

**NEW JERSEY WATER SUPPLY AUTHORITY**

**WSA – R26029**

**REQUEST FOR PROPOSALS**

**FOR**

**CONSULTING SERVICES**

**FOR THE**

**REHABILITATION OF THE SWAN CREEK CULVERT AND AQUEDUCT**

**ON THE DELAWARE AND RARITAN CANAL**

**CITY OF LAMBERTVILLE, HUNTERDON COUNTY**

**NEW JERSEY**

**MARCH 2026**

## **1.0 INFORMATION FOR BIDDERS**

### **1.1 PURPOSE AND INTENT**

The purpose of this Request for Proposal (RFP) is to solicit Statements of Qualifications and Technical Proposals for the purpose of retaining a Consultant to develop a program to rehabilitate the Swan Creek Culvert and Aqueduct located on the Delaware and Raritan Canal. The Consultant shall implement a comprehensive reconstruction plan that addresses the concerns that have been identified regarding the existing structure, which includes stone masonry repairs, reconstructing two concrete toe walls that are designed to provide effective seepage control and prevent further erosion damage, and the rehabilitation of the existing corrugated metal pipe liner that runs the length of the culvert to correct its deficiencies, by designing a new structural liner. This approach will yield significant long-term benefits and prevent additional deterioration and concrete spalling.

This Request for Proposals (RFP) is issued by the New Jersey Water Supply Authority (Authority).

The intent of this RFP is to award a contract to a responsible Consultant whose proposal, conforming to this RFP, is most advantageous to the Authority.

The Technical Proposal must address the required work.

Only Statements of Qualifications and Technical Proposals are being solicited under this RFP at this time. **No Fee Proposals are requested at this time.**

### **1.2 BACKGROUND**

The Delaware and Raritan Canal (Canal) was built between 1830 and 1834 to serve as an artificial waterway that connects the Delaware River near Bulls Island in Kingwood Township to the Raritan River in the City of New Brunswick. The portion of the Canal between Bull's Island and Trenton is known as the feeder canal, and the portion between Trenton and New Brunswick is the main canal. The feeder is a 22-mile-long waterway that runs along the Delaware River. The main canal is a 43-mile-long waterway that runs from Trenton to New Brunswick, running along the Millstone River and Raritan River for a majority of that length. The Canal operated as a barge Canal on both sections until 1932. Subsequently in the 1940's the State of New Jersey took ownership of the Canal and initiated a rehabilitation program to transform the Canal into a public water supply transmission system.

The Canal is owned by the State of New Jersey and is under the auspices of the New Jersey Department of Environmental Protection (NJDEP), and the Authority operates and maintains the Canal for water supply as part of the Raritan System. The Raritan System includes the Canal and the Spruce Run and Round Valley Reservoirs. The Canal currently serves over fifteen water purveyors in central New Jersey utilizing approximately 100 million gallons of water per day that

is diverted from the Delaware River Basin and transported by the Canal. The structural integrity of the Canal and its appurtenant structures is a high priority for the Authority to continue to deliver raw water to central New Jersey. The Canal is a vital water supply, a major recreational facility, and a significant cultural resource.

In 1973, the Canal was placed on the National and State Register of Historic Places. The Canal is also within the Delaware and Raritan Canal State Park (DRCSP). Projects that impact the Canal require prior written authorization or consent from the State Historic Preservation Office (SHPO). Accordingly, any rehabilitation or construction work undertaken along the Canal must consider the historic and cultural significance of the Canal and adverse effects to these features must be minimized. The Canal and the Delaware River are both under the jurisdiction of the Army Corps of Engineers.

There are many water control and overflow structures along the Canal, including locks, gates, culverts, spillways, and aqueducts. It is the intent to maintain these structures for the integrity of the raw water supply, while preserving the historic features that they contain.

### Swan Creek Culvert and Aqueduct

The Swan Creek Culvert and Aqueduct were originally constructed in the 1800's, located on the Canal approximately at Station 362+30 in the City of Lambertville, Hunterdon County. The aqueduct structure was erected to carry the Canal over Swan Creek, with the secondary function of a spillway for excess Canal water. The spillway is located along the Canal's left bank that discharges directly in front of the aqueduct. Two waste gates are present beneath the spillway, with a concrete splash pad located over the aqueduct to mitigate erosion caused by the spillway discharge waters. Canal waters flow over the spillway and under the aqueduct towards the Delaware River during high water flow seasons.

The Swan Creek Aqueduct is a concrete and masonry structure that was partially rehabilitated in 1989 when waste gates were replaced, some of the masonry was reconstructed, and some of the existing concrete was repaired with shotcrete.

Repairs were made to the aqueduct in 2006 following major flooding events on the Delaware River. Significant leakage occurred through the masonry wall on the southeast part of the structure where Swan Creek enters the opening under the aqueduct. A contractor was hired on an emergency basis to pump pressure grout behind the wall where a sinkhole had formed as a result of the seepage. The seepage was slowed significantly by the injection of the grout, although it did not stop completely. A jet grout seepage cutoff wall was constructed in April 2009 to eliminate seepage through the wingwall, most of the seepage was stopped with this project.

