

Western Intake Partners



Western Intake Partners (WIPs)

A subset of the Jordan Lake Partnership:

- Chatham County
- Durham
- OWASA
- Pittsboro

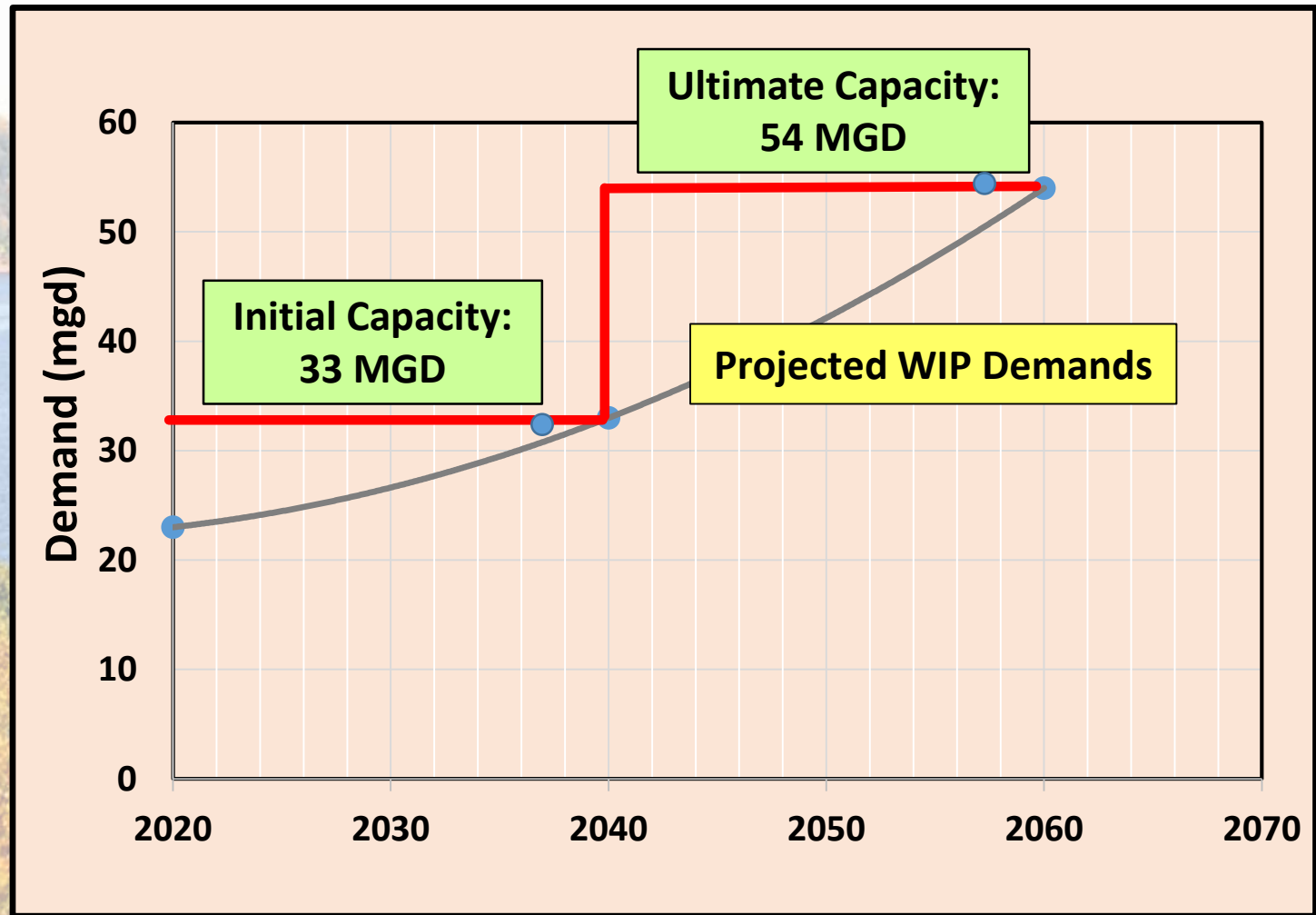
Planning for collaborative development of water withdrawal, treatment, and transmission facilities on the west side of Jordan Lake

