

**MASSACHUSETTS**

100 Fifth Avenue, 5th Floor
Waltham, Massachusetts 02451
p 781.419.7696

RHODE ISLAND

401 Wampanoag Trail, Suite 400
East Providence, Rhode Island 02915
p 401.434.5560

VIRGINIA

999 Waterside Drive, Suite 2525
Norfolk, VA 23510
p 757.777.3777

May 30, 2018

Mr. Jake Cabrera
Co-President
Lake Lashaway Community Association
63 Shore Road
North Brookfield, MA 01535

**Re: *Analysis and Recommendations for Lake Lashaway
North and East Brookfield, MA
ESS Proposal No. 16590***

Dear Mr. Cabrera:

ESS Group, Inc. (ESS) is pleased to submit this updated proposal to provide the Lake Lashaway Community Association (LLCA) with lake management planning services at your lake. We understand that the LLCA is concerned for the long-term health of the lake and is looking for an assessment that will identify the underlying causes of the lake's eutrophication (eutrophication is a term that describes a lake's deterioration due to excessive nutrients and sediment). We understand, based on our recent meeting with your Board of Directors, that your goal is to identify a list of appropriate actions that can be undertaken to restore the lake rather than simply treating the symptoms of eutrophication. We recognize that the annual drawdown has been somewhat helpful in managing weed growth over the years, but that this approach along is not sufficient to prevent the spread of non-native weeds and does not have any effect on the water quality within the lake. As such, the lake routinely experiences algal blooms and occasionally is closed due to excessive bacteria at the town beach.

ESS regularly works with municipalities and lake associations in southern New England to conduct lake studies and develop management plans that accommodate the needs of multiple stakeholders and user groups. ESS is a local company that provides environmental science and engineering services throughout the Northeast. Our water resources staff includes two Certified Lake Managers. Our staff has a strong history of successfully working with clients and communities to study, design, and permit lake and watershed management projects in Massachusetts and throughout the region. We are **not** an herbicide company, nor do we own or operate weed control or construction equipment. This allows us to provide independent, unbiased professional recommendations for helping municipalities, state agencies, and lake associations understand and effectively manage their lake and pond resources.

ESS currently works with the Town of West Brookfield to assist them with managing the water quality at Lake Wickaboag. We also have been working with the Quaboag/Quacumquasit Lake Association to advise them for over 20 years in the management of their lakes in Brookfield, East Brookfield, and Sturbridge. Our local experience and holistic approach means that our recommendations for your lake will be environmentally sound, feasible from a regulatory standpoint, and likely to be useful for leveraging future lake management funding that may become available through grants or other sources.

The Scope of Work detailed in this proposal contains several tasks that will be useful in developing an appropriate solution to the issues facing Lake Lashaway.



SCOPE OF WORK

ESS understands that Lake Lashaway suffers from extensive growths of aquatic weeds and algal blooms. We have prepared this Scope of Work to help establish management goals for the lake and collect the initial data necessary to make recommendations for achieving these goals in a way that is transparent, science-based, cost-effective, and offers objective guidelines for decision-making.

Task 1 Review of Existing Information

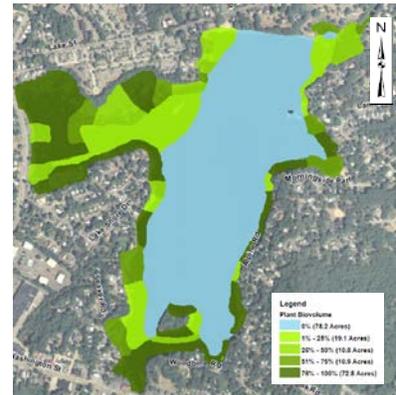
ESS will obtain existing information on Lake Lashaway provided to us from the LLCA, as well as from other readily available on-line resources. We will summarize this information in our final report to the LLCA. Given that water quality is an issue, ESS will review current land use within the lake's watershed and compare this to historic land use to document the degree of change. Changes in land use from agriculture to residential or forest to residential can have significant impacts to water quality.

Deliverables: Text summarizing the existing information and its significance regarding the lake's current condition. A table summarizing readily available information and pertinent watershed features will be prepared.

Task 2 Aquatic Plant Assessment

ESS will provide an independent assessment of the aquatic plant community at Lake Lashaway. ESS will map overall plant cover and biovolume (the amount of the water column taken up by plant growth) in the Lake. Additionally, an inventory of aquatic plants will be conducted to describe the current species composition and abundance. The survey will be conducted by direct observation, grappling plants from the bottom during the peak of the growing season (between June and August).

Deliverables: ESS will prepare GIS maps of aquatic plant cover and biovolume. These will be accompanied by acreages of each cover and biovolume class. A table of all species identified during the survey will also be provided, along with notes on whether the plants are native or exotic.



Task 3 Bathymetric Survey

ESS will conduct a bathymetry survey of Lake Lashaway that will be reflective of actual conditions in the lake. A current and accurate bathymetric map will be important for understanding the hydrology. We will use sonar to document water depth in deeper waters and a calibrated rod for improved accuracy in weedy or shallow waters.

We will also map sediment type during this survey making notes of sediment depths and composition (muck, clay, sand, gravel, etc.).



