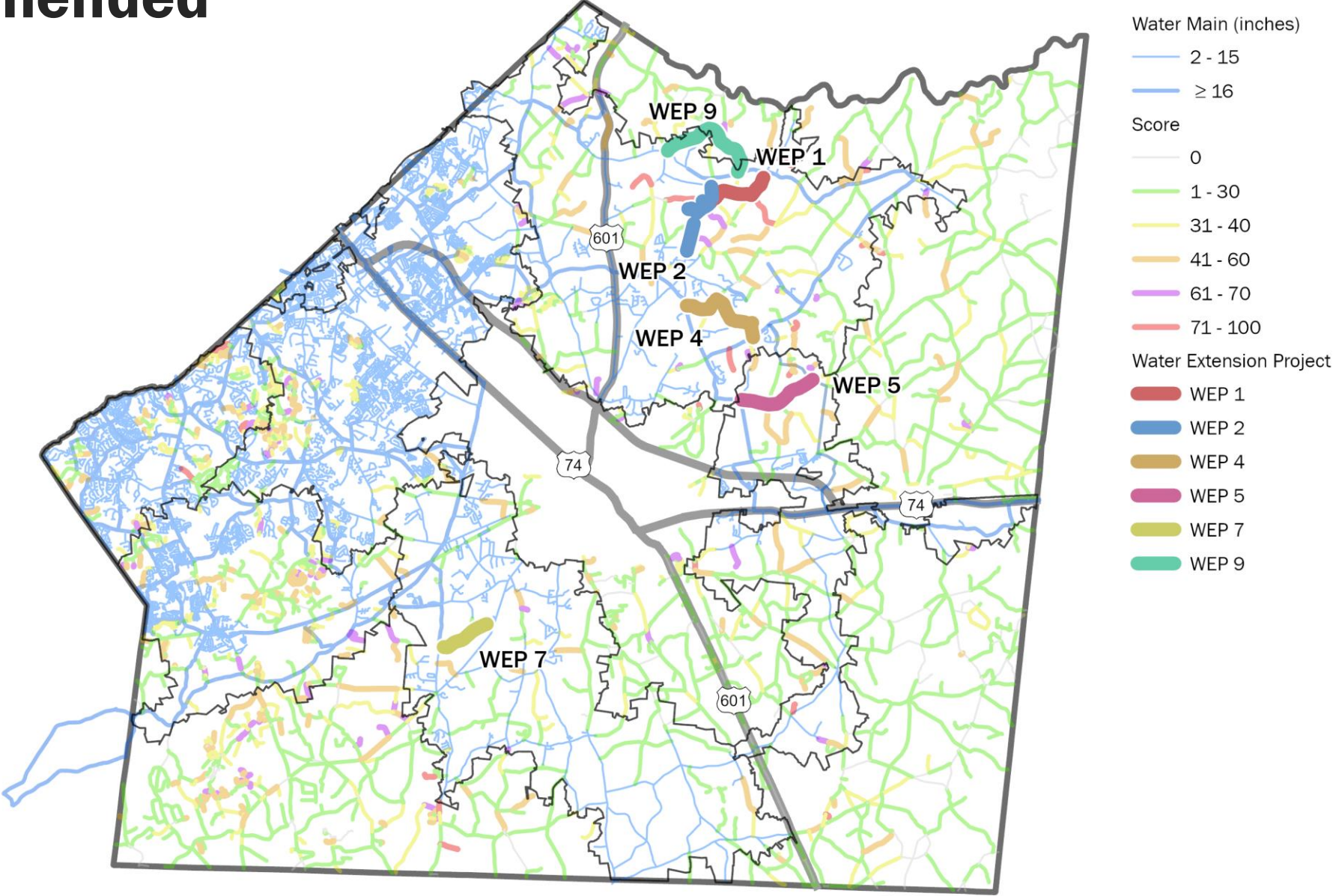
Recommendations

Project Number	Pipe Length (miles)	Potential Accounts (2021) ¹	Additional Potential Accounts (2040) ²	Short Line Applicants	Preliminary Estimated Cost	Cumulative Preliminary Estimated Cost	Composite Score
1	2.00	33	13	8	\$5.2M – \$5.8M	\$5.2M – \$5.8M	67
2	2.76	49	29	20	\$6.8M – \$7.6M	\$12.0M – \$13.4M	63
3	1.05	12	7	10	\$2.7M – \$3.1M	-	63
4	2.91	81	44	5	\$8.3M – \$9.2M	\$20.3M – \$22.6M	62
5	2.45	38	104	10	\$6.5M – \$7.2M	\$26.8M – \$29.8M	58
6	1.47	22	12	5	\$3.8M – \$4.3M	-	57
7	1.54	43	32	3	\$4.0M – \$4.5M	\$30.8M – \$34.3M	55
8	2.72	75	6	5	\$9.6M – \$10.8M	-	53
9	3.34	67	22	5	\$8.8M – \$9.9M	\$39.6M – \$44.2M	48
10	2.34	41	14	5	\$6.1M – \$6.8M	-	47
11	1.79	31	180	0	\$4.6M – \$5.2M	-	38

¹ Potential Accounts (2021) indicates unserved existing residents

² Potential Accounts (2040) indicates new residents due to growth

Map of Recommended Projects



Cost Estimate and Schedule Risks

- Highly volatile construction market; cannot be accurately estimated
- Scope uncertainty, changes
- Supply chain risks
- Administrative efforts, deadlines, and costs associated with funding

Thank you.

Questions?