An additional phase of repairs was conducted in 2014, which included rehabilitation of masonry and concrete, the replacement of the bent stem for one of the two waste gates, pressure injection of cracks, and repair of the concrete piers. The scope of work for the 2014 repair project was reduced during construction due to dewatering issues and safety concerns expressed by the

contractor. These unforeseen conditions ultimately resulted in an incomplete outcome, leaving several conditions unresolved. Several key tasks that remained unresolved at the conclusion of the project include but are not limited to:

- The rehabilitation of the corrugated metal pipe (CMP) liner that extends the full length of the culvert;
- The construction of two concrete toe walls along the entire CMP;
- The filling of erosion in the outlet channel;
- The reconstruction of the stone masonry wingwall at the aqueduct inlet, along with the implementation of seepage control measures.
- Undermining beneath concrete floor slab that extends under the adjacent stone buttress foundation.
- Removal and replacement of partially sunken portions of dry laid stone wall above the culvert's inlet headwall.

The Consultant shall investigate and design a mitigation plan for the aqueduct and culvert. Past flooding events suggest maintaining hydraulic capacity of the culvert will be a critical aspect to the design. The Consultant is required to secure all necessary permits and approvals, prepare construction plans and specifications, and provide construction management services during the project. The Consultant shall provide cultural resource consulting services, with their internal resources or through contracting of a subconsultant. The Authority will not separately retain a cultural resource firm for the purpose of this project.

The Engineering Consultant will provide cultural resource consulting services to perform any necessary investigation at the project site, to review the design development, prepare necessary permits, and to provide observation during the construction phase to ensure that culturally and historically significant features of the Canal and its surroundings are preserved.

### **1.3 DOCUMENT REVIEW AND FACILITY INSPECTIONS**

The New Jersey Water Supply Authority will provide Consultants with additional materials relevant to this project via the Authority's website at <http://www.njwsa.org/procurement.html>.

**No questions or inquiries regarding the substance of the RFP will be accepted or answered during the review. All questions must be submitted in accordance with RFP Section 1.5.1.**

### **1.4 SITE VISIT**

Swan Creek Culvert and Aqueduct (the site) is located along the historic Delaware and Raritan Canal, just south of the Bridge Street bridge which crosses the Delaware River and connects Lambertville to New Hope. Inspection of the culvert may be done at the convenience of the Consultant. Consultants are responsible for their own site safety when inspecting the site. Entry into either structure is prohibited. See the project location map at Attachment "B".

## **1.5 KEY EVENTS IN THE SUBMISSION OF PROPOSALS**

### **1.5.1 QUESTIONS AND INQUIRIES**

It is the policy of the Authority to accept questions and inquiries from all potential Consultants receiving this RFP, up to the cutoff date detailed in Section 1.5.3.

After the submission of proposals, unless requested by the Authority, contact with the Authority is limited to status inquiries only and such inquiries are only to be directed to the Chief Engineer. Any further contact or information about the proposal will be considered an impermissible supplement of the Consultant's proposal.

### **1.5.2 QUESTION PROTOCOL**

Written questions can be e-mailed or mailed to the attention of Steve Gates, Chief Engineer, at the following address:

Stephen Gates, Chief Engineer  
New Jersey Water Supply Authority  
1851 Route 31  
PO Box 5196  
Clinton, NJ 08809  
E-mail: [sgates@njwsa.org](mailto:sgates@njwsa.org)

### **1.5.3 WRITTEN QUESTION PERIOD**

Written questions concerning the RFP must be received prior to the cut-off date.

<b>CUT-OFF DATE</b>	Wednesday, April 1, 2026
<b>TIME</b>	Close of business (4:30 PM)

**CAUTION:** Any revisions to the RFP resulting from the written question period will be formalized and distributed to all prospective Consultants as a written addendum to the RFP.

### **1.5.4 SUBMISSION OF PROPOSAL**

Only Statements of Qualifications and Technical Proposals are being solicited under this RFP at this time. **No Fee Proposals are requested at this time.**

In order to be considered for award, three (3) hard copies and one (1) electronic copy (pdf) of the proposal must be physically received by the Authority at the appropriate location by the required time. Delays in delivery are the responsibility of the Consultant and will not be considered by the Authority.

**ANY PROPOSAL NOT RECEIVED ON TIME OR AT THE RIGHT LOCATION WILL BE REJECTED. THE DATE, TIME AND LOCATION ARE:**

<b><u>DATE:</u></b>	Wednesday, April 15, 2026
<b><u>TIME:</u></b>	4:00 PM
<b><u>LOCATION:</u></b>	Procurement New Jersey Water Supply Authority 1851 Route 31 Post Office Box 5196 Clinton, NJ 08809  <b>Directions to the New Jersey Water Supply Authority can be found on the following website:</b> <a href="http://www.njwsa.org">www.njwsa.org</a>

**1.6 ADDITIONAL INFORMATION**

**1.6.1 REVISIONS TO THIS RFP**

In the event that it becomes necessary to clarify or revise this RFP, such clarification or revision will be by addendum. The addenda will be issued on the Authority's website at <http://www.njwsa.org/procurement.html>.

There are no designated dates for release of addenda.

**1.6.2. ADDENDUM AS A PART OF THIS RFP**

Any addenda to this RFP shall become part of this RFP and part of any contract resulting from this RFP.

**1.6.3 ISSUING OFFICE**

This RFP is issued by the Authority. The Authority is the sole point of contact for the Consultant for purposes of this RFP.

**1.6.4 CONSULTANT RESPONSIBILITY**

The Consultant assumes sole responsibility for the complete effort required in this RFP. No special consideration shall be given after proposals are opened because of a Consultant's failure to be knowledgeable of all of the requirements of this RFP. By submitting a proposal in response to this RFP, the Consultant represents that it has satisfied itself, from its own investigation, of all the requirements of this RFP.