Deliverables: ESS will provide the Town with a bathymetry map (in GIS format) with one to two foot contours referenced to an appropriate vertical control such as the dam or spillway.

Task 4 Fish and Wildlife Assessment

ESS will conduct an assessment of fish, birds, amphibians, reptiles, aquatic invertebrates (particularly mussels and snails), and other wildlife. This information will be used to directly assess the value of Lake Lashaway as a fish and wildlife resource as well as to identify any resources that may be potentially impacted by possible management alternatives that we could recommend.



The pond invertebrate community will be assessed to establish a list of species present and densities of those that are known to be particularly sensitive to drawdown (e.g., mussels). A biologist trained in invertebrate collection, identification and assessment will conduct this work. This work will be important for establishing the benchmark against which the impacts of future management actions are evaluated.

Amphibians and reptiles are becoming increasingly rare in much of New England and some species could potentially be impacted by winter drawdown. Much of the information on reptile and amphibian use of Walker Pond could be gathered from existing information and from a field assessment that considers visual and acoustical (e.g., amphibian calls) observations. This will provide information on the likelihood for potential disruption by actions such as a winter drawdown or dredging, as well as other potential management approaches.

Geese are a threat to water quality as they often feed outside of a waterbody (agricultural fields) and then return to the waterbody to leave their droppings which have a significant amount of nutrients. In addition, goose droppings also can result in elevated bacterial levels. ESS will assess the resident goose population and the lake's shoreline habitat so that we can make recommendations on how to best manage these if they are found to be a problem.

Finally, ESS will also wetland areas adjacent to the lake to assess available habitat and determine potential impacts to these areas from possible management actions.

Deliverables: Densities of mollusk (mussel, clam, and snail) species within available deep and shallow water habitat will be described and mapped. Tables of observed fish and wildlife species will be provided along with notes on relative abundance and any other observations. A key focus in our work will be to assess the resident goose population.

Task 5 Surface Water Quality Assessment

ESS will review readily available data and evaluate what it implies for the lake from a management perspective. ESS will assess water quality once as part of this study; however, it is possible that additional water quality monitoring may be required beyond this initial assessment to fully characterize the conditions at the lake.

ESS proposes to collect a sample from the lake's inlet, its outlet, and from the deepest portion of the lake at the surface and from the bottom. We would sample each of these sites once during dry weather, then the inlet site would be sampled a second time during a significant rain event to better understand the impact of stormwater runoff on the lake.

ESS will send the samples to a laboratory for testing of total phosphorus, dissolved phosphorus, nitrate nitrogen, total Kjeldahl nitrogen, and total suspended solids. We will field measure each site for dissolved oxygen, temperature, conductivity, pH, color, and turbidity. We will measure flow in each of the stream sampling sites and Secchi disk depth at the in-lake station.

Based on this analysis, ESS will suggest any additional water quality data that may be prudent to collect to improve management of the lake (e.g., tributary nutrient levels and discharge measurements).

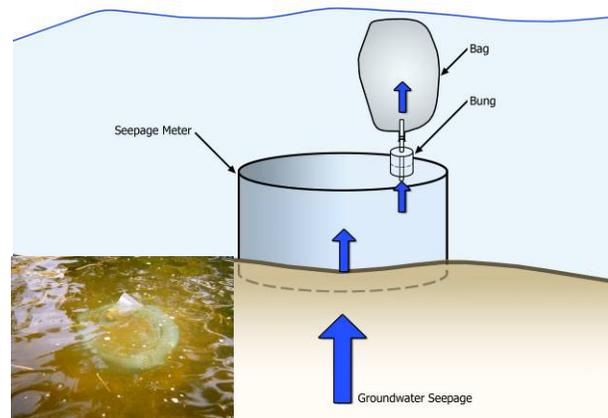
Deliverables: We will provide a summary table of existing water quality data as well as recommendations for any additional sampling or monitoring that may be useful for future management of water quality in the pond.

Task 6 Ground Water Quality Assessment

In some lakes groundwater can be a major source of flows to the system. Understanding the quantity and quality of these water inputs can be critical toward understanding why the system is no longer meeting its water quality goals. To assess groundwater inputs directly, ESS is recommending that a groundwater seepage survey be conducted. A seepage survey measures the quantity and quality of groundwater entering the lake along the immediate shorelines where groundwater infiltration is typically the highest and most influenced by human behaviors and activities.

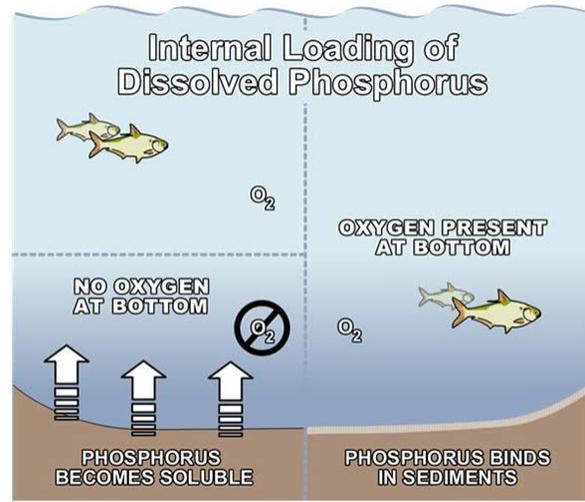
ESS will deploy eight seepage meters at four shoreline segments to measure the rate of in- or out-seepage. A seepage meter is a device that allows the rate of water influent to or effluent from the lake to be measured. Two meters will be deployed in each shoreline segment: one to measure shallower groundwater seepage and one to measure deeper seepage rates.

