



U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

American Recovery and Reinvestment Act Site Visit of the Botanic Garden of Western Pennsylvania

Report No. 12-R-0321

March 8, 2012



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Report Contributors:

Jean Bloom
Leah Nikaidoh
Kevin Collins
Stephanie Wake

Abbreviations

CFR	Code of Federal Regulations
CWSRF	Clean Water State Revolving Fund
EPA	U.S. Environmental Protection Agency
IUP	Intended Use Plan
OIG	Office of Inspector General
PA DEP	Pennsylvania Department of Environmental Protection
Pennvest	Pennsylvania Infrastructure Investment Authority

Cover photo: Mashuda mining activities on the site of the future Botanic Garden.
(EPA OIG photo)

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At a Glance

Why We Did This Review

The U.S. Environmental Protection Agency Office of Inspector General conducts site visits of American Recovery and Reinvestment Act of 2009 (Recovery Act) clean water projects. The purpose of this review was to determine whether amounts claimed by the Botanic Garden of Western Pennsylvania are eligible and allowable in accordance with the Recovery Act and the terms of the funding agreement.

Background

The Botanic Garden received \$1,368,894 with 100 percent federal loan forgiveness from the Pennsylvania Infrastructure Investment Authority (Pennvest) under the Clean Water State Revolving Fund program. The purpose of the project, funded with Recovery Act funds under the Green Project Reserve, was to install three permanent irrigation ponds to supply the Botanic Garden's future irrigation needs.

For further information, contact our Office of Congressional and Public Affairs at (202) 566-2391.

The full report is at:
www.epa.gov/oig/reports/2012/20120308-12-R-0321.pdf

American Recovery and Reinvestment Act Site Visit of the Botanic Garden of Western Pennsylvania

What We Found

The Botanic Garden used Recovery Act funds to construct ponds that are not being used for their stated purpose. The Botanic Garden's funding agreement with Pennvest states that the Botanic Garden will build irrigation ponds to collect, store, and recycle water for future irrigation needs. However, the ponds are being used as sediment ponds to capture runoff from a mining reclamation operation. Therefore, amounts claimed by the Botanic Garden for building the ponds are not eligible or allowable project costs under the Recovery Act and the terms and conditions of the funding agreement between the Botanic Garden and Pennvest.

Additionally, the Botanic Garden is operating, through a contractor, a for-profit surface mining reclamation operation that will generate revenue for the Botanic Garden. The Recovery Act funds were used to construct required mine sediment ponds that allow the mine to operate. The Botanic Garden's funding agreement with Pennvest contains an addendum that states that the recipient must comply with all relevant federal regulations. The Code of Federal Regulations (CFR), at 2 CFR 215.24(b)(3), requires all federal assistance agreement award recipients to deduct program income from the total cost of a project or program funded with federal monies. The revenue generated by the mining activity would be program income that must be used to offset the Recovery Act-funded project costs. By not offsetting the project costs with the program income, Recovery Act funds are reducing mining operation costs and thereby increasing the Botanic Garden's potential mining revenue.

What We Recommend

We recommend that the Regional Administrator, Region 3, recover from Pennvest all Recovery Act funds, totaling \$1,368,894, awarded to the Botanic Garden of Western Pennsylvania. We also recommend preventing the continued use of Clean Water State Revolving Fund funding for this project. If the full Recovery Act funds are not recovered, we recommend that the Regional Administrator reduce the project costs to be funded by the Recovery Act by the amount of program income earned by the Botanic Garden from mining operations and recover the amount earned in program income. Region 3, the Botanic Garden, and the commonwealth of Pennsylvania did not agree with the findings and recommendations in the report.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

March 8, 2012

MEMORANDUM

SUBJECT: American Recovery and Reinvestment Act Site Visit of the
Botanic Garden of Western Pennsylvania
Report No. 12-R-0321

FROM: Arthur A. Elkins, Jr.
Inspector General

A handwritten signature in black ink, appearing to read "Arthur A. Elkins, Jr.", is placed to the right of the "FROM:" field.

TO: Shawn M. Garvin
Regional Administrator, Region 3

This is our report on the subject site visit conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). The report summarizes the results of our site visit of the Botanic Garden of Western Pennsylvania.