### **1.6.5 COST LIABILITY**

The Authority assumes no responsibility and bears no liability for and no proposal shall include costs incurred by Consultants before the award of the contract resulting from the RFP.

### **1.6.6 CONTENTS OF PROPOSAL**

The entire content of every proposal becomes a public record. This is the case notwithstanding any statement to the contrary made by a Consultant in its proposal.

All proposals, as public records, are available for public inspection. After contract award, interested parties can make an appointment with the Authority to inspect proposals received in response to this RFP.

### **1.6.7 JOINT VENTURE**

If a joint venture is submitting a proposal, the agreement between the parties relating to such joint venture should be submitted with the joint venture's proposal. Authorized signatories from each party comprising the joint venture must sign the proposal. A list of the required forms, certifications and registrations is noted in Section 1.8.1 of this RFP.

### **1.6.8 SUBCONSULTANTS**

Should the Consultant propose to utilize a subconsultant(s) to fulfill any of its obligations, the primary Consultant shall be responsible for any subconsultant's: (a) performance; (b) compliance with all of the terms and conditions of the contract; and (c) compliance with the requirements of all applicable laws.

- The Consultant must provide a detailed description of services to be provided by each subconsultant, referencing the applicable Section or Subsection of this RFP.
- The Consultant should provide detailed resumes for each subconsultant's management, supervisory and other key personnel that demonstrate knowledge, ability and experience relevant to that part of the work which the subconsultant is designated to perform.
- The proposing Consultant should provide documented experience demonstrating that each subconsultant has successfully performed work on contracts of a similar size and scope to the work that the subconsultant is designated to perform in the Consultant's proposal.

#### **Substitution or Addition of Subconsultants**

- If it becomes necessary for the Consultant to substitute and/or add a subconsultant after contract award, the Consultant will identify the proposed new subconsultant and the work to be performed. The Consultant must provide detailed justification documenting the necessity for the substitution or addition.

- The Consultant must provide detailed resumes of the proposed subconsultant's management, supervisory and other key personnel that demonstrate knowledge, ability and experience relevant to that part of the work which the subconsultant is to undertake.
- In the event a subconsultant is proposed as a substitution, the proposed subconsultant must equal or exceed the qualifications and experience of the subconsultant being replaced. In the event the subconsultant is proposed as an addition, the proposed subconsultant's qualifications and experience must equal or exceed that of similar personnel proposed by the Consultant in its proposal.
- The Consultant shall forward a written request to substitute or add a subconsultant to the Authority for consideration.

No substituted or additional subconsultants are authorized to begin work until the Consultant has received written approval from the Authority.

A list of the required forms, certifications and registrations is noted in Section 1.8.1 of this RFP.

## **1.7 EVALUATION OF THE SUBMITTED PROPOSALS**

The Authority will evaluate the submitted (written) proposals based on the following criteria with the indicated weights:

- a. Approach presented in the Technical Proposal including Schedule for the proposed work. **(45 points)**
  - Technical approach and project understanding
  - List of anticipated approvals and permits
  - Schedule
- b. Experience and technical competence of the personnel proposed for the project. The Consultant shall submit a proposed organization chart that will be responsible for the project along with resumes of members of the project team. The designated Project Manager must be clearly identified and their experience on similar projects must be demonstrated. Members of the project team who have worked on reference projects should be identified. **(30 points)**
- c. Record of satisfactory performance by the firm on similar projects. Record must establish the ability to properly manage the contract including project costs, quality control, and completion of the work on schedule. The evaluation will consider all members of any joint venture. **(20 points)**
  - Company work history on relevant projects
  - Identification of sub-consultants
  - References
  - Record of change order percentage

- d. Location of the firm and the primary personnel proposed for project provided that there are an appropriate number of qualified firms therein for consideration. **(5 points)**

## **1.8 FORM OF CONTRACT**

Appendix A is a copy of the Contract that is used by the Authority for Professional Services. The Consultant(s) will be required to execute the Contract and provide documentation of the necessary insurance coverage before any work is authorized.

### **1.8.1 FORMS, REGISTRATIONS AND CERTIFICATIONS REQUIRED**

The following is a list of the required Forms, Registrations and Certifications that must be included in the Vendor's Proposal. Appendix B contains the required forms and instructions.

#### STANDARD RFP FORMS, REGISTRATIONS AND CERTIFICATIONS:

- NJWSA Information Sheet
- Ownership Disclosure Form
- Disclosure of Investigations and Other Actions Involving the Vendor Form
- Source Disclosure Form
- Vendor Certification and Political Disclosure Form Public Law 2005, Ch 271
- MacBride Principles Form
- Affirmative Action Certification
- Diane B. Allen Equal Pay Act Certification
- Business Registration Certification
- Subcontractor Utilization Plan Instructions & Form
- Notice of Intent to Subcontract Form
- Non-Collusion Affidavit
- New Jersey Business Ethics Guide Certification
- Notice of All Contractor Set-Off for State Tax Notice
- Indemnification Certification
- Insurance Certificate

If a joint venture is submitting a proposal, the following forms must be submitted for each party to the joint venture:

- NJWSA Information Sheet
- Ownership Disclosure Form
- Disclosure of Investigations and Other Actions Involving the Vendor Form
- Affirmative Action Form
- Diane B. Allen Equal Pay Act Certification
- Business Registration Certificate

All subcontractors to the Principal Consultant must submit the following:

- NJWSA Information Sheet
- Business Registration Certificate

The Principal Consultant must furnish for the Authority's review and written approval the above items prior to a subcontractor being allowed to begin work on a project. The receipt and review of the above by the Authority does not alleviate the Principal Consultant's responsibility to ensure subcontractors' compliance with the Contract requirements.