ESS will also collect shallow porewater samples from each of the four shoreline segments using a littoral interstitial porewater (LIP) sampler, which is essentially a mini-well that extracts groundwater from sediments for water quality testing. Samples will be measured in the field for temperature, pH, and specific



conductance. Laboratory analysis will be conducted for dissolved phosphorus, ammonia, and nitrate at each sampling segment.

The sum of nitrate and ammonia nitrogen, or soluble inorganic nitrogen (SIN) is typically the most reliable indicator of septic leachate contamination. Phosphorus (in dissolved form) may also migrate through soils but tends to move much slower than nitrogen. By sampling for both, we will be able to provide the LLCA with an assessment of whether groundwater contamination is occurring and whether it is a recent/nearby source or an historical/distant source. This will be useful toward developing a nutrient budget for the lake and recommending effective management actions.



Deliverables: ESS will prepare a map depicting the locations of the four seepage meter segments assessed along with a table of results and text explaining the approach and results. Results will quantify the amount of water entering the lake from groundwater and describe the overall quality of these inputs. These data will be used to assess the true nature of septic inputs and the impact on the lake's overall nutrient budget.

Task 7 Sediment Analysis

Collection and analysis of sediment samples will be useful toward determining the likely impact of accumulated fine sediments on the quality of water within the lake. Each year as algal blooms form and then decay the algal cells and associated nutrients sink to the lake bottom where these nutrients may ultimately be released in subsequent years contributing to the process known as "internal recycling" of nutrients.

Sediment samples will need to be taken from areas likely to be contributing to the internal nutrient recycling within the lake. A single sample for laboratory analysis collected from at least three surface sediment grabs taken from the deeper areas of the lake are needed. Samples obtained by ESS will be characterized, photographed, and sub-sampled by ESS in the field to obtain representative samples for delivery to a state certified laboratory. The key parameters needed for this analysis are nutrients Total Phosphorus and Total Nitrogen and selected metals (iron, aluminum, calcium, and magnesium).

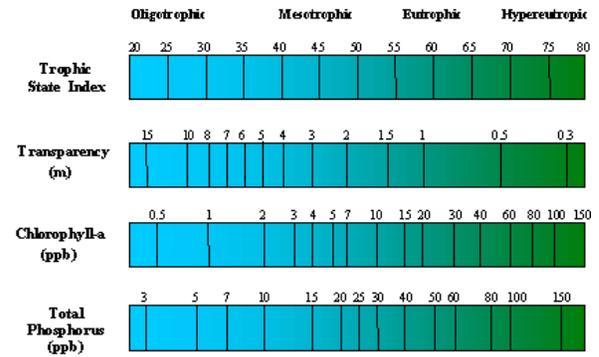
ESS will use the sediment sampling results, along with other characteristics of the lake (depth of thermocline, duration of seasonal stratification, etc.) to estimate internal nutrient recycling.

The listed metals are also important to this analysis as these will help elucidate whether phosphorus is likely being bound in forms that dissociate under anoxic conditions (iron and to a lesser degree aluminum) from those that are less sensitive to dissolved oxygen levels (calcium and magnesium).

Deliverables: ESS will include the analysis of sediment from the pond, an essential part of determining whether internal nutrient recycling is prevalent and problematic at Lost Lake. ESS will present tables of data, sediment photographs, and GIS maps depicting locations of our grab samples.

Task 8 Final Report

ESS will compile information gathered from each of the tasks above into a narrative report. Our report will provide a brief description of methods and a summary of results in tabular, graphic, and narrative formats. We will use the results of our study to assess existing conditions under the current management program and provide the LLCA with our recommended approach to fully restoring the lake.



ESS will analyze the watershed of the lake using GIS land use and aerial mapping data to assess the amount of impervious cover, calculate the phosphorus loading from the various land use types, and evaluate other potential “hot spots” within the watershed.

We will consider the potential for impacts from septic systems within the watershed, pet waste, waterfowl, and other watershed sources of contaminants in our analysis of potential sources of impairment to the lake.

Our recommendations will include all viable options for restoring and protecting the lake and we will prioritize those that we believe offer the most logical and economical approach for restoring and maintaining the lake for the long-term. ESS will provide next steps and cost estimates for each recommended action.

ESS will prepare a list of potentially viable grants that may be applicable toward solving the problems identified at Lake Lashaway. Our list will include the anticipated filing dates for each grant program, the contact information, and the typical amount of funding that is made available to successful applicants so that the LLCA can evaluate whether these grant programs are worth pursuing.

Deliverables: ESS will provide an electronic copy of the draft and final versions of the final report. Up to three (3) hard copies of the final report will be provided.

SCHEDULE

ESS has flexibility in scheduling and we are prepared to begin these services within one week of receiving written authorization from the LLCA.

COSTS

ESS will provide the above services for the costs summarized in Table A below. The proposed approach and costs represent a full, but minimalistic, evaluation of the lake. This evaluation will allow the LLCA to begin to prepare grant applications for submittal to state agencies that, if won, will be able to help fund future management actions within the watershed or within the lake.

