



WATER UTILITY COMMITTEE MEETING

Thursday, June 8, 2023 – 7:00 p.m.

Doylestown Borough Hall
10 Doyle Street, Doylestown, PA 18901

Committee Members: Dennis Livrone (Chair), Larry Browne, Jennifer Jarret, and Wendy Margolis

AGENDA

1. Approval of May 2023 Meeting Minutes
2. PFAS Public Presentation
3. Design, Permitting, and Bidding Proposals for Wells 9, 10, and 12
4. Old/New Business

JHD:ak

C: Council
Mayor



BOROUGH OF DOYLESTOWN

Bucks County, Pennsylvania

OFFICIALS:
NONI WEST, Mayor
JACK O'BRIEN, President
WENDY MARGOLIS, Vice President
JOHN H. DAVIS, Manager
PHILIP C. EHLINGER, Deputy Manager

Water Utility Committee Meeting Minutes Tuesday, May 9, 2023– 6:30 p.m.

Present: Chairperson Dennis Livrone, Wendy Margolis, and Larry Browne, as well as Chief Water Operator Jeremy Matozzo, Borough Manager John Davis, Borough Council President Jack O'Brien and Planning Commission Chair James Lannon.

Approval of Minutes: The April meeting minutes were approved as submitted.

CKS/Arrow Professional Services Agreement: Jeremy explained the agreement has been reviewed by the Borough Solicitor. The Committee voted unanimously to approve the agreement and forward to Borough Council.

Backflow Prevention Ordinance: The Board voted unanimously to approve this ordinance and forward to Borough Council for their final approval.

Well Treatment Proposals: This topic was tabled until next month, when the Borough Engineer will attend to discuss the topic with the public.

Operations Report: Jeremy reviewed the last month's service calls and water production.

Construction Standard Specifications: The Borough Solicitor reviewed these specifications and compared them to similar ones in nearby municipalities. The Board voted unanimously to approve these specifications and forward to Borough Council for approval.

Old or New Business: None.

Adjourned: 6:50p.m.

Respectfully submitted,

Amy Kramer
Minutes Secretary

**BOROUGH OF DOYLESTOWN
2023 BUDGET
WATER CAPITAL FUND**

<u>DESCRIPTION</u>	<u>ACCOUNT NUMBER</u>	<u>2023 BUDGET</u>	<u>AS OF 5/31/2023</u>	<u>2023 YEAR END PROJECTION</u>
<u>WATER CAPITAL FUND REVENUES:</u>				
<i>Interest Earnings</i>				
Interest Income	07-341-100	\$ 100	\$ 493	\$ 100
TOTAL:		\$ 100	\$ 493	\$ 100
<i>Tapping Fees</i>				
PA Small Water Grant	07-354-080	\$ -	\$ -	\$ -
Tapping/Connection Fees	07-378-900	555,000	1,096,019	1,100,000
Capital Contributions	07-383-130	106,180	41,794	106,180
Trans fr Reserve - ARPA Funds	07-392-400	103,561	-	103,561
TOTAL:		\$ 764,741	\$ 1,137,813	\$ 1,309,741
TOTAL REVENUES:		\$ 764,841	\$ 1,138,306	\$ 1,309,841

WATER CAPITAL FUND EXPENDITURES:

<i>Capital Expenditures</i>				
Hydrants/System Valves	07-422-740	\$ 8,000	\$ -	\$ 8,000
Water system leak detection	07-422-740	15,000	-	15,000
Maplewood Tank - clean/inspect	07-422-740	540,000	8,586	540,000
Water Quality Tech Upgrades	07-422-740	6,200	945	6,200
Utility Billing Software	07-422-740	30,000	-	30,000
Water Line Locator	07-422-740	4,200	3,777	3,800
Neptune MIU Replacement Proj	07-422-740	30,000	23,650	30,000
Well #9 & #10 pH Treatment	07-422-740	-	44,161	44,161
Neptune Meter Upgrade	07-422-740	40,000	7,700	40,000
TOTAL:		\$ 673,400	\$ 88,819	\$ 717,161
TOTAL EXPENDITURES:		\$ 673,400	\$ 88,819	\$ 717,161
WATER CAPITAL FUND FUND BALANCE:		\$ 171,816	\$ 227,794	\$ 227,794
PLUS REVENUES:		\$ 764,841	\$ 1,138,306	\$ 1,309,841
LESS EXPENDITURES:		\$ (673,400)	\$ (88,819)	\$ (717,161)
ENDING FUND BALANCE:		\$ 263,257	\$ 1,277,281	\$ 820,474

