COMMONWEALTH OF MASSACHUSETTS
DESIGNER SELECTION BOARD PROJECT CRITERIA

DSB LIST # **18-13** **ITEM #** **1** **DSB PUBLIC NOTICE DATE:** **September 19, 2018**

LAST DATE FOR FILING APPLICATION IS: **October 10, 2018** **at 2:00 PM**

The Board requests applications to be submitted by any of the following firms:

(**X**)	Architect	( )	Engineer
(**X**)	Architect/Engineer (A/E)	( )	Other:

PROJECT NUMBER: DFW-2019-001

PROJECT TITLE: Aquaculture Bioengineering Study and Design of Massachusetts Freshwater Fish Culture Facilities

PROJECT LOCATION: 5 Massachusetts State Fish Hatcheries Located In The Towns Of Belchertown, Montague, Sunderland, Palmer And Sandwich

AWARDING AGENCY: Massachusetts Division of Fisheries and Wildlife (MassWildlife)

AVAILABLE AMOUNT: $250,000.00

ESTIMATED CONSTRUCTION COST: To Be Determined By Study

TOTAL FEE, excluding reimbursables or any authorized per diem payments, based on scope of work and services authorized if project is completed.

(**X**)	Lump Sum Established Set Fee for **Study/Schematic Design Phase** Per M.G.L. C.7C, §50	**$250,000**	dollars
(**X**)	Lump Sum Established Set Fee for **Final Design Phase** Per M.G.L. C.7C, §50, based on the approved estimated construction cost in the certified study.	**To be negotiated**	percent

IMMEDIATE SERVICES AUTHORIZED:
( ) CERTIFIABLE BUILDING STUDY
(**X**) SCHEMATIC PLANS AND OUTLINE SPECIFICATIONS
(**X**) OTHER: COMPREHENSIVE AQUACULTURE BIOENGINEERING AND HATCHERY MODERNIZATION STUDY

It is intended that the following continued services will be required of the selected Designer, and approval of the Designer by the DSB for the study phase shall also constitute approval of the Designer for continued services at the Awarding Authority's discretion. If the Awarding Authority determines that the continued services will not be required of the Designer then the Awarding Authority must notify the Designer and the Board, upon making that determination.

(**X**) DESIGN DEVELOPMENT PLANS AND SPECIFICATIONS
(**X**) CONSTRUCTION PLANS AND SPECIFICATIONS
(**X**) ADMINISTRATION OF CONSTRUCTION CONTRACT
( ) OTHER:

MBE/WBE PARTICIPATION:
In accordance with M.G.L. C.7C, §6 and Executive Orders 526, 559 and 565, the **Massachusetts Division of Fisheries and Wildlife (MassWildlife)** has established a minimum combined MBE/WBE participation goal of 17.9% of the overall value of the study and final design contracts for this project. Applicants must utilize a mix of both MBE and WBE firms whose participation, when added together, meets the overall combined goal set for the Contract. The combined goal requires a reasonable representation of both MBE **and** WBE firm participation. The Combined MBE/WBE goal must be met within the list of requested prime and sub-consultants. All applicants must indicate in the prime firm's application how

they or their consultants will meet these goals and will be evaluated on that basis. Further information about the MBE/WBE Program appears in the "Participation by Minority Owned Businesses and Woman Owned Businesses," in the Commonwealth of Massachusetts Contract for Study, Final Design, and Construction Administration Services (October 2017) at Attachment C, and on the Supplier Diversity Office website: http://www.mass.gov/sdo. Applications from MBE and WBE firms as prime consultant are encouraged. Applicants that are themselves MBE or WBE certified will be required to bring a reasonable amount of participation by a firm(s) that holds the certification which is not held by the applicant to the project. Proposed MBE/WBE participation plans that include solely MBE or solely WBE participation, or have only nominal participation by one or the other to meet the combined goal, will not be considered responsive. Applicants are strongly encouraged to utilize multiple disciplines and firms to meet the MBE/WBE goal. Consultants to the prime can team within their disciplines in order to meet the MBE/WBE goal, but must state this relationship on the organizational chart (Section 6 of the application form).

