# **SCOPE OF WORK**

# **Fish Nursery Tank Replacement**

Pequest State Trout Hatchery Oxford, Warren County, NJ

Project No. P1361-00

# STATE OF NEW JERSEY

Honorable Philip D. Murphy, Governor Honorable Tahesha L. Way, Lt. Governor

## DEPARTMENT OF THE TREASURY

Elizabeth Maher Muoio, Treasurer



### DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Thomas A. Edenbaum, Director

Date: September 17, 2025

PROJECT LOCATION: Pequest State Trout Hatchery, Oxford Twp., Warren County

PROJECT NO: P1361-00 DATE: September 17, 2025

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#### I. OBJECTIVE

The objective of this project is the replacement of the (48) fish rearing tanks and the replacement/repair of the associated plumbing, piping and valves for the open-air water stream system in the Nursery building at the Pequest State Trout Hatchery. The Hatchery is located in Oxford Township in Warren County.

## II. CONSULTANT QUALIFICATIONS

#### A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS

The Consultant shall be a firm pre-qualified with the Division of Property Management & Construction (DPMC) in the following discipline(s):

#### • P004 Plumbing Engineering

As well as, <u>any and all</u> other Architectural, Engineering and Specialty Disciplines necessary to complete the project as described in this Scope of Work (SOW).

## III. PROJECT BUDGET

#### A. CONSTRUCTION COST ESTIMATE (CCE)

The initial Construction Cost Estimate (CCE) for this project is \$600,000.

The Consultant shall review this Scope of Work and provide a narrative evaluation and analysis of the accuracy of the proposed project CCE in its technical proposal based on its professional experience and opinion.

#### B. CURRENT WORKING ESTIMATE (CWE)

The Current Working Estimate (CWE) for this project is \$816,000.

The CWE includes the construction cost estimate and all consulting, permitting and administrative fees.

The CWE is the client agency's financial budget based on this project Scope of Work and shall not be exceeded during the design and construction phases of the project unless DPMC approves the change in Scope of Work through a Contract amendment.

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#### C. CONSULTANT'S FEES

The construction cost estimate for this project *shall not* be used as a basis for the Consultant's design and construction administration fees. The Consultant's fees shall be based on the information contained in this Scope of Work document and the observations made and/or the additional information received during the pre-proposal meeting.

#### IV. PROJECT SCHEDULE

#### A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE

The following schedule identifies the estimated design and construction phases for this project and the estimated durations. The Consultant's proposed design and construction schedule shall be in Gantt chart format and calendar day durations with start and finish dates for each task.

PF	ROJECT PHASE ESTI	MATED DURATION (Ca	alendar Days)
1.	Site Access Approvals & Schedule De	esign Kick-off Meeting	14
2.	Investigation Phase		28
	Project Team & DPMC Plan/Code Unit Re	eview & Comment	14
3.	Schematic Design Phase		28
	Project Team & DPMC Plan/Code Unit Re	eview & Comment	14
4.	<b>Design Development Phase</b>		42
	Project Team & DPMC Plan/Code Unit Re	eview & Comment	14
5.	Final Design Phase		42
	• Project Team & DPMC Plan/Code Unit Re	eview & Approval	14
6.	Final Design Re-Submission to Addre	ess Comments	7 (See Note)
	• Project Team & DPMC Plan/Code Unit Re	eview & Approval	14
7.	DCA Submission Plan Review		30
8.	Permit Application Phase		7
	• Issue Plan Release		
9.	Bid Phase		42

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10. Award Phase	28
11. Construction Phase	180
12. Project Close Out Phase	30

**Note:** The Final Design Phase is considered complete upon the release of Construction Documents by either the DPMC Code Group or the Department of Community Affairs (DCA).

# B. CONSULTANT'S PROPOSED DESIGN & CONSTRUCTION SCHEDULE

The Consultant shall submit a project design and construction schedule with its technical proposal that is similar in format and detail to the schedule depicted in **Exhibit 'A.'** The schedule developed by the Consultant shall reflect its recommended project phases, phase activities, and activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Consultant.

This schedule and narrative will be reviewed by the Consultant Selection Committee as part of the evaluation process and will be assigned a score commensurate with clarity and comprehensiveness of the submission.

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#### V. PROJECT SITE LOCATION & TEAM MEMBERS

#### A. PROJECT SITE ADDRESS

The location of the project site is:

Pequest State Trout Hatchery 605 Pequest Road Oxford, Warren County, NJ 07863

GPS Coordinates: 40.838349° N, -74.949173° W

See Exhibit 'B' for the project site location map.

#### B. PROJECT TEAM MEMBER DIRECTORY

The following are the names, addresses, and phone numbers of the Project Team members.

#### 1. **DPMC Representative**

Name: Ronald Kraemer, Jr.

Address: <u>Division of Property Management & Construction</u>

20 West State Street, 3<sup>rd</sup> Floor

Trenton, NJ 08608-1206

Phone No: (609) 633-7186

E-Mail: Ronald.Kraemer@treas.nj.gov

#### 2. Department of Environmental Protection

Name: Jason Freeborn, Project Manager

Address: Department of Environmental Protection

275 Freehold-Englishtown Rd.

Freehold, NJ 07726

Phone No: (609) 789-8125

E-Mail: Jason.Freeborn@dep.nj.gov

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#### VI. PROJECT DEFINITION

#### A. BACKGROUND

The New Jersey Fish and Wildlife (NJFW), part of the NJ Department of Environmental Protection (NJDEP), is dedicated to the protection, management and proper use of New Jersey's fish and wildlife resources. The NJFW places an emphasis on enhancing trout fishing opportunities throughout New Jersey and manages all of the freshwater activities including long-term biological, recreational, and economic values for New Jerseyans.

The Bureau of Freshwater Fisheries is responsible for the propagation, protection, and management of the operations at New Jersey's fish hatcheries: the Pequest Trout Hatchery and the Hackettstown State Fish Hatchery. The Bureau manages freshwater fish operations that produce more than the 2,000,000 freshwater fish annually to be stocked in over 250 waterbodies located throughout the state (see **Exhibit 'D'** Pequest Booklet).

The Pequest Trout Hatchery and Natural Resource Education Center (NREC) was built in 1982. The facility sits on a 50-acre site within 4,800-acres of a Wildlife Management Area region in the Pequest River Valley and near the town of Oxford in Warren County (see **Exhibit 'B'** Project Location Map). The Pequest Hatchery has a 48-tank intensive Nursey Building that produces more than 600,000 trout yearly during the three trout stocking programs (Spring, Fall, and Winter fish stocking programs). After the trout are raised, they are delivered to New Jersey's lakes and streams for public fishing.

#### B. FUNCTIONAL DESCRIPTION OF THE BUILDING

The Nursery building is an 11,775-sq.ft. masonry block two-story building designed in 1978 and put into service in 1982 (see **Exhibit 'C'** Photos). The Nursery building is supplied with a chilled 52-degree temperature continuous water flow by 7 on-site oxygen supplied artesian wells. The building remains cool due to the continuous flow of the seven thousand gallons of water per minute through the open air water stream system. The building is also ventilated with ondemand large exhaust fans which provide relief of the heat during the summer.

The trout development process begins in the Nursery Building at the Pequest Trout Hatchery. The building is mainly divided into two sections: the Egg Incubator room and the Nursery room. After the fish eggs develop in the Egg Incubator room, the young fish are transferred to the Nursery room that houses 48 large tanks where the fish will remain for about 6 months. The 48 large fish rearing tanks in the Nursery room are fed by a connected open-air trough chilled water stream system and associated inlet and outlet piping (See Exhibit 'C' Photos).

The specialized fish rearing tanks, the chilled open air water stream equipment, and the

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connected water distribution piping and valves are all a critical factor necessary in the trout production cycle at the Pequest facility.

The Pequest facility is in operation 24 hours a day, 365 days a year. The Pequest Trout Hatchery shall remain open during project construction.