Jordan Lake Allocation Requests

Applicant	Current	Round Four	Future (2060)
Chatham County	6	13	18.2
Durham	10	16.5	16.5
Orange County *	1	1.5	2
OWASA	5	5	5
Pittsboro	0	6	6
Other JLPs	41	49.2	51.7
Total	63	91.2	99.4

*** Orange County allocation to be supplied through Durham**

Future WIP Demands and Project Phasing



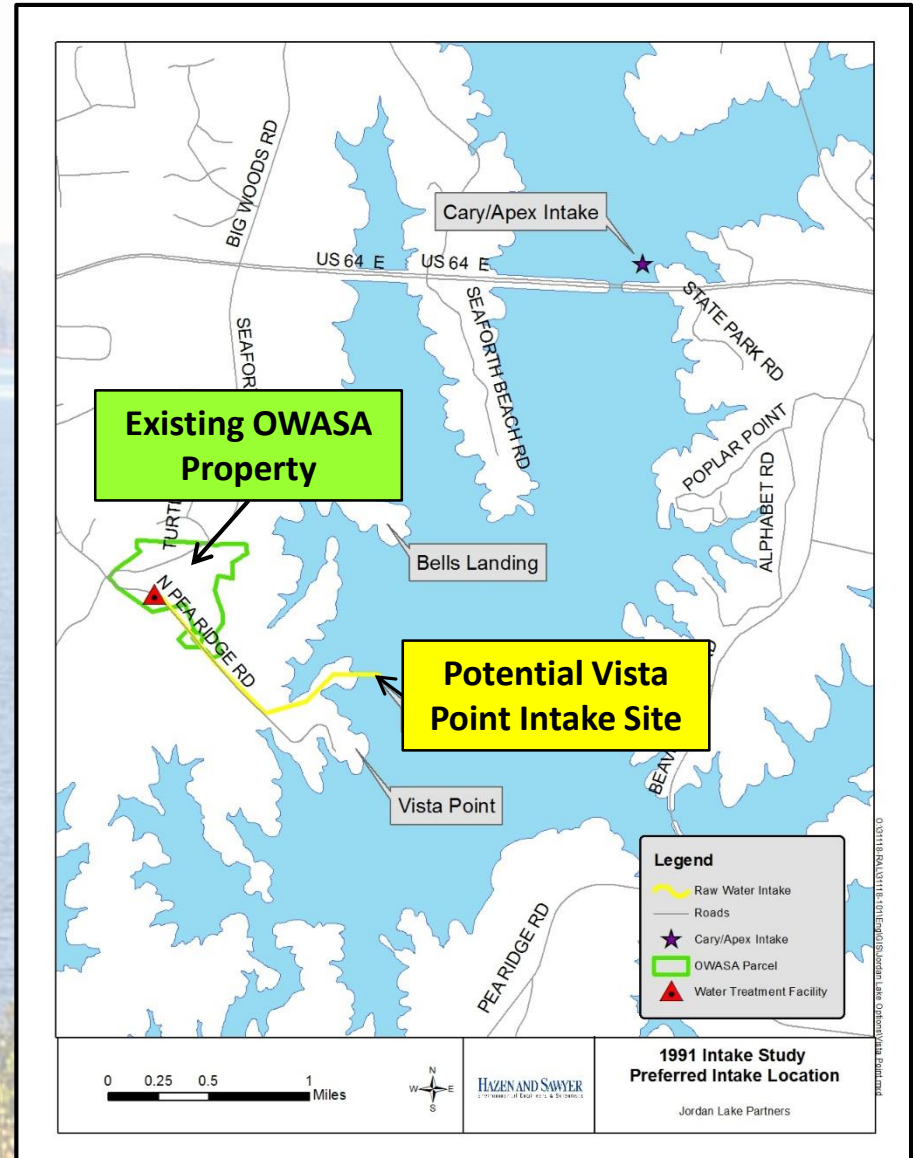
Water Demand Basis for Facility Design

Partner	Year 2040 Basis for Initial Capacity (mgd)			Year 2060 Basis for Ultimate Capacity (mgd)		
	Avg Day	Max Day	% of Total Capacity	Avg Day	Max Day	% of Total Capacity
Chatham County*	6.5	10	30%	10.5*	16	30%
Durham	16.5	17	52%	16.5	21	39%
Orange County	1	1	3%	2	3	6%
OWASA	2	2	6%	5	5	9%
Pittsboro	2	3	9%	6	9	17%
Total	28	33	100%	40	54	100%

*Assumes that Chatham County will continue to use its existing 3 mgd WTP and that future demands will be reduced through recently implemented conservation measures.

Western Intake Feasibility Study

- Develop and evaluate regional project alternatives at a conceptual level.
- A single regional intake site and pumping station near Vista Point is a common element to all alternatives.
- Review institutional models that the WIPs might use to implement the preferred alternative.