Table A. Cost Summary Table

TASK	COST
Task 1 - Review of Existing Information	\$500
Task 2 - Aquatic Plant Assessment	\$2,200
Task 3 - Bathymetric Survey	\$1,400
Task 4 - Fish and Wildlife Assessment	\$800
Task 5 – Surface Water Quality Assessment	\$2,600
Task 6 – Ground Water Quality Assessment	\$2,200
Task 7 – Sediment Analysis	\$800
Task 8 - Final Report	\$2,900
Total for Tasks 1 - 8	\$13,400
Total Cost discounted by 5%	\$12,730

CONDITIONS OF ENGAGEMENT

ESS will perform the Scope of Work described above on a time and materials basis not to exceed the respective costs described in Table A. No additional work will be performed beyond this Scope of Work.

ACCEPTANCE

This proposal is valid for a period of 60 days. You may accept this proposal by signing in the space provided below and returning an executed copy to us. The executed proposal and the referenced attachments will serve as the entire agreement between ESS and the LLCA.

ESS is grateful for the opportunity to prepare this proposal and we look forward to the chance to be a constructive partner in the future management of Lake Lashaway. If you have any questions, please do not hesitate to contact me directly at (401) 330-1224 or cnielsen@essgroup.com.

Sincerely,

ESS GROUP, INC.



Carl Nielsen, CLM
Vice President, Director of Water Resources



Mr. Jake Cabrera
May 30, 2018

ACCEPTANCE OF ESS GROUP, INC. PROPOSAL AND AUTHORIZATION TO PROCEED

This proposal is hereby authorized and accepted as executed below by a duly authorized signatory of the Lake Lashaway Community Association. The signatory below also hereby warrants that he/she has full authority to act for, in the name of, and on behalf of the Lake Lashaway Community Association to authorize this Agreement.

Signature of Authorized Representative for the Lake Lashaway Community Association

Print Name/Title

Date of Authorization





MASSACHUSETTS
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p +1 401.434.5560

VIRGINIA
999 Waterside Drive, Suite 2525
Norfolk, Virginia 23510
p +1 757.777.3777

ESS GROUP, INC.

STANDARD TERMS AND CONDITIONS

1.0 THE SERVICES

ESS Group, Inc. ("ESS") proposes to perform certain professional services (the "Services") for the client (the "Client") as more fully set forth in the attached proposal or scope of work (the "Proposal"). ESS will provide the Services to the Client at the charges specified in the Proposal and the Client agrees to pay such charges in accordance with these Standard Terms and Conditions. These Terms and Conditions are hereby incorporated into, and are an integral part of, the Proposal and any subsequent Task Orders approved by the Client under this contract for Services (the Proposal and these Standard Terms and Conditions being collectively referred to hereinafter as the "Agreement").

2.0 BILLINGS, PAYMENTS AND CREDIT TERMS

Invoices for the Services shall be submitted, at ESS's option, either on a monthly basis or upon completion of certain project goals or deliverable milestones. All such invoices shall be payable upon receipt of the invoice. A late payment charge will automatically be assessed at a rate of one and one-half percent (**1.5%**) per month on any outstanding balance not paid within thirty (30) days of the invoice date.

Application of the late payment charge indicated above as a consequence of Client's late payment(s) does not constitute any willingness on the part of ESS to finance Client's operation, and no such willingness should be inferred. The Client agrees that if the Client fails to pay an invoice due to ESS within thirty (30) days after the date thereof, or fails to meet satisfactory credit criteria, ESS may, without waiving any other claim or right against the Client, and without liability whatsoever to the Client, terminate the Agreement and its performance of the Services. Termination shall not relieve the Client of its obligation to pay amounts incurred up to the date of termination.

Client's obligation to pay for the Services performed under this Agreement is in no way contingent upon Client's ability to obtain financing, zoning, approval of governmental or regulatory agencies, final adjudication of a lawsuit in which ESS is not involved, or upon Client's successful completion of the project, unless otherwise stated in this Agreement or other Agreements for which ESS and the Client may consummate.

In the event that ESS places any outstanding invoices in the hands of an agency or an attorney for collection, the Client shall reimburse ESS for all costs and expenses of collection, including the fees and expenses of its attorneys and court costs, if any. ESS also reserves its right, in addition to pursuing its other remedies provided herein, to file a mechanic's lien or other lien or claim of any kind against Client's property in accordance with applicable laws and regulations.

ESS may conduct a credit review or require a certain fee retainer from the Client prior to the initiation of Services authorized by the Client in the event the Client does not have an established credit record with ESS or that the Client's credit record for previous work conducted by ESS was not satisfactory to ESS. Any fee retainer funds shall be held by ESS in a non-interest bearing account and applied to the last invoice for Services under this Agreement or until such other time an acceptable credit record has been established.

Based upon the results of the credit review, ESS may require alternative payment terms other than those indicated above. If satisfactory credit terms cannot be agreed upon, ESS may, without liability whatsoever to the Client, either withhold work hereunder until satisfactory arrangements are made or terminate the Agreement and its performance of the Services and any and all related agreements between the Parties.