ADDITIONAL DIVERSITY PROGRAMS:

Veteran Owned Business Participation Benchmark - Chapter 108 of the Acts of 2012; Executive Order 565

The Commonwealth encourages the participation of Service-Disabled Veteran-Owned Business Enterprises ("SDVOBE") and Veteran-Owned Business Enterprises ("VBE") on its design projects. The benchmark for combined SDVOBE and VBE participation on DCAMM and other Executive Branch agencies design projects is 3% of the contract price as set forth in the standard DCAMM Study and Design Contracts referenced above.

GENERAL SCOPE OF WORK:

The Massachusetts Division of Fisheries and Wildlife (MassWildlife) is soliciting for a full service, licensed Architecture/Engineering firm that can assemble a team that specialize in fish hatchery design and engineering to provide a comprehensive aquaculture bioengineering study and redesign of MassWildlife's five freshwater coldwater fish culture facilities. The five fish culture facilities that are to be included in this study are:

a. McLaughlin State Fish Hatchery, Belchertown, MA

b. Sandwich State Fish Hatchery, Sandwich, MA

c. Bitzer State Fish Hatchery, Montague, MA

d. Sunderland State Fish Hatchery, Sunderland, MA

e. Roger Reed State Fish Hatchery, Palmer, MA

The goal of this study is to identify the infrastructure improvements and costs needed to improve efficiency and maintain MassWildlife's overall coldwater fish production goal at its current level, at each MassWildlife hatchery. The study shall consider the potential impacts from climate change and will include recommendations to improve, enhance and maximize efficiency at the facilities for the following:

- broodstock maintenance
- egg production, incubation and hatching
- fish rearing
- biosecurity and protection of fish from predators
- fish waste management and compliance with discharge permits
- water use
- wells, water pumps and piping systems
- flow monitoring
- emergency alarms
- energy efficiency and generation with a goal of LEED certification; shall include, but not be limited to analyses of hydropower, geothermal, solar and wind
- backup emergency power generation
- minimization of worker risk for occupational injury
- tourism enhancement and educational outreach for visitors
- Project sequencing to minimize impacts to production

Cost estimates are to be provided for the analysis, design and engineering, permitting and construction for all items in order to maintain current production levels of trout and Landlocked Salmon through the year 2068.

Pending availability of funds to implement the study findings, the selected firm should be capable of providing design development, construction plans and specifications as well as construction oversite. Currently there are no funds approved for the design phase of this project. Full Scope of Services for design phase will be determined based on study findings.

Tasks & Products:

At the conclusion of the study MassWildlife will require a comprehensive report addressing the six specific tasks outlined below. Periodic reports related to significant milestones may be required and will be determined as outlined in the *Workshops/Meetings* section below.

Task 1: Provide comprehensive recommendations and options, including probable opinion of cost estimates, for all work and equipment necessary to improve and modernize the infrastructure at each of MassWildlife's five hatcheries by 2024 in order to maintain operational fluidity of the facilities through the year 2069 (50 years); the report shall include all infrastructure needs for fish production and broodstock management, office space, work/shop space, laboratory space, storage space for fish feed, vehicles and equipment, laboratory and equipment needs for fish health and water quality work, and any other physical infrastructure deemed to be necessary at each station; the focus shall be on all aspects of efficiency related to hatchery operations, including but not limited to staffing, staff safety and occupational injury risk reduction, equipment and vehicle needs, work flow, water use and energy use and generation. The projected impacts of climate change shall be taken into account for all aspects of the study at each facility.

Task 2: Provide recommendations and options, including probable opinion of cost estimates, for treating fish waste at each facility in order to meet current and projected NPDES effluent permit limits.

Task 3: Provide recommendations and options, including probable opinion of cost estimates, for optimization for use of available water resources, including the potential for recirculation technology for each facility.

Task 4: Provide recommendations and options, including costs, for implementation of the latest technologies in energy efficiency and generation, including but not limited to, premium efficiency electrical equipment as well as the potential for wind, geothermal and solar power at each facility. The goal for each facility should be aimed at LEED certification.

Task 5: Provide recommendations and options, including probable opinion of cost estimates, for optimization of security and biosecurity, including alarm systems, fish disease management, predation management (bird and mammal) and protection from aquatic invasive species at each facility.