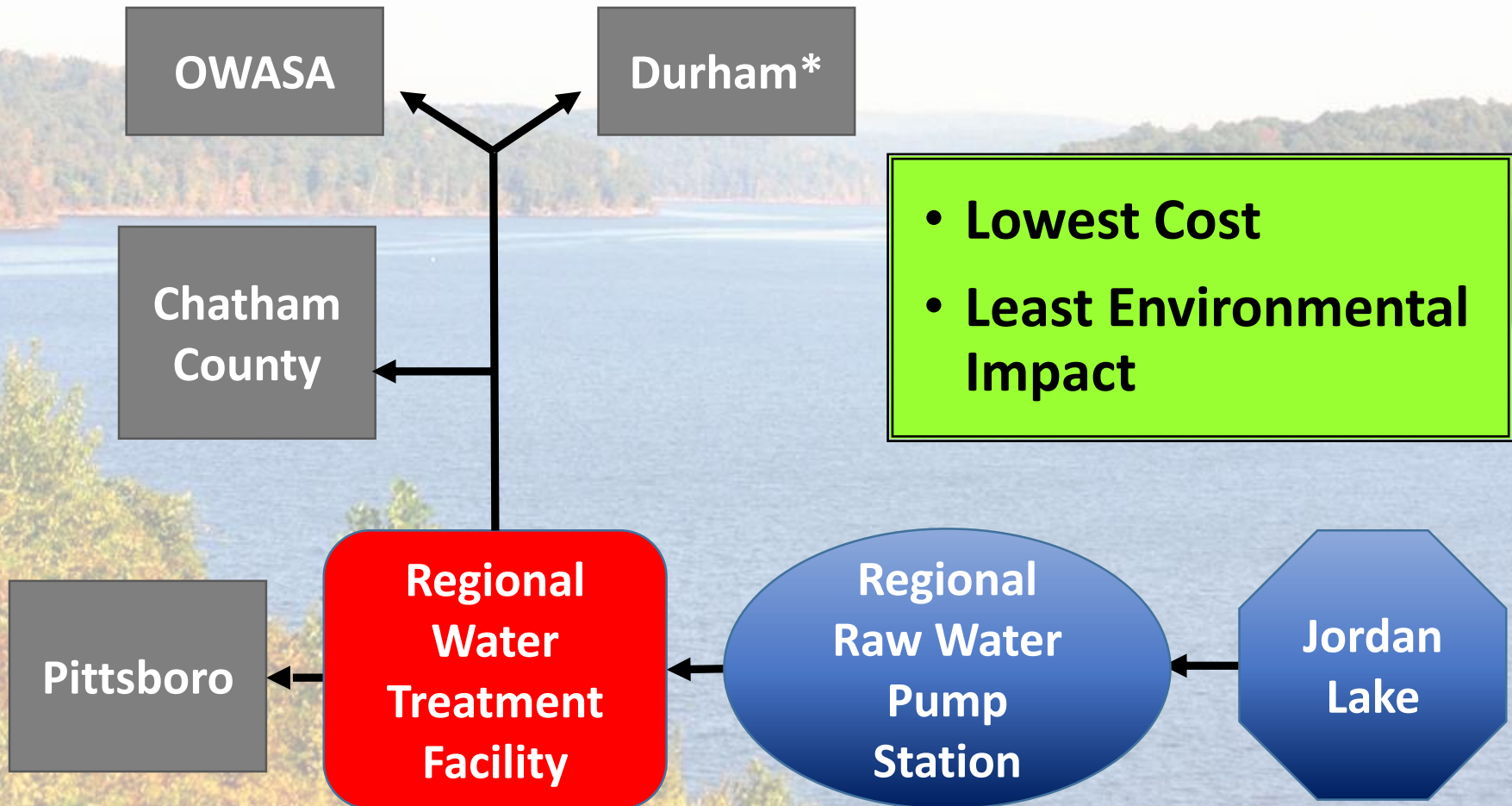


Western Intake Feasibility Study

Three Conceptual Water Supply Alternatives:

- **Alternative 1 - Regional Water Treatment Facility**
- **Alternative 2 – Two Separate Water Treatment Facilities**
- **Alternative 3 - Raw Water Only Facilities**