We performed this site visit as part of our responsibility under the American Recovery and Reinvestment Act of 2009 (Recovery Act). The purpose of our site visit was to determine whether amounts claimed by the Botanic Garden are eligible and allowable in accordance with the Recovery Act and the terms of the funding agreement. The Botanic Garden of Western Pennsylvania received \$1,368,894 in Recovery Act funds with 100 percent federal loan forgiveness from the Pennsylvania Infrastructure Investment Authority under the Clean Water State Revolving Fund program.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to this report within 120 calendar days, or by July 6, 2012. You should include a corrective action plan for agreed-upon actions, including milestone dates. Your response will be posted on the OIG's public website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal. This report will be available at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact Melissa Heist, Assistant Inspector General for Audit, at (202) 566-0899 or heist.melissa@epa.gov; or Robert Adachi, Product Line Director, at (415) 947-4537 or adachi.robert@epa.gov.

Table of Contents

Chapters

1	Introduction	1
	Purpose	1
	Background	1
	Scope and Methodology	7
2	Botanic Garden Project Costs Should Be Recovered	8
	Recovery Act Funds Used to Construct Sediment Ponds for Mining Activity	8
	Conclusion	9
	Recommendations	10
	Botanic Garden, Region 3, Pennvest, and PA DEP Comments and OIG Evaluation	10
3	Botanic Garden Project Costs Must Be Reduced by Potential Program Income	11
	Botanic Garden Not Complying With Relevant Regulations	11
	Conclusion	13
	Recommendation	13
	Botanic Garden, Region 3, Pennvest, and PA DEP Comments and OIG Evaluation	13
	Status of Recommendations and Potential Monetary Benefits	15

Appendices

A	Botanic Garden Timeline of Events	16
B	Botanic Garden Response to Draft Report and OIG Evaluation	17
C	EPA Region 3 Response to Draft Report and OIG Evaluation	32
D	Pennvest Response to Draft Report and OIG Evaluation	39
E	PA DEP Response to Draft Report and OIG Evaluation	45
F	Distribution	50

Chapter 1

Introduction

Purpose

The U.S. Environmental Protection Agency (EPA) Office of Inspector General (OIG) conducted this review to determine whether amounts claimed by the Botanic Garden of Western Pennsylvania are eligible and allowable in accordance with the American Recovery and Reinvestment Act of 2009 (Recovery Act) and the terms and conditions of its funding agreement with the Pennsylvania Infrastructure Investment Authority (Pennvest).

Background

The President signed the Recovery Act on February 17, 2009. The purpose of the Recovery Act as it applies to EPA is to preserve and create jobs, promote economic recovery, and invest in environmental protection and other infrastructure that will provide long-term economic benefits. The Recovery Act provided EPA with \$4 billion for the Clean Water State Revolving Fund (CWSRF) to provide funds for upgrading wastewater treatment systems.

The Recovery Act required states to allocate at least 20 percent of their funding to the Green Project Reserve. Four types of projects are eligible for Green Project Reserve funding: green infrastructure, water efficiency improvements, energy efficiency improvements, and environmentally innovative activities. Even though these types of projects have always been eligible for CWSRF financing, the 20 percent requirement was intended to accelerate the incorporation of green and sustainable concepts into wastewater and drinking water projects.

Pennvest is empowered by Pennsylvania commonwealth law and the Pennsylvania Infrastructure Investment Authority Act 16 of 1988 to administer and finance the CWSRF in the state pursuant to the Water Quality Act of 1987. Pennvest is also empowered to administer Recovery Act funds in the commonwealth of Pennsylvania.

The Pennsylvania Department of Environmental Protection (PA DEP), under a memorandum of understanding with Pennvest dated April 23, 1997, provides technical and advisory services to Pennvest regarding the implementation and administration of the sewer, stormwater, and water infrastructure funding programs authorized by the Pennsylvania Infrastructure Investment Authority Act, the Safe Drinking Water Act Amendments of 1996, and the Water Quality Act of 1987. PA DEP provides technical assistance to Pennvest for Recovery Act-funded clean water and drinking water projects.

Botanic Garden of Western Pennsylvania

The Botanic Garden of Western Pennsylvania was founded in 1988 as “a regional, professional horticulture society” with goals “to promote and encourage horticulture and botany, the conservation of natural resources and the establishment and operation of a botanical garden in western Pennsylvania.” In 1991, the Botanic Garden became a 501(c)(3) nonprofit corporation. In the 1990s, the group began to look for a suitable site on which to build a garden. In 1998, the Botanic Garden signed a 99-year renewable lease with Allegheny County for 432 acres of land in the southwestern corner of Settler’s Cabin County Park located near Pittsburgh, Pennsylvania. The leased land was the site of significant coal mining in the 1920s.

