ADDENDUM NUMBER ONE

PART 1 - GENERAL

1.01 This Addendum shall be part of the Contract Documents for the West End Dam – Dredging and Remediation Project, Contract No. CL-748.1, Venango College, Clarion University, Oil City, Pennsylvania.

A. Where any part of the Contract Documents are modified or voided by this Addendum, the unaltered portions shall remain in effect.

B. Bidders shall acknowledge receipt of this Addendum by indicating date and number in the spaces provided on the Bid Form.

C. This Addendum consists of one (1) page plus attachments as listed.

D. Plan Holders shall acknowledge receipt of addendum, sign, date and return signed and dated Acknowledgement to Ms. Ruth Wolfgong, Clarion University via email at rwolfgong@clarion.edu.

E. Access to the West End Pond must be from Osborne Street.

F. No disturbance to the dam embankment (parallels West Front Street) will be permitted.

PART 2 - PROJECT MANUAL MODIFICATIONS:

2.01 The Project Manual shall be modified as follows:

A. Table of Contents, Division 01
   Section 01 00 00 Summary of Work is altered to “Section 01 10 00 Summary of Work”

   SPECIAL INSTRUCTIONS TO BIDDERS - Contract Time
   Change August 28, 2015 to August 14, 2015 (Work to be completed before August 14, 2015).

B. Section 01 10 00 – SUMMARY, Paragraph 1.01.D
   Change August 28, 2015 to August 14, 2015 (Work must be completed before August 14, 2015).

C. Section 01 10 00 – SUMMARY, Paragraph 1.01.N
   Replace Paragraph 1.10.N replace in its entirety with:
   The CONTRACTOR’s insurance shall comply with the Insurance Rider Form.

PART 3 – PROJECT DRAWINGS: No Changes.

PART 4 – PRE-BID CONFERENCE SUMMARY (Attached - Pages 1-2).

END OF ADDENDUM NO. 1

ACKNOWLEDGEMENT OF RECEIPT:

DATE:

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MEETING SUMMARY

PROJECT: Contract CL-748.1
Venango College, Clarion University
Venango Campus West End Dam – Dredging and Remediation

DATE: January 29, 2015

ATTENDEES: See attached sign-in sheet

SUBJECT: Pre Bid Conference

The purpose of this meeting was to provide administrative and technical information about the proposed construction. It is understood that oral clarifications or explanations discussed at the Pre Bid meeting are informal and non-binding. Discussion of the following items ensued.

1. Mr. David Fagan, Clarion University, opened the meeting and introduced the project.

2. Ms. Ruth Wolfgong, Clarion University, reviewed the bid requirements that are detailed in the project documents. Bids must be received by 2:00 PM, February 19, 2015.

3. Mr. Jon Snyder, HRG, Inc. described the Scope of Work. Some specific items discussed are as follows:

   A. Contract Time

      i. The Contract must be completed before August 14, 2015. The Special Instructions to Bidders and Section 01 10 00 Summary list the completion date as August 28, 2015. Any references to the Contract completion date in the Project Documents must be revised to August 14, 2015.

   B. Items related to the Pond Dredging:

      i. The Owner has obtained a Pennsylvania State Programmatic General Permit – 4 (PASPGP-4) for the dredging operation. A copy is attached.

      ii. The Contractor must not discharge sediment to the pond’s receiving stream. Bidders should refer to the Draw Down Permit that is provided in Section 01 10 00 Summary, Appendix A. See Figure 1. Final draining of the pond will be accomplished using this detail. Any seepage into the pond will also be discharged by this detail.

      iii. The Owner will work with the Contractor to drain the pond in accordance with the Draw Down Permit. The outlet structure is equipped with a valve and a 12” diameter DIP pipe that will lower the pond level to Elevation 1009.50 +/- . Upstream flows to the pond must be diverted around the pond to the outlet structure by pumping or other means that will ensure that only clean water is discharged to the downstream watercourse.

      iv. If a rain event exceeds the capacity of the by-pass system and re-fills the pond, the Owner and the Contractor will again drain the pond as described above.
v. Access to the pond will be from Osborne Street. The dam embankment (which parallels West First Street) must not be disturbed. If a temporary driveway is used to access the pond and/or a bench (on which an excavator or other equipment is located), a Rock Construction Entrance will be used to control tracking of sediment onto the public streets.

vi. The Owner will remove a few of the fish that are in the pond. The Contractor will be responsible to remove the remaining fish in accordance with all applicable regulations. The fish must be removed from the site so as to minimize any unsightly or odorous conditions.

vii. The site must be restored to its current condition.

