

5. Cost

ICPRB has the option to request further information from a firm or individual in order to complete the evaluation. The awardee will be notified on or before 7 January 2019 and will be offered a contract in the form of an ICPRB Service Purchase Contract (**Attachment 2**).

The proposal should address in 10 pages or less how the Contractor will accomplish tasks outlined in the Scope of Work (**Attachment 1**). The proposal should include at a minimum:

1. a detailed description of the plan to accomplish the Scope of Work that demonstrates an understanding of the project requirements and the analysis needs MDE;
2. a project budget with adequate detail, including fringe and indirect costs;
3. a brief description of Contractor facilities (hardware, software) available to project; and
4. a 1-2 page resume of principal investigator.

If interested, submit your proposal by C.O.B. **December 31, 2018** to Dr. Claire Buchanan at cbuchan@icprb.org. Responses to individual queries about the project will be posted on the ICPRB website as they occur (www.potomacriver.org).

Enclosures:

Attachment 1 – Scope of Work

Attachment 2 – ICPRB Service Purchase Contract

ATTACHMENT 1

SCOPE OF WORK

Pilot Study of Water Quality Data Collected under Maryland's Municipal Separate Storm Sewer System (MS4) Phase 1 Permits

Background

The Maryland Department of the Environment includes monitoring requirements in the Phase I Municipal Separate Storm Sewer System (MS4) permits. In the first round of permits, starting in the mid-1990s, the goal of the monitoring requirements was the characterization of storm sewer discharges, particularly by dominant land use type. Permittees were required to monitor for a variety of water quality constituents at as many as five outfalls in their systems. Monitoring instream stations associated with the outfalls was also required. Around 2000, in the second round of permits, each permittee was required to monitor at only one outfall and one instream location downstream of the outfall, but in addition to water quality monitoring, biological monitoring, habitat assessment, and physical (geomorphic) monitoring were also required downstream of the outfall. The goal was still discharge characterization, with the variation in site characteristics occurring state-wide rather than within each permittee's jurisdiction. Physical monitoring was also required in a second small watershed to assess the effectiveness of Maryland's stormwater control regulations. Starting around 2004, in the third round of permits, while the monitoring requirements remained roughly the same, the goal of the monitoring was redirected to determining the effects of stormwater BMPs and watershed restoration on water quality, habitat, and the health of biological communities. Permittees were directed to monitor watersheds where watershed restoration was anticipated, and pre- and post-implementation conditions could be monitored. Current monitoring permits specify roughly the same monitoring requirements for the same reason: the determination of the effectiveness of watershed restoration.

Monitoring data have been collected under the MS4 program for over 20 years, and MDE is interested in using the data to perform statistical analysis to answer questions related to the water quality characterization of discharged stormwater and the effectiveness of BMPs and watershed restoration:

- Do concentrations of water quality constituents in discharged stormwater vary with the dominant land use type in a catchment?
- Does low density development or minimizing untreated impervious surfaces lead to improved water quality?
- Have any improvements in water quality conditions been observed in MS4 monitoring watersheds, where impervious restoration has been implemented? If so, can these improvements in water quality be attributed to watershed restoration efforts?
- Has the overall quality of stormwater discharged by Maryland's MS4s been improving over time?

In this project, the Interstate Commission on the Potomac River Basin (ICPRB) is proposing to perform a pilot study on the MS4 water quality data collected at the outfall and instream stations of three watersheds monitored by the Phase I MS4 jurisdictions. The pilot study has the following goals:

1. To determine if there have been any observed water quality trends over time at the selected MS4 monitoring locations;
2. If there are any observed trends in water quality, can these trends be attributed to watershed restoration efforts;
3. Conduct a power analysis to determine if current monitoring protocols are sufficient to detect trends in water quality and relate them to watershed restoration or other changes in the watershed; and
4. Make recommendations for (1) performing the analysis at other MS4 monitoring locations, and (2) modifying the water quality component of Maryland's MS4 monitoring program.