## **2.0 SCOPE OF SERVICES**

### **GENERAL DESCRIPTION**

The selected Consultant shall perform the investigation and design work necessary to rectify the concerns and to ensure the longevity and safety of the structure. The design work shall be a comprehensive solution that will include a new structural liner, along with masonry work tailored to prevent future deterioration. The Consultant will be responsible for reviewing previous reports, conducting a site investigation, evaluating the existing conditions, identifying appropriate rehabilitation items, secure needed permits and approvals, prepare construction plans, specifications, project cost estimates and construction schedules, assist during the bidding process and provide construction management services during construction.

The corrugated metal liner in the north culvert showed signs of being corroded, limiting the amount of work which could be conducted in the culvert. Due to the unsuccessful completion of the repairs in 2014, these components have continued to deteriorate, resulting in the need for remediation. The design engineer shall address all the concerns noted during the 2014 construction, as well as consider design options for the culvert and aqueduct rehabilitation and reinforcement that maintains, to the highest possible extent, hydraulic capacities of the culverts.

#### **Culvert**

The culvert consists of an approximately 135-foot long, 17-foot-wide single arch, with a maximum height of approximately 5.9 feet, which allows Swan Creek to pass under the Delaware and Raritan Canal into the Delaware River. The culvert is lined with a corrugated steel liner and has a concrete floor slab throughout the entire culvert. On one end of the culvert is a stone masonry headwall, while the other end consists of a concrete headwall. Historic plans indicate that cutoff walls exist at both ends of the culvert and extend approximately 3.5-feet beneath the inverts.

In the fall of 2024, an internal inspection by the Authority's engineering staff was conducted. Significant findings were observed, particularly concerning the culvert's efficiency and structural integrity. Notably, both the left and right sides of the culvert indicated considerable corrosion of the corrugated steel arch liner at its base. Furthermore, on the left side of the inlet, undermining was detected beneath the concrete floor slab, which extends under the adjacent stone buttress foundation. Minor seepage through the bolted connections of the steel liner and joints was also observed. Given these observations by Authority staff and the documented deterioration that

has been noted over the years, we believe it is imperative to develop a comprehensive corrective action plan aimed at repairing the vulnerable areas identified during the inspection.

### Aqueduct

The aqueduct is a 78-foot-long concrete structure that incorporates two sluice gates. During the Authority's inspection, that took place in the fall of 2024, the aqueduct was found to be in good condition. Some issues that were noted that require attention were observed on the upstream side, several stones were missing from the right-side wing wall, which could affect the stability of the structure in that area. Additionally, seepage was observed through the weep hole at the left-side, down-canal abutment. A minor leak was identified at the right-side, up-canal abutment, along with areas showing efflorescence. Although these issues are currently minor, they highlight vulnerabilities to the structure and a rehabilitation plan to prevent further deterioration is pertinent.

The objectives that are expected to be addressed for this project include the following:

1. The rehabilitation of the stone arch culvert. This is to include consideration of rehabilitation or replacement of the corrugated steel liner with particular attention to securing a proper seal at all connection bolts and joints. This could also include removal of the corrugated steel liner and structural rehabilitation of the stone arch.
2. Concrete toe walls constructed along the entire length of the corrugated steel liner.
3. Repairing or reconstructing the stone masonry wall of the aqueduct while providing effective seepage control measures.
4. Clear all vegetation growth on the masonry walls.
5. Any masonry repairs needed—such as addressing spalled areas, deteriorated concrete, or replacing missing stone and mortar.
6. Erosion repairs and removal of sediment buildup at the outlet channels of both the culvert and aqueduct.

Due to the Canal's New Jersey Register status, projects that impact the Canal require prior written authorization or consent from the D&R Canal Commission, the NJDEP Historic Preservation Office (HPO), and potentially the State Historic Sites Council (HSC), among other agencies. Any rehabilitation or construction project affecting the Canal must take into account the historical significance of the Canal and must be designed to minimize or avoid adverse impacts on this historic resource.

It is the responsibility of the Consultant to provide all associated cultural resource consulting services to ensure that historically significant features at the site are identified and preserved as required under Section 106 of the National Historic Preservation Act and under the State Historic Register Act of 1970.

The Scope of Services required herein includes the following four tasks:

- Phase I: Investigation, Planning and Schematic Design  
Phase II: Design Development  
Phase III: Cultural Resource Consulting  
Phase IV: Construction Management

**Phase I: Investigation, Planning and Schematic Design**

1. The Consultant shall plan and investigate including but not limited to the following:
  - Investigate the existing conditions;
  - Review of existing documents (See Attachment A);
  - The consultant shall arrange for all survey work necessary to design the proposed improvements.
  