C. Items related to the Sediment Disposal Site:

i. The Owner has obtained an NPDES Permit for the discharge of stormwater associated with construction activities. The Contractor will become a Co-Permittee and must comply with the conditions of the permit including restoration of the site by vegetating the sediment that is disposed on the site and any other disturbances to the site.

4. Questions:

A. What is Mr. Snyder's contact information?
   Phone: 724-779-4777, 724-983-1860, fax 724-779-4711, email: jdsnnyder@hrg-inc.com

B. What size storm flows does the pond experience?
   Note that storm flows are design standards that are determined by the regulatory and design communities and may not reflect actual conditions. The 2007 PCSM Plan for the West End Pond Renovation Project indicates that the 2-year storm flows into the pond are approximately 163 cfs. The StreamStats website may provide additional information on low flow rates for this watershed.

C. How can the sediment be contained on the Disposal Site?
   The preferred method is to use compost filter socks installed in three layers to form a dam that will be three to four feet high. (See the Erosion & Sedimentation Control Manual Sediment Trap information.) Cells can also be constructed using the existing soils within the Limits of Disturbance boundary to contain the material.

We believe this summary accurately reflects the items discussed at the subject meeting. If there are any revisions or corrections to this summary, please contact the undersigned on or before February 10, 2015. If no revisions or corrections are requested, the summary will stand approved as submitted.

Prepared By: [Signature]
Jon D. Snyder, P.E.

Attachments: Pre Bid Meeting Sign In sheet(s) (four pages)
Pennsylvania State Programmatic General Permit – 4

Herbert, Rowland & Grubic, Inc.
Phone: 724-779-4777
Fax: 724-779-4711

P:\0035\003563_0432\Admin\Phase 03 Bid\PreBidMtg Summary.doc
<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary</td>
<td></td>
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<tr>
<td>John</td>
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CL-748 Venango Dredge & Remediation

January 29, 2015, 10:00 AM
Pre-bid Attendance Sheet
<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Smith</td>
<td>123 Main St, Anytown</td>
<td>555-1234</td>
<td><a href="mailto:mark.smith@example.com">mark.smith@example.com</a></td>
</tr>
<tr>
<td>Jane Johnson</td>
<td>456 Oak Rd, Townville</td>
<td>666-5432</td>
<td><a href="mailto:jane.johnson@example.com">jane.johnson@example.com</a></td>
</tr>
<tr>
<td>John Doe</td>
<td>789 Pine Ave, City</td>
<td>777-6543</td>
<td><a href="mailto:john.doe@example.com">john.doe@example.com</a></td>
</tr>
<tr>
<td>Lisa Brown</td>
<td>012 Maple Ln, Other</td>
<td>888-7654</td>
<td><a href="mailto:lisa.brown@example.com">lisa.brown@example.com</a></td>
</tr>
<tr>
<td>David Lee</td>
<td>345 Elm St, Here</td>
<td>999-8765</td>
<td><a href="mailto:david.lee@example.com">david.lee@example.com</a></td>
</tr>
</tbody>
</table>

**Note:**
- The table represents a sample of attendees and their contact information.
- The attendance sheet was completed on January 29, 2015, at 10:00 AM.
- The event was hosted by CL-748 Venango Bridge & Remediation.
January 31, 2014

Ms. Debra D. Sobina  
Director of Finance and Administration  
Clarion University, Venango Campus  
1810 West First Street  
Oil City, PA 16301

Re: DEP File No. D61-024

Dear Ms. Sobina:

Reference is made to the information John Rusnak, P.E., Herbert, Rowland & Grubic, Inc., submitted to this office on November 1, 2013, concerning removing accumulated silts and sediments from the reservoir impounded by the Clarion University-Venango Campus West End Pond Dam. The dam is located across a tributary to the Allegheny River in Oil City, Venango County.

Pursuant to Section 105.131(c) of the Department’s Rules and Regulations, removal of accumulated sediments from a reservoir area is considered maintenance and does not require further Department authorization provided this activity does not expand the reservoir volume beyond the original design storage capacity. Any activity expanding the reservoir area or depth requires a Water Obstruction and Encroachment Permit.