Task 6: Provide recommendations and options, including probable opinion of cost estimates, for maximizing educational outreach to enhance the quality of visitor experience as well as maximize their exposure to the broader educational message and brand of the agency with the goal of promoting not only the agency but Massachusetts tourism in general for each facility.

Schedule for Deliverables

To be determined as outlined below. Target completion date is June 30, 2019.

Workshops/Meetings

The consultant will begin work on this project with a kick-off meeting with the Assistant Director of Fisheries and Chief of Hatcheries at MassWildlife's Field Headquarters located in Westborough, MA. The selected consultant will schedule this meeting within 10 business days from the date that the Notice to Proceed is issued. The goal of this meeting shall be to:

a. Review project goals and tasks and answer project-related questions
b. Develop a schedule for initial site visits and evaluations at each of the hatcheries.

Within 10 business days of completing initial inspections, the consultant shall provide a detailed schedule, scope of work, and deliverables for all aspects of the project and provide MassWildlife with a comprehensive list of any information it deems necessary from MassWildlife to initiate work on the project. The consultant will be responsible for conducting all inspections, field work, testing, analysis, research and design work necessary to fully accomplish work as specified in this ad.

Personal presentations will be required within 10 days after the 65% and 100% reports are submitted and shall be presented at the MassWildlife Field Headquarters. The Contractor shall arrange the date and time of these presentations with the Assistant Director of Fisheries.

MassWildlife Hatchery Descriptions

A. McLaughlin Hatchery – 90 East Street, Belchertown, MA 01007

McLaughlin Hatchery opened in 1969 and is the newest and largest of MassWildlife's five hatcheries. McLaughlin Hatchery produces Brown Trout and Rainbow Trout for MassWildlife's catchable stocked trout program as well as fry for other MassWildlife hatcheries.

i. Trout Production: Production averaged 248,000 pounds between 2013 and 2017 comprised of 238,000 pounds of Rainbow Trout and 10,000 pounds of Brown Trout. McLaughlin currently produces 81% of the 14+ (longer than 14 inches) Rainbow Trout for MassWildlife's spring and fall stocking program. Ninety percent of the fish were stocked in the spring and 10% in the fall. McLaughlin also produces approximately one million Brown Trout, Brook Trout and Rainbow Trout fry annually that are utilized on station or transferred to other MassWildlife hatcheries. McLaughlin does not maintain broodstock. Brook Trout and Brown Trout eggs are obtained from the Roger Reed and Sandwich hatcheries; Rainbow Trout eggs are obtained from the USFWS national broodstock program.

ii. Infrastructure:
   a. Buildings: The facility has a 15,000 sq. ft. interconnected building complex that includes offices, a laboratory, a workshop, a 6 bay garage, a heating plant (pellet- and oil-fired boilers) and a hatch house. There also are 3 smaller buildings that include 2 well houses, the Swift River pumping station and the lagoon aeration station. In addition, there are 3 subsurface well vaults. There are two approximately 1,000 sq. ft. staff residences located on station.
   b. Emergency Power: There are two on-station diesel generators. A 150 KW generator that is housed in the Swift River pumping station can run the entire facility, except well #4 and the lagoon aerators, for about 3 days without refueling. Fuel is stored in a 1,000 gallon double-wall tank in a sub-surface vault outside the pump house. A 55 KW generator located in the well #4 pump house is designed to power the well #4 pump. A 275 gallon tank provides fuel for about three days of continuous operation of this generator.
   c. Fish Rearing: The outdoor fish rearing area consists of 20 concrete raceways with 10 pools in each raceway. Sixteen of the raceways use raw water from either Quabbin Reservoir or the Swift River and are used exclusively for rearing Rainbow Trout. Four of the raceways are well water-only and are used for rearing Brown Trout and Rainbow Trout fingerlings. The outdoor raceways were partially refurbished in 2001 and are currently in poor to fair condition. The indoor hatch house has 22 concrete pools for egg incubation and fry rearing.

