

INDIANA FINANCE AUTHORITY

REQUEST FOR PROPOSALS  
FOR THE  
CENTRAL INDIANA WATER STUDY  
PHASE III: WATER AVAILABILITY MODELING AND OPTIMIZATION

DUE TO THE INDIANA FINANCE AUTHORITY BY:  
APRIL 8, 2019

4:00 P.M. EDST

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# REQUEST FOR PROPOSALS

## A. Background

Pursuant to the State of Indiana's ("State") [Water Infrastructure Task Force](#) Final Report (dated November 9, 2018), the Indiana Finance Authority (the "IFA") will undertake a series of studies to identify water infrastructure needs and solutions, specific to regional areas of the State, as well as efficiencies to be gained through regional partnerships and improved sharing of resources.

Central Indiana is the second regional area to be studied by the IFA because of the progress already made by the Central Indiana Drinking Water Collaborative ("Collaborative"); a group of water utilities that previously organized themselves and conduct regular meetings. The study area for the Central Indiana Water Study assumes the same boundaries as the Collaborative, which are: Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties. The primary goal of the IFA's Central Indiana Water Study, determined in partnership with the Collaborative, is to provide the State and affected water utilities a better understanding of the supply and demand of water resources in the Central Indiana region.

The Central Indiana Water Study will consist of five separate phases.

### Phase I Regional Demand

1. Forecast water demand in the study area out to the year 2070
2. Consider all sectors: residential, commercial, industrial, and agricultural
3. Evaluate multiple overlapping growth and drought scenarios

### Phase II Regional Supply

1. Identify and then collect data necessary to have a better understanding of groundwater and surface water supplies in central Indiana, including aquifer levels and stream flows
2. Describe surface water and groundwater connections under natural conditions
3. Use mapping tools to interpret the data

### Phase III Water Availability Modeling and Optimization

1. Utilize Phase II data to construct a regional groundwater flow model
2. Using the model and Phase I data, identify and define areas of aquifer stress and potential limitations and/or surpluses under various scenarios
3. Use the model to simulate short-term and long-term water availability under various operational and climate scenarios
4. Collect localized data needed to understand the effects of utility water withdrawal operations on groundwater and surface water systems

### Phase IV Infrastructure and Cost Analysis

1. Evaluate potential infrastructure needed to address deficits forecasted in Phase III, including a cost benefit analysis, environmental siting, regulatory, and permitting conditions

2. Evaluate potential interconnections, and the technical, regulatory and operational issues that would need to be addressed in order to wheel water from one system to the next

Phase V      Public Education and Outreach

1. Based on findings in Phases I, II, III, and IV, identify topics that would aid the utilities in the study area to better communicate water supply and demand issues with the residents of Central Indiana, including but not limited to lawn irrigation and drought management
2. Work with utilities in the study area to develop a regional public education message regarding the water supply and demand issues
3. Develop needed public education materials
4. Develop outreach implementation plans that include timelines and estimated costs.

## **B. Overview**

The IFA is issuing this Request for Proposals (“RFP”) to solicit proposals (individually, a “Proposal” and collectively, the “Proposals”) from qualified firms (“Respondents”) interested in providing the services being requested pursuant to the terms of an IFA Professional Services Agreement (“Agreement”, attached as Appendix A) in connection with Phase III of the IFA’s Central Indiana Water Study.

Separate RFPs will be released for Phases III, IV, and V. the IFA is working with the U.S. Army Corps of Engineers to complete Phase I and the United States Geological Survey to complete Phase II. Award of this Phase III Agreement does not preclude Respondent(s) from submitting a Proposal(s) for any other projects advertised by the IFA.

An estimated timeline for the Central Indiana Water Study is presented in Appendix B. Although the award of the Phase III RFP may occur in April, it may be several months before substantial work on Phase III can begin due to information being needed from other phases. Respondents must ensure that appropriate staffing is available when substantial work begins.

## **C. Scope of Services**

The purpose of the Phase III study is to construct a regional groundwater flow model, capable of approximating current conditions (regional water levels, flow direction, and recharge) and simulating the effects of future water demand scenarios identified by the Phase I study. The model is intended to simulate future groundwater management scenarios while approximating aquifer response under various operational (water withdrawal) and climate scenarios. The model will utilize water demand data from Phase I and regional water resource data and information from Phase II. In addition, the Phase III study will include a discussion of coordinated water withdraw and drought management strategies, impacts of lawn irrigation and other priorities for the region.