#### VII. CONSULTANT DESIGN RESPONSIBILITIES

#### A. PEQUEST NURSERY TANK REPLACEMENT REQUIREMENTS

#### 1. General

The Consultant shall provide the Design, Construction Administration, Permitting, and Bid/Award Services to remove and replace the 48 fish rearing tanks with inserts and the complete open air stream distribution water system along with the associated plumbing, piping, and valves as applicable, located in the Nursery building at the Pequest State Trout Hatchery Natural Resource Education Center (NREC).

The Consultant shall meet and coordinate with the New Jersey Department of Environmental Protection (NJDEP), Office of Resource Development (ORD), NJ Fish and Wildlife staff, and the Pequest Trout Hatchery Superintendent and Support staff to outline all requirements necessary for a full and complete design. The Consultant shall document interviews with DEP and the Hatchery staff to identify all requirements and needs. All specific components and essential items of this project scope required by the Agency during meetings shall be incorporated in the design. The design shall follow all codes and standards as applicable.

Included in **Exhibit 'E'** Rearing Equipment, dated November 1978, are equipment specifications used during the original design process of the rearing tank room equipment, and is not part of the finalized design and shall be treated as background equipment information for informational purposes only.

#### 2. Tank Replacements

The Consultant shall provide the design for the replacement of the 48 fish rearing tank units within the nursery space of the Nursery building (See Exhibit 'C' Photos). The replacement design shall be as close to replication of the existing tanks as possible (i.e. tank volume, dimensions, height, tank perimeter edges, tank piping drains, screen sizes, openings and drains, etc. Any equipment deviations and/or substitutions shall be coordinated with the appropriate DEP, NJ Fish and Wildlife, and Office of Resource Development (ORD), and staff for design approval. All sizes, materials, finishes, etc. shall be Agency approved. Inserts, screens, auxiliary pieces, outflow and overflow piping, and supports shall all be included in the design.

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#### 3. Open-Air Water Stream System Replacement

The Design Consultant shall provide the design for the replacement of the existing open-air water stream distribution system, as necessary (See Exhibit 'C' Photos). The current system in place shall be replicated as close to the existing design as possible. Special care shall be taken in the measurement/placement of the tank feed fittings and openings on the water stream components. Any deviations shall be approved by the site staff. Supporting brackets for the system shall be included as applicable. The re-use of the current support is allowed for cost savings measures if in good condition and will withstand the new tank life expectancy. Supplemental equipment support shall be considered in addition to the existing locations as needed.

Any equipment deviations and/or substitutions including sizing, materials, finishes, etc. shall be Agency approved and coordinated with the appropriate DEP, NJ Fish and Wildlife, and ORD Staff.

#### 4. Plumbing, Piping, and Valves

The Design Consultant shall evaluate the condition of all piping and valves located in the Nursery building and spaces. The Consultant shall provide the design for the replacement of any of the several types of piping and fittings, valves, and hose connections that have reached their useful life (See Exhibit 'C' Photos). Replacements of any piping and valves shall be similar in sizing and valve design. The Design Consultant shall explore and make recommendations to the Agency for any alternative or additional valves that may replace the existing, as necessary. Construction documents shall include the location of all equipment associated with plumbing and related piping components.

Any equipment deviations and/or substitutions including sizing, materials, finishes, etc. shall be Agency approved and coordinated with the appropriate DEP Fish and Wildlife Staff.

#### 5. Special Considerations

The flow rates for the open-air water stream system and tanks are crucial for the preservation and development of live fish. The current system set-up and flow rate shall be replicated to maintain a continuous flow of water through the Nursery building. In the event of any deviations, NJ Fish and Wildlife approval will be required. Associated changes shall be documented and presented to the appropriate staff.

The design shall take into consideration all applicable site conditions, policy, procedures, and operation requirements. Timing restrictions, operation programming, quality compliance, biohazard/sanitation requirements and sterilization processes must be confirmed with the site, followed for all site visits, and included in the design and bid documents.

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> In addition, material selection or pre-rinsing to reduce chemical leaching shall be considered in the design.

The Consultant shall include in the design any necessary signage for the identification of functional areas, services, spaces.

#### **B.** DESIGN MEETINGS & PRESENTATIONS

#### 1. Design Meetings

Conduct the appropriate number of review meetings with the Project Team members during each design phase of the project so they may determine if the project meets their requirements, question any aspect of the contract deliverables, and make changes where appropriate. The Consultant shall describe the philosophy and process used in the development of the design criteria and the various alternatives considered to meet the project objectives. Selected studies, sketches, cost estimates, schedules, and other relevant information shall be presented to support the design solutions proposed. Special considerations shall also be addressed such as: contractor site access limitations, utility shutdowns and switchover coordination, phased construction and schedule requirements, security restrictions, available swing space, material and equipment delivery dates, etc.

It shall also be the responsibility of the Consultant to arrange and require all critical Sub-Consultants to be in attendance at the design review meetings.

Record the minutes of each design meeting and distribute within three (3) calendar days to all attendees and those persons specified to be on the distribution list by the Project Manager.

#### 2. Design Presentations

The minimum number of design presentations required for each phase of this project is identified below for reference:

Investigation Phase: One (1) oral presentation at phase completion.

Schematic Phase: One (1) oral presentation at phase completion.

Design Development Phase: One (1) oral presentation at phase completion.

Final Design Phase: One (1) oral presentation at phase completion.

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#### C. EXISTING DOCUMENTATION

Copies of the following documents will be provided to each Consulting firm at the pre-proposal meeting to assist in the bidding process.

- DBC No. 1721 Pequest Trout Hatchery Drawings & Specifications, 11/10/78, Holley & Johnson/ Buchart-Horn Inc.
- Project No. P0889-00 Pequest Fish Hatchery Pump House Record Set, 6/4/12, Miller-Remick Corporation
- Project No. P1205-00 Water Supply System Upgrades Pequest Fish Hatchery As-Built, 9/02/2021, CP Engineers NJ, LLC.

Review these documents and any additional information that may be provided at a later date such as reports, studies, surveys, equipment manuals, as-built drawings, etc. The State does not attest to the accuracy of the information provided and accepts no responsibility for the consequences of errors by the use of any information and material contained in the documentation provided. It shall be the responsibility of the Consultant to verify the contents and assume full responsibility for any determination or conclusion drawn from the material used. If the information provided is insufficient, the Consultant shall take the appropriate actions necessary to obtain the additional information required.

All original documentation shall be returned to the provider at the completion of the project.

#### VIII. PERMITS & APPROVALS

#### A. NJ UNIFORM CONSTRUCTION CODE PLAN REVIEW AND PERMIT

The project construction documents must comply with the latest adopted edition of the NJ Uniform Construction Code (NJUCC).

The latest NJUCC Adopted Codes and Standards can be found at:

https://www.nj.gov/dca/codes/codreg/ucc.shtml

#### 1. NJUCC Plan Review

Consultant shall estimate the cost of the NJUCC Plan Review by DCA and include that amount in their fee proposal line item entitled "Plan Review and Permit Fee Allowance," refer to paragraph X.A.

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Upon approval of the Final Design Phase Submission by DPMC, the Consultant shall submit the construction documents to the DCA, Bureau of Construction Project Review to secure a complete plan release.

As of July 25, 2022, the DCA is only accepting digital signatures and seals issued from a third party certificate authority.

Procedures for submission to the DCA Plan Review Unit can be found at:

https://www.nj.gov/dca/codes/forms/pdf\_bcpr/pr\_app\_guide.pdf

Consultant shall complete the "Project Review Application" and include the following on Block 5 as the "Owner's Designated Agent Name":

Trevor M. Dittmar, DPMC PO Box 235 Trenton, NJ 08625-0235 Trevor.Dittmar@treas.nj.gov 609-984-5529

The Consultant shall complete the NJUCC "Plan Review Fee Schedule", determine the fee due and pay the NJUCC Plan Review fees, refer to Paragraph X.A.