PROFESSIONAL SERVICES AGREEMENT

0523-PW04

Doylestown Borough
10 Doyle Street
Doylestown, PA 18901

and

CKS Engineers, Inc.,
an ARRO Consulting Company
4259 W. Swamp Road, Suite 410
Doylestown, PA 18902

May 22, 2023

The purpose of this Agreement is to form the basis for CKS Engineers, Inc, an ARRO Consulting Company (CKS/ARRO) to provide consulting engineering services to Doylestown Borough (Client) for the engineering design, permitting and bidding services associated with the Borough's Wells 9, 10, and 12 PFAS Treatment Facilities Project. CKS/ARRO will provide the services identified in the Scope of Services below.

BACKGROUND

Well numbers 9, 10, and 12 are public water supply wells within the Doylestown Borough Water System. Well 9 is located within the Veterans Memorial Park in the Maplewood subdivision; Well 10 is located along Sandy Ridge Drive near the Route 611 By-pass; and Well 12 is located within Chapman Park near the Borough Dam. The wells have been found to have Per and Polyfluoroalkyl Substances (PFAS); namely, Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) in the water. Water quality testing of the wells has shown levels of PFOS and PFOA less than the USEPA health advisory combined limit of 70 part per trillion (ppt); less than the PADEP maximum contaminate levels (MCLs) recently established as 18 ppt for PFOS and 14 ppt for PFOA (with the exception of Well 10 which has a level equal to the MCL for PFOA); and greater than the USEPA MCLs recently proposed as 4 ppt for PFOS and 4 ppt for PFOA.

The purpose of this project is to provide treatment on the wells using Granular Activated Carbon (GAC) to remove PFOS and PFOA to concentrations below the proposed USEPA MCLs. Construction will involve the installation of a dual vessel GAC system operating in series at each well facility. The systems will be engineered and sized to meet the design criteria of PADEP Part II Design Manual as well as the unique constraints of each site. It is anticipated that each treatment system will necessitate the construction of a 28' x 40' freestanding building at each well facility to house the treatment vessels, piping, controls, and appurtenances. CKS/ARRO completed a study entitled *PFAS Treatment Alternatives Analysis for Doylestown Borough*, dated last revised April 2023, evaluating the feasibility and implementation of treatment alternatives which further describes the background for this project.

SCOPE OF SERVICES

Task A: Engineering Design

1. Attend project kick-off meeting with Client staff and/or officials to review project scope; address questions; and collect data/information needed in conjunction with design and permitting.
2. Evaluate process design using GAC media and select new GAC media/treatment equipment.
3. Perform field survey and property research as required to complete site and yard piping plans. In addition prepare documents (plan and legal descriptions) for acquisition of any necessary easements.

4. Prepare (on CKS/ARRO's standard 24-inch by 36-inch sheets using AutoCAD in accordance with CKS/ARRO's standard CADD protocol) of Construction Drawings associated with:
 - a. Existing Conditions/Demolition.
 - b. Site plan/yard piping.
 - c. Erosion and Sedimentation Control Plan
 - d. Mechanical piping, equipment and facilities.
 - e. Electrical and SCADA design.
 - f. Building Design.
5. Prepare engineering specifications and contract documents in CKS/ARRO's standard Construction Specifications Institute (CSI) format for one (1) general construction and one (1) electrical construction contract including general and supplemental provisions, technical specifications, bid forms, and related bid documents.
6. Submit to Client design plans and technical specifications for review at 30%, 60% and 90% complete intervals.
7. Attending design progress meeting as needed. It is anticipated that three (3) progress meetings will be needed throughout the design phase.
8. Prepare of engineer's opinion of probable construction cost and Schedule.

Task B: Permitting

1. Prepare permit applications required for construction of treatment facilities. It is anticipated that the following permit applications will be necessary:
 - a. PADEP Public Water Supply Permit.
 - b. Bucks County Conservation District Erosion & Sedimentation approval.
 - c. Bucks County Water and Sewer Authority (BCWSA) sanitary sewer connection for backwash discharge.
 - d. PADEP Act 537 Sewage Facilities Planning exemption.