ICPRB is uniquely qualified to perform the work for this project. ICPRB has extensive experience in organizing data, database design, and performing statistical analysis on large data sets. ICPRB performed a long-term trend analysis on water quality data collected since the 1970's for West Virginia's ambient monitoring program¹ and has performed a similar trend analysis on water quality monitoring data for all of EPA Region III². In a previous project (U00P7400806), as a first step in facilitating the analysis of monitoring data collected under the MS4 program, ICPRB designed a database to house the monitoring data collected under Maryland's MS4 program, and populated the dataset with water quality data. Descriptive statistics and basic trend analysis were also conducted on the water quality data. This project is a continuation of that effort.

ICPRB will supplement its own expertise by subcontracting with a firm or organization (hereafter referred to as " the Contractor") whose expertise is in stormwater management and watershed restoration. In addition to extensive experience with watershed restoration planning and BMP design, the Contractor is expected to have demonstrated knowledge and experience with statistical analysis and trend analysis. ICPRB will be the lead organization on this project and funding will be provided by MDE through a Memorandum of Understanding (MOU) between MDE and ICPRB. ICPRB in turn will fund the Contractor's participation in the project through a separate agreement between ICPRB and the Contractor.

A description of the scope of work (SOW) for the project is given below.

¹ Buchanan, C. and R. Mandel. 2015. Water Quality Trend Analysis at Twenty-Six West Virginia Long Term Monitoring Sites. Interstate Commission on the Potomac River Basin (ICPRB): Rockville, MD. ICPRB Report 14-6. <https://dep.wv.gov/WWE/watershed/wqmonitoring/Pages/waterquality.asp>

²Buchanan, C., Z. Smith, and A. Nagel. 2017. Long-Term Water Quality Trends in USEPA Region 3 (Mid-Atlantic). Interstate Commission on the Potomac River Basin (ICPRB). Rockville, MD. ICPRB Report 17-5. https://www.potomacriver.org/wp-content/uploads/2017/09/ICP17-5_Buchanan.pdf

Description of Scope of Work (SOW)

The SOW can be defined as a series of tasks, which are described below. A lead organization for each task is identified, although it is expected that ICPRB and the Contractor will collaborate on all of the tasks in the SOW, with assistance from MDE, as explicitly noted in the description of tasks.

1. Selection of the Contractor (Lead: ICPRB)

ICPRB will draft and publish a Request for Proposals (RFP) for the work specified in this SOW to be performed by the Contractor. ICPRB will review the proposals and select the candidate whose proposal demonstrates (1) knowledge and experience with watershed restoration and BMP design; (2) proven ability to communicate in writing and in presentations to storm water professionals and the general public; (3) knowledge and experience in statistical analysis, particularly trend analysis, and a demonstrated ability to explain statistical methods and results in writing; and (4) experience working cooperatively with other agencies and organizations.

2. Selection of the Pilot Watersheds (Lead: ICPRB)

The first task after selecting the Contractor is to review the available data and documentation provided by the jurisdictions and on that basis select three pilot watersheds where outfall and instream monitoring has been performed in compliance with Phase I MS4 permits. The qualifying watersheds are expected to have the following characteristics:

1. Have a long (ten years or more) monitoring record at fixed stations with regular frequency and minimum gaps;
2. Have relatively complete data sets;
3. Be relatively free of data quality issues;
4. Have documented changes in watershed restoration or BMP implementation over the monitoring period; and
5. Show preliminary evidence of trends, as reported in project U00P7400806, consistent with the changes in watershed restoration.

Both ICPRB and the Contractor will review the data for potential data quality problems including missing data; outliers; and incomplete documentation of units, detection limits, or other auxiliary information necessary to ensuring that the quality of data is adequate for statistical analysis, i.e. the data should be free from quality problems or near enough free of such problems that the statistical analysis of the data will not be impacted by them.

The justification for the selection of the three watersheds will be documented in a technical memorandum. The documentation will include a description of quality of the data and any steps taken to resolve data quality problems. Any data quality issues that cannot be resolved by ICPRB or the Contractor because they require additional information from the permittees should be brought to MDE's attention prior to submittal of the technical memorandum.