The NJUCC "Plan Review Fee Schedule" can be found at:

https://www.nj.gov/dca/codes/forms/pdf\_bcpr/pr\_fees.pdf

#### 2. NJUCC Permit

Upon receipt of a complete plan release from the DCA Bureau of Construction Project Review, the Consultant shall complete the NJUCC permit application and all applicable technical subcode sections. The "Agent Section" of the application and certification section of the building sub-code section shall be signed. These documents, with six (6) sets of DCA or DPMC released drawings and specifications, with raised seals and wet signatures shall be forwarded to the DPMC Project Manager.

The Consultant may obtain copies of all NJUCC permit applications at the following website:

https://www.nj.gov/dca/codes/resources/constructionpermitforms.shtml

All other required project permits shall be obtained and paid for by the Consultant in accordance with the procedures described in Paragraph VIII.B.

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#### 3. Prior Approval Certification Letters

The issuance of a construction permit for this project may be contingent upon acquiring various "prior approvals" as defined by N.J.A.C. 5:23-1.4. It is the Consultant's responsibility to determine which prior approvals, if any, are required. The Consultant shall submit a general certification letter to the DPMC Plan & Code Review Unit Manager during the Permit Phase of this project that certifies all required prior approvals have been obtained.

In addition to the general certification letter discussed above, the following specific prior approval certification letters, where applicable, shall be submitted by the Consultant to the DPMC Plan & Code Review Unit Manager: Soil Erosion & Sediment Control; Water & Sewer Treatment Works Approval; Coastal Areas Facilities Review; Compliance of Underground Storage Tank Systems with N.J.A.C. 7:14B; Pinelands Commission; Highlands Council; Well Construction and Maintenance; Sealing of Abandoned Wells with N.J.A.C. 7:9D; Certification that all utilities have been disconnected from structures to be demolished; Board of Health Approval for Potable Water Wells; Health Department Approval for Septic Systems; and Notification to Adjoining Property Owners with N.J.A.C. 5:23-2.17(c). It shall be noted that in accordance with N.J.A.C. 5:23-2.15(a)5, a permit cannot be issued until the letter(s) of certification is received.

#### 4. Multi-building or Multi-site Permits

A project that involves many buildings and/or sites requires that a separate permit shall be issued for each building or site. The Consultant must determine the construction cost estimate for *each* building and/or site location and submit that amount where indicated on the permit application.

#### 5. Special Inspections

In accordance with the requirements of the NJUCC N.J.A.C. 5:23-2.20(b), Bulletin 03-5 and Chapter 17 of the International Building Code, the Consultant shall be responsible for the coordination of all special inspections during the construction phase of the project.

Bulletin 03-5 can be found at:

https://www.nj.gov/dca/codes/publications/pdf\_bulletins/b\_03\_5.pdf

#### a. Definition

Special inspections are defined as an independent verification by a certified special inspector for **Class I buildings and smoke control systems in any class building**. The special inspector is to be independent from the contractor and responsible to the Consultant so that there is no possible conflict of interest.

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Special inspectors shall be certified in accordance with the requirements in the NJUCC.

#### b. Responsibilities

The Consultant shall submit with the permit application, a list of special inspections and the agencies or special inspectors that will be responsible to carry out the inspections required for the project. The list shall be a separate document, on letter head, signed and sealed.

# B. OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS

The Consultant shall identify and obtain all other State Regulatory Agency permits, certificates, and approvals that will govern and affect the work described in this Scope of Work. An itemized list of these permits, certificates, and approvals shall be included with the Consultant's Technical Proposal and the total amount of the application fees should be entered in the Fee Proposal line item entitled, "Plan Review and Permit Fee Allowance."

The Consultant may refer to the DPMC "Procedures for Architects and Engineers Manual," Paragraph "9. REGULATORY AGENCY APPROVALS" which presents a compendium of State permits, certificates, and approvals that may be required for this project.

The Consultant shall determine the appropriate phase of the project to submit the permit application(s) in order to meet the approved project milestone dates.

Where reference to an established industry standard is made, it shall be understood to mean the most recent edition of the standard unless otherwise noted. If an industry standard is found to be revoked, or should the standard have undergone substantial change or revision from the time that the Scope of Work was developed, the Consultant shall comply with the most recent edition of the standard.

#### IX. BIDDING AND CONTRACT AWARD RESPONSIBILITIES

The Bidding and Contract Award Phase commences with receipt of the required permits, UCC plan release and verification that funding is in place for construction. The Consultant shall refer to the DPMC "Procedures for Architects and Engineers Manual", Paragraph "17. BIDDING AND CONTRACT AWARD" for all requirements for this phase available at <a href="https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf">https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf</a>.

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#### X. CONSTRUCTION ADMINISTRATION RESPONSIBILITIES

The A/E and their sub-consultants shall, unless otherwise specified in the project specific Scope of Work, provide site administration during the construction of the project. The services required of such site administration shall include, but shall not be limited to, attend and chair the preconstruction meeting, conduct weekly field observations, attend and chair regularly scheduled biweekly job meetings, review/approve shop drawings, submittals, and respond to RFI's.

The Consultant shall refer to the DPMC "Procedures for Architects and Engineers Manual", Paragraph "18. CONSTRUCTION PHASE" for all construction administration requirements available at

https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf.

#### XI. PROJECT CLOSE-OUT PHASE

The DPMC Project Manager has the full responsibility for the planning, scheduling, and execution of project close-out activities. The A/E is responsible to cooperate with the DPMC Project Manager in the planning, scheduling, and execution of project close-out activities. The Consultant shall refer to the DPMC "Procedures for Architects and Engineers Manual", Paragraph "19. PROJECT CLOSE-OUT PHASE" for all requirements available at <a href="https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf">https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf</a>.

#### XII. ENERGY REBATE AND INCENTIVE PROGRAMS

The Consultant shall review any and all programs on the State and Federal level to determine if any proposed upgrades to the mechanical and/or electrical equipment and systems for this project qualify for approved rebates and incentives.

The Consultant shall review the programs available on the "New Jersey's Clean Energy Program" website at: <a href="http://www.njcleanenergy.com">http://www.njcleanenergy.com</a> as well as federal websites and New Jersey electric and gas utility websites to determine if and how they can be applied to this project.

The Consultant shall identify all applicable rebates and incentives in their technical proposal and throughout the design phase.

The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer's specification sheets, calculations, attend meetings, and participate in all activities with designated representatives of the programs and utility companies to obtain the entitled financial incentives and rebates for this project.

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All costs associated with this work shall be estimated by the Consultant and the amount included in the base bid of its fee proposal.

#### XIII. ALLOWANCES

#### A. PLAN REVIEW AND PERMIT FEE ALLOWANCE

The Consultant shall obtain and pay for all of the project permits in accordance with the guidelines identified below.

#### 1. Permits

The Consultant shall determine the various permits, certificates, and approvals required to complete this project.

#### 2. Permit Costs

The Consultant shall estimate the application fee costs for all of the required project permits, certificates, and approvals (excluding the NJUCC permit) and include that amount in its fee proposal line item entitled "Plan Review and Permit Fee Allowance." A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

**NOTE:** The NJUCC permit is excluded since it will be paid for by the State.

#### 3. Applications

The Consultant shall complete and submit all permit applications to the appropriate permitting authorities and the costs shall be paid from the Consultant's permit fee allowance. A copy of the application(s) and the original permit(s) obtained by the Consultant shall be given to the DPMC Project Manager for distribution during construction.

#### 4. Consultant Fee

The Consultant shall determine what is required to complete and submit the permit applications, obtain supporting documentation, attend meetings, etc., and include the total cost in the base bid of its fee proposal under the "Final Design Phase" column.

Any funds remaining in the permit allowance will be returned to the State at the close of the project.

