



# **Jordan Lake One Water (JLOW) Workplan**

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## **An integrated watershed management approach for the Jordan Lake watershed**

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**Workplan Contact Information:**

Jen Schmitz  
Principal Planner- Water Resources  
Triangle J Council of Governments  
Phone: 919-558-9342  
E-Mail: [jschmitz@tjcog.org](mailto:jschmitz@tjcog.org)  
Web: [www.tjcog.org/jlow](http://www.tjcog.org/jlow)



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## 1.0 INTRODUCTION

### 1.1 BACKGROUND AND PURPOSE

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The Jordan Lake watershed and the Haw River that flows at its core is a 1,560 square mile watershed located in the center of North Carolina and splits two of the state's largest urban areas- the Triangle area (including Raleigh, Durham, Cary, and Chapel Hill) and the Triad (Greensboro, High Point, and Winston-Salem.) The region has seen significant urban growth over the last 40 years and still has a strong rural character and vibrant farming community. The economy of the region is driven by a diverse mix of activities including traditional manufacturing, bio-tech development, agricultural, information technology, research institutions, bio-medical, and aero-space.

The watershed has been impacted over the decades by the same activities that have helped to nurture and grow the communities based within it. While traditional regulatory approaches and engagement have resulted in some water quality improvements and more secure, reliable clean water supplies, the system is still impaired and not delivering the ecological or community benefits that are needed. There is an overlapping web of regulations and incentives in the watershed that often do not complement each other and can work in conflict. The communities and businesses in the watershed have realized the value that a restored and protected watershed can deliver and are striving to accomplish that goal jointly. Watershed-level management brings together regional partners from within and beyond the water sector in joint planning and collaborative action to protect the shared natural resource that is essential for health, agriculture, industry, aquatic species, forests, wildlife, recreation, and all other stakeholder interests.

The need to restore and protect the Jordan Lake watershed has created an opportunity to reexamine the way that water resources are managed through the various government-sponsored programs and private activity. The nation is struggling to find a way to manage non-point source pollution as part of the traditional regulatory framework in a way that is ecologically effective and cost effective. There are problems to be solved across the watershed and the JLOW initiative is committed to developing a system where individual, community, and regional activities and projects work collaboratively to improve the ecological function of the watershed through multi-benefit projects meeting regulatory requirements and delivering value to the communities that are implementing them. This multi-faceted approach to watershed scale management of water resources when successful will be a model for the country for resolving our clean water supply issues and building resiliency into our water systems. Support for this type of alternative management approach has been growing at the local, state, and federal level. In February of 2019, the United States Environmental Protection Agency (USEPA) released a memo stating that: *"...the EPA believes that market-based programs, including water quality trading, as well as incentive- and community-based programs can be used more effectively than they have to date to achieve water quality improvements. These types of programs can operate independent of or in coordination with the EPA's traditional regulatory programs to maximize environmental outcomes."*

The Jordan Lake One Water (JLOW) initiative seeks to develop and implement an integrated watershed management "One Water" framework for the Jordan Lake watershed by facilitating collaboration among the many interested parties, and providing an avenue whereby policy, operational, and financial recommendations can be developed. The purpose of this Work Plan is to guide and explain this effort.

## 1.2 OVERVIEW

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A growing initiative, JLOW is comprised of local governments, conservation groups, universities, water utilities, agriculture, and state agencies, with efforts underway to incorporate private industry stakeholders. Supported by diverse stakeholders throughout the watershed, JLOW seeks to include all those interested in realizing watershed-wide social, economic, and environmental benefits, while sharing the costs of water quality and quantity improvements.