During 2001–2003, the Botanic Garden worked with MTR Landscape Architects to design a master plan of the Botanic Garden. In 2003, a water quality study found that the future Botanic Garden’s main water source was so polluted with acid mine discharge from the abandoned mining that it could not be used for irrigation. Acid mine discharge occurs when iron pyrite in the mine is exposed to oxygen and water, producing salts and heavy metals including iron, manganese, nickel, and cobalt. Further, in 2004, Hurricane Ivan dumped 6 inches of rain on the future Botanic Garden site, overflowing the abandoned mines and resulting in flooding and landslides. The site needed reclamation before a garden could be developed. (See appendix A for a detailed timeline of Botanic Garden events.)

Reclamation Efforts

The Botanic Garden contracted with Mashuda Corporation in February 2008 to reclaim the abandoned mine site. Under the contract, Mashuda is required to extract the maximum amount of coal possible from the site, handle the sale of the coal, and collect all proceeds up to the lump sum price of \$7.9 million. All coal proceeds in excess of this lump sum go to the Botanic Garden. The estimated value of coal to be sold is \$9.1 million, which would result in an estimated profit of \$1.2 million for the Botanic Garden. The contract specifies that Mashuda will conduct the following reclamation activities:

- Planning, permitting, and engineering design and completion of all site preparation; and access, reclamation, and construction grading activities to obtain and conform with the Botanic Garden’s final land configuration
- Removal of the Pittsburgh No. 8 coal seam horizons and other carbonaceous material from the project area to facilitate reclamation and with the intent to eliminate the sources of existing acid mine discharge
- Obtaining all government approvals that Mashuda considers necessary for it to mine the site

Mashuda submitted a mining permit application to PA DEP on September 22, 2008. The proposed attachments to the permit, identified as modules, state that mining activities will include building six sediment ponds to capture runoff and provide retention time to allow for the settling of eroded particles before releasing water from the mine site. These ponds required a National Pollutant Discharge Elimination System permit, which Mashuda acquired in August 2008.¹ Mashuda's contract also included building five adjacent treatment ponds to treat the acid mine discharge collected in the sediment ponds to meet the water quality criteria established in the permit. On August 28, 2008, the Botanic Garden sent a letter to PA DEP and Mashuda requesting that the sediment ponds constructed on the property remain permanently on the site for the Botanic Garden's future use. On August 10, 2009, Mashuda received authorization from PA DEP to mine at the Botanic Garden site.

Recovery Act Funding for Botanic Garden

On May 29, 2009, the Botanic Garden submitted an application for Recovery Act funds to Pennvest. In July 2009, EPA Region 3 received the following documents from Pennvest and PA DEP, respectively, both of which included the Botanic Garden project:

- Intended Use Plan (IUP) listing the projects that would receive Recovery Act funds through the CWSRF program
- Green Project Reserve Checklist of CWSRF projects that would receive Recovery Act funds

Region 3 was responsible for reviewing the projects proposed for Recovery Act funding by Pennvest. Neither the IUP nor the Green Project Reserve Checklist provided to Region 3 mentioned mining activities associated with the Botanic Garden project. Instead, the project description states, "construction of 3 irrigation ponds to collect, store, and recycle 2.5 million gallons of water for irrigation of the botanic garden." The Botanic Garden project was evaluated by PA DEP, as required for all projects on the Green Project Reserve, and scored zero points out of 100 on its evaluation. EPA Region 3's response to our draft report states that this score is not indicative of the environmental benefits associated with the project.

In September 2009, the Botanic Garden issued a change order to Mashuda, removing two sediment ponds from the contract and decreasing the contract amount by \$30,000. In the Botanic Garden's application for Recovery Act funds, the project narrative stated that the Botanic Garden is "remediating former deep mining conditions" and "grading of the site occurs in conjunction with that cleanup." The application also stated that the Botanic Garden is:

¹ The National Pollutant Discharge Elimination System permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

Planning to construct 3 sediment basins that will be converted to permanent irrigation storage facilities at that time to supply the future irrigation needs of the gardens.