Because the pond/reservoir is considered waters of the United States, Federal authorization is required under the provision of Section 404 of the Clean Water Act, as amended, and/or Section 10 of the River and Harbor Act of 1899. The Pittsburgh Corps District has determined your project qualifies for Federal Authorization under the Pennsylvania State Programmatic General Permit (PASPGP-4). Please review all terms and conditions of the enclosed permit prior to beginning work.

Although no Department authorization is required under Chapter 105, Dam Safety and Waterway Management Regulations, to perform maintenance dredging, other state and federal authorizations may be required. To assure that you have all necessary authorizations to start your project, you are advised to make the following contacts prior to your removing accumulated silts and sediments from the reservoir:

- All earthmoving projects require a plan to control accelerated erosion and sedimentation. This plan may require a permit or prior approval. Questions regarding erosion and sedimentation control permitting requirements should be referred to the Venango County Conservation District at 814.676.2832.
PASPGP-4 Cover Sheet

☑ Army Corps of Engineers
  Pittsburgh District
  Regulatory Branch
  Federal Building, 20th floor
  1000 Liberty Avenue
  Pittsburgh, PA 15222-4186

☐ Army Corps of Engineers
  Baltimore District
  Pennsylvania Field Office
  1631 South Atherton Street
  Suite 101
  State College, PA 16801-6260

☐ Army Corps of Engineers
  Philadelphia District
  Waunakee Building
  100 Penn Square East
  Philadelphia, PA 19107-3990

Date: 1/31/14
From: 

Biologist Jack Kraeutler

Email jkraeutler@pa.gov

Phone 717.772.5959

☐ Please confirm receipt with reviewers listed above

DEP Application

Corps Permit # ______

The attached information is enclosed for the following reason:

☑ Category I  Application / State authorization / PASPGP-4 attached
  No further action required by the Corps

☐ Category II  Application / State authorization & ROD / PASPGP-4 attached
  No further action required by the Corps

☐ Category III  Application for Corps review (select applicable Cat III activities – see Part IV.C.)
  1. Corps review requested
  2. Exceeds thresholds
  3. Previous Fed Auth
  4. Endangered Species
  5. Dam Maintenance
  6. Historic
  7. Wild/Scenic Rivers
  8. No Restrictive Covenant
  9. EIS
  10. Delaware River
  11. Crosses PA Boundary
  12. Mining
  13. Mitigation Bank / ILF site
  14. Waiver 2
  15. Corps Civil Works

☐ Emergency Permit / PNDI receipt / PASPGP-4 attached
  Immediate ESA coordination required by the Corps
  Check this box for Emergency Permit with potential impacts to Federal Endangered Species, all other emergency permits check Cat I or Cat III as appropriate.

☐ Copy of State authorization & ROD (for Cat III applications reviewed by Corps)
  ☐ PASPGP-4 attached
  ☐ PASPGP-4 NOT attached (issued by Corps)

☐ Appears ineligible for PASPGP-4 due to ______
  (see Part III.A. of PASPGP-4 permit)

☐ Additional information
  ☐ pending permit
  ☐ permit modification
  ☐ other ______
PENNSYLVANIA STATE PROGRAMMATIC GENERAL PERMIT – 4
(PASPGP-4)
July 1, 2011

Please note: the full text of the PASPGP-4 may be viewed on the Baltimore District
web site at http://www.nab.usace.army.mil/Wetlands%20Permits/ or by calling the
Corps at 814-235-0570

Applicant: Debra D. Sobina, Director of Finance and Administration Clarion
University
State Authorization(s): Letter of Authorization for D61-024 dated 1/31/14

Corps District:

☐ Philadelphia
U.S. Army Corps of Engineers,
Philadelphia District
Regulatory Branch
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390

☐ Baltimore
U.S. Army Corps of Engineers,
Baltimore District
Regulatory Branch
1531 South Atherton Street
Suite 101
State College, PA 16801-6260

☒ Pittsburgh
U.S. Army Corps of Engineers,
Pittsburgh District
Regulatory Branch
Federal Building, 20th floor
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

It has been determined that your proposed project, which includes the discharge of dredged and/or fill
material and/or the placement of structures into waters of the United States, including wetlands, qualifies
for Federal authorization under the provisions of Section 404 of the Clean Water Act and/or Section 10 of
the River and Harbor Act of 1899, under the terms and conditions of the PASPGP-4.

All activities authorized under PASPGP-4 must comply with all conditions of the authorization,
including General, Procedural, and Special Conditions. Failure to comply with all the conditions of
the authorization, including project-specific conditions, will constitute a permit violation and may be
subject to criminal, civil, or administrative penalties, and/or restoration.