Utilizing communication, collaboration, and cooperation, JLOW seeks to:

- solve regional watershed issues that are generally beyond the capacity of any one stakeholder
- draw on experience and leadership of elected officials and other champions of the group
- work closely with local and state regulators and other policy groups in an advisory context
- increase access to funds and funding opportunities
- establish and develop partnerships and trust
- leverage knowledge, resources, and experience

A collaborative process moves people away from contentious positions, promotes mutual education, allows a cooperative atmosphere to develop, encourages consideration of many options, and permits the search for creative solutions. JLOW will emphasize a community focus, looking at both individual community objectives as well as the collective vision across the watershed. A community and collaborative focus would increase opportunity for upstream and downstream entities, and urban and rural entities, to work together in complementary ways. This alternative management approach encourages cooperation toward watershed-wide water quality improvements.

While the purpose of the JLOW management framework is intended to be sufficiently broad in scope to cover most if not all water-related management collaborative opportunities, one of the key areas it will address is the upcoming nutrient rules readoption. The Jordan Lake nutrient rules readoption process required of the NC Department of Environmental Quality (DEQ) is expected to begin in January 2020, upon receipt of the UNC Nutrient Management Study from the NC Policy Collaboratory. Although not the focus of JLOW, it is a strong impetus to successful collaboration; therefore, the JLOW initiative efforts will be driven largely by the readoption process timeline. The schedule for the JLOW initiative as outlined in Section 4.0 is estimated at 18-24 months, culminating in the delivery of an integrated watershed management framework that satisfies nutrient rules readoption stipulations as a component of a larger collaborative approach, and is mutually agreed upon by DWR and JLOW by the end of December 2020.

The collaborative process outlined in this Work Plan will be administered by a Coordinator with the help of an Advisory Committee. The bulk of collaboration will take place in Workgroups formed to develop and evaluate recommendations to the Advisory Committee for inclusion in the proffered IWM framework.

## 1.3 DEFINITIONS

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The terminology used in this Work Plan is based on the following definitions:

**JLOW:** Jordan Lake One Water

**One Water:** The view that all water has value and should be managed in a sustainable, inclusive, integrated way.

**Integrated Watershed Management Framework:** Coordinated management of water, land and related resources to maximize economic and social wellbeing in an equitable manner, without compromising the sustainability of the resources.

**Work Plan:** this document, prepared by the Advisory Committee and endorsed by JLOW partners, to guide the development of an integrated watershed management plan.

**Advisory Committee:** a committed group of water resource professionals, representing various interests, helping the JLOW Coordinator collaboratively develop an Integrated Watershed Management Plan for Jordan Lake watershed.

**JLOW Coordinator:** Jen Schmitz, Water Resources Planner at TJCOG, overseeing the administration and facilitation of JLOW activities.

**Local Elected Officials Group:** Convened by the JLOW Coordinator to broaden stakeholder interests and increase potential solutions.

**Workgroup:** Primary method for collaboration to develop recommendations for JLOW. Composed of JLOW participants and subject matter experts on a specific topic.

**Triple Bottom Line:** an accounting framework that incorporates three dimensions of performance: economic, quality of life (social), and environmental benefits.

## 1.4 ADMINISTRATION

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The Triangle J Council of Governments (TJCOG) identified interested leaders among JLOW meeting participants and discussions to convene in an advisory context. The Advisory Committee consists of professionals that have demonstrated interest in developing a One Water framework. Committee members will develop a work plan, assist the JLOW Coordinator with workgroup development, find funding for project management, receive recommendations from workgroups, and develop the final JLOW recommendations.

### 1.4.1 JLOW Administrators

The Work Plan will be administered by the JLOW Coordinator relying on the consult and support from a Work Plan Advisory Committee and a Local Elected Officials Group. Additional members may need to be added to fulfill JLOW goals.