iii. Water Supply: McLaughlin Hatchery's water supply consists of four gravel packed wells (all with vertical turbine pumps), the Quabbin Reservoir and the Swift River. The wells produce an average of about 2 mgd and the Quabbin/Swift River sources can provide up to 6 mgd. The Swift River is used as a backup for the Quabbin Reservoir water source. Well water is used in the hatch house, 4 outdoor well-water-only raceways (40 pools) and to temper Quabbin/Swift River water as needed. Untreated water from either the Quabbin Reservoir or Swift River is used for rearing rainbow trout in the 16 outdoor raceways (160 pools). The Quabbin water is delivered to the hatchery raceways by gravity and head pressure via a mile-long pipeline that

is tapped into a public water supply aqueduct connected to the reservoir's hypolimnion. Swift River water is pumped from the river by the three 50 HP variable frequency drive vertical turbine pumps located in the hatchery's Swift River pump station. The Swift River originates from a hypolimnion release from Quabbin Reservoir one mile upstream from the hatchery. The total quantity of water that can be used at McLaughlin Hatchery is regulated by the Massachusetts Department of Environmental Protection (MADEP) Water Management Act (WMA) permit and registration. Water supplied by the Quabbin pipeline is under the Massachusetts Water Resources Authority WMA permit.

iv. Discharge: The NPDES permit for McLaughlin Hatchery expires in January 2019. The average monthly maximum discharge flow limit for McLaughlin Hatchery is 7.5 mgd. The maximum daily discharge limit is 8.1 mgd. Effluent limits include 32.4 lbs/d total nitrogen, 0.24 mg/l total phosphorous, 584 lbs/d BOD and 584 lbs/d TSS. Solid fish waste is collected in quiescent zones in the raceways and treated in the passive aeration lagoon system. Overtopping raceway water is discharged directly to the Swift River.

B. Sandwich Hatchery - 164 Route 6A, Sandwich, MA 02563

Sandwich Hatchery was purchased from a private trout farmer by MassWildlife in 1912 and is the agency's oldest operating hatchery. Fish production is focused on 14+ Rainbow Trout, 12+ Brook and Brown Trout, and 14+ Tiger Trout, all of which are reared from eggs hatched on station. Sandwich also serves as a broodstock facility for Brook Trout, Brown Trout and Tiger Trout. Sandwich is the only MassWildlife hatchery that produces Tiger Trout.

i. Trout Production: Production averaged 66,500 pounds between 2013 and 2017 comprised of 39,500 pounds of Rainbow Trout, 9,400 pounds of Brook Trout, 13,500 pounds of Brown Trout and 4,200 pounds of Tiger Trout. Eighty one percent of the fish were stocked in the spring and 19% in the fall. Sandwich also produces about 200,000 Brook Trout, Brown Trout and Tiger Trout eggs annually. The eggs are used on station and at the McLaughlin and Roger Reed hatcheries when needed.

ii. Infrastructure:
   a. Buildings: Sandwich Hatchery has a 1350 sq. ft. office/storage building, a 600 square foot workshop, a 1600 square foot hatch house (Butler-type metal building), and two well pump houses. The office/storage building is in very poor condition and needs to be demolished and replaced.
   b. Emergency Power: Emergency power is provided by a 100 KW and a 15 KW generator, both powered by natural gas. The 100 KW generator provides power for the whole station; the 15 KW generator can only power well #4, the hatch house and some raceway aerators and only operates as a backup to the main generator.
   c. Fish Rearing: The outdoor rearing area consists of a series of concrete raceways comprised of 54 pools that were constructed in the 1960's. Some pools are sand bottom and others are concrete. The raceways are in generally poor condition. They have received limited cosmetic and structural repairs since they were installed. The hatch house rearing facility (hatch house) is equipped with square fiberglass rearing tanks and rectangular fiberglass hatching troughs.

iii. Water Supply: The Sandwich hatchery water supply includes four gravel packed wells (two vertical turbine and two submersible pumps) and an unknown number of free flowing well points and springs. Average daily water use between 2013 and 2016 was 1.01 mgd; the four wells produced an average of 0.87 mgd and the artesian wells/springs 0.14 mgd. The total quantity of water that can be used at Sandwich Hatchery is regulated by a MADEP WMA registration.

iv. Discharge: The current NPDES permit for Sandwich Hatchery expires in November 2020. There are no discharge limits for phosphorus or flow at Sandwich Hatchery. The limit for total nitrogen is 14 lbs per day. Solid fish waste is collected in a series of quiescent zones and unused raceways and removed by vacuum pump and land-applied to hatchery property. Overtopping raceway water is discharged directly to Dock Creek.

