TECHNICAL PROPOSAL

CATEGORY B: PETROLEUM ONLY

ENVIRONMENTAL SERVICES

PROPOSAL DATE: APRIL 11, 2018

PREPARED FOR

MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

PREPARED BY

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NOVA CONSULTING

Leaders in Environmental and Engineering Services

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1. COVER LETTER

April 11, 2018

MPCA / MDA
520 Lafayette Road North
St. Paul, MN 55155

RE: Minnesota Pollution Control Agency – Remediation Master Contract
Category B. Petroleum Only Environmental Services

Dear Sir or Madame:

Nova Consulting Group, Inc. (Nova) appreciates the opportunity to be considered for the Minnesota Pollution Control Agency's Remediation Master Contract. Enclosed is Nova's submittal for consideration of the Category B. Petroleum Only Environmental Services contract.

Nova is a multidisciplinary consulting firm providing services in the areas of environmental management, compliance, and investigation services. For more than 30 years, Nova has been providing extensive environmental consulting assessment and testing services to an extensive list of satisfied clients including: government agencies, industrial and commercial firms; real estate owners, managers, and developers; schools, hospitals, and other institutions.

Nova currently employs over 139 on-staff professionals in 17 regional office locations, including nearly 40 persons in our headquarters located in Chaska, MN. Nova has concentrated on developing a well-balanced technical staff with education and training in a broad range of environmental and scientific disciplines.

Nova's environmental staff receives continuous training to stay up-to-date on best management practices for site investigation tasks including sample collection and field documentation for groundwater, soil, surface water, sediment, soil vapor and ambient air. The staff follows the appropriate Minnesota Pollution Control Agency (MPCA) Guidance Documents from project inception through reporting to ensure that the field tasks satisfy the MPCA requirements.

Nova formally accepts the classification levels and hourly rates as presented in the Rate Schedule 1 and Rate Schedule 2 tables as well as the Equipment and Supplies pricing included in the request for proposal document.

Mr. Mark Perry, Vice President and Leader of the Environment Assessment and Remediation Group, will represent Nova and will be readily available to answer inquiries regarding project organization, billing and invoicing and general project-related information and can be contacted via phone at (612) 275-1997 or email (mark.perry@novaconsulting.com).

Mr. Perry, as well as most of the staff identified in the proposal, has an office at our corporate headquarters located at 1100 Hazeltine Boulevard, Suite 400, in Chaska, MN 55379. For more information about Nova's capabilities and office locations, please peruse our website at: www.novaconsulting.com. We look forward to working with your staff on these important projects.

Sincerely,

Mark Perry
Vice President – Corporate Regional Manager

2. QUALIFICATIONS AND CAPABILITIES

2.1 SUMMARY OF CAPABILITIES, EXPERIENCE AND ORGANIZATIONAL STRUCTURE

Incorporated in Minnesota in 1987, Nova has proudly become one of the largest privately held environmental consulting firms in the Upper Midwest. For more than 30 years, Nova has provided a variety of environmental consulting services. The following information provides detailed descriptions of the services Nova provides as they relate to this RFP.

PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA):

Nova's Scope of Services for Phase I ESAs conform with the American Society for Testing and Materials (ASTM) due diligence standards detailed in the ASTM document "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM designation E1527-2005)/All Appropriate Inquiry (AAI). In general, the Phase I ESA scope of work includes the following primary elements:

- Review of federal, state, and local regulatory databases to help identify recognized environmental conditions associated with the subject property.
- Review of any previous Phase I ESA and/or investigation reports completed for the subject property.
- When requested, a review of ASTM non-scope considerations including: radon, asbestos-containing materials, lead-based paint, mold, endangered species, protected waters and wetlands, coastal barrier resources, coastal zone management, airport clear zones, accident prone zones, electric magnetic fields, noise hazards, explosive hazards, and cultural & historic resources, as necessary.
- Site reconnaissance to visually and physically observe the subject property and any improvements for indications of recognized environmental conditions.
- Interviews with owners, occupants, and local government officials regarding current and historic uses of the subject property and indications of recognized environmental conditions.
- Preparation of a Phase I ESA report documenting the findings and presenting opinions and conclusions regarding known or suspect recognized environmental conditions.