Recommended: Single Regional Water Treatment Facility



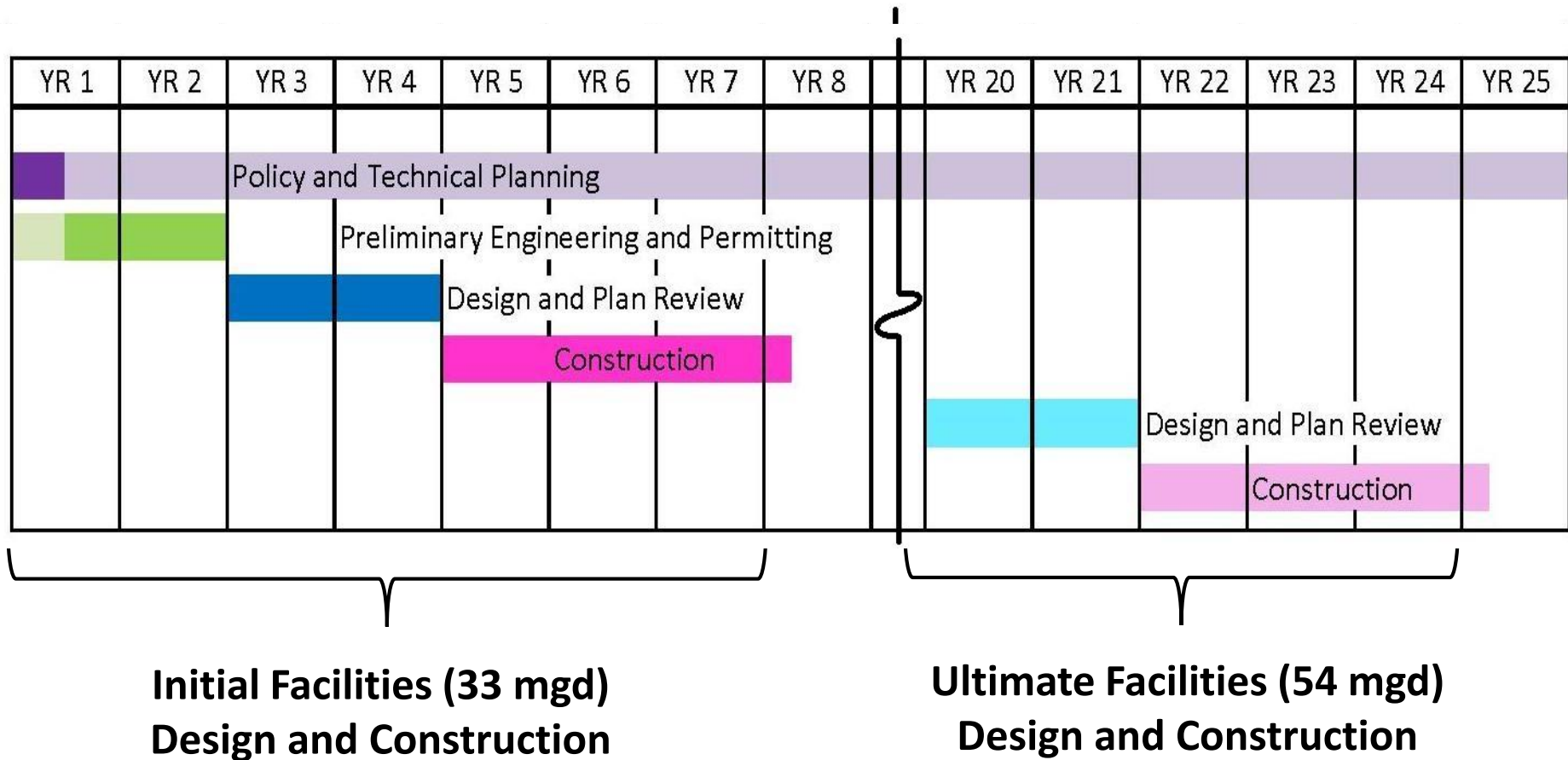
Western Intake Feasibility Study

- Water treatment and pumping facilities are sized to meet 33 mgd maximum day demands in 2040 and expanded to 54 mgd in 2060
- The intake and pipelines -- which are costly to expand -- are sized to meet 2060 maximum day demands

Costs for Single Regional Facility

Partner	Capital Costs (2014 Million \$)			Total Life-Cycle Costs (2014 Million \$)	Unit Life-Cycle Costs Per 1,000 gallons (2014 \$)	
	Initial Facilities	Ultimate Facilities	Total		Usage	Level I Allocation Purchased
Chatham County	\$65.9 M	\$21.4 M	\$87.3 M	\$183.4 M	\$1.7	\$0.6
Durham and Orange County	\$132.9 M	\$20.5 M	\$153.4 M	\$418.7 M	--	--
Durham	\$120.1 M	\$12.8 M	\$132.9 M	\$388.2 M	\$1.5	\$1.5
Orange County	\$12.8 M	\$7.7 M	\$20.5 M	\$30.5 M	\$1.5	\$1.0
OWASA	\$15.0 M	\$9.6 M	\$24.6 M	\$31.0 M	\$4.1	\$0.4
Pittsboro	\$29.5 M	\$22.0 M	\$51.5 M	\$61.3 M	\$1.5	\$0.7
Total	\$243.3 M	\$73.5 M	\$316.8 M	\$694.3 M	--	--

Conceptual Schedule for Design and Construction *(At Least 8 Years)*



Memorandum of Agreement (MOA)