Regardless of PA DEP's zero-point rating of the project, Pennvest awarded a CWSRF grant to the Botanic Garden under the Recovery Act as a "green infrastructure" project of the Green Project Reserve. The funding agreement was signed on November 10, 2009, for \$1,368,894 with 100 percent federal loan forgiveness. According to the funding agreement, the scope of the project is to:

Install three permanent irrigation ponds that will collect, store and recycle 2.5 million gallons of water to supply the garden's future irrigation needs. A culvert will be installed that will provide permanent access to the garden.

Although a surface mining permit is included in the list of permits in exhibit F of the funding agreement with Pennvest, nowhere in the funding agreement, or in the description provided to EPA Region 3, does it state that ponds will be used for mining purposes as the Botanic Garden stated in its application. The project narrative in the application says "remediating former deep mining conditions," not for "mining purposes." The funding agreement states that construction of the project was to be completed by November 2011. The completion date has been extended to November 2012.

Pond Construction

The Botanic Garden put out a competitive bid for the construction of three sediment ponds in September 2009, and two contractors bid on the project: Mashuda and WG Land Company, LLC. The Botanic Garden signed a contract with WG Land, the low bidder, on November 2, 2009. According to WG Land's contract with the Botanic Garden, the project consisted of two phases. Phase I of the project is construction of the three sediment ponds (Ponds 2, 5, and 6). This phase also included the construction of a culvert to allow access to the site. Phase II of the project is conversion of the ponds for irrigation purposes, including the purchase of \$523,000 of 60-inch pipe that would be buried in Pond 6 and covered over with earth.

The contract between WG Land and the Botanic Garden for this Recovery Act-funded project stated that ponds constructed will initially be used as surface water and sediment control structures by Mashuda, as required by surface mining reclamation activities. The contract stipulated that, when no longer needed for reclamation activities, WG Land will construct drainage control systems, related underground water piping and storage systems, and a stream-crossing culvert. This description is similar to that in the Botanic Garden's application for Recovery Act funding. However, it is more specific than the scope of work language in the funding agreement and in the documentation provided to EPA Region 3, which does not

include that the ponds will initially be used for mining purposes. The contract also states that WG Land will complete construction of the entire project within 24 months of receiving the notice to proceed.

WG Land received authorization to proceed with the project from Pennvest on November 10, 2009, and began construction soon after. WG Land completed phase I of the project to construct the ponds that were needed for surface mining reclamation activities. The ponds were constructed to specifications, and all three ponds (Ponds 2, 5, and 6) were certified by Hiser Engineering and approved for use in Mashuda's mining operation by PA DEP on October 20, 2010.

Figure 1: Ponds 2 (left) and 5



Source: EPA OIG photos taken during site inspection, May 17, 2011.

Figure 2: Pond 6



Source: EPA OIG photos taken during site inspection, May 17, 2011.

Although WG Land completed work on phase I to specification, it ran into a number of problems that resulted in change orders to the Botanic Garden for additional funding. WG Land also had some financial problems that affected its ability to pay fuel companies. In a letter to the Botanic Garden president and project manager, the Botanic Garden's attorney stated that WG Land had not paid fuel companies in a direct contravention of the contract. As a result, in November 2010, the Botanic Garden issued a change order to WG Land, eliminating it from phase II (converting

the sediment ponds to permanent irrigation ponds) of the Recovery Act-funded project, worth \$593,000. WG Land voluntarily accepted the change order. Currently, no firm is under contract to complete phase II of the Recovery Act-funded project.

MTR Landscape Architects developed a master plan for the Botanic Garden in 2003 (figure 3). The plan did not include irrigation ponds. The OIG superimposed the ponds on the master plan to demonstrate where they are located in relation to other features in the garden plan. Pond 6 will eventually be covered up and converted to underground water storage, and will not be a visible pond incorporated into the plan. Ponds 2 and 5 will remain on the grounds and be incorporated into the final design of the Botanic Garden.

Figure 3: Botanic Garden master plan with Recovery Act-funded ponds superimposed by the OIG

Source: Botanic Garden of Western Pennsylvania website. Ponds superimposed by the OIG.

Mashuda did not begin mining until the ponds were built, as they were necessary to capture runoff from the mining. Mashuda estimated that the mining was 10 to 15 percent complete as of May 2011. In addition, Mashuda estimated that it would complete the mining in approximately 18 to 24 months, and it would be at least 3 years before reclamation is complete and the site can be transformed into a botanic garden.