PHASE II INVESTIGATION AND REMEDIATION:

Nova's Phase I ESAs can often contain recommendations for additional assessment and/or investigation. Our staff of Professional Geologists (P.G.), Professional Engineers (P.E.) and experienced Staff Scientists conduct Phase II Subsurface Soil and Groundwater Investigations related to potential petroleum, chlorinated solvent and other contaminants of concern. Where possible, Nova utilizes its own Geoprobe® hydraulic sampling probe, and a network of certified analytical laboratories to obtain the appropriate data in assessing the need for regulatory compliance reporting and/or remediation. If necessary, Nova is experienced and skilled in selecting, designing and implementing/installing various remediation technologies including: soil

excavation and off-site disposition or on-site re-use, passive subsurface vapor barrier/ventilation systems, air sparging and soil vapor extraction, and ground water pump and treatment and free product recovery systems. Nova's history of national investigation and cleanup experience has resulted in a thorough and complete knowledge of state and federal guidelines with respect to environmental compliance.

As part of our environmental remediation work, Nova staff has experience utilizing a variety of specialized monitoring equipment including photoionization detectors (PIDs), flame-ionization detectors (FIDs), Lumex® mercury vapor analyzer, Geoprobe® hydraulic sampling units, combustible gas meters, submersible and peristaltic pumps, pressure transducers, aquifer parameter meters and more. Nova staff has experience employing a variety of soil remediation techniques including thermal incineration, landfarming, landfill disposal, soil venting, vegetative remediation, and on-site bioremediation. Groundwater remediation technology experience includes groundwater recovery and aeration, air sparging, recovery well vacuum enhancement, enhanced bioremediation through chemical injections, and natural bioremediation monitoring.

Nova is capable of creating project specific Electronic Data Deliverables (EDDs) utilizing specialized and open-source software packages, including ArcMap, Quantum GIS (open-source), PostgreSQL (open-source, open spatial database). These programs allow Nova to evaluate groundwater flow directions and gradients, illustrate contaminant plume concentrations and vertical profiles, prepare datasheets for Quality Assurance/Quality Control (QA/QC) review, automatically generate routine Quarterly/Annually environmental quality summary reports, and submit EDDs, including producing EQuiS-specific data deliverables.

For more than 20 years, Nova Consulting Group, Inc. has provided subsurface soil, soil vapor and groundwater sampling services to its clients on more than 1000 project sites using hydraulic direct-push probing/drilling applications. Nova currently employs the use of a truck-mounted 5410 Geoprobe® and a truck-mounted 5400 Geoprobe® utilizing Macro-Core, dual tube, and large bore sampling technologies. Nova's equipment is used for discrete and continuous soil sampling, temporary discrete groundwater sampling, temporary and permanent vapor point installation and sampling, sub-slab vapor point installations, and pilot tests.

2.2 STAFF MATRIX TABLE

The following is a summary of staff, classification, OSHA certification status (29 CFR 1910.120, 40-hour and subsequent 8-hour refresher courses), years of service with Nova, education, work experience, licenses/certifications and location of personnel that may be assigned to the Contract. Individual resumes outlining specific qualifications, licenses/certifications, professional development and experience are included in Appendix A.

Staff	Classification	OSHA Cert (Y/N)	Years of Service at Nova	Education	Years of Environmental/ Remediation Experience	Licenses/ Certifications	Location
Mark Perry	Project Manager	Y	15	B.S. Earth Science - Geology	25	Asbestos Building Inspector (BI)	Local
John Bale	Engineer 3	Y	5	B.S. Mechanical Engineering	20	P.E. (MN, WI)	Local
Terry Kaiser	Engineer 3	Y	1	B.S. Geo-Engineering	25	P.E. (MN) P.G (MN) SWPPP Engineer (MN) CGWP (NGWA)	St. Paul
Brian Hoese	Engineer 2	Y	5	B.S. Biosystems and Agriculture	14	P.E. (MN, WI)	Local
Mike Hayes	Scientist 2 / Field Technician	Y	11	B.S. Geology	23	P.G. (MN, FL, PA, WA, WI), Asbestos BI	Local
Elise Steger	Scientist 2 /Field Technician	Y	1	B.S. Geology	23	P.G. (MN), Asbestos BI	Local
Eric Halpaus	Scientist 2 /Field Technician	Y	21	B.S. Geology	21	Licensed Well Driller (MN)	Local
Chuck Easley	Scientist 2	Y	28	B.S. Natural Sciences	28	CHMM, Asbestos BI, MP, Site Supervisor, Certified Radon Measurement Professional,	Local
Anne Sinna	Scientist 2	Y	18	B.A. Biology and Environmental Studies	18	Asbestos BI, MP, Radon Measurement Professional	Local