This Agreement is based upon the Client paying permit fees.

Task C: Bidding Services

1. Issue a complete set of bid documents to prospective contractors via the PennBid system.
2. Provide Client with two (2) complete paper sets of documents and one (1) digital copy for their use/records.
3. Prepare advertisement in accordance with public bidding laws. This Agreement is based on Client paying for all advertisement fees.
4. Administer PennBid protocol and procedures during bid phase. Respond to contractors' questions regarding the information contained in the drawings or specifications and post responses on PennBid.
5. Schedule and conduct a Pre-Bid Meeting to review the project scope and tour the project site. Prepare sign-in sheet, agenda, and meeting minutes and upload minutes to PennBid's website.

6. Prepare and issue Addenda to address issues raised at the pre-bid meeting and as appropriate to interpret, clarify or expand the Contract Documents.
7. Administer the on-line bid opening and prepare bid tabulation sheets in Microsoft Excel format and forward electronic copy to Client.
8. Review applicable qualification and experience data, and bid bonds submitted by bidders for conformance with contract documents. Perform reference checks, when directed by Client.
9. Provide Client with recommendation about acceptance of bid and award of contract, with copy of bid tabulation sheets and supplementary information provided by the bidders. This Agreement is based upon Client reviewing, with their solicitor, completeness of bids received.

Specific Services Excluded

The following services are specifically excluded, but may be provided (as amendments to or subsequent phases of the current agreement) if CKS/ARRO and the Client agree to an equitable adjustment in the not-to-exceed value stated below under Compensation:

1. Construction management and inspection services are not included in this proposal. CKS/ARRO can provide those services on a time and material basis upon execution by both parties of a ratified Amendment to this Agreement. Those services typically include conducting a preconstruction meeting, performing shop drawing reviews, answering RFI's, site inspections and processing of progress payments. Those services are typically estimated to cost approximately 10% of the construction cost.
2. Payment of permit fees, tapping fees and advertisement of legal notice for bidding.
3. Permit applications not identified in Task B, including but not limited to Land Development and/or Building permits. It is anticipated those applications will be handled by the Client.
4. Easement services including but not limited to notifications and/or filings.
5. Sampling and outside laboratory analyses and associated fees.
6. Preparation of applications and supporting documents for grants, loans, or bond issues relative to project financing.
7. Additional site visits and attendance at additional meetings.
8. Investigations and studies beyond those furnished in Scope of Services. Such investigations and studies may include, but are not limited to detailed value engineering studies, code compliance evaluations, economic impact evaluations, cash flow analyses, geotechnical or subsurface investigations, site contamination or soil or groundwater quality, wetlands, archaeological/cultural resources, and habitat/endangered species surveys.

SCHEDULE

CKS/ARRO will commence work upon receipt of written authorization to proceed from the Client, and will endeavor to complete the work as follows from the date of written authorization to proceed:

Preliminary Design (30% complete)	4 months
File Permit Applications (60% complete)	5 months
Pre-final Plan Review (90% complete):	8 months
Final Plan & Specifications completion	9 months
Bidding period completion	10 months

This Agreement is based on CKS/ARRO performing all work within Calendar Year 2023/2024.

CLIENT'S RESPONSIBILITIES

1. Designate a person to act as its representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, and interpret and define the Client's policies and decisions pertaining thereto within a reasonable time so as not to delay the services of CKS/ARRO.
2. Arrange for access to and make all provisions for ARRO to enter upon public and private property as required for CKS/ARRO to perform its services.
3. Obtain approvals and permits from and pay fees of all governmental authorities having jurisdiction over the project and such approvals and consents from others as may be necessary for completion of the project.
4. Assist CKS/ARRO by placing at its disposal all available information pertinent to the project including topographic and property line plans, previous reports, and any other data relative to the work covered herein.
5. Examine all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by CKS/ARRO, obtain advice of an attorney, insurance counselor, and other consultants as the Client deems appropriate for such examination, and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of CKS/ARRO.
6. Provide such accounting, legal, and insurance counseling services as may be required by the Client for the projects or as CKS/ARRO may reasonably request with regard to legal, accounting, and insurance issues pertaining to the projects including any that may be raised by any third party.
7. Give prompt written notice to CKS/ARRO whenever the Client observes or otherwise becomes aware of any development that affects the scope or timing of CKS/ARRO's services or becomes aware of any unsatisfactory performance by CKS/ARRO.