Within 2 weeks of receipt of the technical memorandum, MDE will approve the selection of the pilot watershed or recommend alternative watersheds. The pilot watersheds to be used will be determined by mutual agreement between ICPRB, the Contractor, and MDE.

3. Report to MS4 Permittees (Lead: ICPRB)

MDE and ICPRB will work together to produce a report to be distributed to MS4 permittees under MDE's cover. The report will (1) describe the design of the database for holding MD's MS4 data; (2) enumerate data quality issues; (3) summarize basic descriptive statistics and trend analysis; (4) explain goals of the current project; and (5) identify the watersheds selected for the pilot study and the justification for their selection.

4. Preparation of Explanatory and Other Variables (Lead: the Contractor)

One major goal of this project is to try to demonstrate a statistically significant relation between trends in water quality data and BMP implementation and watershed restoration. To achieve this goal, quantifiable information on BMP implementation and watershed restoration needs to be represented in explanatory variables that can be related to the water quality data. Other information can have an impact on explaining trends or obscuring trends which exist but may not be apparent in the water quality data over time. Some variables, like land use or changes in land use, may also explain trends in water quality, and other variables, like precipitation or temperature, may confound the analysis. MDE will provide the necessary data on BMP implementation and watershed restoration. MDE also will provide land use data on the catchments above the monitoring locations. ICPRB will supply the data that, like flow, is collected by the jurisdictions and submitted along with monitoring results. The Contractor will collect other variables like temperature and precipitation that may be useful in the analysis, and will organize the explanatory, confounding, and auxiliary variables in a format useful for exploratory data analysis and statistical analysis.

A description of the available explanatory, confounding, and auxiliary variables and their preparation will be submitted to MDE in a technical memorandum. The memorandum will also discuss possibilities of quantifying the degree of watershed restoration and BMP implementation.

5. Exploratory Data Analysis (Joint lead)

The next step is an exploratory data analysis which forms a bridge between assembling and reviewing the available data and formulating statistical hypotheses and testing them. ICPRB will take the lead in calculating descriptive statistics, including correlations between water quality data and other variables, and in generating plots of the water quality data and its relation to water quality variables. Graphical methods to be used will include time series plots, LOcally WEighted Scatterplot Smoothing (LOWESS) curves to detect raw trends, and matrix plots to help identify correlations. The Contractor will take the lead in the preliminary testing of the water quality data, including test of normality and tests of equal variance. The Contractor will also take the lead in preliminary testing to determine if parametric statistical methods are viable and, if so, to propose what statistical models are good candidates for analysis.

The results of the exploratory data analysis will be documented in a technical memorandum submitted to MDE. The technical memorandum will include a detailed proposal of the methods of statistical analysis to be used in the next step of the project. The report will include a flowchart illustrating the stepwise decision-making process for selecting the proper analyses. The exploratory data analysis and the proposed methods of analysis will also be presented to MDE at their office concurrently with the submission of the report. Within two weeks of receipt of the technical memorandum, MDE will approve

the selection of the methods of analysis of water quality data for the project or recommend additional or alternative methods. The set of methods to be used will be determined by mutual agreement between ICPRB, the Contractor, and MDE.

6, Statistical Analysis (Joint lead)

Dependent upon the results of the exploratory data analysis and tests of normality described in Section 5, parametric and nonparametric methods will be used in the statistical analysis, where appropriate. The Contractor will take the lead in working with parametric methods. It is anticipated, subject to the results of the exploratory data analysis, that the cornerstone of the parametric approach will be the use of ordinary least-squares regression to represent the relation between event mean concentrations (EMCs) of water quality constituents as the dependent variable and independent variables that quantify the installation of watershed restoration practices over time. Additional independent variables, as indicated by the results of the exploratory data analysis, may also be used in the linear regression models. The method of analysis of variance (ANOVA) will be used to determine if the slopes estimated by the model are statistically significant, and the models will be tested to make sure they meet the assumptions required for the validity of statistical tests (i.e. the residuals are normally-distributed, independent, and homoscedastic). The observations will be transformed or weighted if necessary for the validity of the model. If the water quality data are heavily censored, logistic regression may be used to represent the odds of detecting water quality EMCs above a threshold value. If the necessary information is available, the analysis may be performed on estimated loads as well as EMCs.