3.0 OWNERSHIP OF REPORTS AND DOCUMENTS

All reports and documentation prepared for or by ESS shall remain property of ESS until invoices for the Services are paid in full. All backup documents (i.e. field notes, internal calculations, drafts, etc.) shall remain property of ESS. Notwithstanding the foregoing, ESS shall treat its performance of the Services and all information generated in the performance of the Services, whether the property of Client or ESS, as confidential, and shall not release such information to any governmental agency or third party without the written consent of Client, unless the release of such information is necessary to prevent injury to individuals or the environment.

Upon payment in full for Services, Client shall use ESS's reports and documentation only for the originally intended purpose for which it was prepared. Client shall not transmit, copy, reproduce or otherwise transfer the work product to a third party for use without the express prior written consent of ESS. If ESS work product is subsequently used, transferred or modified by the Client without the prior written consent of ESS, the Client hereby agrees to indemnify and hold ESS harmless from any and all liability and/or claims or damages against ESS, its officers, employees, subcontractors/subconsultants and any successors in interest as a result of this action.





4.0 RIGHT OF ENTRY

The Client hereby grants to ESS, or warrants that permission has been duly granted for, a right of entry, from time to time, by ESS, its staff, and subcontractors/subconsultants, to enter upon the Site (as hereinafter defined in Section 7 below) for the purpose of performing all Services. Client understands that even though ESS will take reasonable measures to return the Site to the condition it was in before ESS commenced its activities, the Client recognizes that the use of exploration equipment may alter or affect the terrain in the area under investigation. Accordingly, the Client accepts such risks, and ESS will not be liable for any effect, alteration or damage arising out of such explorations, except damage caused by ESS's negligence. The cost of restoration of the Site because of any such damage has neither been calculated nor included in ESS's fees. The Client agrees to indemnify and hold ESS harmless for all such claims for damages by others.

ESS will exercise a reasonable degree of care in seeking to locate subterranean structures in the vicinity of proposed subsurface explorations or other service activities at the Site. ESS will contact public utilities and review plans, if any, provided by public utilities and public agencies. Plans and information about the Site provided by the Client shall also be reviewed. So long as ESS observes such standard of care, ESS will not be liable for any claims, damage, injury or interference with any subterranean structure, pipe, tank, cable or any other element or condition if not called to ESS's attention prior to commencement of work, or which is not shown, or accurately located, on any plans furnished to ESS by the Client or by any other party (public or private).

ESS agrees to schedule its activities to minimize interference with the on-going operations and activities of the Client or any third-party whose property may be the subject of the Services. ESS shall, and shall cause its subcontractors/subconsultants, to abide by all of the Client's Site rules and regulations regarding the protection of the health and safety of employees and third-parties, provided it shall be the Client's obligation to make such rules and regulations known to ESS prior to ESS commencing the Services at the Client's Site.

5.0 LIMITED WARRANTY

The Client realizes that the Services require decisions which are not based on pure science or engineering, but rather upon best professional judgment considerations. ESS shall perform the Services in accordance with generally accepted professional practices as observed by members of the profession in the area under similar conditions. The Client agrees that the Services shall be rendered without any other warranty, express or implied. The Client further agrees that the government regulatory review application process for Site activity permits can be complex, involving considerable public participation and political influences, and at times, public opposition can be severe and prevent or delay actual permit issuance to the Client, regardless of the technical soundness of the project. The Client agrees that in such projects, ESS makes no express or implied representation that a Site activities permit will be issued.

In the event there are apparent errors or omissions in the Services as mutually agreed to by ESS and Client, ESS's sole obligation to Client shall be to timely correct such apparent errors or omissions at its own cost as may be reasonably determined by ESS and Client. ESS's obligation to correct any such errors or omissions as set forth in the preceding sentence shall be limited to only those Services performed under direct contract, control and supervision of ESS and its subcontractors/subconsultants. ESS's obligation shall not extend to errors or omissions due to limitations or restrictions by Client or other third parties that may inhibit or prohibit ESS's use standard of good science, engineering and generally accepted professional practices as stated above.

6.0 SERVICES EXCLUDED

- A. The Services shall not include any work not expressly set forth in writing in the Agreement. ESS assumes no duty to the Client to perform any work not included in the Agreement, unless the Agreement is amended in writing by ESS and the Client to perform such work.
- B. Nothing contained in this Agreement shall be construed or interpreted as requiring ESS to assume the status of a generator, storer, operator, treater, transporter or disposal facility as those terms are used within the Resource Conservation and Recovery Act, 42 USCA Section 6901, et. seq. (RCRA), or as such terms (or similar terms) are used in any state statute of similar effect governing the treatment, storage, transportation or disposal of waste.
- C. The Services are limited to work specified in the Agreement or any subsequently approved Task Orders and ESS makes no representations or warranties, express or implied, other than those expressly stated in the Agreement.