COMPENSATION

In consideration of the Scope of Services performed by CKS/ARRO in accordance with this Agreement, the Client shall pay CKS/ARRO on a time and expenses basis in accordance with CKS's 2023 "Schedule of Hourly Rates and Charges for Professional Services" which is attached. Work done in subsequent years shall be at the rates and charges applicable to that year, a copy of which will be furnished to the Client at their request.

These services shall be provided for a total not-to-exceed fee of Four Hundred Ten Thousand, Two Hundred Seventy Dollars (\$410,270.00). In the event that such services are altered by a modification to this Agreement, the Client and CKS/ARRO, shall, at the time of such modification, also agree to an equitable adjustment in the not to exceed value stated above.

Invoices will be rendered monthly and shall be paid within thirty (30) days of the date of the invoice.

THE TERMS OF THIS AGREEMENT SHALL REMAIN OPEN FOR ACCEPTANCE FOR A PERIOD OF SIXTY (60) DAYS FROM THE ABOVE DATE, AFTER WHICH TIME CKS/ARRO RESERVES THE RIGHT TO REVIEW, REVISE, OR WITHDRAW THIS AGREEMENT.

THE ATTACHED STANDARD TERMS AND CONDITIONS ARE INCORPORATED INTO AND A PART OF THIS AGREEMENT.

Doylestown Borough

BY: _____

Printed Name: _____

TITLE: _____

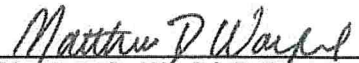
DATE: _____

Client's Designated Representative: _____

**CKS Engineers, Inc.,
an ARRO Consulting Company**

BY: 

Patrick DiGangi, P.E.

BY: 

Matthew D. Warfel, P.E.

TITLE: **Vice President**

TITLE: **Executive Vice President/
Chief Technical Officer**

DATE: **May 22, 2023**

DATE: **May 22, 2023**



4259 W. Swamp Road
Suite 410
Doylestown, PA 18902

www.cksengeers.com
215.340.0600

August 29, 2022
Ref: #1100

(via email)

Borough of Doylestown
57 West Court Street
Doylestown, PA 18901

Attention: John H. Davis, Borough Manager

Reference: Professional Engineering Services - 2023 Rate Schedule

Dear John:

CKS Engineers, Inc. is pleased to submit our proposed rate schedule to the Borough of Doylestown for engineering services for the calendar year 2023. For the calendar year 2023, we propose a modest rate increase in accordance with the following schedule:

Principal Engineer.....	\$135/hour
Assistant Engineer/Construction Manager.....	\$125/hour
Technical Assistant I..... (Inspector, CAD Operator, Surveyor)	\$98/hour
Junior Engineer.....	\$70/hour
Technical Assistant II.....	\$56/hour

All direct expenses such as telephone, postage, printing, etc. would be charged at their direct cost. Automobile expenses will be charged in accordance with the IRS Standard Rate.

We trust that the above rate schedule will meet with your approval. CKS Engineers, Inc. sincerely appreciates the opportunity to have served the Borough this past year. I personally have enjoyed this opportunity and look forward to continuing our relationship well into the future.

Very truly yours,
CKS ENGINEERS, INC.
Borough Water Engineers

Patrick P. DiGangi, P.E.

PPD/klk

cc: Joseph J. Nolan, President, CKS Engineers, Inc.
File

**CKS ENGINEERS, INC. AN ARRO CONSULTING COMPANY
STANDARD TERMS AND CONDITIONS**

1. OPINION OF PROBABLE COSTS

Opinions of probable construction and related costs, financing and acquisition of land and rights-of-way prepared by CKS/ARRO represent its judgment as a design professional and are supplied for the general guidance of the Client. Since CKS/ARRO has no control over cost of labor, materials, equipment or services furnished by others, over contractors' methods of determining prices, over costs of financing, acquisition of land or rights-of-way or over competitive bidding, market or negotiating conditions, CKS/ARRO does not guarantee that any such opinions will not vary from actual costs or contractors' bids to the Client.