ICPRB will take the lead in using nonparametric techniques to test for trends, following the guidance of Helsel and Hirsch (2002)³. In particular, the correlation between EMCs and degree of watershed restoration will be tested using Mann-Kendall trend test or the seasonal Kendall test if there are seasonal effects. The effects of other variables can be removed by applying these tests to the relation between degree of watershed restoration and the residuals of the least squares regression (or LOWESS curve) of EMCs and the other variables.

For watersheds with a single large restoration project, the more appropriate analytical method may be to test for a step trend, either parametrically, using a t-test, or nonparametrically, using a rank-sum test, may be more appropriate. If 10% - 50% of the data are censored by observations below the detection limit, the data may also be treated using the methods of Helsel (2012)⁴.

There is no assurance that statistically significant trends will be detected or related to variables representing the degree of watershed restoration. Even if no trends are detected or related to watershed restoration, this task will recommend modifications to the MS4 monitoring program. For that objective, The Contractor will perform power analyses to help answer questions such as the sampling frequency required to detect a statistically significant trend, given the variability of observed in the water quality data.

³ Helsel, D. R. and R. M. Hirsch. 2002. Statistical Methods in Water Resources. Techniques of Water Resource Investigations of the United States Geological Survey. USGS. <http://pubs.usgs.gov/twri/>.

⁴ Helsel, D. R. 2012. Statistics for Censored Environmental Data Using Minitab and R. Second Edition. John Wiley and Sons. Hoboken, NJ.

7. Documentation (Joint lead)

ICPRB and the Contractor will prepare a draft final report, emphasizing the results of the statistical analyses but incorporating results from all of the previous tasks in the project. The report will include a section with recommendations for changes in the required monitoring program for Maryland's MS4 jurisdictions based on the analysis of the water quality data from the pilot watersheds. The report also will include recommendations for next steps in the analysis of existing water quality data from the MS4 program. The report will be drafted in such a manner to serve as a public document that can send out to its permitted Phase I MS4 jurisdictions. Concurrently with the submission of the draft report, ICPRB and the Contractor will present the results of the statistical analysis and the recommendations for changes in the monitoring program to MDE staff at MDE's offices.

MDE will provide one consolidated set of comments on the presentation and the draft final report within three weeks of receipt of the draft report. ICPRB and the Contractor will then incorporate MDE's comments in the final report.

Deliverables and Schedule

ICPRB will provide the following deliverables for the project:

1. Four quarterly reports (2-5 pages without attachments) documenting progress on the tasks listed in the Scope of Work.
2. Technical memorandum documenting selection of three watersheds for analysis.
3. Report on database development, data quality issues, WQ summary statistics, and selection of pilot watersheds suitable for distribution to MD MS4 permittees.
4. Technical memorandum describing preparation of explanatory variables, confounding variables, and other auxiliary variables.
5. Technical memorandum presenting results of exploratory analysis and recommendations for the statistical analysis to be performed on the data.
6. Presentation at MDE's offices of results of exploratory analysis and recommendations for statistical analyses to be performed on the data.
7. Draft final report incorporating previous memoranda in addition to describing the results of statistical analysis and recommendations, for future analyses, and recommendations for changes in Maryland's MS4 monitoring program.
8. Presentation at MDE's offices of results of statistical analyses and recommendations for changes in MS4 monitoring program.
9. Final report incorporating comments received from MDE.

Table 1 below gives the schedule of deliverables. ICPRB will submit quarterly invoices based on the cost associated with the deliverables in the table.