C. **Bitzer (Montague) Hatchery - 37 Hatchery Road, Montague, MA 01351**

Bitzer Hatchery began operations in 1917. It produces Brook Trout, Brown Trout and Rainbow Trout with a focus on 12+ two year old Brook Trout and Brown Trout for spring stocking and 14+ two-year-old Rainbow Trout for fall stocking. There are no brood stock or egg incubation facilities on station.

i. Trout Production: Production averaged about 78,000 pounds between 2013 and 2017 and comprised 29,200 pounds of Rainbow Trout, 19,800 pounds of Brook Trout and 29,000 pounds of Brown Trout. Sixty six percent of the fish are stocked in the spring and 34% in the fall.

ii. Infrastructure:

a. Buildings: Bitzer Hatchery has four functional buildings. There is a 1,600 sq. ft. office/garage that was fully reconstructed in 2008, a 800 sq. ft. workshop/crew space, a 500 sq. ft. three bay garage and a 2,000 sq. ft. storage building. The office/garage is in excellent condition; the other 3 buildings are in fair condition. There are also two dilapidated buildings (former hatch house and former office) that require demolition.

b. Emergency Power: There is no automatic emergency power generator at Bitzer Hatchery.

c. Fish Rearing: Rearing infrastructure consists of 64 concrete raceway pools, rock wall raceway pools and earthen ponds. All raceway and pond bottoms are gravel. The concrete raceways were installed in the 1960's and are in fair/poor condition. Some raceway and pond walls have been rebuilt with concrete landscaping blocks during the past 10 years.

iii. Water Supply: The water supply is 100% free flow. It originates from on-station springs and a small headwater stream. Average daily flow from 2013 to 2016 was 1.50 mgd. There is no effective means to control water flow through the hatchery. The quantity of water used at Bitzer Hatchery is regulated by a MADEP WMA registration.

iv. Wastewater Treatment: The NPDES permit for Bitzer Hatchery expires in September 2019. There are currently no NPDES discharge limits for phosphorus, total nitrogen or flow at Montague Hatchery. Solid fish waste is collected in a series of quiescent zones and unused raceways, removed with a vacuum pump and land-applied on hatchery property. Overtopping raceway water is discharged directly to an unnamed tributary of the Connecticut River.

D. Sunderland Hatchery - 559 Amherst Road, Sunderland, MA 01375

Sunderland Hatchery opened in 1917. Production is focused on 12+ two-year-old and 9+ yearling Rainbow Trout, Brook Trout and Brown Trout for spring stocking and 14+ two-year-old Rainbow Trout for fall stocking. Among MassWildlife's 5 hatcheries, Sunderland Hatchery is probably the most suitable facility for production of 9+ Brook and Brown Trout for stocking in the spring.

i. Trout Production: Trout production at Sunderland Hatchery averaged 77,000 pounds between 2013 and 2017. It was comprised of 36,200 pounds of Rainbow Trout, 12,300 pounds of Brook Trout, and 28,500 pounds of Brown Trout; 90% were stocked in the spring and 10% in the fall.

ii. Infrastructure:

a. Buildings: Sunderland Hatchery has a 1,800 sq. ft. two story building with an office, lunch room, staff lockers and a welding shop on the main floor. The top floor and basement are used for storage. The building was updated with vinyl siding, insulation, new roof, windows and doors within the last several years. Structural work was also done on a section of the foundation and sills. Other buildings on station include a 3 bay 1,260 sq. ft. garage, a 600 sq. ft. two bay garage, a 600 sq. ft. work shop, and two 600 sq. ft. former hatch houses that are used for storage, and two well pump houses. All the buildings are in poor to fair condition. There is a former residence that needs to be demolished.

b. Emergency Power: Well 1 and Well 2 are each equipped with a 35 KW propane-powered generator.