Brian Novotny	Scientist 2	Y	9	B.S. Hydrology and Water Chemistry	21	Asbestos BI	Local
Maegan Dunn	Scientist 1	Y	7	B.S. Environmental Science	11	Asbestos BI, Contractor/ Supervisor,	Local
Andy York	Scientist 1/Field Technician	Y	8	B.A. Geology	10	Asbestos BI, MP, Site Supervisor, Certified Radon Measurement Professional,	Local
Nicholas J. Domeier	GIS/CADD Specialist	Y	3	Associate Degree, Civil Engineering Technology	3	Civil 3D AutoCAD/ QGIS	Local

BI – Minnesota Department of Health (MDH) Licensed Asbestos Building Inspector, MP – MDH Licensed Asbestos Management Planner

2.3 FIRM LOCATIONS AND HEADQUARTERS

Nova currently employs over 139 on-staff professionals in 17 regional office locations, including nearly 40 persons in our headquarters located at 1107 Hazeltine Boulevard, Suite 400, Chaska, MN 55379. A map of the office locations is included in Appendix B.

2.4 KNOWLEDGE OF MPCA GUIDANCE DOCUMENTS

Nova uses the MPCA's cleanup guidance documents as the fundamental model for investigation and cleanup plans. Nova routinely refers to, uses and understands the following guidance documents:

- Petroleum Remediation Program Guidance Documents for Underground Storage Tank (UST) and Aboveground Storage Tanks
    - Including all policies and procedures, worksheets, applications and report forms for general guidance, release reporting, site investigation and risk evaluation, and corrective actions.
    - Green and Sustainable Remediation
- Vapor Intrusion Best Management Practices (BMPs)
- Intrusion Screening Values (ISVs)
- Remediation Division Guidance and Policies

  - Soil Leaching Values (SLV) Guidance and Corrective Action Design (CAD) for Superfund, Resource Conservation and Recovery Act (RCRA) and Voluntary Investigation and Cleanup (VIC) programs.
  - Carcinogenic Polynuclear Aromatic Hydrocarbon (cPAH) Policy
- Managing Petroleum Contaminated Soil at Public Works Projects
- Spill Response Preparedness and Spill and Incident Reporting and Response
- Soil Treatment and Disposal Guidance documents
  - Mercury-contaminated soils in Minnesota Landfills
  - Regulated and Unregulated Fill BMPs and policies
- Brownfield Redevelopment Project Guidance
  - Response Action Plans (RAPs)
  - Investigation and Remediation of Asbestos Containing Wastes
  - Phase I and II Investigation work plans and reporting
  - Legal Documentation
    - Affidavit Concerning Real Property Contaminated with Hazardous Substances
    - Environmental Covenant and Easements
    - Consent of Mortgage Form

Nova has not been involved with projects involving infectious disease, but is aware of the infectious disease preparedness and response guidance associated with the decontamination of buildings infected with the Ebola virus.

Nova has worked with the MPCA Petroleum Remediation program since its inception in 1987 and has maintained its Petrofund Consultant Registration for over 25 years. In addition, Nova currently possesses contracts/master services agreements and/or has provided services on a project contract basis to the following entities:

- U.S. General Services Administration (GSA)
- Minnesota Department of Transportation (MNDOT)
- State of Minnesota – Department of Administration (Real Estate and Construction Services)
- Hennepin County
- Anoka County
- Dakota County
- Carver County

Nova's government agency services primarily include: Phase I Environmental Site Assessments (ESAs), Phase II Subsurface Investigations, Underground Storage Tank (UST) Removal Oversight/Sampling and Compliance, Asbestos & Hazardous Materials Surveys, Asbestos Abatement Coordination/Air Monitoring, Lead-Based Paint Inspection & Risk Assessments and other various industrial hygiene services (i.e. indoor air quality and mold).

Nova has completed more than 40 limited site investigations (LSI's) and more than 15 remedial investigations (RI's) within the State of Minnesota in the last five years.

Nova was incorporated in 1987, and since its inception, has provided services to various government and business clients in accordance with the MPCA Petroleum Remediation Program's Consultant Guidance Documents. Throughout its business history, Nova has maintained a Department of Commerce Petroleum Tank Release Compensation Fund (Petrofund) registration, and continually updated its internal investigative methodologies to adhere to the evolving MPCA guidance policies (including voluntary cleanup programs) and Petrofund rules. Nova's Environmental Assessment and Remediation (EAR) staff have more than 200 combined years of experience in assessment, investigation and cleanup services related to petroleum release incidents.