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#### XIV. SOW SIGNATURE APPROVAL SHEET

This Scope of Work shall not be considered a valid document unless all signatures appear in each designated area below.

The client agency approval signature on this page indicates that they have reviewed the design criteria and construction schedule described in this project Scope of Work (including the subsequent contract deliverables and exhibits) and verifies that the work will not conflict with the existing or future construction activities of other projects at the site.

SOW PREPARED BY: Alison F. Gottlisb	9/17/2025
ALISON F. GOTTLIEB, PROJECT MANAGER DPMC PROJECT PLANNING & INITIATION	DATE
SOW APPROVED BY: James Wright	9/17/2025
AMES WRIGHT, MANAGER DPMC PROJECT PLANNING & INITIATION	DATE
SOW APPROVED BY:	10/2/2025
JASON FREEBORN, PROJECT MANAGER DEPARTMENT OF ENVIRONMENTAL PROTECTION	DATE ON
SOW APPROVED BY: Royald Whatmeele.	10/8/2025
RONALD KRAEMER, JR., PROJECT MANAGER DPMC PROJECT MANAGEMENT GROUP	DATE
SOW APPROVED BY: Jeanette M. Barnard	10.8.25
EANETTE M. BARNARD, DEPUTY DIRECTOR	DATE

**ØIV PROPERTY MGT & CONSTRUCTION** 

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#### XV. CONTRACT DELIVERABLES

The following are checklists listing the Contract Deliverables that are required at the completion of each phase of this project. The Consultant shall refer to the DPMC publication entitled "Procedures for Architects and Engineers," 3.0 Edition, dated September 2022 available at <a href="https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf">https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf</a> for a detailed description of the deliverables required for each submission item listed. References to the applicable paragraphs of the "Procedures for Architects and Engineers" are provided.

Note that the Deliverables Checklist may include submission items that are "S.O.W. Specific Requirements." These requirements will be defined in the project specific scope of work and included on the deliverables checklist.

This project includes the following phases with the deliverables noted as "Required by S.O.W" on the Deliverables Checklist:

**INVESTIGATION PHASE;** 

**SCHEMATIC DESIGN PHASE**;

**DESIGN DEVELOPMENT PHASE;** 

FINAL DESIGN PHASE;

PERMIT APPLICATION PHASE;

**BIDDING AND CONTRACT AWARD;** 

**CONSTRUCTION PHASE**; and

PROJECT CLOSE-OUT PHASE

#### XVI. EXHIBITS

- A. SAMPLE PROJECT SCHEDULE FORMAT
- B. PROJECT SITE LOCATION MAP
- C. PHOTOS
- D. PEOUEST BOOKLET
- E. REARING EQUIPMENT

END OF SCOPE OF WORK

# **Deliverables Checklist Investigation Phase**

A/E Name:
-----------

A/E Manual		-			Previously Submitted		Enclosed	
Reference	Submission Item	Yes	No	Yes No		Yes	No	
12.3.1.	A/E Statement of Site Visit							
12.3.2.	Narrative Description of Project							
12.3.3.	Building Code Information Questionnaire							
12.3.4.	Space Analysis							
12.3.5.	Special Features							
12.3.6.	Catalog Cuts							
12.3.7.	Site Evaluation							
12.3.8.	Subsurface Investigation							
12.3.9.	Surveys							
12.3.10.	Fine Arts Inclusion							
12.3.11.	Design Rendering							
12.3.12.	Regulatory Approvals							
12.3.13.	Utility Availability							
12.3.14.	Diagrammatic Sketches/Drawings (6 Sets)							
12.3.15.	Specifications (6 Sets)							
12.3.16.	Current Working Estimate/Cost Analysis in CSI Format							
12.3.17.	Project Schedule							
12.3.18.	Formal Presentation							
12.3.19.	Scope of Work Compliance Statement							
12.3.20.	Program Phase Deliverables Checklist							
S.O.W. Reference	S.O.W. Specific Requirements	_						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to
document to the DPMC the status of all the deliverables required by the project specific Scope of Work.
document to the Drivic the status of all the deliverables required by the project specific scope of work.

**Consultant Signature** 

Date

to

# Deliverables Checklist Schematic Design Phase

A/E Name:
-----------

A/E Manual		Required by Previously S.O.W. Submitted		-	Enclosed		
Reference	Submission Item	Yes	No	lo Yes No		Yes	No
13.4.1.	A/E Statement of Site Visit						
13.4.2.	Narrative Description of Project						
13.4.3.	Building Code Information Questionnaire						
13.4.4.	Space Analysis						
13.4.5.	Special Features						
13.4.6.	Catalog Cuts						
13.4.7.	Site Evaluation						
13.4.8.	Subsurface Investigation						
13.4.9.	Surveys						
13.4.10.	Arts Inclusion						
13.4.11.	Design Rendering						
13.4.12.	Regulatory Approvals						
13.4.13.	Utility Availability						
13.4.14.	Drawings (6 Sets)						
13.4.15.	Specifications (6 Sets)						
13.4.16.	Current Working Estimate/Cost Analysis in CSI						
	Format						
13.4.17.	Project Schedule						
13.4.18.	Formal Presentation						
13.4.19.	Scope of Work Compliance Statement						
13.4.20.	Schematic Design Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

. ,	sign Consultant and included as the cover sheet of this submission deliverables required by the project specific Scope of Work.
accument to the Brime the status or all the	denterables required by the project specime scope or tronk
Consultant Signature	

# Deliverables Checklist Design Development Phase

A/E Name:
-----------

	Required by Previous S.O.W. Submi		-	Encl	nclosed	
Submission Item		No	Yes	No	Yes	No
A/E Statement of Site Visit						
Narrative Description of Project						
Building Code Information Questionnaire						
Space Analysis						
Special Features						
Catalog Cuts						
Site Evaluation						
Subsurface Investigation						
Surveys						
Arts Inclusion						
Design Rendering						
Regulatory Approvals						
Utility Availability						
Drawings (6 Sets)						
Specifications (6 Sets)						
Current Working Estimate/Cost Analysis in CSI						
Format						
Project Schedule						
Formal Presentation						
Plan Review/Scope of Work Compliance						
Checklist						
S.O.W. Specific Requirements						
	A/E Statement of Site Visit Narrative Description of Project Building Code Information Questionnaire Space Analysis Special Features Catalog Cuts Site Evaluation Subsurface Investigation Surveys Arts Inclusion Design Rendering Regulatory Approvals Utility Availability Drawings (6 Sets) Specifications (6 Sets) Current Working Estimate/Cost Analysis in CSI Format Project Schedule Formal Presentation Plan Review/Scope of Work Compliance Statement Design development Phase Deliverables Checklist	Submission Item  A/E Statement of Site Visit  Narrative Description of Project  Building Code Information Questionnaire  Space Analysis  Special Features  Catalog Cuts  Site Evaluation  Subsurface Investigation  Surveys  Arts Inclusion  Design Rendering  Regulatory Approvals  Utility Availability  Drawings (6 Sets)  Specifications (6 Sets)  Current Working Estimate/Cost Analysis in CSI Format  Project Schedule  Formal Presentation  Plan Review/Scope of Work Compliance  Statement  Design development Phase Deliverables Checklist	Submission Item  A/E Statement of Site Visit  Narrative Description of Project  Building Code Information Questionnaire  Space Analysis  Special Features  Catalog Cuts  Site Evaluation  Subsurface Investigation  Surveys  Arts Inclusion  Design Rendering  Regulatory Approvals  Utility Availability  Drawings (6 Sets)  Specifications (6 Sets)  Current Working Estimate/Cost Analysis in CSI Format  Project Schedule  Formal Presentation  Plan Review/Scope of Work Compliance Statement  Design development Phase Deliverables Checklist	Submission Item  A/E Statement of Site Visit  Narrative Description of Project  Building Code Information Questionnaire  Space Analysis  Special Features  Catalog Cuts  Site Evaluation  Subsurface Investigation  Surveys  Arts Inclusion  Design Rendering  Regulatory Approvals  Utility Availability  Drawings (6 Sets)  Specifications (6 Sets)  Current Working Estimate/Cost Analysis in CSI Format  Project Schedule  Formal Presentation  Plan Review/Scope of Work Compliance Statement  Design development Phase Deliverables Checklist	Submission Item  Submission Item  A/E Statement of Site Visit  Narrative Description of Project  Building Code Information Questionnaire  Space Analysis  Special Features  Catalog Cuts  Site Evaluation  Subsurface Investigation  Surveys  Arts Inclusion  Design Rendering  Regulatory Approvals  Utility Availability  Drawings (6 Sets)  Specifications (6 Sets)  Current Working Estimate/Cost Analysis in CSI Format  Project Schedule  Formal Presentation  Plan Review/Scope of Work Compliance Statement  Design development Phase Deliverables Checklist	Submission Item  Submission Item  Yes No Yes No Yes  A/E Statement of Site Visit  Narrative Description of Project  Building Code Information Questionnaire  Space Analysis  Special Features  Catalog Cuts  Site Evaluation  Subsurface Investigation  Surveys  Arts Inclusion  Design Rendering  Regulatory Approvals  Utility Availability  Drawings (6 Sets)  Specifications (6 Sets)  Current Working Estimate/Cost Analysis in CSI Format  Project Schedule  Formal Presentation  Plan Review/Scope of Work Compliance Statement  Design development Phase Deliverables Checklist

