



W o r l d
C l a s s
R e g i o n

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Jordan Lake Partnership Regional Water Supply Study **Phase II Project Proposal**

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Scope of Services

Task 1. Develop Phase II and Final Draft Triangle Region Water Supply Plan for Jordan Lake.

TJCOG will work with the Partners to develop a complete regional water supply plan and peer-reviewed alternatives for meeting future water supply needs in the Region suitable for supporting Jordan Lake water supply storage allocation applications.

1. TJCOG will work with local water supply system staffs to develop future individual system water supply source options and alternatives.
2. TJCOG will confirm projected future water supply needs and water supply assumptions.
3. TJCOG will review individual system source options and alternatives and develop a regional compilation of source options.
4. TJCOG will work with the Technical Review Team to develop regional alternatives.
5. TJCOG will work with local water supply system staffs to document the assumptions and expectations for water efficiency, water conservation, demand management and reclaimed water use in the future.
6. TJCOG will develop and facilitate a peer-review for water supply alternatives and system summaries
7. TJCOG will meet with local water supply system staffs to reconcile any discrepancies between system alternatives.
8. TJCOG will work with local water supply system staffs and their consultants to finalize current water supply safe yields.
9. TJCOG will work with local water supply system staffs to finalize Jordan Lake water supply storage allocation needs.
10. TJCOG will draft a technical memorandum comprising the Phase II Triangle Region Water Supply Plan.
11. Jordan Lake Partnership (JLP) will review the draft technical memorandum and provide comments.

12. TJCOG will produce a final draft technical memorandum incorporating both the Phase I needs assessment and the Phase II regional alternatives.

Task 2. Develop Hydrologic Analyses to Support Jordan Lake Allocation Requests.

TJCOG will use the draft updated Cape Fear River/Neuse Rive Basin Hydrologic Model (Model) to analyze the hydrologic impacts of Jordan Lake Partnership water supply alternatives and requested Jordan Lake water supply storage allocations under various scenarios. Model scenarios might include the following:

- Current conditions, with the US Army Corps of Engineers (USACE) Jordan Lake drought protocol
 - 2040 conditions, with the USACE Jordan Lake drought protocol
 - 2060 conditions, with the USACE Jordan Lake drought protocol
1. TJCOG will review the data in the 2030 and 2050 base scenarios to confirm input values.
 2. TJCOG will develop Model 2040 and 2060 scenarios based on the updated input spreadsheets.
 3. TJCOG will work with JLP and DWR to develop Model scenario variations as necessary.
 4. TJCOG will document the inputs and assumptions for each model scenario and model run.
 5. TJCOG will run the Model for the available period of record under varying levels of Jordan Lake water supply demands based on the various scenarios.
 6. TJCOG will analyze Model outputs and present those analyses.
 7. TJCOG will use the Model to verify or calculate reservoir safe yields.
 8. TJCOG will work with JLP and DWR to refine Model output analysis and presentation.
 9. TJCOG will produce draft technical memoranda discussing the Model outputs and analyses, as necessary.
 10. JLP will review the draft technical memoranda and provide comments.
 11. TJCOG will produce final technical memoranda incorporating the comments from JLP.

Task 3. Assist Jordan Lake Partnership in Working with a Consultant for Jordan Lake Allocation Applications.

TJCOG will provide assistance in selecting a consultant that will prepare Jordan Lake water supply storage allocation applications for each member of the Jordan Lake Partnership interested in obtaining a new or increased allocation. Furthermore, TJCOG will provide technical support to any consultant with which the Jordan Lake Partnership contracts.

1. TJCOG will provide technical assistance in the drafting of any requests for proposals.
2. TJCOG will assist JLP in evaluating any proposals submitted by consultants.
3. TJCOG will assist JLP in selecting and contracting with a consultant.
4. TJCOG will assist consultants in translating information from the Triangle Region Water Supply Plan into the individual Jordan Lake water supply storage allocation applications.
5. TJCOG will provide consultants with Model outputs and analyses to incorporate as necessary into the individual Jordan Lake water supply storage allocation applications.

6. TJCOG will assist consultants in evaluating Model results.

Task 4. Assist DWR in revising the Cape Fear River Basin Water Supply Plan and updating the Cape Fear River Basin Hydrologic Model

TJCOG will coordinate with the Division of Water Resources (DWR) in its revision of the draft Cape Fear River Basin Water Supply Plan (Basin Plan) to ensure consistency with the Jordan Lake Partnership regional water supply plan. TJCOG will work with the Division of Water Resources and its consultant to ensure updates of the Cape Fear River Basin Hydrologic Model (Model) are consistent with the Jordan Lake Partnership regional water supply plan.

1. TJCOG will coordinate with DWR in their update of the Basin Plan to ensure that the information used for the Basin Plan is consistent with the information used for the JLP regional water supply plan.
2. TJCOG will attend DWR meetings for the Basin Plan as necessary.
3. TJCOG will work with DWR and its consultant to ensure that Model input data are consistent with data in the JLP regional water supply plan.
4. TJCOG will assist DWR and its consultant in obtaining input data from local governments to update the Model.
5. TJCOG will work with DWR and its consultant to ensure that the updated Model meets the needs of the JLP.
6. TJCOG will attend DWR meetings for the Model update as necessary.

Task 5. Assist Jordan Lake Partnership in working with DWR and EMC.

TJCOG will facilitate and provide technical support for meetings between the Jordan Lake Partnership and the Division of Water Resources or the Environmental Management Commission (EMC).

1. TJCOG will assist JLP in scheduling meetings with DWR and EMC.
2. TJCOG will assist JLP in preparing for meetings with DWR and EMC.
3. TJCOG will attend meetings between JLP and DWR or EMC to provide technical support.

HydroLogics Support

HydroLogics, Inc. developed the Model. TJCOG may need assistance from HydroLogics for some parts of this project, such as developing specialized operating rules using the OASIS Operation Control Language for a particular Model scenario.

Project Management and Administration

For any contracted project, some amount of time is required to manage the finances of the project, such as accounting for the time that staff members spend on various project tasks, accounting for travel and other expenses, and preparing invoices.