3. PROJECT DESCRIPTIONS

A) Project Example: FORMER RAINBOW FOODS – LEAK#19960

1) Client: Mr. Brad Henning, Watson Development, LLC, 612-920-5034.

2) Site Description:

The Property is comprised of three irregular-shaped parcels encompassing approximately 5.87 acres located in a commercial retail and residential area of Minneapolis. The Property is developed with a Wendy's fast food restaurant and a single-story, approximately 70,000 square foot multi-tenant retail building anchored by a vacant grocery store. The multi-tenant building was constructed in 1984, and the Wendy's was constructed in 1985. The multi-tenant building is currently occupied by four tenants (Hop Wong restaurant, ICC Wireless, Cost Cutters, and GM Tobacco), with two vacant spaces most recently occupied by Rainbow Foods grocery store and Liberty Tax. Access to the asphalt-surfaced Property parking lots and drive areas of the Property is provided from 26th Ave S to the east of the Property, 29th St E to the north of the Property, and Lake St E to the south of the Property.

Review of the available historical information indicates the Property was occupied by residences during the late 1800s and early 1900s. By 1912, a Twin City Electric Lines substation was present in the central portion of the Property and remained through at least 1952. By 1924, various commercial buildings had been constructed in the western portion of the Property. A mix of commercial retail/service businesses and residences occupied the Property through the 1980s. Occupancy/operations of environmental concern include an auto repair shop, an auto body shop, sheet metal shop, and machine shop. These businesses operated at the Property from at least 1924 through the mid-1960s, with the Anderson Body & Paint Shop remaining through the 1980s. City directories identified a gas station in the northwestern portion of the Property from at least 1940 through at least 1952. The former residences and commercial buildings were all demolished in 1984 in preparation for redevelopment of the Property with the current improvements. The current multi-tenant retail building was constructed in 1984, and the current Wendy's fast food restaurant was constructed in 1985.

The Property is situated within an urban area in Minneapolis, Minnesota. The Property is bound to the north by Schooner Tavern and barber shop (2901 27th Ave S), a residence (2900 28th Ave S), and 29th Street East with 7-Sigma (2843 26th Ave S), a vacant building and lot (2616 & 2620 29th St E), and residences (2845 27th Ave S, 2712 & 2714 29th St E, and 2846 28th Ave S); to the east by 28th Avenue South with residences (2901 – 2917 28th Ave S) and US Bank (2800 Lake St) beyond; to the south by Auto Zone (2610 E. Lake St), and a parking lot serving the multi-tenant retail/office buildings further south (2708 – 2726 E Lake St); and to the west by 26th Avenue South with Target (2500 E. Lake St), and Cub Foods (2510 E. Lake St) beyond.

- Historic uses of the Property as an electrical substation, gas station, sheet metal shop, auto repair, auto body, and machine shop at various times from at least 1912 through the early 1980s were likely associated with hazardous substances and petroleum products and operated

during a time period when the use, storage, and disposal of these materials was largely unregulated. Additionally, several oil burner permits were identified at the former on-site residences during the Minneapolis Records Review. These historic uses of the Property and potential storage tank installations in connection with the historical oil burners may have resulted in impacts to the subsurface at the Property, and therefore represent a recognized environmental condition.

3) Project Description:

Completed a Phase I Environmental Site Assessment (Report Dated 10/21/15). Key personnel at Nova included Anne Sinna, Thomas Panning, and Mark Perry.

Nova completed a Phase II site assessment at the property (report dated 12/8/2015). Key personnel at Nova included Eric Halpaus, Andy York, and Mark Perry. The scope of the phase II included ten (10) Geoprobe® soil borings (GP-1 through GP-10) for the collection of soil and/or groundwater samples. The results of the investigation indicate that a historic petroleum release has impacted the soil and groundwater in at least two portions of the Site. The precise source of the impacts is not known but likely due to historic filling operations and likely presence of underground storage tanks in the northwest corner of the property near GP-2 and GP-3 and the historic presence of a gas tank in the vicinity of GP-5. Accordingly, Nova reported the petroleum release to the State Duty Officer on November18, 2015. The MPCA has subsequently assigned Leak #19960 to the Site.