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Date

Consultant Signature

# Deliverables Checklist Final Design Phase

A/E Manual		Required by S.O.W.		Previously Submitted		Enclosed	
Reference	Submission Item		No	Yes	No	Yes	No
15.4.1.	A/E Statement of Site Visit						
15.4.2.	Narrative Description of Project						
15.4.3.	Building Code Information Questionnaire						
15.4.4.	Space Analysis						
15.4.5.	Special Features						
15.4.6.	Catalog Cuts						
15.4.7.	Site Evaluation						
15.4.8.	Subsurface Investigation						
15.4.9.	Surveys						
15.4.10.	Arts Inclusion						
15.4.11.	Design Rendering						
15.4.12.	Regulatory Approvals						
15.4.13.	Utility Availability						
15.4.14.	Drawings (6 Sets)						
15.4.15.	Specifications (6 Sets)						
15.4.16.	Current Working Estimate/Cost Analysis in CSI Format						
15.4.17.	Project Schedule						
15.4.18.	Formal Presentation						
15.4.19.	Plan Review/Scope of Work Compliance Statement						
15.4.20.	Final Design Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

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**Consultant Signature** 

Date

# Deliverables Checklist Permit Application Phase

A/E Manual		_	red by .W.	Previ Subm	-	Enclosed	
Reference	Submission Item	Yes	No	Yes	No	Yes	No
16.1.	N.J. UCC Permit Application						
16.4.	Drawings, Signed and Sealed (6 Sets)						
16.5.	Specifications, Signed and Sealed (6 Sets)						
16.6.	Current Working Estimate/Cost Analysis in Cl Format						
16.7.	Project Schedule						
16.8.	Plan Review/Scope of Work Compliance Statement						
16.9.	Permit Application Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						
	hall be completed by the Design Consultant and he DPMC Project Manager the status of all the de						
	Consultant Signature			Date			

# Deliverables Checklist Bidding and Contract Award Phase

A/E Manual		Required by S.O.W.		Previously Submitted		Enclosed	
Reference	Submission Item	Yes	No	Yes	No	Yes	No
17.1.1.	Notice of Advertising						
17.1.2.	Bid Proposal Form						
17.1.3.	Bid Clearance Form						
17.1.4.	Drawings (6 Sets)						
17.1.5.	Specifications (6 Sets)						
17.1.6.	Construction Schedule						
17.3	Pre-Bid Conference/Mandatory Site Visit						
17.3.1.	Meeting Minutes						
17.4	Bulletins						
17.5	Post Bid Meeting						
17.6.	Contract Award "Letter of Recommendation"						
17.8.	Bid Protests - Hearings						
17.9.	Bidding and Contract Award Phase						
	Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						
	hall be completed by the Design Consultant and he DPMC the status of all the deliverables require						sior
	Consultant Signature			 Date			

# **Deliverables Checklist Construction Phase**

A/E Name:			
	Required by	Previously	

A/E Manual					Previously Submitted		osed
Reference	Submission Item		No	Yes	No	Yes	No
18.2.	Pre-Construction Meeting						
18.3.	Submittal Log						
18.4.	Construction Schedule						
18.5.	Project Progress Meetings						
18.7.	Contractor's Invoicing and Payment Process						
18.8.	Contractor Submittals						
18.10.	Testing						
18.11.	Shop Drawings (6 Sets)						
18.12.	As-Built & Record Set Drawings (6 Sets)						
18.13.	Change Orders						
18.14.	Construction Photographs						
18.15.	Field Observations						
18.17.	Construction Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						
_							

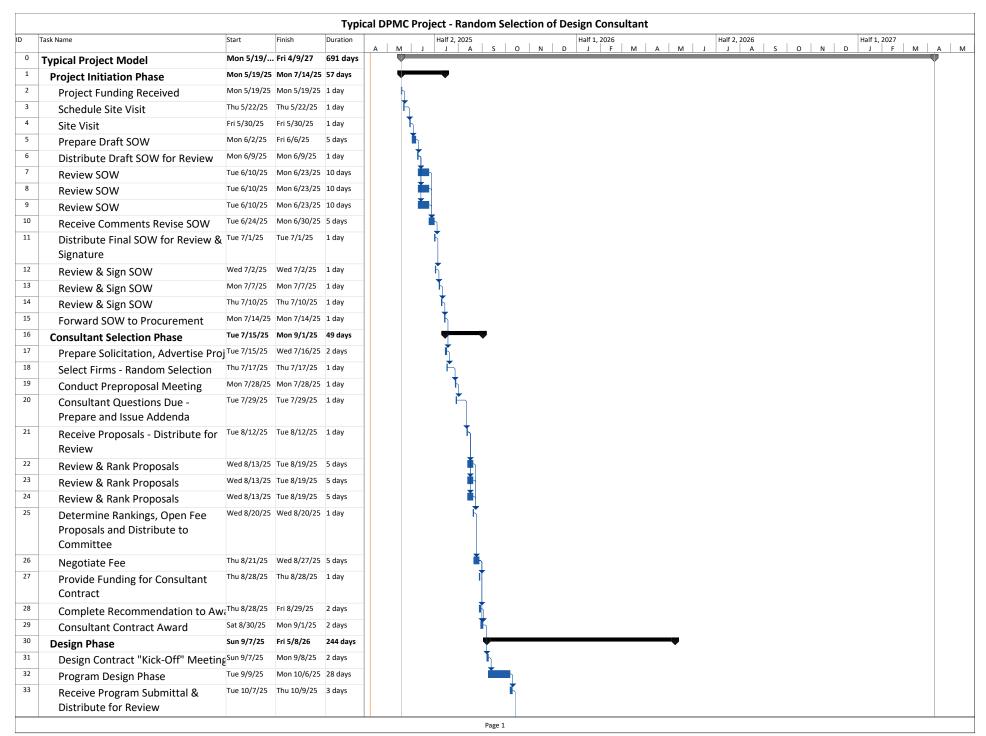
This checklist shall be completed by the Design Consultant and document to the DPMC the status of all the deliverables requir	
Consultant Signature	 Date