Table 1: Schedule for Deliverables

Deliverable	Date¹
Begin Project	December 1, 2018
Selection of Contractor through Request for Proposals (RFP) Process	January 1, 2019
Technical memorandum describing selection of pilot study watersheds	January 31, 2019
Report on database design, data quality issues, preliminary data analysis, and pilot watershed study selection for distribution to permittees	
First Progress Report	February 28, 2019
Technical memorandum describing preparation of explanatory, confounding, and auxiliary variables	March 31, 2019
Second Progress Report	May 31, 2019
Technical memorandum presenting exploratory data analysis of recommendations for statistical analyses	May 31, 2019
Presentation on exploratory data analyses	May 31, 2019
Third Progress Report	September 30, 2019
Draft Final Report with results of statistical analyses and recommendations	November 15, 2019
Presentation on results of statistical analyses	November 15, 2019
Final Report incorporating MDE comments	December 31, 2019
Fourth Progress Report	December 31, 2019

¹ The schedule assumes a project start date of December 1, 2018. The schedule will be adjusted by mutual agreement if the project does not begin until after the assumed start date.

SERVICE PURCHASE CONTRACT TERMS AND CONDITIONS FOR SERVICES

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN

1. DEFINITIONS: Specific terms used in this document have the following definitions:

- A. "Contract" or "Service Purchase Contract" means the executed document establishing the direct contractual relation between the Commission and the Contractor, including all terms and conditions contained herein or otherwise incorporated.
- B. "Commission" means the Interstate Commission on the Potomac River Basin.
- C. "Contractor" means the individual or firm obligated to perform the services for the Commission under this Contract.
- D. "Specified Services" means the specific contractual obligation of the Contractor, as identified in the Service Purchase Contract or other work statement incorporated therein.

2. CONTRACTOR STATUS: The Contractor shall act as an independent contractor in the performance of all work under this Contract and shall be responsible for providing all supplies and materials necessary for the performance. The Contractor is not an agent or employee of the Commission, shall not represent itself/herself/himself as such, and cannot commit the Commission to any expenditure of funds or enter into any contractual relationship or obligation on behalf of the Commission.

3. CONSIDERATION AND METHOD OF PAYMENT:

- A. The Contractor shall be required to perform the specified services for the amount set forth in the Service Purchase Contract. All services shall be performed within the time period (s) specified in the Service Purchase Contract. The Contractor shall be compensated only for the work performed to the satisfaction of the Commission. The Contractor shall not be paid for travel or per diem expenses or for any purchases of supplies and or equipment except as provided specifically in the Service Purchase Contract.
- B. The Scope of Work and the compensation described in the Service Purchase Contract may be revised only by mutual agreement, in writing. All such changes shall become part of the contractual obligation of the Contract. Costs of negotiation of revision to the Contract shall not be allowable as reimbursable costs under the Contract.
- C. The Contractor shall submit billings for all activities concluded and a brief description of associated activities each month.
- D. Billings shall be due and payable within thirty (30) days of receipt by the Commission of proper invoices. If the Contract is being funded wholly or partially with funds being provided by another agency, the Commission will make payments within thirty (30) days of receipt of funds from the cooperating agency or organization. The payment of any invoice for progress claimed or expenses incurred shall not be deemed to convey the Commission's acceptance of the legitimacy or accuracy of the progress or costs represented by that invoice.
- E. The Contractor shall retain and maintain all records and documents relating to the services to be performed under this Contract for a minimum period of five (5) years after the Commission pays the final billing. The Commission shall have the right, during usual business hours, to examine and audit the records of the Contractor, which the Commission deems necessary or advisable in order to verify invoices submitted pursuant to this Contract.

4. EQUIPMENT: This Contract does not provide for the purchase or rental or lease of any equipment that is not specifically itemized in the Service Purchase Contract.