Nova completed a LSI and RI at the property (RI report dated 3/22/16). Key personnel at Nova included Mike Hayes, Eric Halpaus, and Mark Perry. The scope of the LSI/RI included eleven (11) Geoprobe® soil borings (B-1 through B-11) for the collection of soil and groundwater samples, four (4) soil gas samples (SG-1 through SG-4), and installation of three (3) groundwater monitoring wells utilizing hollow stem auger drilling (MW-1 through MW-3).

Nova completed additional site assessment (ASA) in 2016 and 2017 that included three additional soil borings (B-13 through B-15), one additional soil gas point (SG-5), and installation of four additional monitoring wells (MW-4 through MW-7). The groundwater monitoring wells were sampled quarterly between February 2016 and March 2017. Due to time constraints on the development project, a more frequent sampling schedule was negotiated with the MPCA to obtain additional groundwater plume stability data and the monitoring wells were sampled monthly between March and September 2017. The following reports were submitted to the MPCA: ASA & Groundwater Monitoring Reports (11/1/16 and 3/14/17) and Annual Groundwater Monitoring (dated 9/8/17).

4) Installation of the monitoring wells and the chemical analysis were subcontracted.

5) The MPCA granted file closure on 9/27/2017.

B) Project Example BECKER BULK AST SITE – LEAK#20435

1) Client: Virgil Gilyard Trust, John and Kristi Gilyard, 320-250-8569.

2) Site Description:

The Site is an active bulk above ground storage tank (AST) facility. The property currently has seven ASTs within the containment area and the product history was reported as gas, gasoline blends (E1 E49), diesel, fuel oil, and it is likely lube oil was historically present. There is also a propane tank at the Site. Most of the current ASTs were installed in 1990. One UST was removed in 1974 and two ASTs are listed as removed but the removal date is unknown. The site is situated on the north side of Highway 10 in Becker with commercial properties to the north, east and southeast and undeveloped land south, west, and northwest of Highway 10. The release was discovered during a phase II investigation in July 2017. The release appears to be from overfills at the load pad as the petroleum impacts were discovered at the drain line discharge for the load pad.

3) Project Description:

Nova initially conducted a Phase II site assessment in July 2018 that consisted of two Geoprobe® soil borings for soil and groundwater samples (GP-1 and GP-2). Key personnel at Nova included Mike Hayes and Eric Halpaus. Petroleum impacts were observed at GP-1 and Nova reported the petroleum release to the State Duty Officer on 7/13/17.

Nova completed a LSI at the property in October 2017. Key personnel at Nova included Mike Hayes and Eric Halpaus. The scope of the LSI included six (6) Geoprobe® soil borings (B-1 through B-6) for the collection of soil and groundwater samples and one (1) soil gas sample (SG-1). Based on the conductivity determined from grain size analysis and the dissolved petroleum concentrations encountered, a RI was performed. Nova directed the installation of three (3) groundwater monitoring wells in November 2017 and completed two (2) quarterly groundwater monitoring events in November 2017 and February 2018. Nova submitted a RI report to the MPCA on 2/14/18 recommending file closure due to the relatively low groundwater concentrations, limited extent of impacts, and low risk to receptors.

4) Installation of the monitoring wells and the chemical analysis were subcontracted.

5) We are currently waiting for a response from the MPCA on our file closure request.

4. SCOPE OF SERVICES FOR CATEGORY B: PETROLEUM-ONLY ENVIRONMENTAL SERVICES

4.1 COMPANY EXPERIENCE

Below is a description of Nova's experience relating to the scope of services outlined in Section 3 of the RFP.

4.1.1 Oversee Site Investigation Services for Soil Boring Advancement and Well Installation:

Nova's environmental staff is experienced with directing standard drilling methods during site investigation activities. In addition, Nova has two Geoprobe direct push drilling rigs available for soil boring and monitoring well installations. The direct push methodology provides the capability for rapid site field characterization with minimal disturbance to the site or on-site business activities. The staff are experienced with the drilling tasks including coordinating utility clearances, communicating with the property owner during on-site activities and conducting tail-gate safety meetings prior to commencing work.