7.0 INFORMATION DISCLOSURES

- A. The Client shall provide to ESS all relevant information in its possession, custody, or control, or reasonably available to it, which relates to the project location (the "Site"), its present and prior uses, or to activities at the Site which may affect the Services, including, but not limited to, the following:





- I. A legal description of the Site, including boundary lines, and an accurate existing conditions site plan.
 - II. Historical information as to the prior uses and owners of the Site, including any maps or plans.
 - III. Identification of the location of utilities, underground tanks, and other structures and the routing thereof at the Site, including available plans of the Site. This also includes any information that may suggest or specify the possibility of encountering unknown, unmarked, or undocumented subsurface structures or hazardous conditions.
 - IV. A description of the types and duration of activities which were conducted at the Site over its use history or at any time by the Client or by any person or entity which would relate to the Services.
 - V. Identification, by name, quantity, location, and date, of any release, storage or handling of hazardous substances at, on or under the Site both prior to and during Services activities.
- B. Notification and Reporting: to the extent required by law, the Client shall be solely responsible for promptly reporting regulated conditions or events, including, without limitation, the discovery of the release of hazardous substances at the Site to the appropriate public authorities in accordance with applicable laws and regulations. The Client shall indemnify and hold harmless ESS, its officers, employees, subcontractors/subconsultants and any successors in interest for any and all claims arising from its responsibility for notifying or informing regulatory authorities concerning any such regulated conditions or events in the time frames or procedures required by applicable law or regulations.
- C. Reliance: The services, information, and other data required by this Section 7 to be furnished by the Client shall be at the Client's sole cost and expense. Unless Client informs ESS to the contrary, ESS may rely upon all data, plans or information furnished by the Client as accurate and complete for the purposes of delivery of approved ESS Services.
- D. Manifest Signing: The Client, or a party designated by the Client, other than ESS, shall sign any and all required manifests relating to the transportation, treatment and disposal of all wastes associated with the activities of the Client.

8.0 DISCOVERY OF UNANTICIPATED POLLUTANT RISKS

- A. If, while performing the Services, ESS discovers pollutants or hazardous materials, substances, or Site conditions that pose unanticipated or unacceptable risks ("Unforeseen Conditions"), it is agreed that the scope of the Services, schedule for completion, and the estimated project cost shall be reconsidered and that the Agreement shall immediately become subject to renegotiation or termination.
- B. In the event that the Agreement is terminated because of the discovery of Unforeseen Conditions, it is agreed that ESS shall be paid, without set-off or reduction, for labor performed, subcontractor/subconsultants services and reimbursable charges incurred up to the date of termination of the Agreement, including, if necessary, any additional labor or reimbursable charges incurred for Site restoration or equipment and labor demobilizing from the Site.
- C. The Client agrees that the discovery of Unforeseen Conditions may make it necessary for ESS to take immediate measures to protect the health and safety of its employees and subcontractors/subconsultants. The Client authorizes ESS to take such immediate measures that ESS, in its sole discretion, deems necessary to preserve and protect the health and safety of ESS employees and subcontractors/subconsultants; provided however, nothing contained herein shall impose an obligation upon ESS to perform any such acts.
- D. In the event that soil, water or groundwater samples and/or other subsurface structures or materials contain or are suspected to contain pollutants, or hazardous materials or substances, or constituents hazardous or detrimental to health, safety, or the environment as defined by federal, state or local statutes, regulations or ordinances, ESS will, after completion of testing, return such samples and materials to the Client or the Site if the testing laboratory will not dispose of these samples as part of their operating procedures. If the Client requests and approves ESS to provide labor and materials to properly dispose these potentially contaminated samples, substances or sample residuals, the Client agrees to compensate ESS for those fees and charges incurred at the time of disposal. The Client also hereby agrees to indemnify and hold ESS or any successors in interest harmless for any liability, claim or demand associated with their disposal of this material or substances
- E. All laboratory and field equipment used by ESS in performing the Services that becomes contaminated will be cleaned and the Client agrees to reimburse ESS for all costs and expenses of such cleaning. Contaminated consumables will be disposed of and replaced and the Client agrees to reimburse ESS for all costs and expenses related to such disposal. Equipment (including tools) which cannot be reasonably decontaminated shall become the property and responsibility of the Client. All such equipment shall be delivered to the Client. The Client agrees to pay to ESS the fair market value of any such equipment which cannot reasonably be decontaminated.
- F. Client understands that the discovery of Unforeseen Conditions and/or the taking of preventive measures relative to these substances and conditions may result in a reduction of the value of the Site upon which Unforeseen Conditions are found





to exist or the preventive measures are taken. Accordingly, Client waives any claim against ESS and its subcontractors/subconsultants and agrees to defend, indemnify and hold harmless ESS, its subcontractors/subconsultants, and any successors in interest from any claim based upon the diminished value of real property allegedly arising from the discovery of Unforeseen Conditions or the taking of a preventive measures, unless such claim is based upon the negligent performance of Services by ESS under this Agreement.

9.0 PERFORMANCE AND FORCE MAJEURE

ESS shall make reasonable efforts to complete the Services in a timely and orderly manner. ESS will not be liable to the Client for delays in performing the Services, nor for the direct or indirect cost resulting from such delays, which may result from labor strikes, riots, fires, natural disasters, wars, acts of governmental authorities, adverse weather conditions or other natural catastrophes, or any other cause beyond the reasonable control or contemplation of ESS.