2. INSTRUMENTS OF SERVICE

All reports, plans, specifications, drawings, field data, notes, formulae, calculations, codes, computer programs and any other documents used in the preparation of the work hereunder or delivered to the Client hereunder, including electronic or digitized versions thereof, are instruments of service of CKS/ARRO and shall remain the property of CKS/ARRO. Client has the right to use the work delivered hereunder for an indefinite period of time for the purposes outlined in this Agreement. However, the work furnished by CKS/ARRO hereunder, whether in document form or electronic or digitized versions thereof, are not to be reused by the Client or any other person or entity for extensions of the project for which they were prepared or on any other project. Any reuse of the documents or their electronic or digitized versions without specific written verification or adaptation by CKS/ARRO will be at the Client's sole risk and without liability to CKS/ARRO, and Client shall hold CKS/ARRO harmless from any claims or damages resulting from such reuse, including claims of infringement of proprietary information.

3. CHANGED CONDITIONS

CKS/ARRO has used its professional judgment in establishing the scope of services and fee for this project, given the information provided by the Client or known to CKS/ARRO about the project's nature and risks and current laws, codes, regulations, standards and permit conditions in effect thirty (30) days prior to the date of this proposal/Agreement. Occurrences or discoveries that were not originally contemplated by or known to CKS/ARRO shall constitute changed conditions and shall require an equitable adjustment in scope, schedule and/or fee under this Agreement. If CKS/ARRO should request an adjustment to this Agreement, CKS/ARRO shall identify the changed conditions and the Client shall promptly and in good faith enter into a renegotiation of this Agreement. If the Client refuses to renegotiate, CKS/ARRO may terminate this Agreement.

4. ADDITIONAL WORK

The Client or CKS/ARRO may, from time to time, during the course of the work request changes or modifications in the "Scope of Services" to be performed hereunder. Such changes and/or modifications, including any increase or decrease in the amount of CKS/ARRO's compensation, which are mutually agreed upon between the Client and CKS/ARRO, shall be incorporated in written amendments to this Agreement. In the event the Client desires additional work performed, which is not covered by the proposal and/or Agreement, the parties shall execute an amendment to this Agreement, and CKS/ARRO shall be paid for the additional work in accordance with the terms and conditions for extra work as set forth in the Agreement.

5. DELAYS

In the event of delays through no fault of CKS/ARRO, the Client shall pay all costs which have been reasonably incurred by CKS/ARRO in suspending the services including all costs incurred in reactivating the services. This is in addition to compensation for services performed and costs incurred prior to suspension.

6. WARRANTY AND REMEDY

CKS/ARRO warrants that it shall exert the degree of care and skill in the performance of its services normally exercised by similar professionals under similar circumstances. This warranty is in lieu of and excludes all other warranties whether express or implied, by operation of law or otherwise, including any warranty of fitness for particular purpose.

CKS/ARRO's liability to the Client for losses, injuries, damages or expenses arising from CKS/ARRO's services under this Agreement and which are covered by CKS/ARRO's liability insurances shall be limited to the then remaining limits of CKS/ARRO's applicable liability insurance coverage(s). For any other losses, injuries, damages or expenses arising from CKS/ARRO's services, Client agrees that CKS/ARRO's total aggregate liability therefore shall not exceed the amount of CKS/ARRO's service revenue under this Agreement.

In addition, the Client agrees to extend any and all liability limitations and indemnifications provided by the Client to CKS/ARRO to those individuals and entities CKS/ARRO retains for performance of the services under this Agreement, including CKS/ARRO's subconsultants and their assigns.

For purposes of this Agreement the term "liable" and "liability" shall mean liability of any kind that may be found to rest upon CKS/ARRO, whether arising from the negligence of CKS/ARRO, its subcontractors, agents or employees, breach of warranty, breach of contract, strict or absolute liability and/or any other cause.

7. CONSEQUENTIAL DAMAGES

Neither CKS/ARRO nor Client shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of this fault or whether it was committed by CKS/ARRO or the Client, their employees, agents, subconsultants or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.

8. TERMS OF PAYMENT

In the event that payment is not made within thirty (30) days from date of billing, interest will be charged at the rate of one percent (1%) per month, or the maximum amount permitted by law.

9. PATENTS

CKS/ARRO will not conduct patent searches in the performances of its services and assumes no responsibility or liability for any patent or copyright infringement arising therefrom. Nothing contained herein shall be construed as a warranty or representation that anything made, used or sold arising out of the services provided for the project will be free from infringement of patents.