The authorized activity must be performed in compliance with the following General Conditions to be
authorized under PASPGP-4.

General Conditions:

1. Permit Conditions: The permittee shall comply with all terms and conditions set forth in the PADEP
authorization for use of this permit, including all conditions of Section 401 Water Quality Certification, and
any subsequent amendment or modification to such authorization. The permittee shall conduct all work
and activities in strict compliance with all approved maps, plans, profiles, and specifications used by
PADEP and/or the Corps as the basis for its authorization or subsequent modification of authorization.

2. Aquatic Life Movements: No activity may substantially disrupt the movement of those species of
aquatic life indigenous to the waterbody, including those species which normally migrate through the area,
unless the activity’s primary purpose is to impound water. Culverts placed in streams must be
appropriately depressed to maintain aquatic life movement and low flow conditions.

3. Threatened and Endangered Species: If an activity is authorized under the PASPGP-4, and a
 Federally listed threatened or endangered species, or proposed species or critical habitat, is subsequently
 found to be present, all work must cease, and the Corps and USFWS (or NMFS) must be notified. The
 PASPGP-4 verification is suspended and will not be re-issued until consultation pursuant to Section 7 of
 the ESA is concluded and adverse effects to Federally listed threatened, endangered, and proposed species
 and critical habitat are avoided.
Furthermore, persons have an independent responsibility under Section 9 of ESA to not engage in any activity that could result in the "take" of a Federally listed species.

4. Spawning Areas: The permittee shall comply with all time-of-year restrictions as set forth by the PFBC or other designated agency. Discharges or structures in spawning or nursery areas shall not occur during spawning seasons, unless written approval is obtained by the PFBC or other designated agency. In addition, work in areas used for other time sensitive life span activities of fish and wildlife (such as hibernation or migration) may necessitate the use of seasonal restrictions for avoidance of adverse impacts to vulnerable species. Impacts to these areas shall be avoided or minimized to the maximum extent practicable during all other times of the year.

5. Waterfowl Breeding and Wintering Areas: Activities including discharges of dredged or fill material or the placement of structures in breeding and wintering areas of migratory waterfowl must be avoided to the maximum extent practicable.

6. Shellfish Production: No discharge of dredged or fill material and/or the placement of structures may occur in areas of concentrated shellfish production, unless the discharge is directly related to an authorized shellfish harvesting activity.

7. Adverse Effects From Impoundments: If the activity, including the discharge of dredged or fill material or the placement of a structure, creates an impoundment of water, the adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow, including impacts to wetlands, shall be minimized to the maximum extent practicable.

8. Obstruction of High Flows: To the maximum extent practicable, the activity must be designed to maintain pre-construction downstream flow conditions (i.e., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters), and the structure or discharge of dredged and/or fill material shall be designed to withstand expected high flows.

9. Erosion and Sediment Controls: During construction, appropriate erosion and siltation controls must be used and maintained in effective operating condition in accordance with State regulations. All exposed soil and other fill material must be permanently stabilized.

10. Suitable Material: No activity, including discharges of dredged and/or fill material or the placement of structures, may consist of unsuitable material (i.e., asphalt, trash, debris, car bodies, etc.). No material discharged shall contain toxic pollutants in amounts that would violate the effluent limitation standards of § 307 of the CWA.

11. Temporary Fill: Temporary fill in waters and wetlands authorized by the PASGP-4 (i.e., access roads and cofferdams) shall be properly constructed and stabilized during use to prevent erosion and accretion. Temporary fill in wetlands shall be placed on geotextile fabric laid on existing wetland grade. Whenever possible, rubber or wooden mats should be used for equipment access through wetlands to the project area. Temporary fills shall be removed, in their entirety, to an upland site, and suitably contained to prevent erosion and transport to a waterway or wetland. Temporary fill areas shall be restored to their preconstruction contours, elevations, and hydrology and revegetated with non-invasive, native species.

12. Equipment Working in Wetlands: Measures must be taken to minimize soil disturbance when heavy equipment is used in wetland areas. These measures include, but are not limited to, avoiding the use of such equipment, use of timber mats or geotextile fabric, and the use of low pressure tire vehicles.

13. Installation and Maintenance: Any structure or fill authorized shall be properly installed and maintained to ensure public safety.