The well 1 generator powers the well and a series of aerators that service roughly half the raceways and pools. The well 2 generator only provides power for the well. There are no other automatic back-up power generators to provide power for other needs on station, including the main office building.

c. Fish Rearing. The fish rearing infrastructure consists of 37 raceway pools and 6 earthen rearing ponds. The raceways are constructed of concrete or concrete landscaping blocks with gravel bottoms. All wooden raceway walls (2,500 feet) were rebuilt using concrete landscaping blocks over the past 10 years.

iii. Water Supply: The water supply consists of two gravel packed wells and an unknown number of springs and artesian well points. Average daily flow from 2013 to 2016 was 2.12 mgd, of which 1.71 mgd was from the springs/points and 0.41 was from the wells; 81% of the water was free flow and 19% pumped. The quantity of water used at Sunderland Hatchery is regulated by a MADEP WMA registration and permit.

iv. Wastewater Treatment: The NPDES permit for Sunderland Hatchery expires in September 2020. There are currently no NPDES discharge limits for phosphorus, total nitrogen or flow at Sunderland Hatchery. Solid fish waste is collected in a series of quiescent zones and unused raceways and rearing ponds. Settled solids are removed by vacuum pump and land-applied on hatchery property. Overtopping raceway water is discharged directly to Russellville Brook.

E. Roger Reed (Palmer) Hatchery - 693 Ware Street, Route 32, Palmer, MA 01069

Roger Reed Hatchery was constructed about 1912. Roger Reed Hatchery currently serves as a rearing station to produce 10,000 to 13,000 advanced fingerling Landlocked Salmon to stock Quabbin Reservoir and as a brood stock and egg incubation facility for Brook and Brown Trout. Retired and/or surplus broodstock are stocked during the spring.

i. Trout and Salmon Production: Production averaged 6,574 pounds between 2013 and 2017 comprised of 1,114 pounds of Brook Trout, 1,619 pounds of Brown Trout and 3,841 pounds of Landlocked Salmon. In addition, approximately 600,000 Brook Trout and 500,000 Brown Trout eggs are produced annually.

ii. Infrastructure:

a. Buildings: There is a 3,600 sq. ft. building that includes office space, a hatching/rearing room, a pump and filter room, garage, feed storage room and workshop/storage area on the second floor. The building is in good condition with vinyl siding and windows; a new asphalt roof was installed on the main portion of the hatchery building in 2012. There is an adjacent 1,600 sq. ft. garage and storage building. There also is a 70 sq. ft. pump house for the Road Well and a 42 sq. ft. storage shed.

b. Emergency Power: There are three propane-powered generators on station. The main building has a 35 KW primary generator, installed in 2008, which supply's back-up power to the building and the Upper Well. There is a second 35 KW generator in the main building that serves as a back-up for the primary generator. It was installed in the 1970's. The Road Well is equipped with a 20 KW generator installed in 1991.

c. Fish Rearing: The outdoor rearing area includes fourteen Ewald 20 foot circular fiberglass tanks covered by a pavilion roof. There are also five 5 X 27 foot rectangular tanks located under a separate pavilion. The indoor hatch house has 12 vertical tray egg incubators as well as several different circular, rectangular and square fiberglass rearing tanks. Egg incubation water temperature is controlled by a chiller, mixing well and reservoir water as well as recirculation.

iii. Water Supply: The water supply consists of two gravel packed wells and a surface reservoir. These two sources can be mixed to allow seasonal adjustment of water temperature for egg incubation and fish-rearing. The Upper Well is equipped with a 5 HP submersible pump and the Road Well with a 7.5 HP vertical turbine. Reservoir water flows to the hatchery by gravity where it is pumped through a high pressure sand filter and treated with UV. Average daily water use from 2013 to 2016 was 0.30 mgd, of which 0.17 mgd was from the

wells and 0.13 mgd from the reservoir.

iv. Wastewater Treatment: A NPDES permits is not required at Roger Reed. Water is discharged into a holding pond/Gates Brook, which flows through a series of remnant rearing ponds and raceways on hatchery property before discharging into Forest Lake.