10. SUSPENSION OF SERVICES

If payment of CKS/ARRO's invoices is not maintained as per the Terms of Payment set forth herein, CKS/ARRO may by seven (7) days written notice to the Client suspend further services without liability until the Client has paid in full all amounts due CKS/ARRO on account of services rendered and expenses incurred, including interest on past due invoices. Suspension exceeding ninety (90) days shall, at CKS/ARRO's option, make this Agreement subject to renegotiation or termination. Any suspension shall extend the time schedule for performance in a manner that is satisfactory to CKS/ARRO.

11. TERMINATION

This Agreement for CKS/ARRO's services may be terminated by either party upon thirty (30) days prior written notice to the other party. In the event of termination, CKS/ARRO shall be compensated for services performed and expenses incurred up to the date of termination, plus reasonable actual costs incurred by CKS/ARRO as a result of a termination by the Client.

12. SUCCESSORS AND ASSIGNS

This Agreement shall be binding upon the parties and their respective successors and assigns. CKS/ARRO may employ such independent consultants, associates and subcontractors as it may deem appropriate. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the parties.

13. SEVERABILITY AND REFORMATION

Any provision or part thereof of this Agreement held to be void or unenforceable under any law or order of court shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Client and CKS/ARRO. In addition, the parties agree that this Agreement shall be reformed to replace such stricken provision(s) or part(s) thereof with a valid and enforceable provision(s) which comes as close as possible to expressing the intention of the stricken provision(s).

14. EMPLOYEE LIABILITY

The Client acknowledges that CKS/ARRO is a corporation and agrees that any claim made by the Client arising out of any act or omission of any director, officer or employee of CKS/ARRO in the execution or performance of this Agreement, shall be made against CKS/ARRO and not against such director, officer or employee.

15. FORCE MAJEURE

Client and CKS/ARRO agree that there shall be no liability on the part of either party for any failure or delay in the performance of any obligations hereunder resulting from any cause beyond their reasonable control, including, but not limited to: acts of God; acts or omissions of civil or military authority; acts or omissions of contractors or suppliers; fires; floods; epidemics; quarantine restrictions; severe weather; strikes; embargoes; wars; political strife; riots; delays in transportation; compliance with any regulations or directives of any national, state, local, or municipal governments or any department thereof; fuel, power, materials or labor shortages.

16. ENTIRE AGREEMENT

This Agreement, upon its acceptance by the Client, shall constitute the entire and integrated understanding between the parties and supersedes all prior and contemporaneous negotiations and agreements, whether oral or written, with respect to the subject matter herein. This Agreement may be amended only by a written instrument signed by both parties.

17. ASBESTOS OR HAZARDOUS OR TOXIC MATERIALS

CKS/ARRO's scope of services does not include any services related to asbestos or hazardous or toxic materials. CKS/ARRO shall have no responsibility under this Agreement to determine the existence, location, quantity, type or composition of any hazardous or toxic materials that may exist at the site. In the event CKS/ARRO or any other party encounters asbestos or hazardous or toxic materials at the site, or should it become known in any way that such materials may be present at the site or any adjacent areas that may affect the performance of CKS/ARRO's services, CKS/ARRO may, at its option and without liability for consequential or other damages, suspend performance of services on the project until the Client retains appropriate specialist consultant(s) or contractor(s) to identify, abate and/or remove the asbestos or hazardous or toxic materials, and warrant that the site is in full compliance with applicable laws and regulations.

18. PHASE I & PHASE II ENVIRONMENTAL SERVICES

Inconsideration of the substantial risks to CKS/ARRO in performing Phase I and Phase II environmental assessment services, the Client agrees, to the maximum extent permitted by law, to indemnify and hold harmless from any damage, liability or cost, including reasonable attorneys' fees and costs of defense, arising out of or resulting from the performance of services under this Agreement or related in any manner whatsoever to the existence, identification, release or disposal of hazardous or toxic substances, except those damages, liabilities or costs arising directly from the sole negligence or willful misconduct of CKS/ARRO.