#### **JLOW Coordinator**

- Jen Schmitz, TJCOG

#### **Work Plan Advisory Committee Members**

- Andy McDaniel, NCDOT
- Bill Holman, The Conservation Fund
- Cameron Colvin, Piedmont Triad Regional Council (PTRC)

- Erin Riggs, UNC Environmental Finance Center
- Joey Hester, NC Division of Soil and Water Conservation
- Kristine Williams, City of Greensboro
- Patrick Beggs, NCDEQ
- Peter Raabe, American Rivers
- Sydney Miller, City of Durham
- Trevor Clements, Tetra Tech

**Local Elected Officials Group:**

- Commissioner Amy Galey – Alamance County
- Mayor Cindy Perry – Pittsboro
- Council member DeDreana Freeman – Durham
- Commissioner Diana Hales – Chatham County
- Council member Griffin McClure – Graham
- Council member Harold Owen – Burlington
- Mayor Lance Olive – Apex
- Mayor Pro Tem Lori Bush - Cary
- Commissioner Mark Marcoplos – Orange County
- Mayor Pam Hemminger – Chapel Hill
- Commissioner Sig Hutchinson – Wake County
- Council member Tammi Thurm – Greensboro
- Mayor TJ Cawley/Mayor Pro Tem Vicki Scroggins-Johnson – Morrisville
- Commissioner Wendy Jacobs – Durham County
- Commissioner Kathleen Ferguson – Hillsborough
- Council member Patty Philipps - Mebane

**1.4.2 Funding**

Administration and management of JLOW requires funding for the JLOW Coordinator and the development and success of the workgroups, communication, local elected officials’ group, and the Advisory Committee. Staff members from TJCOG and PTRC are currently meeting some of this management need as part of their COG responsibilities. More staff time is required to develop JLOW, coordinate closely with NCDWR staff, and reach the goal of widely accepted recommendations for integrated watershed management.

The Advisory Committee has obtained some staff funding from: the NC Policy Collaboratory of the University of North Carolina; a subgrant from American Rivers; and the Clean Water Act Section 205(j) grant program housed in the NC Division of Water Resources. Additional funding is needed to support JLOW and the initial scope of work. The Advisory Committee is exploring grant opportunities and other funding mechanisms to support the effort.

## 2.0 COMMUNICATIONS AND OUTREACH

### 2.1 IMPORTANCE OF PUBLIC INVOLVEMENT

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Public involvement is a key component of the One Water approach envisioned for the Jordan Lake Watershed. For the purposes of this JLOW Work Plan, the public is defined generally as stakeholders who:

1. are affected or potentially affected by a solution (positively or negatively),
2. have the potential to obstruct or facilitate an agreement or its implementation,
3. have the authority to make decisions, or
4. have the resources to implement decisions/solutions.

Through public involvement and collaborative decision making, JLOW will increase potential solutions and implementable decisions, increase leveraging of resources, increase civic engagement and general capacity watershed wide. In addition, public involvement can reduce conflict and foster trust.

#### 2.1.1 Public Involvement Principles

As a self-described collaborative initiative committed to involving interests from across the watershed, JLOW will base its public involvement principles on the Core Values of the International Association of Public Participation [IAP2.org]. These were developed collaboratively, have been prescribed by the US EPA, and can be best described as Best Management Practices (BMPs) for public involvement. The seven Core Values simplified into BMPs are listed below.

##### 2.1.1.1 BMPs of Public Involvement

1. Those affected have a right to be involved.
2. Public contribution will influence the decision.
3. Communicate the needs and interests of all involved.
4. Seek out and involve those potentially affected.
5. Provide appropriate avenues of participation.
6. Provide information needed to participate.
7. Communicate how the input affected the decision.

### 2.2 DECISION MAKING

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Developing watershed management recommendations through an open and transparent process can be aided or hindered by its decision-making along the way. Knowing that the recommendations made by the workgroups and Advisory Committee may not be the final management decision for Jordan Lake watershed, it is important to not only keep track of the history of decisions, but also the content of the minority opinions. Eventually JLOW recommendations may be subject to local and state government, as well as private industry and public institutions.