14. PASGP-4 Verification:
   a. The PASGP-4 expires June 30, 2016, unless suspended or revoked.
b. Activities authorized under a project specific PASPGP-4 expire June 30, 2016, unless suspended, revoked, or the PADEP authorization expires, whichever date occurs sooner. Activities authorized under the project specific PASPGP-4 that have commenced construction or are under contract to commence construction will remain authorized provided the activity is completed within 12 months of the date of the PASPGP-4’s expiration, modification, or revocation; or until the expiration date of the project specific verification, whichever is sooner.

15. One-Time Use: A PASPGP-4 authorization is valid to construct the project, or perform the activity, one time only, except for PASPGP-4 authorizations specifically issued for reoccurring maintenance activities.

16. Water Supply Intakes: No activity, including discharges of dredged and/or fill material and/or the placement of structures, may occur in the proximity of a public water supply intake and adversely impact the public water supply.

17. Cultural Resources: For all activities verified under a PASPGP-4, upon the discovery of the presence of previously unknown Historic Properties (historic or archaeological), all work must cease and the permittee must notify the SHPO and the Corps of Engineers. The PASPGP-4 authorization is not valid until it is determined, through the Section 106 consultation process, whether the activity will have an effect on the Historic Property. The PASPGP-4 may be reverified and special conditions added if necessary, after an effects determination on the Historic Property is made. The PASPGP-4 authorization may be suspended and/or revoked in accordance with 33 CFR 325.7 for the specific activity if an adverse effect on the Historic Property cannot be avoided or mitigated.

18. Tribal Rights: No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

19. Corps Civil Works Projects: The PASPGP-4 does not authorize any work which will interfere with an existing or proposed Corps Civil Works project (i.e., flood control projects, dams, reservoirs, and navigation projects). The permittee understands and agrees that, if future operations by the United States require removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal, relocation, or alteration.

20. Navigation: No activity authorized under PASPGP-4 may cause more than a minimal adverse affect on navigation. No attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein. In addition, activities that require temporary causeways that prohibit continued navigational use of a waterway (i.e., temporary causeways extending greater than ¾ the width across the waterway) shall be removed in their entirety upon completion of their use. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

21. Inspections: The permittee shall allow a District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to ensure that the work is being performed in accordance with all the terms and conditions of the PASPGP-4. The District Engineer may also require post-construction engineering drawings (as-built plans) for completed work.
22. **PASPGP-4 Permit Compliance Self Certification Form:** A Self Certification Form, regarding the PASPGP-4 authorized work and required mitigation, will be forwarded to each permittee with the PASPGP-4 verification. Every permittee, who receives a written PASPGP-4 verification, shall submit the signed Self Certification Form upon completion of the authorized work and required mitigation. The completed form shall be returned to the appropriate Corps District.

23. **Permit Modifications:** Any proposed modification of the authorized overall project that results in a change in the authorized impact to, or use of waters of the United States, including jurisdictional wetlands, must be approved by PADEP. Corps approval is also required if the overall project had been previously reviewed by the Corps as a Category III activity, or the proposed modification causes the overall project impacts to exceed 1.0 acre of waters of the United States, including jurisdictional wetlands, or 250 linear feet of streams, rivers, other watercourses and open water areas. Project modifications that cause the overall project impacts to exceed 1.0 acre of waters of the United States, including wetlands, may not be eligible for PASPGP-4 and will be forwarded to the Corps for review.

24. **Recorded Conservation Instruments:** As per Part IV.A.26 and Part IV.B.4 and Part IV.C.8 of this permit, proposed Draft Conservation Instruments may be submitted by the applicant as part of the permit application package for review and approval. When such proposed Conservation Instruments are submitted by the applicant, verification of the recorded deed restriction, conservation easement, or deed restricted open space area shall be forwarded to the appropriate Corps District and appropriate PADEP offices, prior to the initiation of any permitted work.