a. REGULATED CONTAMINANTS

The Phase II environmental assessment is being conducted solely to permit CKS/ARRO to render a professional opinion on the likelihood of regulated contaminants being present on, in, or beneath the site identified in the Agreement at the time the services are rendered. Client acknowledges and understands that the findings derived from a Phase II environmental assessment are limited and that CKS/ARRO cannot know or state as an absolute fact that the site is unaffected by reportable quantities of regulated contaminants. Furthermore, even if CKS/ARRO believes, in its professional opinion, that reportable quantities of regulated contaminants are not present at the site, Client still bears the risk that such contaminants may be present or may migrate to the site after the study is completed. Client's acceptance of this Agreement shall evidence that Client understands the risks associated with the Phase II environmental assessment and, in consideration of CKS/ARRO agreeing to provide these services, Client agrees, to the maximum extent permitted by law, to waive any claim against CKS/ARRO and agrees to defend, indemnify, and hold CKS/ARRO harmless from any damage, claim, liability, or cost, including reasonable attorneys' fees and costs of defense, for injury or loss which may arise out of or result from any alleged contamination or existence of hazardous material discovered at the site or performance of services under this Agreement or related in any manner whatsoever to the existence, identification, release or disposal of hazardous or toxic substances, except those damages, liabilities or costs arising directly from the sole negligence or willful misconduct of CKS/ARRO.

b. SAMPLING BYPRODUCTS

All substances on, in, or beneath the Client's site identified in the Agreement, or obtained from the site as samples or as byproducts of the sampling process are, and shall remain, the Client's property. Any samples or byproducts of the sampling process that are, or are assumed to be regulated contaminants, or in CKS/ARRO's opinion, may be affected by a regulated contaminant, will be packaged in accordance with applicable law and these materials will be promptly turned over to the Client and the Client will be responsible for legal disposal of them. CKS/ARRO shall not have any responsibility under this Agreement to arrange for disposal, or dispose, of materials that are, or are suspected to be, affected by regulated contaminants. Client shall sign all manifests for the disposal of regulated contaminants or suspected regulated contaminants. CKS/ARRO will not, under any circumstances, be considered a generator, transporter, or disposer of the materials affected by regulated contaminants. Because involvement with the Client's contaminated samples can expose CKS/ARRO to considerable risks, Client agrees, to the maximum extent permitted by law, to waive any claim against CKS/ARRO and agrees to defend, indemnify, and hold CKS/ARRO harmless from any damage, claim, liability, or cost, including reasonable attorneys' fees and costs of defense, for injury or loss which may arise out of or result from CKS/ARRO containing, labeling, transporting, testing, temporarily storing, and other handling of the Client's contaminated samples or performance of services under this Agreement or related in any manner whatsoever to the existence, identification, release or disposal of hazardous or toxic substances, except those damages, liabilities or costs arising directly from the sole negligence or willful misconduct of CKS/ARRO.

c. CROSS CONTAMINATION

Sampling may result in unavoidable cross-contamination of subsurface areas, such as when a probe or boring penetrates through a contaminated area into an aquifer, underground stream, or other hydrous body not previously contaminated. Client acknowledges and understands that CKS/ARRO cannot, despite exercising due care, completely eliminate this risk. Because sampling is an essential element of the Phase II environmental services covered by this Agreement and can expose CKS/ARRO to considerable risks, Client agrees, to the maximum extent permitted by law, to waive any claim against CKS/ARRO and agrees to defend, indemnify, and hold CKS/ARRO harmless from any damage, claim, liability, or cost, including reasonable attorneys' fees and costs of defense, for injury or loss which may arise out of or result from any cross-contamination allegedly caused by sampling or performance of services under this Agreement or related in any manner whatsoever to the existence, identification, release, or disposal of hazardous or toxic substances, except those damages, liabilities or costs arising directly from the sole negligence or willful misconduct of CKS/ARRO.

19. THIRD PARTY BENEFICIARY

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or CKS/ARRO. CKS/ARRO's services under this Agreement are being performed solely for the Client's benefit, and no other entity shall have any claim against CKS/ARRO because of this Agreement or the performance or nonperformance of services hereunder. The Client agrees to include a provision in all contracts with contractors and other entities involved in this project to carry out the intent of this paragraph.

20. GOVERNING LAW

The laws of the Commonwealth of Pennsylvania shall govern the validity of this Agreement, its interpretation and performance. Any litigation arising in any way from this Agreement shall be brought in the Courts of Common Pleas of Pennsylvania having jurisdiction.