# Deliverables Checklist Project Close-Out Phase

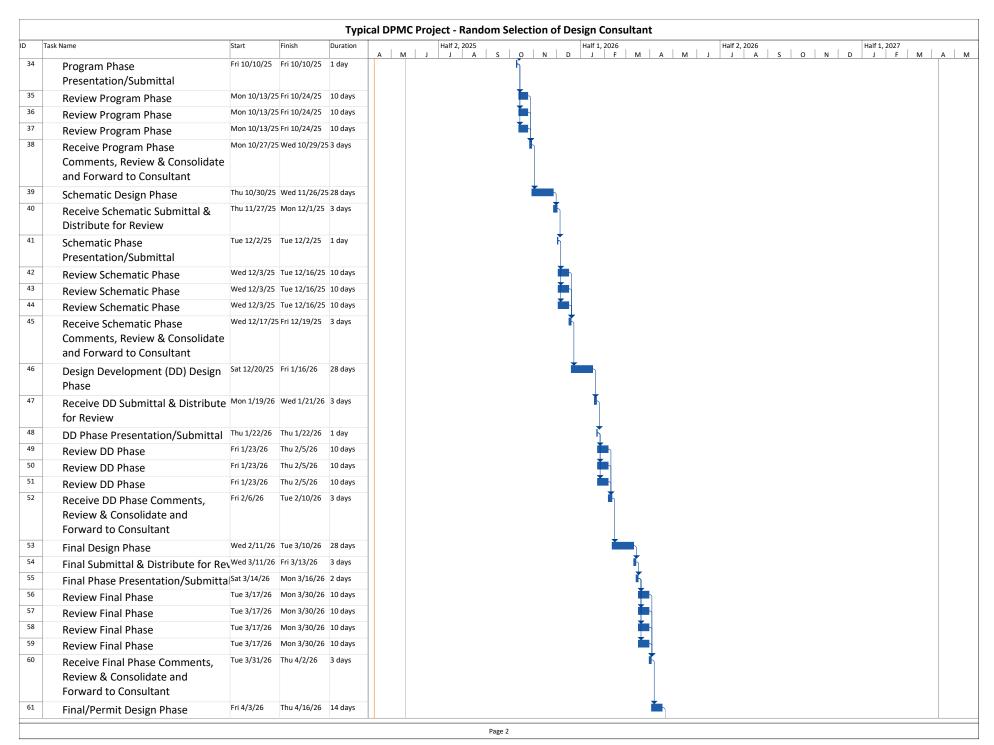
A/E Name: _			

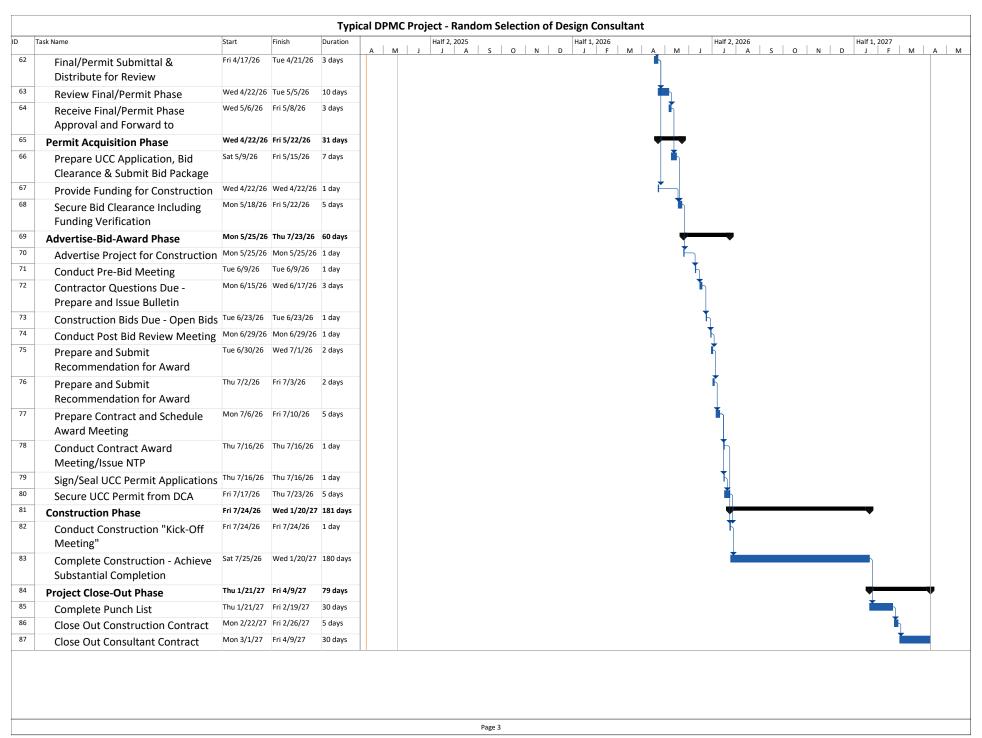
A/E Manual		Required by S.O.W.		Previously Submitted		Enclosed	
Reference	Submission Item	Yes	No	Yes No		Yes	No
19.3.	Development of Punch List and Inspection						
	Reports						
19.5.	Determination of Substantial Completion						
19.6.	Correction/Completion of Punch List						
19.7.	Submission of Close-Out Documentation						
19.7.1.	As-Built and Record Sets of Drawing (6 Sets)						
19.8.	Final Payment						
19.9.1.	Contractors Final Payment						
19.9.2.	A/E's Final Payment						
19.10.	Project Close-Out Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