4.1.2 Conduct Groundwater, Soil, Surface Water, Sediment and Air Sampling and Monitoring:

Nova's environmental staff receives continuous training to stay up-to-date on best management practices for site investigation tasks including sample collection and field documentation for groundwater, soil, surface water, sediment, soil vapor and ambient air. The staff follows the appropriate MPCA Guidance Documents from project inception through reporting to ensure that the field tasks satisfy the MPCA requirements

4.1.3 Conduct Vapor/Air Monitoring for Health and Safety and Air Quality Criteria:

Nova staff has experience in vapor and air monitoring for health and safety and air quality criteria during remedial actions, asbestos abatement and for LEED credits and WELL™ certification. Area sampling contaminants monitored have included, but are not limited to carbon monoxide, volatile organic compounds (VOCs), particulate matter (2.5 & 10), ozone, formaldehyde, asbestos and mold.

4.1.4 Conduct and Oversee Site Assessment Activities (Phase I/Phase II, LSI and RI):

Nova staff follows the requirements of the ASTM 1527-05 for Phase I ESAs. The ESA includes a review of readily available published data, regulatory information, a site reconnaissance including surrounding property use and report preparation.

Nova's environmental staff has extensive experience with collecting soil, sediment, vapor, groundwater and ambient air monitoring samples during site investigations.

Sample collections follow the appropriate Guidance Document guidelines to ensure that the results satisfy MPCA requirements.

Typical investigations include:

- Soil borings/temporary wells are advanced on the Site using Nova's truck-mounted hydraulic Geoprobe®.
- Proposed locations of the soil borings/temporary wells will be selected in the field to obtain the applicable data to achieve the primary objectives of the investigation.
- Soil borings will typically be advanced to a depth of 25 feet bgs or at least 5 feet below the observed surface of the water table.

A Nova environmental geologist will observe, classify and document the subsurface materials encountered at each sampling location. Soil samples will be visually and manually classified as to soil type in the field in accordance with the Unified Classification System (ASTM Method D2487). If detected, soil discoloration and odors will also be documented.

In addition, the soil samples collected at each location will be screened for organic vapors with a PID utilizing the bag headspace procedure, in accordance with MPCA guidelines. The PID will be equipped with a 10.6 eV lamp, and calibrated daily to an isobutylene reference gas standard to measure total organic vapors in parts per million by volume (ppmv) in air.

Continuous soil samples will be collected from the ground surface to the termination depth of each soil probe and hand auger. The soil samples will be collected by advancing a two- inch diameter by 48-inch long hollow steel sampling tube into the subsurface with the hydraulic hammer. The open-ended sampling tube will be equipped with a disposable acetate liner, which will be removed from the sampler after each soil core is retrieved.

A varying number of soil samples will be collected from each probe location for laboratory analysis. In general, the sampling interval with the highest PID reading or that exhibits physical evidence of contamination such as soil staining and/or odors will be submitted for laboratory analysis, as well as soil samples from below any identified zones of impact. If no physical evidence of contamination or organic vapors is identified, then soil samples will be collected for laboratory analysis from the uppermost two-foot interval and/or that appears most representative of the soil encountered in the probe and/or intervals determined by the project objectives.

All soil samples will be stored in a cooler in the field under refrigerated conditions, and submitted to an MDH-certified laboratory under chain- of-custody protocol for analysis for the selected analytical parameters.

All probe rods and non-disposable sampling equipment will be decontaminated prior to arrival on-site and between sampling intervals and boreholes utilizing a tri-sodium phosphate wash followed by a tap water rinse. All on-site decontamination rinsate and unused soil cores will be discarded to the ground surface, unless physical evidence suggests that further characterization, secured storage and/or potential off-site disposal may be warranted.

All sampling procedures will be conducted by a Nova representative wearing disposable gloves. All disposable sampling supplies will be discarded into available on-site trash receptacles.

Groundwater samples are typically collected from the completed temporary wells and submitted for laboratory analysis. The ground water samples will be collected from 5-foot PVC screens and riser assemblies that will be installed into each of the boreholes after completion. The well screens will be dedicated to the borehole and set to intersect the surface of the water table that is visually identified in the borehole. The ground water samples will be collected by manually pumping the water from the PVC well assembly with either a peristaltic pump or a pre-cleaned ball check valve attached to polyethylene tubing. Prior to sample collection, the temporary wells will be purged so that a discernible reduction in the amount of sediment turbidity is observed. Once purged, the water samples will be pumped through the disposable tubing directly into the laboratory-supplied containers with the appropriate preservative.

All of the water samples will be stored in a cooler in the field under refrigerated conditions, and submitted to an MDH-certified laboratory under chain-of-custody protocol for analysis for the selected analytical parameters.