2. The Consultant will prepare a Schematic Design Report for submittal to the Authority. The report should include, but not be limited to:
  - Assessment of the condition of the entire structure;
  - Assessment of existing conditions, including staging areas;
  - Proposed alternatives for rehabilitation of the entire structure (as mentioned above);
  - For each alternative, include advantages, disadvantages, expected service life, hydraulic capacity impacts, permit requirements and limitations of same, and cost estimates;
  - Construction impacts and concerns;
  - Recommend with justification, preferred alternatives for accomplishing the requirements of this project;
  - Assess the Environmental Impact;
  - Assess the requirements of the Delaware and Raritan Canal Commission and the State Historic Preservation Office for this project;

In estimating the effort required for the Phase I work, the Consultant should consider the following:

- Attending a kickoff and periodic job meetings with the Authority;
- Site work necessary to perform the required tasks;
- Preparing the Schematic Design Report and supplying electronic copies for review;
- Revising and finalizing the Schematic Design Report after receiving comments from the Authority and the Cultural Resource Consultant;
- Submit three (3) hard copies and one (1) electronic copy of the Final Schematic Design Report signed and sealed by a professional engineer licensed in the state of New Jersey and one copy in electronic format suitable to the Authority;

- Coordinate with the Authority as needed for applying to the Delaware and Raritan Canal Commission (DRCC) and NJDEP Historic Preservation Office (HPO) for project's conceptual design approval, including attending a meeting of each if necessary;
- Assist the Authority in meetings with other agencies as necessary;

Attachment A is a list of the available information, previous studies and reports to be used during the course of this work.

## **Phase II: Design Development**

From the selected alternatives, including any recommendations from the HPO or other Stakeholders and as authorized by the Authority, the engineering consultant shall develop Construction Plans and Technical Specifications for the project. Construction Plans must be signed and sealed by a professional engineer licensed in the state of New Jersey. The Construction Plans and Specifications must be standalone documents prepared for this project that do not reference widely utilized specifications such as NJDOT.

The Consultant shall also be responsible for supplying content for the Invitation for Bidders Document, attending and conducting the Mandatory Site Visit for Bidders (if required), reviewing Bids received and recommending the Most Responsive Bidder. The Authority will provide the Consultant with a sample "front-end" document. It shall be the responsibility of the Consultant to incorporate into their technical specifications all supplemental information as they feel is necessary, but the Consultant should not duplicate any portion of the Authority's sample front end.

During Phase II work the Consultant shall:

- Incorporate all the Cultural Resources to be protected at the site in the design;
- Attend project meetings with the Authority and other agencies' management and engineering staff, as necessary;
- Produce Draft Construction Plans/Specifications and provide them electronically, and supply two (2) hard copies to the Authority;
- Revise and submit electronically and provide two (2) hard copies for the pre-final Construction Plans and Technical Specifications;
- On behalf of the Authority, prepare and submit all permit applications with supporting information and documents (the Authority will pay all permit-associated fees). Permits may include, but not necessarily be limited to the jurisdiction of:
  - a) State Historic Preservation Office
  - b) Delaware & Raritan Canal Commission
  - c) U.S. Army Corps of Engineers, Philadelphia District
  - d) Hunterdon County Soil Conservation District
  - e) NJDEP Flood Hazard Area Control Act Rules (N.J.A.C.7:13)
  - f) NJDEP Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A)

- g) Request for Use of NJDEP or other Property
- h) County and Township Permits

Providing each reviewing agency with the full applications (including the correct number of copies) is the responsibility of the Consultant.

If any additional permits (Federal, State, County and Municipal) are required to proceed with the project, it will be the Consultant's responsibility to obtain them (Authority will pay all permit associated fees). At a minimum, all permits explicitly stated above are the responsibility of the Consultant.

- Revise the construction plans and specifications as required;
- Prepare and submit the final Construction Plans and Technical Specifications, appropriate for bidding, to the Authority. Construction plans shall be provided electronically in PDF and AutoCAD format suitable to the Authority. Technical Specifications shall be provided in PDF and MS Word format suitable to the Authority. Three (3) signed and sealed hard copy sets of Construction Plans and Technical Specifications shall be provided to the Authority. Please submit details of relevant work in shapefile format. The shapefiles may represent work in point, line, or polygon format. The shapefiles should be coordinated using NAD1983 State Plane New Jersey FIPS 2900 (US Feet). The shapefiles should contain complete metadata stating sources and important spatial details. Any tabular attributes accompanying the files should be fully described in the metadata;
- An AutoCAD formatted survey shall be provided to the Authority;
- Prepare and submit a revised cost estimate on the basis of the final design;
- Prepare and submit an estimated construction schedule;
- Assist the Authority during the bidding process by assisting the Authority with any addenda to the bid, reviewing bids received and recommending the most responsible bidder.

### **Phase III: Cultural Resource Consulting**

The consulting services required from the cultural resource consultant involves investigation and report of the project site, the review of the engineering design development, and providing on-call inspection during the construction phase to ensure that significant cultural and historical features of the Canal and its surroundings are properly preserved. These are the consulting services herein requested:

- Document review, job site investigation, and Cultural Resource Investigation Report;
- Review of engineering consultant SDR and design development documents;
- Construction oversight.

Prepare a Cultural Resource Report summarizing the investigation. The report shall include but not be limited to:

- Assess and identify the cultural and historic nature of the project;
- Prepare a draft Cultural Resource Report and submit a copy to the Authority for review. Report should include but not be limited to the following:
  - 1) Review of available information to develop chronology and description of cultural resources at the project.
  - 2) Detailed drawings with dimensions showing original and existing features within the project area.
  - 3) Evaluation, impact assessment, and recommendations for pre-design.
  - 4) Construction activity concerns for the Canal and the Canal State Park.
  - 5) Results of archaeological testing (if necessary).
- Revise and finalize the Cultural Resource Report after receiving comments from the Authority;
- Submit the Final Cultural Resource Report to the Authority and to the necessary agencies;
- A detailed field investigation of the site including measurements and photographs;
- Review of US Department of Interior Standards on rehabilitation of historic structures to provide commentary on proposed rehabilitation plans.