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Consultant Signature	 Date



# **EXHIBIT 'A'**



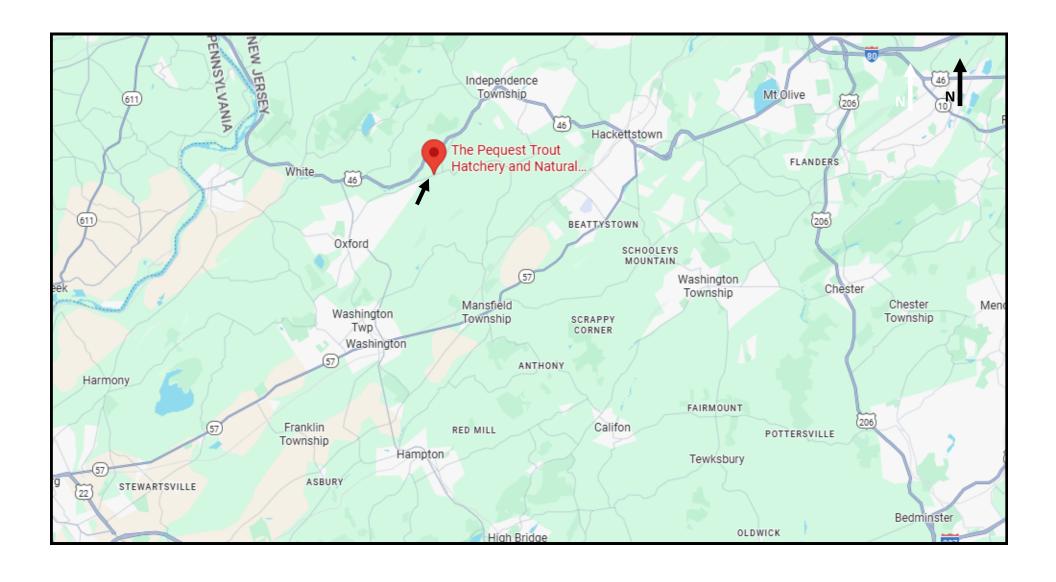




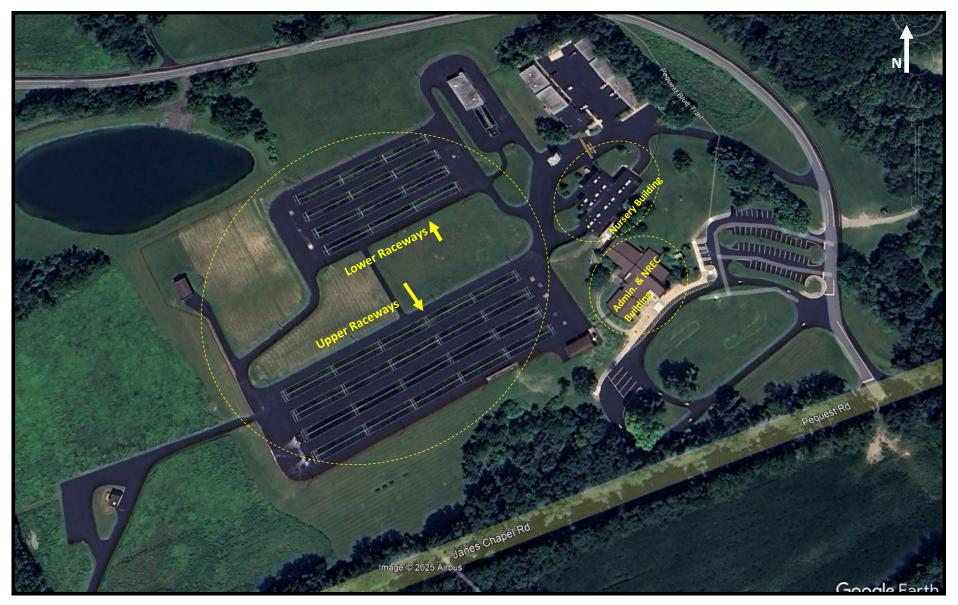


Project Site Location Map Pequest Trout Hatchery

**EXHIBIT 'B'** 

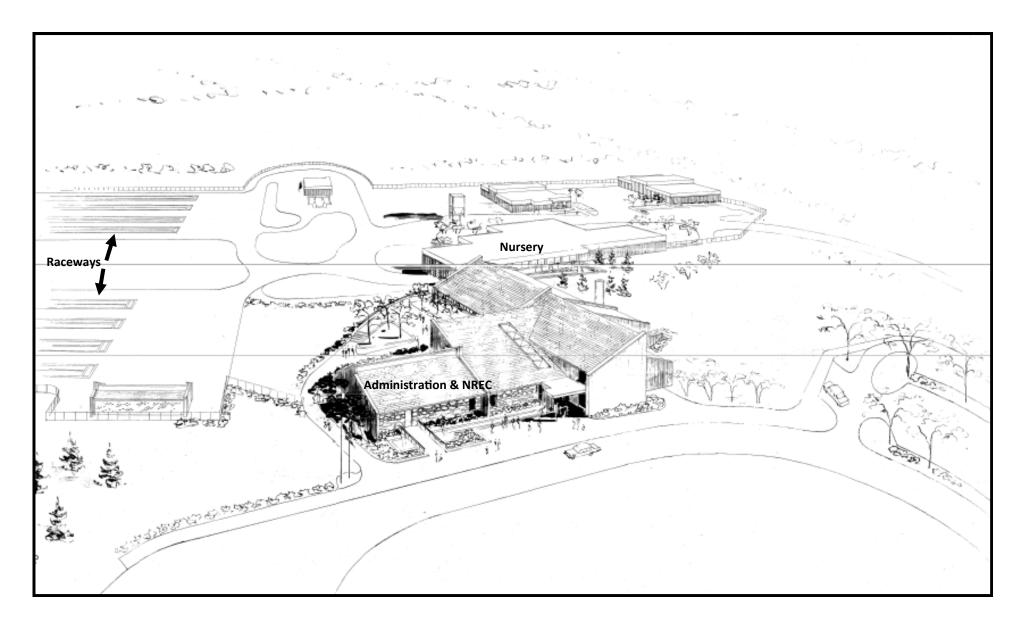


Project Location Map
Pequest Trout Hatchery
EXHIBIT 'B'



Project Site
Pequest Trout Hatchery

**EXHIBIT 'B'** 



Project Site
Pequest Trout Hatchery

**EXHIBIT 'B'** 



Photos
Pequest Trout Hatchery

**EXHIBIT 'C'** 



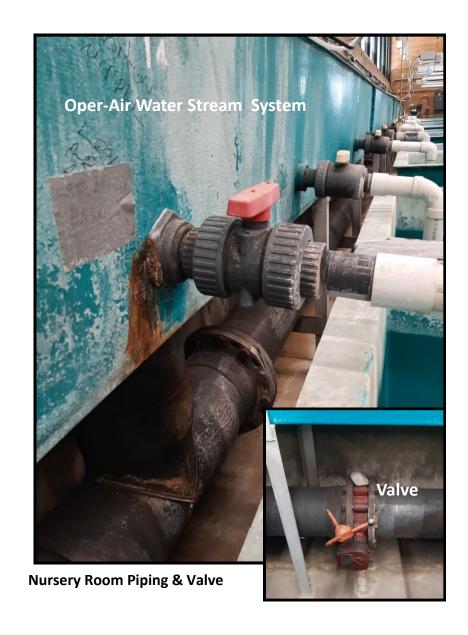
Photos

Nursery Room (48 Tanks)

**EXHIBIT 'C'** 



**Incubator Room Piping & Valve** 



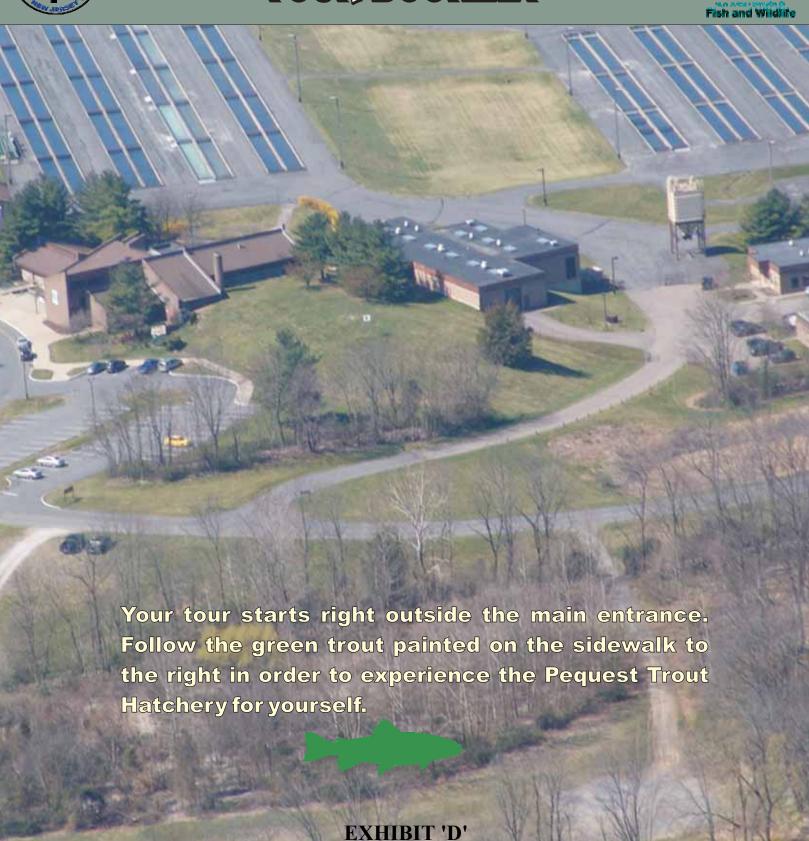
Photos
Piping & Valves

**EXHIBIT 'C'** 



# PEQUEST TROUT HATCHERY TOUR BOOKLET





# Welcome to the NJ Division of Fish and Wildlife's Pequest Trout Hatchery and Natural Resource Education Center!

Pequest includes a center for environmental education as well as the only state owned trout hatchery, which stocks up to 700,000 trout annually in the public waters of New Jersey.

Visitors to the site use the area to learn about trout and how they are raised, as well as to use the 4,800 acres of land that surrounds the hatchery for recreational opportunities such as hiking, hunting and bird watching, while great fishing opportunities abound in the nearby Pequest River.