The JLOW Advisory Committee and workgroups will use consensus-based decision making, where all those involved accept the decision. Consensus does not mean unanimous agreement, but instead everyone involved understands

the issue, understands why people agree/disagree, is comfortable letting the decision move forward, or is in a very small minority who has helped everyone to understand why they disagree with the decision.

JLOW Advisory Committee and workgroups will use a 5-finger scale of agreement to move decisions forward and will report on the presence content of minority opinions. Sharing minority opinions about decisions allows more of the issue to be understood by others in JLOW, the public, and potential decision makers. Requiring those disagreeing with a decision to help others understand “why” instills a level of transparency in the entire process.

The 5-finger scale:

1. Enthusiastic support – “I will champion the motion”
2. Modest support – “I like the motion”
3. Neutral position – “I can live with the motion but without enthusiasm”
4. No support – “I don’t like the motion and need to state my opposition”
5. STOP! Active resistance – “I will work against the motion”

Voting resulting in only 1s, 2s, or 3s allows the proposal or decision to move forward. Voting resulting in any 4s or 5s requires the voter to explain why they voted a 4 or 5 and work toward suggesting an alternate proposal. All voters are asked to help others understand their votes and work toward a proposal that receives only votes of 1, 2, or 3. Proposals receiving votes of 5 by less than 20% of voters, will move forward with the requirement of including the alternate opinion of those voting 5.

## 2.3 EDUCATION

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In order to discuss and plan from an integrated watershed management approach, JLOW will encourage education on new and different topics from diverse perspectives. Some participants may require more information than others on certain topics. The group will work to help each member understand the issues that arise from these topics.

The JLOW Coordinator will assist in gathering the needed information, including developing a list of subject matter experts.

Some potential educational topics include:

- Triple Bottom Line (TBL) as an approach to decision making
- Integrated Watershed Management (IWM) and the One Water concept
- Wastewater, Drinking Water, and Stormwater: specifics of and relation among
- Agriculture in the watershed
- Past nutrient management strategies
- Collaborative decision making
- Objectively evaluating management options
- Environmental Justice issues
- Performance metrics, reporting, and adaptive management metrics
- Various Watershed issues identified throughout process

## 2.4 COMMUNICATION

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Ultimately, success of any One Water approach depends on public support and investment of resources to accomplish the identified goals and objectives. To gain public support, greater understanding of why a One Water approach will be important to the region’s economy, quality of life, and environment is needed among regional public and private decision-makers and those who will be asked to invest in the effort. This support originates with a greater understanding of why a One Water approach is important to the Jordan Lake watershed’s economy, quality



of life, and environment. In short, a plan is needed to facilitate communication within, between, and among: the Advisory Committee; local elected officials group; workgroups; regulatory agencies, stakeholders; participants; and the general public.

JLOW has excellent outreach and communication methods in place already for its current level of work, and a wealth of education and communication experience to draw upon. As the collaborative process builds through the workgroups, more stakeholders become involved, and the public interest grows, a more formal communication plan will be required. The communication strategy will identify key audiences, what needs to be communicated, why, how and when. This will include whether and how JLOW general meetings and the JLOW website meet public participation needs or how else the public should be engaged, along with a recommended schedule for public involvement.

Some of the required communication needs include:

- Outreach to all involved and the general public
- Identification of key audiences and effective approaches for connecting with them
- Meeting summaries tracking changes throughout the process
- Methods for workgroups to communicate with the JLOW coordinator
- Internal meeting summaries
- Larger meetings to share information in a public setting

By adhering to the BMPs and principles outlined in Section 2.1.1, a communication plan can meet the needs of all involved. Therefore, a JLOW workgroup of interested stakeholders will be convened to complete this communication plan, including review by and support from the elected officials.

## **2.5 STAKEHOLDER OUTREACH**

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The success of the previously identified major tasks, as well as the JLOW initiative, will rely on effective and robust engagement with stakeholders throughout the watershed.