The tasks to be performed in Phase III will include, but are not limited to, the following:

- Task 1      Construct a regional groundwater flow model by incorporating:
1. Groundwater and surface water information from Phase II

2. Utility water supply plans
  - a. Current infrastructure capacity and system yield under drought conditions
  - b. Future supply projects

- Task 2 Use the model to identify and define areas of aquifer stress and potential limitations and/or surpluses under scenarios including:
1. Variable water demand forecast and growth scenarios from Phase I
  2. Variable weather conditions, including drought of record and future climate change
  3. Variable utility operations that effect water withdrawal including:
    - a. Wellfield and surface water intake operations
      - i. As needed, collect additional local data, e.g. river levels under the influence of wellfield operations
    - b. Lawn irrigation

- Task 3 Use the model to simulate short-term and long-term water availability under various operational and climate scenarios for:
1. Each utility in study area
  2. The Central Indiana region/study area

- Task 4 Investigate and report on priorities and challenges, including:
1. Coordinated water withdraw strategies in order to optimize resources
    - a. Understanding aquifer and surface water connections
    - b. Operational optimizations
  2. Lawn irrigation
    - a. Impact on demand projections, supply plans, and supply costs

- Task 5 Participate in:
1. One, in-person kick-off meeting
  2. One, in-person public meeting
  3. Monthly progress meetings, which may be conducted by phone, for the duration of the project

- Task 6 Provide summary and recommendations

The deliverables for this project include a groundwater flow model, appropriate interface for running various simulations, and a written report summarizing the results of the groundwater model simulations and recommendations for future water resource management considerations. The final model shall be considered the property of the State of Indiana.

#### **D. Responses**

**Prospective firms that anticipate responding to this RFP should indicate so, as soon as possible, in order to receive timely updates on the process.** Contact information (Respondent's full name, company name, phone number and e-mail address) should be sent via e-mail to Daniel Lundberg at the IFA at [dlundberg@ifa.in.gov](mailto:dlundberg@ifa.in.gov).

Final responses should include:

- a. An electronic version of the written response (in .pdf format) sent via e-mail to Daniel Lundberg at [dlundberg@ifa.in.gov](mailto:dlundberg@ifa.in.gov); and
- b. An original and two (2) copies of their written response delivered to:

Indiana Finance Authority  
100 North Senate Avenue, Suite 1275  
Indianapolis, IN 46204  
Attn: Daniel Lundberg

**Responses must be received no later than 4:00 p.m. EDST on April 8, 2019.** Responses received after 4:00 p.m. EDST on such date are at the discretion of the IFA as to whether or not they are considered.

The outside should be clearly marked:

**“Response to Requests for Proposals  
for the Central Indiana Water Study Phase III”**

Each response should designate one person as the principal contact for the Respondent. Please provide the contact information for that person including email address.

Proposals must be no more than 20 pages, exclusive of the title page, index, front and back covers, and section dividers. Excessive or irrelevant material will not be favorably received.

**Any questions regarding this RFP must be submitted via email to Daniel Lundberg at [dlundberg@ifa.in.gov](mailto:dlundberg@ifa.in.gov) no later than 4:00 p.m. EDST on March 25, 2019.** Depending upon the content and scope of the question, responses to questions will be promptly prepared and provided to all Respondents that have shown an interest in responding (as described above).

Other than as provided above, inquiries are not to be directed to any staff member or other member of the IFA or any other state-related employee. Such action may disqualify the Respondent from further consideration for a contract as a result of this RFP. Respondents may not rely upon verbal responses to any inquiry.

## **E. Evaluation of Responses**

The IFA will review all of the responses in the following manner:

1. Each response will be evaluated on the basis of the specific criteria listed below.
2. Based on the results of the evaluation, the response(s) determined to be most advantageous to the State, taking into account all of the evaluation criteria, may be selected by the IFA for further action.

3. The IFA supports the “Buy Indiana” initiative. It is a strong preference that Respondents meet the definition of an Indiana Business. Please refer to the following website to see if you fit within the definition and to learn more about the “Buy Indiana” initiative: <http://www.in.gov/idoa/2467.htm>.
4. Respondents are allowed to partner according to skill or expertise or regional knowledge of certain portions of the study area.
5. Respondents are allowed to propose other approaches to undertake any phase or the overall Central Indiana Water Study.
6. Respondents are allowed to submit a response to any portion of Phase III and/or the overall Central Indiana Water Study with the knowledge that IFA desires to match the best qualified Respondent to the task with their area of expertise.
7. The IFA must approve changes in the composition of a Respondent team after submission if the team is comprised of more than one entity.
8. A single Respondent or a limited number of Respondents may be selected for interviews and/or contract negotiations. In the event that negotiations are not satisfactory, the IFA reserves the right to interview and/or negotiate with additional Respondents, but is not obligated to do so.

Responses will be evaluated based upon the documented ability of the Respondent to satisfy the requirements of this RFP in a cost-effective manner. Specific criteria include:

1. Demonstrated ability to work with an entity similar to the State and water utilities.
2. Demonstrated experience and ability in the prior successful completion of a similar project.
3. Technical qualifications, experience, and reputation of Respondent’s team.
4. Ability to manage, coordinate and react to diverse project requirements, evolving design, conceptual alternatives, plans, specifications, and financial considerations.
5. Demonstrated experience in developing and managing a timeline and an aggressive schedule.
6. Current workload and composition of team.
7. An estimated timeline for the Central Indiana Water Study is presented in Appendix B. Although the award of the Phase III RFP may occur in April, it may be several months before substantial work on Phase III can begin due to information being needed from other phases. Respondents must ensure that appropriate staffing is available when substantial work initiates.

