



Northside Ag Innovation Center

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Figure 1 - Northside Ag Innovation Center Recycled Water & Non-Potable Water Alternatives

Disclaimer: The GIS data represented on this map provides a visual display of data for your convenience. Every reasonable effort has been made to assure the accuracy of the maps and associated data. The City of Riverside shall assume no liability for any decisions made or actions taken or not taken by the user of the applications in reliance upon any information or data furnished hereunder.

Last Updated: 10/2/2024

1 inch = 300 feet

0 300 Feet

Northside Ag Innovation Center - Non-Potable Water Option

Table 1A - Non-Potable Water (Non-Potable Well via Riverside Canal) Preliminary Cost Estimate

Item	Quantity	Unit	Unit Cost (\$/Dia-in)	Unit Cost	Total Cost
1 Well Drilling and Equipping ¹	1	LS		\$ 4,500,000	\$ 4,500,000
2 8-inch DIP (Riverside Canal @ Chase to Clark St.)	1,675	LF	\$ 40	\$ 320	\$ 536,000
3 Canal Modification (Construction of Wet Well) ²	1	LS		\$ 50,000	\$ 50,000
4 Booster Station @ Riverside Canal (5-Hp) ²	1	LS	\$ 150,000	\$ 150,000	\$ 150,000
5 Screen/Filtration System ²	1	LS	\$ 50,000	\$ 50,000	\$ 50,000
6 New Electrical Service ²	1	LS	\$ 50,000	\$ 50,000	\$ 50,000
7 Paving Cost ³	35	%		35%	\$ 188,000
Subtotal:					\$ 5,524,000
8 Engineering (20%) ⁴					\$ 1,105,000
9 Contingency (20%) ⁵					\$ 1,326,000
Total Cost:					\$ 7,955,000
Use:					\$ 8,000,000

Notes:

- ¹ New dedicated non-potable well to supply water to NAIC; does not include costs to address potential water quality issues: groundwater in the area is known to contain PFAS, DPCP and/or TCP; additional source water into the Riverside Canal includes stormwater and urban water runoff. Suitability of non-potable water will need to be determined by the NAIC.
- ² Rough estimates provided for Items 3 through 6.
- ³ Paving cost is 35% of Line 2
- ⁴ Includes Design and Contract Admin
- ⁵ Contingency includes Construction Subtotal Cost and Engineering Costs

Table 1B - On-Site Improvements (Northside Ag Innovation Center)

Item	Quantity	Unit	Unit Cost (\$/Dia-in)	Unit Cost	Total Cost
1 25,000 gal Storage Tank ^{1,2}	1	LS		\$ 50,000	\$ 50,000
2 Booster Pump ¹	1	LS		\$ 10,000	\$ 10,000
3 Strainer/Filtration System ^{1,3}	1	LS		\$ 5,000	\$ 5,000
Subtotal:					\$ 65,000
4 Engineering (20%)					\$ 13,000
5 Contingency (20%) ⁴					\$ 16,000
Total Cost:					\$ 94,000
Use:					\$ 100,000

Notes:

- ¹ Rough estimates provided for Items 1, 2 and 3.
- ² Assumes an above-ground tank; tank was sized for a 1-week capacity at 4 AFY of demand.
- ³ Depending on the needs of the NAIC food crops, additional advanced treatment of non-potable water might be needed (in the case of edible/organic food crops).
- ⁴ Contingency includes Construction Subtotal Cost and Engineering Costs

Total Cost (Capital and On-Site Improvement Costs): \$ 8,100,000

WA-6 vs. WA-10 Rate Differential (see Rates Worksheet) ¹ : \$0.26
 Estimated Annual Usage (AFY)²: 4
 Estimated Annual Cost Savings: \$451.60
 Est. Breakeven Point (years): 17,936

Notes:

- 1. Utilized largest cost differential, which occurs in Fiscal Years 2026 and 2027.
- 2. Assumed an annual non-potable water demand of 4 afy; currently no information has been received for estimated water demand. Currently, development is looking at 4 x 2-inch water services; and 2 x 1-1/2-inch water services for both parcels (east/west of Clark St.).

Northside Ag Innovation Center - Recycled Water Option

Table 2 - Recycled Water Preliminary Cost Estimate¹

Item	Quantity	Unit	Unit Cost (\$/Dia-in)	Unit Cost	Total Cost
1 8-inch DIP (RW Line @ Orange/Chase to Clark St.)	1,500	LF	\$ 40	\$ 320	\$ 480,000
2 Paving Cost ²	35	%		35%	\$ 168,000
Subtotal:					\$ 648,000
3 Engineering (20%) ³					\$ 130,000
4 Contingency (20%) ⁴					\$ 156,000
Total Cost:					\$ 934,000
Use:					\$ 950,000

Notes:

¹ This option assumes the expansion of the recycled water system to supply the Riverside Golf Course/Reid Park with RW. RW Line w/in Orange St. as identified in the 2022 NP/RW Master Plan, Carollo, as a Phase 3 site (15+ years out).

² Paving cost is 35% of Line 1

³ Includes Design and Contract Admin

⁴ Contingency includes Construction Subtotal Cost and Engineering Costs

Total Cost (Capital Cost):	\$ 950,000
WA-6 vs. WA-10 Rate Differential (see Rates Worksheet)¹:	\$0.26
Estimated Annual Usage (AFY) ² :	4
Estimated Annual Cost Savings:	\$451.60
Est. Breakeven Point (years):	2,104

Notes:

1. Utilized largest cost differential, which occurs in Fiscal Years 2026 and 2027.

2. Assumed an annual non-potable water demand of 4 afy; currently no information has been received for estimated water demand. Currently, development is looking at 4 x 2-inch water services; and 2 x 1-1/2-inch water services for both parcels (east/west of Clark St.).

	2024			2025			2026			2027		
Rate	Winter	Summer	Blended	Winter	Summer	Blended	Winter	Summer	Blended	Winter	Summer	Blended
WA-6	\$1.92	\$2.08	\$1.99	\$2.03	\$2.20	\$2.10	\$2.15	\$2.33	\$2.23	\$2.27	\$2.46	\$2.35
WA-10	n/a	n/a	\$1.77	n/a	n/a	\$1.87	n/a	n/a	\$1.97	n/a	n/a	\$2.09
	Delta:		\$0.22			\$0.23			\$0.26			\$0.26
	Year-Over-Year Increase:		n/a			7%			10%			2%

Notes:

1. Summer Rate applies to June, July, August, September and October
2. Blended rate is weighted by applicable months; WA-10 has a flat rate