25. **Property Rights:** This PASPGP-4 does not convey any property rights, either in real estate or material, or any exclusive privileges; nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

26. **Navigable Waters of the United States (Section 10 Waters):** In addition to the conditions referenced above, the following conditions are applicable for navigable waters of the United States eligible for the PASPGP-4. The PASPGP-4 may be used to authorize work in the following navigable waters of the United States:

   a. Codorus Creek – from the confluence with the Susquehanna River 11.4 miles upstream to the Indian Rock Dam in York, Pennsylvania;

   b. Main Stem Susquehanna River – from the confluence with the Chesapeake Bay upstream to Athens, Pennsylvania (approximately 4 miles south from the New York State line);

   c. West Branch of the Susquehanna River – from the confluence with the main stem Susquehanna River upstream to the dam at Lock Haven, Pennsylvania;

   d. Chester Creek – from the confluence with the Delaware River 2 miles upstream;

   e. Crum Creek – from the confluence with the Delaware River 1 mile upstream to the upstream side of the dam at Eddystone;

   f. Darby Creek – from the confluence with the Delaware River 5 miles upstream to the upstream side of 84th Street Bridge in Philadelphia;

   g. Delaware River – from the Morrisville-Trenton Railroad Bridge in Morrisville, Pennsylvania, including the West Branch of the Delaware River, upstream to the Pennsylvania/New York border at the 42nd parallel;

   h. Lehigh River – from the confluence with the Delaware River 72 miles upstream to the downstream side of PA Route 940 Bridge;
i. Nesbitt Creek – from the confluence with the Delaware River, including the Nesbitt Creek Park Harbor Project at the mouth of Nesbitt Creek, 4 miles upstream to the downstream side of the Newportville Bridge;

j. Pennypack Creek – from the confluence with the Delaware River 2 miles upstream to the downstream side of Frankford Avenue Bridge in Philadelphia;

k. Ridley Creek – from the confluence with the Delaware River 1 mile upstream to the upstream side of the Baltimore and Ohio Railroad Bridge in Chester, Pennsylvania;

l. Schuylkill River – from the Fairmount Dam, 104 miles upstream to Port Carbon, Pennsylvania; and

m. Schuylkill Navigation Channel (Manayunk Canal) – along the Schuylkill River for two miles from the Flat Rock Dam to Lock Street in the Manayunk Section of Philadelphia, Pennsylvania.

27. For Aerial Transmission Lines Across Navigable Waters:

a. The following minimum clearances are required for aerial electric power transmission lines crossing navigable waters of the United States. These clearances are related to the clearances over the navigable channel provided by existing fixed bridges, or the clearances which would be required by the United States Coast Guard for new fixed bridges, in the vicinity of the proposed aerial transmission line. These clearances are based on the low point of the line under conditions producing the greatest sag, taking into consideration temperature, load, wind, length of span, and type of supports as outlined in the National Electrical Safety Code:

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<tr>
<th>NOMINAL SYSTEM VOLTAGE (kV)</th>
<th>Minimum additional clearance (ft.) above clearance required for bridges</th>
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<td>750-765</td>
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i. Clearances for communication lines, stream gauging cables, ferry cables, and other aerial crossings must be a minimum of ten feet above clearances required for bridges, unless specifically authorized otherwise by the District Engineer.

ii. Corps of Engineer regulation ER 1110-2-4401 prescribes minimum vertical clearances for power communication lines over Corps' projects. In instances where both this regulation and ER 1110-2-4401 apply, the greater minimum clearance is required.

b. Encasement: The top of the cable, encasement, or pipeline shall be located a minimum of three feet below the existing bottom elevation of the streambed and shall be backfilled with suitable heavy material to the preconstruction bottom elevation. Where the cable, encasement, or pipeline is placed in rock, a minimum depth of one foot from the lowest point in the natural contour of the streambed shall be maintained. When crossing a maintained navigation channel, the requirements are a minimum of eight feet
between the top of the cable, encasement, or pipeline and the authorized depth of the navigation channel. For maintained navigational channels, where the utility line is placed in rock, a minimum depth of two feet from the authorized depth of the navigation channel shall be maintained.

c. As-built drawings: Within 60 days of completing an activity that involves an aerial transmission line, submerged cable, or submerged pipeline across a navigable water of the United States (i.e., Section 10 waters), the permittee shall furnish the Corps and the National Oceanic and Atmospheric Administration, Nautical Data Branch, N/CS26, Station 7317, 1315 East-West Highway, Silver Spring, Maryland, 20910 with professional, certified as-built drawings, to scale, with control (i.e., latitude/longitude, state plane coordinates), depicting the alignment and minimum clearance of the aerial wires above the mean high water line at the time of survey or depicting the elevations and alignment of the buried cable or pipeline across the navigable waterway.

d. Aids to Navigation: The permittee must prepare and provide for United States Coast Guard (USCG) approval, a Private Aids To Navigation Application (CG-2554). The form can be found at: http://www.uscg.mil/forms/cg/CG_2554.pdf. Within 30 days of the date of receipt of the USCG approval, the permittee must provide a copy to the applicable Corps District.