## **F. Required Information**

The IFA requires the following information be included in the response. A concise yet thorough presentation of information is requested.

1. Company name and address of principal location and office(s).
2. List names, titles, and experience of the team members and/or consultant's team members who would be assigned to perform work under this contract (including consultants and sub-contractors). The IFA would like to have one individual assigned to plan and coordinate all work under this contract. Briefly outline the roles of the team members and key personnel.
3. Indicate how your entity or team will provide the services requested in this RFP and an outline of procedures to be used by the entity or team in providing a unified team approach. Include what existing data sources your Proposal will utilize and what data must be created.

Provide any project histories or other information available that would indicate past performance on similar types of projects.

4. List three (3) references and contact information who can provide information about similar work your entity or team has completed.
5. Submit a list of work similar to the proposed project completed within the last five years. The list should be of comparable projects in which team members have participated. Respondents should specify how these comparable projects relate to the Scope of Services described above.
6. Provide a detailed Proposal for all fees and costs, by task that would be incurred by providing the Scope of Services to be included in Appendix A of the Agreement.
7. Provide an estimated project schedule, detailing the start and completion date of each significant step of your Proposal.

## **G. Terms**

### **Confidential Information**

The IFA will obtain all rights necessary to use any information, process or solution proposed in any response regardless of which Respondent or Respondents, if any, are selected at the conclusion of this RFP process. Nothing contained in this RFP will impair this right of use on behalf of the IFA.

Respondents are advised that materials contained in their responses are subject to the Indiana Public Records Act, IC 5-14-3 et seq., and after the execution of a related contract, may be viewed and/or copied by any member of the public, including news agencies and competitors. Respondents claiming



a statutory exception to the Indiana Public Records Act must indicate on their Proposal that confidential materials are included, submit such materials in a separate envelope marked "CONFIDENTIAL MATERIALS" and specify which statutory exception applies. The IFA reserves the right to make determinations of confidentiality. If the IFA does not agree with the information designated confidential under one of the disclosure exceptions to the Indiana Public Records Act, it may either reject the Proposal or discuss its interpretation of the allowable exceptions with the Respondent. If agreement can be reached, the Proposal will be considered. If agreement cannot be reached, the IFA will remove the Proposal from consideration for award and return the Proposal to the Respondent. The IFA will not determine price to be confidential information.

## **Overview of Process**

This RFP is open to all prospective Respondents capable of and qualified to meet the objectives and requirements described in this RFP. Upon receipt, all RFP submissions will be reviewed for completeness in accordance with the submission criteria highlighted in Section F of this RFP. At the end of the completeness review, the IFA will assess each Respondent's qualifications in the areas listed in Section E of this RFP. The IFA reserves the right to disqualify and/or reject any or all Respondents at any time for any reason. After the review of RFP submissions, Respondents that are deemed qualified by the IFA will receive correspondence providing additional information on the next step of the process.

If the final responses received at the conclusion of the solicitation process meet the objectives and requirements described in this RFP, the IFA expects to enter into an agreement or agreements with the successful Respondent(s). The IFA reserves the right to modify or terminate this solicitation at any time for any reason. A standard Form of IFA Professional Services Agreement is attached to this RFP as Appendix A and may be modified at the discretion of the IFA, based upon responses. All Respondents, by their response, acknowledge their acceptance of the standard provisions included in the IFA standard Form of Professional Services Agreement. The IFA reserves the right to terminate this RFP process and commence a similar or different procurement approach. The receipt of the responses or other documents at any stage of either the RFP or alternative process will in no way obligate the IFA to enter into any contractual agreement of any kind with any party. The IFA accepts no liability or responsibility for any fees or costs incurred to the Respondent during and related to this process. The IFA reserves its right to take any action permitted under Indiana law.

## **General**

Respondent shall certify within the letter of transmittal that all information provided herein is accurate and complete to the best of its knowledge. Any false or misleading information may result in disqualification of the Respondent, at the discretion of the IFA. The IFA reserves the right to modify or terminate this solicitation at any time for any reason. The receipt of responses or other documents at any stage of the RFP process will in no way obligate the IFA to enter into any contract of any kind with any party.

This RFP is intended to publicize the availability of contracting opportunities for the services described herein. The IFA creates no obligation, expressed or implied, by issuing this RFP or by receipt of any submissions pursuant hereto. The award of any contract(s) as a result of this RFP shall

be at the sole discretion of the IFA. Neither this RFP nor any Proposal submitted in response hereto is to be construed as a legal offer.

The purpose of this RFP is to seek information from firms with experience in any of the fields described above. No contract will be awarded without further discussion and negotiation with the Respondent(s). The IFA will not be responsible for any expenses incurred by any entity in preparing and submitting information responding to this request. The IFA reserves the right to modify or amend this RFP for any reason at any time. In the event that the IFA determines that it is beneficial to the IFA or process to modify or amend this RFP, the IFA will release a written addendum and/or supplemental instructions to this RFP and post them to the IFA website.