During Phase I and Phase II, the Cultural Resource Consultant shall be expected to perform the following tasks:

- Provide technical feedback on the plans and specifications as they relate to the significant cultural aspect of the structures.
- Attend project meetings as necessary with the Authority and the Engineer;
- Review the Engineering Consultant's Schematic Design Report for impacts on the Project's cultural resources, or the Project's impact on the Canal's adjoining historic features, and provide written comments to the Authority within seven (7) days of receipt of the Report;
- Review the final Construction Plans/Specifications and provide written comments within seven (7) days of receipt;
- Attend the mandatory pre-construction conference to describe the Cultural Resources at the site to be protected from construction activities.

During the Construction Phase, the Consultant will provide the review and observation services necessary to ensure that the construction activities do not adversely impact the cultural and historic integrity of the project site. The Consultant's responsibilities will include but may not be limited to the following:

- During construction mobilization, instruct employees of the Contractor (and employees of any subcontractors) regarding the historic and Cultural Resources at the site that are to be protected from construction activities;
- Attend and participate in on-site Progress Meetings with the Contractor, the Authority's Engineering Consultant, and Authority Project Manager;

- Review shop drawings, samples, and other submissions (as required), by the Contractor and provide comment to the Authority's Project Manager and Engineering Consultant;
- Participate in conferences and meetings, as the Authority may deem appropriate and necessary;
- In the event that significant resources are encountered, provide archaeological study in the form of monitoring or additional excavation that may be required to mitigate project effects;
- Provide an immediate verbal notification and submit a written commentary report to the Authority on the Contractor's impending and/or observed misinterpretation of the intent of the Contract Documents relative to the protection and rehabilitation of cultural resource items;
- Prepare required documentation of the construction work for the State Historic Preservation Office. This may include a Construction Monitoring Plan and a final Archaeological Monitoring Report to document the construction and observed impacts to historic and cultural features.

#### **Phase IV: Construction Management**

During the Construction Phase, the Consultant will be responsible for construction management under the direction of a professional engineer. Construction Management will include, but may not be limited to:

- Conducting pre-construction meeting (including preparing the agenda and minutes);
- Administering the Construction Contract;
- Advising the Contractor of interpretation and intent of the Contract Documents;
- The Consultant shall provide a part-time, on-site inspector to verify compliance with the contract plans and specifications for the duration of the construction. The Authority will provide a full-time inspector. The Consultant should assume that they will provide inspection services for at least 8 hours per week on site;
- Checking and approving shop drawings, samples, and other submissions of the Contractor for conformity with design and compliance with the Contract Documents. Consultant shall prepare a submittal list for Contractor to adhere to;
- Reviewing monthly payment requests by the Contractor and making recommendations on such payment requests to the Authority;
- Conducting on-site Progress Meetings with the Contractor and other interested parties twice per month during construction and as required and appropriate. Prepare meeting agenda and provide on a timely basis and prepare and distribute written minutes of these meetings;
- Reporting on and making recommendations to the Authority as to work progress;
- Participating in conferences and meetings as the Authority may deem necessary;
- Submit signed and sealed "As-Built" drawings and project completion report of the constructed facilities to the Authority in PDF and AutoCAD format (version applicable to

the Authority). Consultant responsible for preparing as-built survey based upon actual as constructed conditions.

### **REFERENCE STUDIES AVAILABLE**

The following documents are included in this RFP:

- Attachment A is a list of documents available for review. The documents can be reviewed at the Authority's website <http://www.njwsa.org/procurement.html>. Email Matthew Beaman at [mbeaman@njwsa.org](mailto:mbeaman@njwsa.org) for the password to download the documents.
- Attachment B contains recent maps and photographs prepared by New Jersey Water Supply Authority staff.

### **3.0 INSURANCE REQUIREMENTS**

See attached contract in Appendix A.

## **Attachment A**

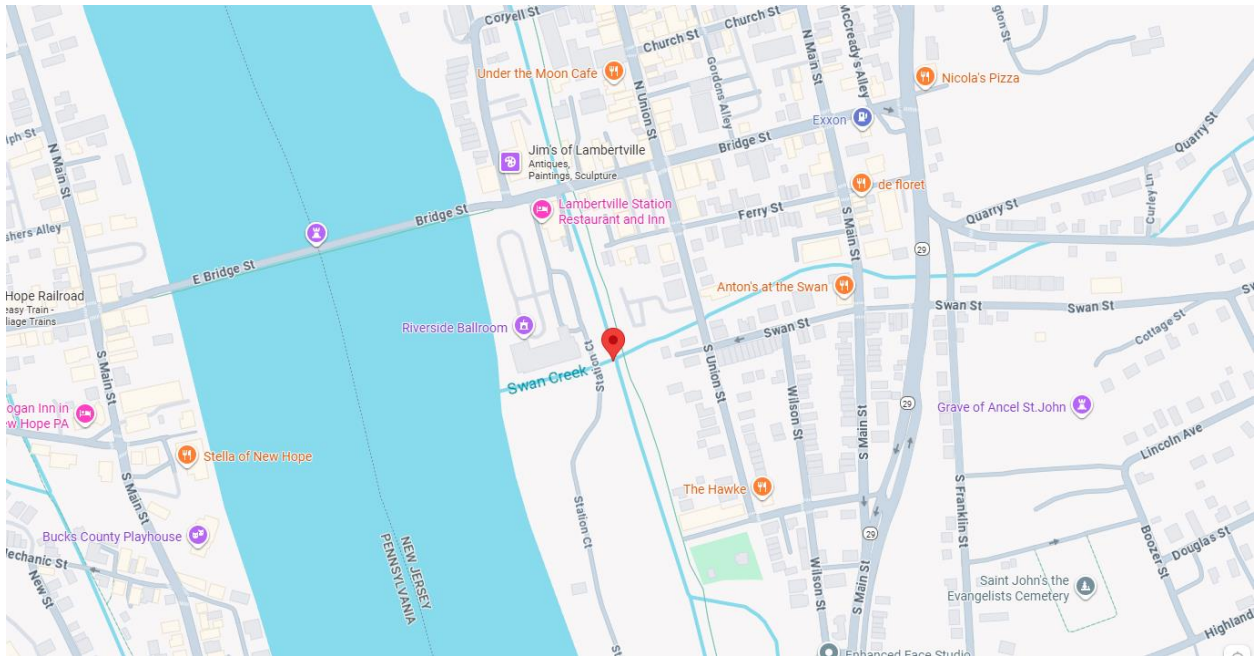
### **Available Information, Data and Reports for the REHABILITATION OF THE SWAN CREEK CULVERT & AQUEDUCT AT STATION 362+30 & 363+00 ON THE DELAWARE AND RARITAN CANAL City of Lambertville, Hunterdon County**