10.0 LIMITATION OF PROFESSIONAL LIABILITY

The Client agrees that ESS's liability to the Client based upon or arising out of ESS's breach of this Agreement or negligent professional acts, errors or omissions is limited, in amount, to the lessor of (i) aggregate sum of \$50,000 or (ii) ESS's aggregate fee for the Services (excluding expenses). The Client agrees that to the fullest extent permitted by law, this limitation applies to all injuries, damages, claims, losses, expenses and defense costs, whether based in contract, negligence, strict liability, attorneys' fees, statutory, trespass, indemnity, misrepresentation or any other theory of liability or causes whatsoever.

No claim shall be valid if presented to ESS more than one (1) year after substantial completion of the Services or, if shorter, the applicable statute of limitations period. ESS, its affiliates, officers, directors, employees or agents shall not be liable for lost profits, loss of use of property, diminution of value of property or goods, delays, cost to obtain replacement samples, or other special, indirect, incidental, consequential, punitive, exemplary or multiple damages whether caused by ESS's negligence, errors, omissions, strict liability, breach of contract, breach of warranty, or other cause or causes whatsoever.

11.0 INSURANCE

ESS represents that it is protected by and has in place the following forms and amounts of insurance:

Form of Insurance		Limits
General Liability	Coverage is on an occurrence basis and includes Premises/Operations, Products/Completed Operations, Personal & Advertising Injury, Medical Payments	\$1,000,000 Each Occurrence \$2,000,000 Aggregate
Workers Compensation	Coverage includes all state and federal requirements	Statutory
Employers Liability		\$1,000,000 Each Accident \$1,000,000 Disease-Policy Limit \$1,000,000 Disease-Each Employee
Automobile Liability	Coverage includes Owned, Non-Owned and Hired Automobile	\$1,000,000 Combined Single Limit
Umbrella	Coverage on an Umbrella form over General Liability, Automobile Liability and Employers Liability	\$5,000,000 Each Occurrence and Aggregate
Professional Liability		\$1,000,000 Each Occurrence \$2,000,000 Aggregate
Environmental Coverage	Pollution Liability Coverage	\$1,000,000 Each Occurrence \$2,000,000 Aggregate

ESS shall furnish Client with Certificate(s) of Insurance upon Client's request. If Client requires excess insurance coverage in addition those stated above, ESS may purchase project specific insurance at Client's request if commercially available, provided that Client pays the premium and costs to obtain additional coverage.



12.0 INDEMNIFICATION

To the fullest extent permitted by law, Client agrees to indemnify, defend and hold harmless ESS, its officers, directors, employees and agents, including its affiliates and subsidiaries, and any successors in interest from and against all liabilities, losses, damages, demands, claims, suits, fines and penalties, attorneys' fees and other costs of settlement and defense, which liabilities, losses, damages, demands, claims, suits, fines and penalties or costs arise out of or are related to this Agreement or the Services, except to the extent they are caused by ESS's negligence.

13.0 TERMINATION

ESS or Client may terminate this Agreement upon thirty (30) days prior written notice to the other party. If the Agreement is so terminated, ESS shall be compensated for all completed Services rendered up to and including the day of termination as well as any reasonable labor and materials costs for the collection, preparation and transfer of ESS services or product to the Client after termination of this Agreement.

ESS or Client may immediately terminate this Agreement upon an Event of Default, as defined below. Upon a termination of this Agreement for an Event of Default, ESS shall be compensated for all completed Services rendered up to and including the day of termination as well as any reasonable labor and materials costs for the collection, preparation and transfer of ESS Services or product to the Client after termination of this Agreement. Each of the following events shall constitute an "Event of Default":

- A. ESS or Client fail to observe, perform, or comply with any material term, covenant, agreement, or condition of this Agreement which is to be observed, performed, or complied with by ESS or Client, of such failure to continue uncured for fourteen (14) calendar days after ESS or Client gives the other party written notice of any failure and specified the nature of such failure.
- B. ESS or Client commits any fraud, misrepresentation, breach of fiduciary duty, willful misconduct, or intentional breach of any provision of this Agreement.

14.0 INDEPENDENT CONTRACTOR STATUS

ESS, its associates, subconsultants and subcontractors shall act as and be deemed to be independent contractors for all purposes of this Agreement and shall not be deemed to be agents, assigns, employees, joint venturers, partners or principals of Client, or its employees, officers, directors, representatives or affiliates. This Agreement is not intended to, and shall not be construed to, create an employer-employee relationship between ESS and Client for any purpose including under the provisions of any workers' compensation law or other laws.

15.0 EMPLOYEE NONSOLICITATION

ESS and Client agree that during the term of this Agreement, and for a period of one (1) year following the date of completion or termination of this Agreement, for any reason whatsoever, they shall not directly or indirectly solicit or encourage any employee of either Party to this Agreement who was employed during the term hereof to leave employment of the other Party to this Agreement, or employ any such employee unless such employee has ceased to be employed by the other Party for a period of at least one (1) year. If either party violates this condition, whether by direct or indirect solicitation or any other manner or encouragement, ESS or Client hereby agree to pay a penalty of three (3) times the current salary or rate of pay of the departing employee within thirty (30) days of notice of resignation by that employee, in addition to all other rights and remedies provided herein.

ESS and Client hereby agree that irreparable damage would occur in the event that any of the terms and provisions of this Section were not performed in accordance with their specific terms or were otherwise breached. Client further acknowledges that the injury to ESS resulting from any violation by it of any of the terms and provisions contained in this Section will be of such character that it cannot be adequately compensated by money damages. Accordingly, ESS may, in addition to pursuing its other remedies provided herein, obtain an injunction to prevent breaches of this Section and to enforce specifically the terms and provisions hereof in any court of competent jurisdiction. ESS may also recover damages and reasonable attorneys' fees and legal costs of ESS's counsel expended to enforce this Section.