4.1.5 Conduct Surface Water, Groundwater, Air and Vapor Receptor Surveys:

During the site assessment activities, Nova conducts surface water, groundwater, air and vapor receptor surveys following MPCA Guidance Document guidelines. Available maps, databases, and door-to-door surveys are included as part of the site investigation.

4.1.6 Oversee Construction to Mitigate Vapors and Conduct Non-Construction Mitigation:

Nova staff are experienced in the design and oversight of both construction and non-construction methods for vapor mitigation as well as contractor oversight, sampling and diagnostic testing before and after system installation to ensure effective pressure field extension to mitigate the area of concern.

4.1.7 Conduct or Oversee Operation and Maintenance on Remedial Systems:

Nova staff is experienced in both conducting and overseeing operations and maintenance, as well as writing plans for long term involvement, on a variety of remedial systems including pump and treat, sparge and soil vapor extraction.

4.1.8 Arrange for Transportation, Storage and Proper Management of Wastes:

Nova maintains relationships with several Petrofund-approved contractors. If petroleum-impacted soil or groundwater is encountered during field investigations, Nova follows the appropriate MPCA guidance document to determine if the impacted media should be removed for proper disposal. Nova works with the removal contractor to ensure that the proper documentation is prepared and approved prior to removing the soil or groundwater from the site and ensures all documentation is kept throughout the process.

4.1.9 Evaluate the Need for, and Oversee, the Implementation of Alternative Drinking Water:

Once the initial site investigation activities are completed, Nova will review the accumulated data. If the investigation field data indicates the potential for impacts to the drinking water supply, Nova would work with the appropriate government agency or agencies to provide an alternate drinking water source or installation of a point-of-use filtration system.

4.1.10 Coordinate and Cooperate with Other State-Contracted Services:

Nova maintains relationships with several State-approved contractors and will assist with coordination activities including sampling, analytical, emergency response and hazardous waste services to maintain project schedules and deliverables.

4.1.11 Arrange for Geophysical Activities:

Nova is familiar with local geophysical contractors and can schedule work with them on a site-specific or as-needed basis.

4.1.12 Oversee Sub-contractors and State Contractors During Investigations and Clean-ups and Tank Removals:

Nova's environmental staff has extensive experience with the UST removal investigations. The staff are experienced with the pre-removal tasks including coordinating utility clearances and communicating with the tank owner during on-site meetings to collect as much information as possible for bid preparation. Nova's relationships with several tank removal contractors and analytical laboratories allows for the flexibility to provide competitive pricing for cost proposals. Nova's cost proposals are prepared and then reviewed by senior staff prior to submitting them with the appropriate bid documents to the MPCA or MDA staff. Nova's environmental staff receives training for UST removal tasks including soil screening and sample collection and field documentation. The staff follows the appropriate MPCA Guidance Documents from project inception through reporting to ensure that the field tasks satisfy the MPCA requirements.

4.1.13 Prepare and Evaluate Reports:

Following completion of the field investigation activities and receipt of the laboratory analytical results, Nova will compile the data into a report format acceptable to the regulatory agency and present a comprehensive array of diagrams depicting the sampling locations, and tables and boring logs summarizing the field and analytical results. As part of the presentation of the findings, Nova will participate in a conference call and/or a person-to-person meeting to review the collected information and discuss the need for additional investigation, cleanup and/or regulatory compliance reporting.

4.1.14 Prepare Health and Safety Plans:

Prior to site visits and/or conducting any proposed work, Nova will prepare a Site Health and Safety Plan (SHSP). The Nova project manager will review the SHSP with Nova personnel prior to initiation of the on-site work and go over any potential hazards. The SHSP will define the

procedures and responsibilities to implement on-site safety during the proposed work. The SHSP will be onsite during all field activities and will include the following:

- Potential contaminants that may be encountered during field activities;
- Implementation of safe work practices and establishment of associated activity zones;
- Level of personal protective equipment (PPE) required at the jobsite and PPE upgrading requirements; and,
- Emergency procedures and response protocols.

4.1.15 Arrange for Site Access:

Nova will communicate and arrange site access with the site contact(s) and/or property owner(s) prior to commencing any site visits and investigation activities. In return for site access, Nova will make every attempt to minimize the disruption to the property owner and/or occupants while site activities are being conducted. In the event that site access is not granted, Nova will ask that the MPCA or MCA act as an intermediary to facilitate access to the site so that the investigation activities can be completed.