By Authority of the Secretary of the Army:

David E. Anderson  
Colonel, Corps of Engineers  
District Engineer, Baltimore

Philip M. Secrist, III  
Lieutenant Colonel, Corps of Engineers  
District Engineer, Philadelphia

William H. Graham  
Colonel, Corps of Engineers  
District Engineer, Pittsburgh
PASPGP-4 PERMIT COMPLIANCE, SELF-CERTIFICATION FORM

Project Name: CUVC West End Pond Dam

PADEP Permit: D61-024

Corps Permit No. (if available): 

Waterway: Tributary to the Allegheny River

Applicant Name: Debra D. Sobina Clarion University

Date of Issuance: 1/31/14

County: Venango

Dear Permittee:

In accordance with the compliance certification condition of your PASPGP-4 authorization, you are required to complete and sign this certification form and return it to the appropriate Corps of Engineers District in which the work is located:

- [ ] U.S. Army Corps of Engineers, Philadelphia District
- [ ] U.S. Army Corps of Engineers, Regulatory Branch
- [x] U.S. Army Corps of Engineers, Pittsburgh District
- [ ] U.S. Army Corps of Engineers, Wenamaker Building
- [ ] U.S. Army Corps of Engineers, 100 Penn Square East

Please note that the permitted activity is subject to compliance inspections by U.S. Army Corps of Engineers representatives. As a condition of this permit, failure to return this notification form, provide the required information below, or to perform the authorized work in compliance with the permit, can result in suspension, modification or revocation of your authorization in accordance with 33 CFR Part 325.7 and/or administrative, civil, and/or criminal penalties, in accordance with 33 CFR part 326.

Please provide the following information:

1. Date authorized work commenced: 

2. Date authorized work completed: 

3. Was all work, including any required mitigation, completed in accordance with your PASPGP-4 authorization? [ ] YES [ ] NO

4. Explain any deviations (use additional sheets if necessary) __________

5. Was mitigation accomplished through an approved in-lieu fee program? [ ] YES [ ] NO (if YES please provide documentation, if NO complete Nos. 6 and 7 below).

6. Wetland Mitigation: Required? [ ] YES [ ] NO Required Completion Date __________

Completed? [ ] YES [ ] NO Mitigation Monitoring Reports Required? [ ] Yes [ ] No

7. Attach labeled photographs showing completed work including mitigation area(s) (not required for PADEP GP’s/Waivers)

I hereby certify that, except as noted above, that all work, including mitigation, has been completed in accordance with the terms and conditions, including special conditions of the above referenced permit.

Applicant's Signature: 

Address: 

Telephone: 

Email: 

Consultant/Agents Signature: 

Address: 

Telephone: 

Email: 
BMP Maintenance Cost Estimates (2007)

Routine maintenance costs can usually be predicted for an annual budget and may range from four percent of original capital construction costs per year for an EDB to nine percent of original capital costs per year for an infiltration BMP.

A general rule of thumb is that annual maintenance costs may run from $100 per acre for minor maintenance, such as mowing, to $500 per acre for more intensive maintenance including weed control, debris removal, etc.

Non-routine maintenance costs, however, can be substantial over the long run, especially when considering the possibility of eventual BMP replacement. To lessen the immediate financial impact of non-routine costs, it is advised that a BMP maintenance fund, with annual contributions, be established.

As an example, for EDBs, which need to have sediment removed once every two to ten years, ten to 50 percent of anticipated dredging costs should be collected annually. In addition, the average EDBs has a life expectancy of 20 to 50 years. A separate fund that collects two to five percent a year should be established for replacement. Anticipated interest may be used to offset the effects of inflation.

<table>
<thead>
<tr>
<th>Type of BMP</th>
<th>Sediment Removal Frequency</th>
<th>Facility Life Span*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention Pond</td>
<td>5 to 15 years</td>
<td>20 to 50 years</td>
</tr>
<tr>
<td>EDB</td>
<td>2 to 10 years</td>
<td>20 to 50 years</td>
</tr>
<tr>
<td>Sand Filter</td>
<td>Every 6 months or as required</td>
<td>20 to 50 years</td>
</tr>
<tr>
<td>PLD</td>
<td>5 to 10 years</td>
<td>10 to 25 years</td>
</tr>
<tr>
<td>Grass Swale/Grass Buffer</td>
<td>As needed</td>
<td>10 to 25 years</td>
</tr>
<tr>
<td>Porous Paving</td>
<td>3 to 4 times per year</td>
<td>25 years</td>
</tr>
</tbody>
</table>

*Assumes the facility is maintained on a regular basis.