The JLOW Advisory Committee will create a stakeholder matrix to identify all organizations, entities, and individuals for which representation is needed in the scope outlined in this Work Plan. This matrix will identify those stakeholders already participating as well as those that are missing and will be continuously updated and maintained. Through this process, JLOW will broaden stakeholder representation as widely as possible to ensure all necessary groups have been invited to participate in this initiative.

## **2.6 LETTER OF INTENT**

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The Work Plan Advisory Committee will send a letter of intent addressed to the NC DEQ outlining the JLOW initiative Work Plan, schedule, and overall goal to develop an integrated watershed framework for the Jordan Lake watershed, and formally request staff and leadership support.

## 3.0 SCOPE OF WORK FOR JLOW

### 3.1 WORKGROUPS

The goal of JLOW is to produce integrated watershed management recommendations for the Jordan Lake Watershed. The bulk of this responsibility will fall to workgroups formed to discuss specific topics and recommend appropriate actions. Communication between workgroups and the Advisory Committee will be key to success of JLOW. The Advisory Committee will receive recommendations from the workgroups, formulate them into a cohesive plan, and present that plan of recommendations to the workgroups and larger JLOW community for review.

Workgroups will allow more intimate discussion to occur among members keenly interested in the topic matter. Needs and interests of the larger JLOW community will be shared with the workgroups. The JLOW Coordinator will assist the workgroups with membership, outreach, information, and communication.

Each workgroup will consist of:

- subject matter experts and interested parties,
- a lead organizer, and
- a liaison to the JLOW Coordinator and Advisory Committee.

Some of these responsibilities may be conducted by the same person and where possible, an Advisory Committee member will be part of a workgroup.

Like the JLOW Advisory Committee, workgroups will strive for a collaborative process that is purpose-driven, inclusive, educational, accountable, and time limited. In keeping with the desire to base decision on interests and not positions, workgroups will use the same consensus decision-making process as the Advisory Committee.

### 3.2 DEVELOP AN INTEGRATED WATERSHED MANAGEMENT PLAN FOR THE JORDAN LAKE WATERSHED

The goal of JLOW is to develop a plan of recommendations for supporting a One Water/Integrated Watershed Management approach in the Jordan Lake watershed. The objectives outlined below are those identified as critical to achieve JLOW's goal. Objective 1 encompasses the development of this Workplan and the ongoing collaboration necessary in this entire process. The other Objectives, along with associated tasks, will be undertaken by workgroups as described in Section 3.1, and the recommendations will be representative of diverse stakeholder input.

#### **Objective 1 – Develop a Stakeholder Collaboration Process**

Using the principles outlined in this document, workgroups will develop the objectives listed below, as well as a plan to document the process and outcomes. This Objective is intended to be overarching and is anticipated to be ongoing, as additional stakeholders join workgroups and collaboration expands.

#### **Objective 2 – Identify and Define Local and Watershed-wide Goals and Benefits**

Tasks will aim to answer the following questions:

1. What are the local community goals that JLOW seeks to incorporate, regarding economy, quality of life, and environment?

2. What are the co-benefits of improved watershed management?
3. What existing systems and/or behaviors will need to be modified to achieve the desired benefits?
4. How can the implementation process adapt to changing local goals and issues?

### **Objective 3 – Identify Integrated Watershed Management Implementation Opportunities.**

Identify projects and processes that support integrated watershed management. Related tasks may include:

1. Identify required system, policy, or behavior changes.
2. Develop testing questions to evaluate strengths, weaknesses, and triple bottom line benefits.
3. Identify returns on investment.
4. Develop a selection process.
5. Identify and prioritize time limited pilot projects designed to expose obstacles to implementation.

### **Objective 4 – Develop Evaluation Methods for Projects.**

Determine how watershed management alternatives can be evaluated effectively and efficiently to compare estimated performance for supporting economic, quality of life, and environmental goals. Consider testing questions that incorporate weak links.