After spending some time in the Exhibit Hall, you can begin your self-guided tour by following the green trout painted on the sidewalk right outside the main entrance of the center. The tour leads you to the right and your first stop is just steps away by the raceway, or concrete holding tank, located in front of the Natural Resource Education Center.

This raceway differs from the rest of the hatchery for a few reasons. Here, the fish are provided with extra shelter. Can you find two places where our fish may hide? Rocks and bridges provide great shelter for trout both in this setting and in a stream habitat.

Look closely at the fish in this raceway. You can see three species of fish - all in the salmon family. The rest of the hatchery is mainly rainbow trout at this time.

Do you know how to tell these fish apart? Brook trout have white edges on their fins. These are NJ's only native salmonid. Rainbow trout have a pink to reddish colored stripe on their side and spots all the way to the end of their tails. Rainbow trout are native to the western United States. Brown trout are brownish in color with large spots on their sides, but little to no spots on their tails. These fish are native to Europe.

In this picture, you can see the white edges on the fins of the brook trout, near the bottom. Look closely at the fish sneaking in on the left and you can see the start of the pink line that runs down the side of this rainbow trout. The fish heading away from the rest is a brown trout. There are little to no spots on its tail.

The fish in this raceway can be fed by our visitors. Just put a quarter in the fish food machine located by the front desk. Make sure to put your hand under the latch before opening it, so that you can catch the food as it comes out. Other types of food are not good for these fish, so please do not use any food other than the fish pellets to feed them and do not throw anything else in the raceway - such as money.

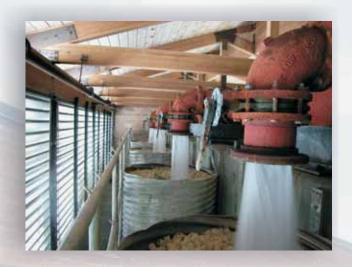


It's time to continue the tour, by following the green fish on the sidewalk to the right.

Continue following the green trout on the sidewalk, keeping the raceway on your right. The sidewalk will split here. Head up the pathway on the right towards the Nursery Building. When you reach the gate opening,

pause for a second and listen to the sound of rushing water. This is the water from our wells, entering the aeration building located on the left and up the embankment. You can't enter the well house, but you can hear all that rushing water.

Pequest has 7 wells spread throughout the Pequest Valley. Water is pumped from the aquifer, a large underground body of water, at a rate of up to 7,000 gallons per minute. The well water is sent through the aeration building where it is oxygenated as it flows through plastic rings which are held in the large barrels seen here. From here, the water then enters the upper section of raceways which you will see in a little while. After the hatchery is done "borrowing" the water from the aquifer, it is then released back into the river where it can once again enter the aquifer.



# We recycle all the water that we use!

Continuing down the sidewalk, you will come to the Nursery Building. This building is divided into two sections, the Egg Room and the Nursery. Visitors are not allowed into this building or into any other hatchery areas. This is because trout can get sick very easily. In order to minimize the likelihood of this happening, the hatchery is restricted to personnel only. All staff entering this building must disinfect their shoes before they can access the Egg Room or Nursery.

This building is not in use all year. Eggs are taken from the females in September, through a process called "stripping". The females are taken from the water and gently squeezed along the abdomen, releasing the eggs. The eggs are then mixed with milt (the fluid that contains sperm) from male fish until the eggs are fertilized. The fertilized eggs are placed in trays in the egg room where they will stay until they hatch.



About 2 million eggs are taken each year!

After hatching, the young fish (called sac-fry or alevin) are moved from the Egg Room and into the large tanks



in the Nursery room. Each tank holds about 14,500 fish. Sac-fry are sensitive to UV light, so the tanks are covered to keep harmful rays away from the fish and a lightbulb is used to provide artificial light. After the yolk sac has been absorbed, the covers will come off. The fry will remain in the nursery building for about 6 months. Then, they move into the large outdoor raceways where they will stay for another year.

Each tank in the Nursery holds about 14,500 fish.



Continue back the way you came. Instead of making the left to head back to the building, turn to the right at the end of the sidewalk to reach the Observation Platform overlooking the raceways. You will be walking past the aeration building, this time keeping it on your right. The sidewalk will head up a slight hill to the Observation Platform. Walk through the gates and head up the stairs or the ramp where you will see the fish that are getting ready to be released.

Looking at the raceways, you will see aluminum screens that separate the long the raceway into smaller sections. Each section holds about 12,500 fish. The fish are in the raceways for a year after leaving the Nursery Building. Once they have reached 10.5 inches, they are ready to be released into more than 200 lakes and streams throughout the state of New Jersey. There are three stocking seasons: spring, fall and winter which helps keep the fishing fun throughout the year!

Once outside of the Nursery Building, we employ numerous methods to protect the fish from predators. If you look at the raised concrete walls surrounding the raceways, you will see a thin electric wire that is used to discourage birds like great blue herons and small mammals from getting near the raceways.



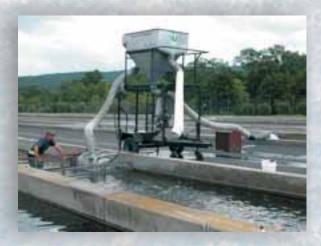
One of two sorting operations of fingerling trout.

Now look at eye height. Do you see those wires with the silver and red streamers hanging from them? There are 5 wires spread across the width of each raceway. These wires prevent the large birds, such as bald eagles and ospreys, from getting down to water level because they can not fit their wings between the wires. The birds can not access the fish across the width of the raceways because they would not have the room to get their fish and get up over the concrete wall.

We also employ noise deterrents to keep the large birds away, such as a propane cannon, which creates a loud noise as well as firecracker shells that whistle and bang like a firecracker, helping to scare the birds.

Birds are not the only predators of the trout. The tall fence you walked through with the wire on top is also used to keep predators away. What kinds of predators does that keep out? If you said raccoon, bear, fox or people you are correct!

The tour has ended. If you would like to spend some time in the Exhibit Hall or seek out employees for questions, we encourage you to do that. You can also head out on one of our three trails to experience what the rest of the Pequest Wildlife Management Area has to offer. The Pequest Wildlife Management Area consists of almost 5,000 acres of land that helps protect the Pequest River and its underlying aquifer. This area was paid for through hunting and fishing license sales, so if you would like to help preserve and maintain the area, please consider purchasing a fishing or hunting license today in the Main Building.



This fish pump is used to safely move fish into trucks in preparation for stocking.

Thank you for visiting the NJ Division of Fish and Wildlife's Fequest Trout Hatchery and Natural Resource Education Center!

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. 70 feet - 6 inches, one each

. 119 feet - 6 inches, one each

Wyoug

2	- Manufacturer: Frigid Units, Inc., 3214 Sylvania Avenue, Toledo, Ohio 43613.
4	Rearing Tanks:
6 8	- Fabricated with 3/4" plywood, steel reinforcing, stainless steel spreader bars, 1/2" polyurethane foam insulation, covered with Jade Green fiberglass coating on all surfaces. Satin smooth interior surfaces. 1-1/2" flat lip around top
10	of tank.
12	- Provide 48 insulated rearing tanks, each 144" long, 33" wide, and 32" deep, and fitted with:
14 16 18	Drain extensions  Overflow and drain  Standpipes
20	<ul> <li>Channel guides, and 4 flat polyethylene screens in a fiberglass frame.</li> <li>Screen size: 12 openings per inch</li> </ul>
22	. 3 extra heavy leg supports, 8" high.
24	- Manufacturer: Frigid Units, Inc., 3214 Sylvania Avenue, Toledo, Ohio 43613.
26	PART 3 - EXECUTION
28	Installation:
30	- Install troughs and rearing tanks in Nursery Room as shown on the Contract Drawings.
32	- Level and support distribution troughs as shown on the Contract Drawings.
34	- Connect piping to distribution troughs as shown.
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