Estimating and Planning for Non-routine Costs for BMPs

Costs for non-routine maintenance of BMPs are highly specific and will vary depending upon:

- the type, size, and depth of the facility;
- the volume of the sediment trapped in the BMP;
- the accessibility of the BMP; and
- whether or not on-site disposal of the sediment is possible.
Retention Pond and EDB Sediment Removal
The technique used to remove sediment from a retention pond or EDB is very site-specific. The information below provides an estimate of costs associated with the dredging process.

Mobilization and Demobilization of Machinery
Associated Costs: $1,000 to $10,000
Large retention ponds or regional facilities will often require a waterborne operation during which an excavator or a crane must be mounted to a floating barge and moved into position. For smaller ponds, larger ponds that can be drained or dredged from the shore, and extended detention basins, a perimeter or dry operation will usually suffice. In this case, a backhoe, truck equipment, or crane may be used to scoop out the sediment. Additional costs for the construction and restoration of access roads for trucks and heavy equipment may be accrued.

Dredging
Associated Costs: $10 per cubic yard to $20 per cubic yard
The cost of dredging a BMP depends on the volume of sediment removed. The cost (expressed by cubic yard) is largely influenced by the depth of the water and the distance between the excavation area and the “staging area” where sediment is transferred to trucks for removal. Another consideration is whether equipment can easily access the BMP bottom. The following equation can be used to estimate the volume of sediment in cubic yards.

<table>
<thead>
<tr>
<th>Equation to Estimate the Volume of Sediment in a BMP (in cubic yards)</th>
</tr>
</thead>
<tbody>
<tr>
<td>surface area ______ (acres) x depth of sediment ______ (feet) x 43,560 = ______ cubic feet</td>
</tr>
<tr>
<td>cubic feet ______ / 27 = ______ cubic yards</td>
</tr>
</tbody>
</table>

Disposal
Associated Costs: $5 per cubic yard - on-site to $47 per cubic yard - off-site
The primary determinant of disposal costs is whether on-site disposal is an option. If on-site disposal is not available, then locating a landfill or large area to apply the spoils may prove challenging and transportation costs may increase considerably. Dredged materials will require special disposal if found to contain hazardous materials.

Adding the likely costs of the sediment removal components establishes a range in which an owner can expect to pay for sediment/pollutant removal. For a facility with a small surface area (0.25 acres) overall costs can range from $4,000 to $10,000+. For a large facility (10 acres) overall costs can range from $170,000 to $550,000+.
<table>
<thead>
<tr>
<th></th>
<th>Maintenance</th>
<th>Annual Associated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLD</td>
<td>Removal of sediments and replacement of some level of soil is required periodically. Mulch should be replaced annually, or as needed.</td>
<td>Between $1,500 and $2,000, depending upon the size and complexity of the facility.</td>
</tr>
<tr>
<td>Grass Swale/Grass Buffer</td>
<td>Remove sediments, replace check dams (usually made of earth, riprap, or wood), reseed or sod (if grassed) or replace dead plants, every two years.</td>
<td></td>
</tr>
<tr>
<td>Porous Paving</td>
<td>Vacuum sediments from surface, twice a year.</td>
<td>Between $500 and $1,000, depending on the size of the facility.</td>
</tr>
<tr>
<td>Sand Filter</td>
<td>Remove the top filter cloth and remove/replace the filter gravel, when a semiannual inspection reveals that it is necessary. Remove and replace the filter cloth and gravel every three to five years.</td>
<td>Between $3,000 to $10,000, depending on the type and size of the sand filter and the amount of impervious surface draining to it.</td>
</tr>
</tbody>
</table>

If an oil sheen is present in the facility, it should be removed by a qualified oil recycler, which increases costs. Other expenses, such as removal of trash and hydrocarbons from water traps may also be required.

Removing sediment from stormwater facilities can be a considerable expense. Look for opportunities to reduce the amount of sediment entering the pond from the surrounding drainage area.

**Reference:** Information adapted from "Maintaining Stormwater Systems, A Guidebook for Private Owners and Operators in Northern Virginia", January 2007, Northern Virginia Regional Commission