### **Objective 5 – Determine Feasible Monitoring and Reporting Procedures.**

Tasks include developing and evaluating project performance monitoring, reporting and management adaptation processes can be set up.

1. How will performance of selected actions be tracked?
2. What metrics will be tracked and for what purposes.
3. Who will be responsible for tracking and reporting results?

### **Objective 6 – Evaluate Potential Financing Structures**

Tasks include exploring how to fund implementation of projects and management activities.

*In order to limit bias and maximize stakeholder and public influence, this task will be conducted separately from Objective 7.*

### **Objective 7 – Evaluate Potential Organizational Structures**

Tasks will aim to answer the following questions:

1. Will a formal organization be required to successfully implement a One Water approach in the Jordan Lake watershed?
2. What is the legal basis for such an organization?
3. Would a Board, Steering Committee, and/or paid staff be needed for this organization?
4. How will these individuals be selected and serve?

*In order to limit bias and maximize stakeholder and public influence, this task will be conducted separately from Objective 6.*

### 3.3 PARTICIPATE IN NUTRIENT RULE REVISION PROCESS

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While the purpose of the JLOW management framework is intended to be sufficiently broad in scope to cover most if not all water-related management collaborative opportunities, one of the key areas it will address is the upcoming Jordan Lake Nutrient Rules readoption process required of the NCDEQ. This process has been legislatively directed to begin in January 2020. The existing 2009 Nutrient Management Rules and the lack of collaboration in the watershed have contributed to conflict among upstream and downstream communities, regulators, and permittees, resulting in multiple rule delays by the NC General Assembly. Although rule readoption is not the sole focus of JLOW, it is a strong impetus for successful collaboration among the many diverse stakeholders in the watershed. Therefore, concurrently with, and complementary to, the initiative to develop a One Water framework for the Jordan Lake watershed as described throughout this Work Plan, JLOW will work closely with NCDEQ to advocate for inclusion of the One Water alternative management strategy as they approach the rule readoption phase. This will include reviewing the previously proposed Jordan watershed nutrient rules to identify potential barriers to implementing the JLOW integrated watershed management framework; ensuring adequate stakeholder participation to help satisfy public involvement requirements; and help develop recommendations in collaboration with NCDEQ based on outcomes from Work Plan tasks. The schedule for the JLOW initiative as outlined in Section 4.0 is estimated at 18-24 months, culminating in the delivery of an integrated watershed management framework that satisfies nutrient rules readoption stipulations as a component of a larger collaborative approach, and is mutually agreed upon by DWR and JLOW by the end of December 2020.

## 4.0 SCHEDULE AND TIMELINE

As described in Section 3.3, nutrient management through greater flexibility in the range of options for addressing nutrient reduction is only one component of a larger One Water/IWM framework to achieve triple bottom line benefits throughout the Jordan Lake watershed. However, the rules readoption process does provide an opportunity for collaboration, recommendation, and regulatory change that stakeholders have been seeking; therefore, the JLOW initiative will develop around the schedule needs of the Rules process as described below.

The NC Jordan Lake Watershed Nutrient Management Rules are slated to begin readoption in January 2020, upon receipt of the NC Policy Collaboratory Nutrient Study on or before December 31, 2019. The NC Division of Water Resources (DWR) will need to work with the stakeholders and the Environmental Management Commission to readopt nutrient management rules for Jordan Lake. The JLOW initiative stands to benefit from as much discussion, education, and recommendations as can be produced by that point, to best inform the nutrient management rules with its integrated watershed management recommendations. All workgroup documents and recommendations will be developed and submitted to the Advisory Committee by December 31, 2020. DWR and JLOW will work closely to compile all recommendations and supporting documents into a final IWM framework in early 2021.

The project timeline on [www.ticog.org/jlow](http://www.ticog.org/jlow) portrays major and minor tasks and expected completion dates.