4.1.16 Coordinate Utility Access:

Nova will arrange for clearing all public and private underground utilities prior to beginning site activities. The utilities will be cleared by contacting the appropriate state utility clearing service and private utility locating service providers as necessary and if applicable, coordinating traffic control.

4.1.17 Prepare and Evaluate Bid Specifications:

Nova's environmental staff has extensive experience with the preparation of bid documents for site investigations and other site work. Nova's relationships with several subcontractors and analytical laboratories allows for the flexibility to provide competitive pricing for cost proposals. Nova's cost proposals are prepared and then reviewed by senior staff prior to submitting them with the appropriate bid documents to the MPCA staff.

4.1.18 Evaluate Invoices:

Nova proposes to invoice project services on a time and materials (not to exceed) basis in accordance with the approved schedule of fee and our general services contract. Draft invoices with a breakdown of labor, equipment and subcontracted fees are submitted to the Project manager for review and approval. Prior written approval will be obtained in advance of incurring any additional costs for services that are recommended as part of this RFP.

4.1.19 Assist and Provide Training as Requested by MPCA:

Nova staff members are experienced with providing training with a variety of environmentally-related subjects and are willing to provide training or assistance to the MPCA as needed. In addition, Nova encourages staff members to engage in regular training to hone understanding and skills, including those covered in this Master Contract.

4.1.20 Follow MPCA Green Practices/Procedures Relative to Remediation Projects:

Nova is familiar with the MPCA green initiatives and will follow the MPCA Greener Practices relative to investigation and remediation procedures. Field results will be evaluated and a Site Conceptual Model including Green and Sustainable Remediation (GSR) options will be prepared on a site-specific basis. The goal of each GSR will be to reflect the regulatory guidance policies and seek available site incentives, where appropriate.

4.1.21 Oversee Hydrogeologic Investigations Including Fate and Transport Modeling:

Nova staff has staff experienced in hydrogeologic investigations including P.G.s and an Environmental Data Specialist, whom are all experienced in analyzing the accumulated field data and have experience in oversight of fate and transport modeling and capture zone modeling.

4.1.22 Capture Zone Modeling:

See previous section.

4.1.23 Perform Aquifer Pump Tests:

Nova's environmental staff is experienced in conducting and analyzing the data obtained from an aquifer pump tests.

4.1.24 Prepare Engineering Evaluation and Cost Analysis (EECA):

Nova's environmental staff can provide engineering evaluation in order to compare the project direction to the initial scope and plans and keep an updated cost analysis during the site activities to forecast budget requirements.

4.1.25 Oversee Bench Scale Lab Treatability Studies and Pilot Test/Field Demos:

Nova can provide oversight during bench scale lab treatability studies and pilot test field demonstrations and evaluate potential remedial technologies and support the selection of the optimal remedy to meet the needs of the individual project.

4.1.26 Oversee Equipment Start-up and Work Out Problems with the Contractor/Vendor:

Nova staff are experienced contractor oversight and start-up diagnostic testing during remedial system start-ups. Nova can confidently oversee contractor work and will guide the contractor or vendor to find the most cost-effective solutions to any issue.

4.1.27 Prepare and Determine if the Stormwater Pollution Prevention Plans (SWPPP) is being followed and make recommendations if revisions are needed during the life of the construction project.

Nova staff can prepare SWPPPs and ensure they are being followed through by completing site inspections, reviewing contractor inspections if applicable, and attend tail-gate meetings as needed to train on-site contractors on the SWPPP's Best Management Practices (BMPs) and forecast if upcoming work may need additional controls in place.

4.1.28 Install Stainless Steel Soil Gas Sampling Ports Using an Electric Drill to Bore Through Floor Slabs.

Nova personnel is very familiar with the MPCA's Sub-Slab Sampling Methodology as well as the other best management practices for investigations and building mitigation.

4.1.29 Collect and Manage Field and Laboratory Data for Electronic Submittal in a Format Specified by the MPCA.

Nova's environmental staff receives continuous training to stay up-to-date on best management practices for site investigation tasks. The staff follows the appropriate MPCA Guidance Documents from project inception through reporting to ensure that the field tasks satisfy the MPCA requirements. Nova will work with MPCA staff to ensure all field and laboratory data is collected and managed as requested for creation of project specific EDDs in the format specified by the MPCA.