ADDITIONAL SUPPORTING DOCUMENTS:
The scope of work for this project is supported by the materials listed below, which are available for review and download on the Designer Selection Board website.

- **Photos of the five (5) MassWildlife Hatcheries**
  https://www.mass.gov/files/documents/2018/08/08/dsb181101-hatchery-feasibility-study-photos.pdf

GENERAL CONDITIONS OF THIS CONTRACT:
Contract for Study, Final Design, and Construction Administration Services
MassWildlife uses DCAMM's standard *Contract for Study, Final Design and Construction Administration Services* (October 2017) ("Study/Design Contract"). The contract will be signed when the study services are procured, but there will be a break from the Study Phase to Design Phase for finalization of the Design and Construction Administration scope of services. Designers awarded a contract for the Study Phase *are not* guaranteed to be awarded the Design Phase.

Study Phase: Pursuant to a recent revision to M.G.L. c. 7C Section 59, the Schematic Design will be included in the Study. MassWildlife has established a goal of **eight (8) months** to complete a Study, including Schematic Design. If selected for study services, the applicant agrees to execute the Study/Design Contract or its successor, without revisions or modifications. MassWildlife compensates the Designer during the Study Phase for approved products in accordance with the approved work plan.

Design Phase: At the conclusion of the study, if the applicant is requested by MassWildlife to perform final design services, the applicant agrees to amend the Study/Design Contract's scope of services to include final design and construction administration services (Attachment G – Design Phase Scope of Services), and the study, and any other documents as necessary.

The contract is available on the DCAMM website at:
https://www.mass.gov/files/documents/2017/11/06/contract-for-study-final-design-and-construction-admin-services.pdf

Also available is a template Design Phase Amendment, which includes Attachment G – Design Phase Scope of Services.
https://www.mass.gov/files/documents/2017/11/06/design-phase-amendment-to-contract-for-study-final-design-and-construction-admin-services.pdf

Financial Statement
Chapter 7C, Section 51 requires that on public design contracts where the total design fee is expected to exceed $30,000 or for the design of a project for which the estimated construction cost is expected to exceed $300,000 the designer shall:
a) File its latest CPA or PA audited financial statement with the Division of Capital Asset Management and Maintenance (DCAMM), and continue to do so annually throughout the term of the contract;
b) Submit a statement from a CPA or PA that states that they have examined management's internal auditing controls, and expresses their opinion regarding those controls.

DCAMM Procedures
The designer will follow the procedures established in DCAMM's Designer Procedures Manual dated August 2008 (https://www.mass.gov/files/documents/2017/12/19/designers-procedures-manual-aug08.pdf). Applicants are urged to review and become familiar with the following supplemental material, which is available on the web at: (http://www.mass.gov/dcam).

Universal Design
Design solutions provided under this contract are expected to meet the diverse and changing needs of users across age, ability, language, ethnicity and economic circumstance. MassWildlife welcomes innovative design strategies that are usable by the widest range of people operating in the widest range of situations without special or separate design.

Accessibility
The consultant's design must comply, *at a minimum*, with 521 CMR, The Rules and Regulations of the Architectural Access Board (http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations.html), as well as the 2010 ADA Standards for Accessible Design (http://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm). When the requirements of these two laws differ the consultant shall comply with the one that provides the greater degree of accessibility. The consultant is also expected to understand and reflect in its design the civil rights obligations of the Commonwealth under Title II of the Americans with Disabilities Act (http://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm) to provide equal access to programs, services, activities and comply with ADA scope requirements for alteration of primary function areas, as applicable.

Environmental and other supplemental services
MassWildlife reserves the right to obtain supplemental services through independent consultants who will collaborate with the Principal-in-Charge (P.I.C.) and the project team.

Construction Specifications
The designer shall utilize the DCAMM Standard Specification.

Cost Estimating
Cost estimates, cost models, and estimator participation in both the study and the design phases shall meet the requirements of the current DCAMM *Cost Estimating Manual* and will be submitted in Uniformat II in the study phase and in both Uniformat II to Level 3 and CSI Masterformat in the design phase. The *Cost Estimating Manual* can be found at https://www.mass.gov/files/documents/2017/12/19/cost-estimating-manual.pdf and Uniformat II can be found at http://fire.nist.gov/bfrlpubs/build99/PDF/b99080.pdf.