5. GENERAL CONDITIONS:

- A. The Contractor will comply with all applicable Federal and State statutes relating to nondiscrimination. The Contractor agrees: (a) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, national origin, ancestry, or physical or mental handicap unrelated in nature and extent so as reasonably to preclude the performance of such employment; (b) to include a provision similar to that contained in subsection (a), above, in any subcontract except a subcontract for standard commercial supplies or raw materials; and (c) to post and to cause subcontractors to post in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.
- B. The Contractor agrees to prosecute all work under this Contract diligently, continuously, and in a timely manner. The Commission will work with the Contractor and the Contractor will work with the Commission on whatever level is feasible to maintain orderly progress towards completion of the specified services of this Contract, and to otherwise fulfill their respective responsibilities as set forth in this Contract.
- C. This Contract shall be binding on both parties, their successors, heirs and assigns.

- D. The Contractor certifies that it (he/she) and its (his/her) principals:
- i. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State, or local department or agency.
 - ii. Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
 - iii. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph 2 of this Section; and
 - iv. Have not within a three-year period preceding this Contract had one or more public transactions (Federal, State, or local) terminated for cause or default.
 - v. The Contractor agrees that false certification under this Section may be grounds for termination of this Contract under Article 7 herein.
- E. The Contractor agrees to comply with applicable federal procurement requirements contained in 40 CFR 31.36, especially those requiring the Commission and "prime contractors" to take the affirmative steps set forth therein, when using subcontracts or when purchasing equipment required for this Agreement.
6. DISPUTES: Before any party to this Contract may bring suit in any court concerning an issue relating to this Contract, such party must first seek in good faith to resolve the issue through negotiations and by mutual contract with the other party.
7. TERMINATION:
- A. The Commission may terminate this Contract at any time upon thirty (30) days prior notice, in writing, from the Commission to the Contractor. If the Contract is so terminated, and the Contractor shall not have been in default, the Contractor shall be compensated for all work accomplished but not yet paid.
- Upon receipt of a Notice of Termination, the Contractor shall stop work under the Contract on the date and to the extent specified in the Notice of Termination, place no further orders on Subcontracts for materials, services, equipment or facilities except as may be necessary for completion of the portion of work under the Contract as is not terminated, and terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination.
- B. In addition, the Commission may, by written notice of default to the Contractor, terminate the whole or any part of this Contract in any one of the following circumstances:
- i. the Contractor fails to perform the services or any one of the tasks specified in the Contract according to professional standards of quality and methodology within the time specified herein and in any extension thereof, or
 - ii. the Contractor fails to perform any of the other provisions of this Contract, or so fails to make progress so as to endanger performance of this Contract in accordance with its terms,
- and in either of these two circumstances does not cure such failure within a period of thirty (30) days subsequent to written notice of such failure.
- C. Upon such termination, all files, documents, reports, products, etc., complete and incomplete, and other materials relating to this Contract shall become the property of the Commission and shall be delivered not more than thirty (30) days subsequent to the date of notice of termination. Payment for completed work and services accepted by the Commission shall be at the Contract price provided that no payment shall be due and owing to the Contractor unless or until such work and services shall have been determined by the Commissioners to be acceptable to the Commission under the terms of this Contract.
8. MULTI-YEAR RESTRICTION: If the term of this Contract extends into future fiscal years of the Commission, this Contract shall terminate automatically upon the failure of the Commission to receive appropriated or granted funds for such future performance or for the general activities of the Commission. Such termination shall be effective as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available; provided, however, that this will not affect either the Commission's rights or the Contractor's rights under any termination clause in this Contract. The effect of termination of the Contract hereunder will be to discharge both the Contractor and the Commission from future performance of the Contract, but not from their rights and obligations existing at the time of

termination. The Commission shall notify the Contractor as soon as it has knowledge that funds may not be available for the continuation of this Contract for each succeeding fiscal year beyond the first.

9. **COMMISSION SAVED HARMLESS:** The Contractor and all subcontractors shall indemnify and hold harmless and defend the Commission members, officers, employees, and authorized representatives against any liability for any suits, actions or claims for injuries or damages of any character arising from or relating to the performance of the Contractor, and any subcontractor or their employees, agents or representatives under this Contract.