This list of reference items is available for review during the RFP advertisement. To access the documents, email Matt Beaman at [mbeaman@njwsa.org](mailto:mbeaman@njwsa.org). Once a consultant is selected, the Authority's full records will be made available for design.

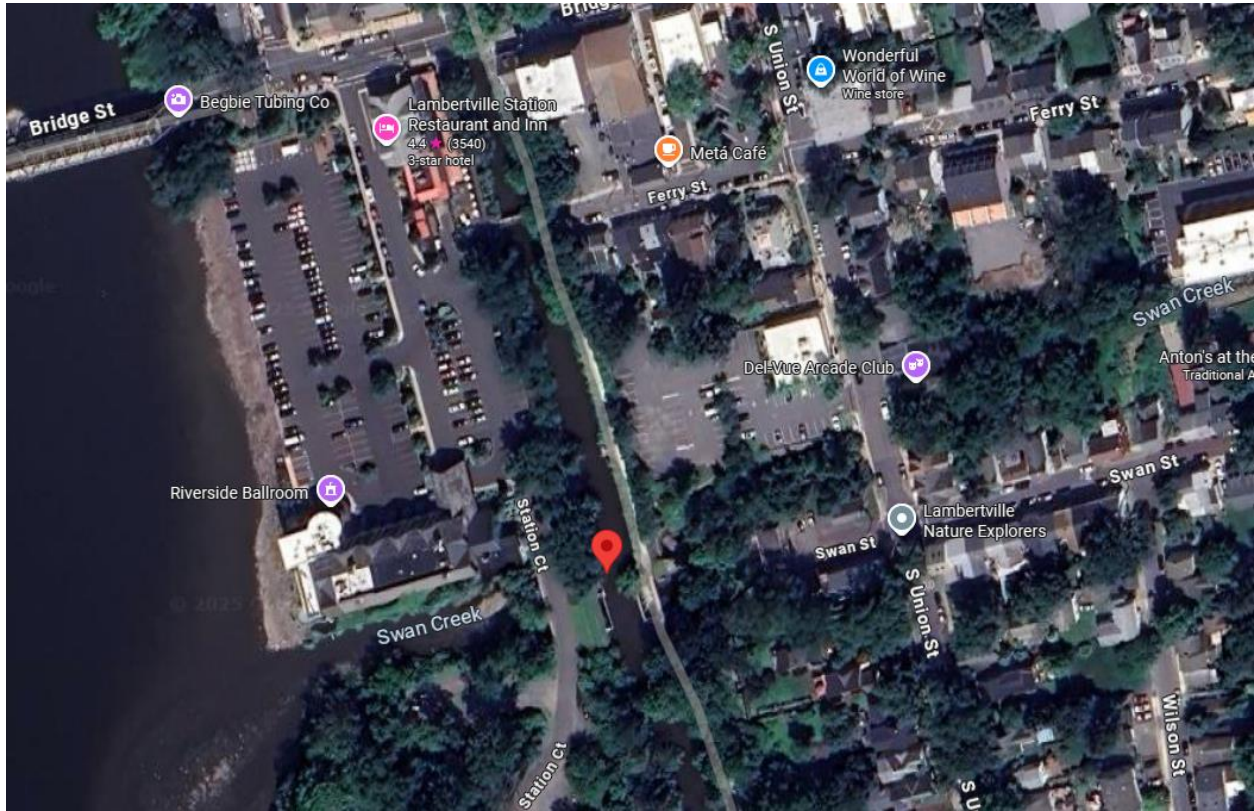
1. Swan Creek Aqueduct As-Built Redline Drawings, French and Parrello, 2014. (Plan Set)
2. Cultural Resource Report: Swan Creek Phase II, Hunter Research, Inc., 2014.
3. Swan Creek Aqueduct – Phase II, French and Parrello, 2008. (Plan Set)
4. Jet Grout Seepage Cutoff Wall at Swan Creek – Phase I, French and Parrello, 2008. (Plan Set)
5. General Requirements and Technical Specifications for Construction of the Jet Grout Seepage Cutoff Wall, French and Parrello, 2008.
6. Conceptual Design Report – Rehabilitation of the Swan Creek Aqueduct, French and Parrello, 2007.
7. Underwater Investigation of the Swan Creek Culvert, Collins Engineers, Inc., 1991.
8. Specifications for the Rehabilitation of Swan Creek Aqueduct, Sidney M. Jonson & Associates, 1989.
9. Rehabilitation of Swan Creek Aqueduct and Gates, Sidney M. Johnson & Associates, 1987.
10. Photogrammetric and Topographic Mapping of the Delaware and Raritan Canal, John G. Reutter Associates Consulting Engineers, 1979.