CONDITIONS FOR APPLICATION:
Current or updated Master File Brochures must be on file with the Board. As a condition of application, each applicant, if selected for the new project, agrees to carry professional liability insurance in an amount equal to the lesser of $5,000,000 or 10% of the Project's Fixed Limit Construction Cost, but in no event less than $250,000 per claim in accordance with the Study Contract and Design Contract (i.e., minimum coverage of $250,000 up to $5,000,000 depending on the construction cost). DCAMM may seek additional coverage for the selected designer, and if so will bear the cost of the additional coverage. Note that the requirement for professional liability insurance shall apply to both the Contract for Study Services and Contract for Final Design and Construction Administrative Services when a project is advertised for both study and design services.

APPLICATION EVALUATION – PERSONNEL
Applications will be evaluated based on the applicant and consultant's personnel and extent of compliance with MBE/WBE participation goals. Please see Section 6 on DSB Application Form: On the organizational chart, identify the team by listing them in the same order as below. Include resumes for all personnel.

1. **Architect (P.I.C.)***
2. Mechanical Engineer (M/P/FP)
3. Electrical Engineer
4. Civil Engineer
5. Fisheries Biologist
6. Environmental Engineer
7. Cost Estimator
8. MA Building Code Consultant

***Should the advertisement require the applicant to be either an Architect or an A&E firm, the P.I.C. or P.M. must be a Registered Architect in the Commonwealth of Massachusetts.

APPLICATION EVALUATION – PROJECT EXPERIENCE

Applications will be evaluated based upon the requirements of M.G.L. Ch. 7C §49 and the work listed on DSB Application Form Sections 8, 9 AND 10 which illustrate current qualifications in the following areas:

1. Fish Aquaculture and Bio-Engineering: Demonstrated experience to prepare a comprehensive aquaculture bioengineering and hatchery modernization study for state and federal conservation agencies that propagate fish, particularly coldwater species. Ideal experience will include the preparation of similar documents for trout and salmon (coldwater) propagation facilities in the past 10 years. A strong understanding and demonstrated expertise of fish production capacity, hatchery production modelling, fish hatchery biosecurity, fish hatchery waste management and permitting, and state-of-the art fish culture methods and techniques, is required. The consulting firm will have a staff that includes fish culture biologists, engineers and related support staff that have previously worked as a team on similar aquaculture engineering projects.

2. Coldwater Aquaculture: Demonstrated understanding of fish-rearing water supply, well rehabilitation and construction, water quality and fish production wastewater, and NPDES permit expertise.

3. Energy Efficiency, Conservation and Generation: Demonstrated experience (within the past 10 years) in the area of LEED certification, energy conservation and generation, including wind, solar, hydropower, and geothermal, and the design and construction of energy and water efficient coldwater hatchery systems.

4. General Civil and Construction Engineering: Demonstrated experience in designing and constructing conservation fish production facilities. Such experience will also include upgrading and modernization of outdated coldwater aquaculture facilities.

5. Mechanical and Architectural Aquaculture Building System: Demonstrated experience in the design and construction of new hatchery buildings, fish rearing infrastructure, as well as the reconstruction or modernization of outdated hatchery buildings and infrastructure, of similar size and scope.

6. Public Outreach and Visitor Experience: Demonstrated experience in incorporating a positive public outreach and visitor experience, in the design or modernization of state and/or federal conservation fish hatcheries, of similar size and scope.

APPLICANTS PLEASE NOTE

Please use the latest **DSB Application Form (Updated July 2016)** and follow the **General Instructions for Filing Applications.**

Application Update: Along with the **5 copies** of applications required, please email an electronic copy of the application form (do not include the Sub-Consultant Acknowledgement forms and SDO Certification letters) to applications.dsb@massmail.state.ma.us

Applications that are incomplete will be rejected. Applications that are submitted on a form other than **DSB Application Form (Updated July 2016)** may be rejected as non-compliant and not be considered by the Board. Applications received at the DSB Office after the advertised deadline will not be considered.