10. **RIGHTS IN DATA AND PUBLIC DISCLOSURE:** The Commission and the Contractor both shall have full rights to the information developed and used in this project. Any preparations or publications of computer programs, reports, studies, etc. shall be executed in full cooperation and shall acknowledge the cooperation of both parties. It is understood by both parties that the final products developed and produced through the joint efforts of the Commission and the Contractor will be available to all interested with a minimal charge for reproducing the data files, documentation and final products, and may be released to the public.

11. **SUBMITTING OR ASSIGNING OF CONTRACTS:** This Contract is intended to be executed by key personnel, if any, designated in the "SPECIFIED SERVICES" of the Contract. However, the benefits and obligations hereunder shall inure to and be binding upon the parties hereto and their respective successors, provided the personnel of any such successor, whether such successor be an individual, a partnership or a corporation, is acceptable to the Commission. The Contractor shall not hire consultants, sublet, sell, transfer, assign or otherwise dispose of this Contract or any portion thereof, or of its right, title or interest therein, without prior written consent of the Commission. However, prior written consent of the Commission shall not be required if a subcontract or assignment was itemized in the "SPECIFIED SERVICES" for this Contract.

In the case of any subcontract, the Contractor agrees to bind the subcontractor and every subcontractor agrees to be bound by all terms of this Contract unless particular provisions are expressly waived in writing by the Commission. Any subcontractor must be provided with a copy of this Contract.

12. **NOTICES:** All notices given under the provisions of this Contract shall be in writing and if mailed to the Commission shall be by certified mail, postage and fees prepaid, mailed and delivered to the address specified in the Service Purchase Contract. Notice to the Contractor shall be given in a like manner to the address listed in the CONTRACTOR'S INFORMATION part of the Commission Service Purchase Contract.

13. **THIRD PARTY RIGHTS:** Nothing in this Contract or any document incorporated herein by reference is intended to or shall be construed to confer upon, or give to, any person, firm or corporation or any government agency, other than the Commission, its successors and assigns and the Contractor any right, remedy or claims legal or equitable, and whether as third party beneficiary or otherwise, this Contract and all provisions applicable hereto or incorporated herein being intended to be and being for the sole and exclusive benefit of the Commission, and the Contractor, and their successors and assigns.

14. **RESTRICTIONS ON LOBBYING:** If this Contract is funded in whole or in part with Federal Funds, exceeding \$100,000, the Contractor is subject to the requirements of Title 40 CFR Part 34 and agrees to comply with said requirements. The Contractor is responsible for ascertaining the source of the funds for this Contract from the Commission. The Contractor, and any subcontractors employed under this Contract, shall submit certification and disclosure forms pursuant to 40 CFR 34.110 to the Commission in a timely manner as required by 40 CFR 34.

15. **INTEGRATION AND MERGER:** This Contract embodies the whole contract of the parties with respect to the subject matter thereof. There are no promises, terms, conditions, obligations, representations or warranties referring to the subject matter, other than those contained herein or incorporated herein by reference.

16. **CONSTRUCTION AND SEVERABILITY:** This Contract shall be governed by the laws of the State of Maryland. Furthermore, it is understood and agreed by the parties, hereto that if any of these provisions shall contravene, or be invalid under the laws of the particular state, county or jurisdiction where used, such contravention or invalidity shall not invalidate the whole contract, but the Contract shall be continued as if not containing the particular provision or provisions held to be invalid in the said particular state, county or jurisdiction and the rights and obligations of the parties shall be construed and enforced accordingly.

17. **ENFORCEMENT:** The failure of the Commission to enforce at any time of the provisions of this Contract, or to exercise any option which is herein provided, or to require at any time performance by the Contractor of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions nor in any way affect the validity of this Contract or any part thereof, or the right of the Commission to enforce each and every such provision.

18. **EFFECTIVE DATE:** It is agreed and understood by the parties hereto that this Contract and any modification or revisions thereof shall not become effective or enforceable until executed by the Commission.