6/17/2019

Party	Jordan Lake Allocation	Cost Share
City of Durham	16.5%	40.74%
Chatham County	13%	32.10%
Town of Pittsboro	6%	14.81%
Orange Water & Sewer Authority	5%	12.35%
Total	40.5%	100.00%

Anticipated Projects	Anticipated Budget (\$ Millions)
Policy and Governance - Initial Planning - Organizational Development - Construction, Ownership, Management and Operation	\$0.7
Preliminary Engineering - Source Water Treatability Study/Preliminary Design - Pipeline Routing Study - Hydraulic Evaluations - Preliminary Engineering Report	\$1.4
Field Evaluations (Survey, SUE*, Environmental Resources) - Intake/Raw Water Pump Station - Water Treatment Facilities/Booster Pump Stations - Pipelines	\$1.4
Permitting - USACE Land Use Request - NEPA/SEPA Environmental Assessment - DWR Site Evaluation	\$0.7
Escalation from 2014 (20%)	\$0.8
Total	\$5.0

* Subsurface Utility Exploration

Amendment #1

- Partnership has engaged HDR Engineering
- Amendment #1 adds Program Management
- Additional total cost of \$2.43 M to original MOA
- Additional \$780,030 for Chatham's share of Amendment (\$2.4 M total)

Questions / Comments?