## **Attachment B** **Maps and Photographs**

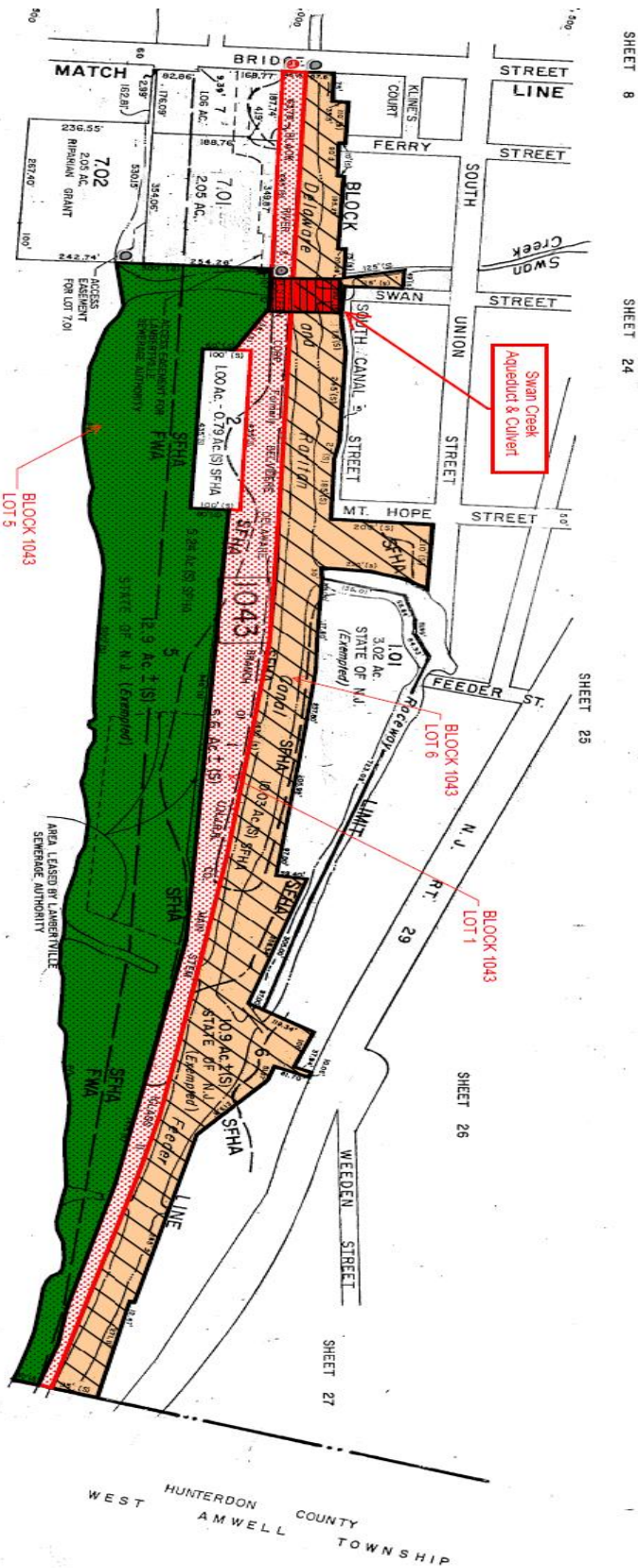
Swan Creek Culvert and Aqueduct  
City of Lambertville  
Hunterdon County, New Jersey  
Block 1043 / Lot 1  
Block 1043 / Lot 5  
Block 1043 / Lot 6



**PROJECT LOCATION**  
(Source Google Maps Retrieved October 2025)



SATELLITE VIEW OF THE SITE  
(Source Google Maps Retrieved October 2025)



TAX MAP OF PROJECT LOCATION  
(Source City of Lambertville Tax Map Sheet 9 Last Revised February 2006)



Corroded Corrugated Steel Pipe Liner (Culvert) – November 5, 2025



Corroded Corrugated Steel Pipe Liner (Culvert) – November 5, 2025



Corroded Corrugated Steel Pipe Liner (Culvert) – November 5, 2025



Inside Culvert (Looking Upstream) – 2007



Upstream Headwall of Culvert (Looking Downstream) – November 5, 2025



Undermining Beneath the Concrete Floor Slab at the Inlet of Culvert – 2021



Culvert Inlet Stone Buttress Efflorescence – 2019



Downstream Headwall of Culvert (L) and Aqueduct (R) (Looking Upstream) – 2005



Missing Stone / Deterioration on the Aqueduct (Upstream) – 2005



Efflorescence and Wet Spot Inside the Aqueduct – 2006



Inlet Side View of Missing Stone on Buttress between the Culvert and Aqueduct – 2021



Upstream View of Aqueduct (L) and Culvert Headwall (R) (Looking Downstream) – 2005



Aqueduct Canal Spillway – 2024



Aqueduct Canal Spillway – 2024

**Appendix A**

Sample Professional Services Contract

**Appendix B**

Required Forms & Certifications