16.0 NOTICES

Any notice required or permitted by this Agreement shall be deemed duly given if sent in writing, certified or registered mail or by other commercial delivery service with return receipt requested or other written acknowledgement of receipt to the addresses set forth in the Proposal, or such other addresses as the Parties may designate by written notice.





17.0 NON-ASSIGNMENT

This Agreement and no rights or obligations under this Agreement may be assigned to any other person, or entity by operation or law, or otherwise, without the express prior written consent of ESS.

18.0 BUSINESS OPPORTUNITIES

This Agreement shall in no way be construed to (i) preclude in any way either Party from pursuing any business opportunities or (ii) establish any relationship with respect to such business opportunities. Nothing in this Agreement shall preclude ESS from working with other entities for the business of providing environmental consulting and engineering services.

19.0 GENERAL

- A. This Agreement may not be and shall not be deemed or construed to have been modified, amended, rescinded, canceled, or waived, in whole or in part, except by written agreement signed by ESS and the Client.
- B. This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter hereof and supersedes any previous communications, representations or agreements by either party, whether written or oral and takes precedence over any terms and conditions that may be contained in any purchase order, or other document issued by the Client.
- C. No Party may be deemed to have waived any right, power or privilege under this Agreement or any provision of this Agreement unless such waiver is duly executed in writing and acknowledged by the Party to be charged with such waiver. The failure of any Party to enforce at any time any of the provisions of this Agreement may in no way be construed to be a waiver of such provisions nor in any way to affect the validity of this Agreement or any part of this Agreement, or the right of any Party to subsequently enforce each and every such provision. No waiver of any breach of this Agreement may be held to be a waiver of any other or subsequent breach.
- D. The Parties agree that the provisions of Sections 12 and 15 survive the completion and/or termination of this Agreement. In addition, all provisions of this Agreement allocating responsibility or liability between ESS and Client shall survive completion of services and/or the termination of this Agreement.
- E. If either Party makes a claim against the other Party for any alleged dispute, breach, default, negligent error, omission or act arising out of the obligations of the Parties hereunder that cannot be mutually resolved by negotiation or mediation and without resort to litigation and such Party fails to prove the claim, such Party shall pay all costs incurred by the other Party in defending itself against the claim, including personnel costs, attorneys' fees, court costs and other claim related expenses. This Agreement shall be governed in all respects by the laws of the Commonwealth of Massachusetts and each Party hereby consents to the jurisdiction of the federal and state courts of the Commonwealth for resolution of any dispute hereunder.
- F. If any provision of this Agreement is found by a court of competent jurisdiction to be unenforceable for any reason, the remainder of this Agreement shall continue in full force and effect.

ESS IS AN EQUAL OPPORTUNITY – AFFIRMATIVE ACTION EMPLOYER





MASSACHUSETTS
 100 Fifth Avenue, 5th Floor
 Waltham, Massachusetts 02451
 p +1 781.419.7696

RHODE ISLAND
 10 Hemingway Drive, 2nd Floor
 East Providence, Rhode Island 02915
 p +1 401.434.5560

VIRGINIA
 999 Waterside Drive, Suite 2525
 Norfolk, Virginia 23510
 p +1 757.777.3777

ESS GROUP, INC. STANDARD BILLING RATE TABLE

Consulting Labor Fees and Direct Costs

ESS Group, Inc. (ESS) will complete the described scope of services in accordance with ESS Standard Terms and Conditions and the following labor consulting rates and direct costs. Please note that this rate schedule is confidential and for customer internal use only. ESS reserves the right to adjust these rates without notice.

CONSULTING LABOR FEES

Billing Category	Hourly Billing Rate
Consulting/Testifying Expert Services	\$275.00
Principal Scientist, Engineer	\$220.00
Senior Scientist, Engineer	\$200.00
Scientist, Engineer VII	\$180.00
Scientist, Engineer VI	\$170.00
Scientist, Engineer V	\$160.00
Scientist, Engineer IV	\$150.00
Scientist, Engineer III	\$140.00
Scientist, Engineer II	\$120.00
Scientist, Engineer I	\$105.00
Technician	\$ 95.00
Senior Administrative Services	\$120.00
Administrative Services	\$ 80.00

DIRECT COSTS

Services and Costs	Rate
Subconsultant Management Services	Cost plus 15%
Reimbursable Expenses	Cost plus 10%
Specialty Software/Modeling Applications	\$10.00/hour
Specialty Field Equipment and Software	Rental rates as priced
Communication Charge (Telecommunications, Data/File Transfer, Site Hosting, HS Internet Access, Web Access)	3.5% of ESS Labor Charge
Reprographic Services and Mailing	As priced
Large Format Black & White Plot or Scan	\$3.50/linear foot
Large Format Color Plot or Scan	\$10.00/plot
Copies – Black & White (8.5x11/11x17)	\$0.15/\$0.25 per copy
Copies – Color (8.5x11/11x17)	\$0.75/\$1.25 per copy