Figure 4: Mashuda mining activities at the Botanic Garden site



Source: EPA OIG photos taken during site inspection, May 17, 2011.

Scope and Methodology

We conducted our audit work from May 2011 to September 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform our review to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objective.

To address our objective, we reviewed relevant background information on the recipient, the Botanic Garden of Western Pennsylvania. We analyzed the Botanic Garden's application for Recovery Act funds and its funding agreement with Pennvest. We also analyzed all relevant contracts and agreements the Botanic Garden had with subcontractors, including but not limited to Mashuda Corporation and WG Land Company, LLC. We reviewed any funds the Botanic Garden received from other sources, such as local communities and other federal or state agencies. We examined all payment requests and invoices to determine whether costs claimed under the CWSRF Recovery Act funding agreement were eligible and allowable costs to be claimed under the project.

We conducted a site visit of the Botanic Garden on May 17, 2011, currently functioning as Mashuda's surface mining reclamation, in Pittsburgh, Pennsylvania. During our site visit, we interviewed Botanic Garden officials as well as officials from all subcontractors. We also interviewed EPA Region 3, Pennvest, and PA DEP representatives.

Chapter 2

Botanic Garden Project Costs Should Be Recovered

The Botanic Garden used Recovery Act funds to construct ponds that are not being used for their stated purpose. The Botanic Garden's funding agreement with Pennvest for CWSRF Recovery Act funds states that the Botanic Garden will build irrigation ponds to collect, store, and recycle water for future irrigation needs. However, the ponds are being used as sediment ponds to capture runoff for Mashuda's mining and reclamation operation. Therefore, amounts claimed by the Botanic Garden from Pennvest for building the ponds are not eligible or allowable project costs to be funded under the Recovery Act and the terms and conditions of the funding agreement.

Recovery Act Funds Used to Construct Sediment Ponds for Mining Activity

The funding agreement states, in exhibit C:

The Botanic Garden of Western PA will install three permanent irrigation ponds that will collect, store and recycle 2.5 million gallons of water to supply the garden's future irrigation needs.

The agreement also includes installation of a culvert to provide permanent access to the garden.

WG Land's contract with the Botanic Garden states that the irrigation pond project will be conducted in conjunction with surface mining and reclamation activities. Further, the contract states that ponds:

Will initially be utilized as surface water and sediment control structures by Mashuda . . . and as such the construction activities are considered "surface mining activities" under applicable law.

The Botanic Garden entered into a contract with WG Land to build sediment ponds that will eventually be turned into irrigation ponds. However, construction of sediment ponds is not the purpose for which Recovery Act funds were provided under the funding agreement. The ponds are currently being used to capture runoff from surface mining and reclamation activities operated by Mashuda, and are not being used for their stated purpose under the funding agreement. The information included in WG Land's contract about initial use as sediment ponds was not included in the funding agreement, nor was it presented to EPA Region 3 in the project description or IUP provided by Pennvest. When interviewed in February 2011, the Region 3 CWSRF project officer was unaware that the site is a mining reclamation site and that the Botanic Garden does not currently exist.

Additionally, we do not know when, if ever, the ponds will be used for their stated purpose, due to the following:

- The ponds must be treated for acid mine discharge before they can be used for irrigation purposes.
- The ponds cannot be used for their stated purpose until Mashuda has completed its reclamation activities, which Mashuda estimates will take at least 3 more years. In addition, under Mashuda's mining contract, it can back out of the project at any time if the price of coal falls or if the project becomes economically unfeasible.
- Currently, no firm is under contract to complete phase II of the Recovery Act-funded project. The Botanic Garden issued a change order to WG Land, removing it from phase II due to financial problems. The Botanic Garden stated that it would like Mashuda, as the other bidder, to complete the work. However, no contract currently exists, and Mashuda representatives stated in our interview that Mashuda would not undertake the project until reclamation is complete.

Based on these issues, the Recovery Act-funded project was not completed by November 2011, as stated in the funding agreement. The completion date has been extended to November 2012. Further, the Botanic Garden may not be able to complete phase II of the project.

Because the ponds are not being used for their intended purpose under the funding agreement, we believe that the amounts claimed as of September 27, 2011, by the Botanic Garden from Pennvest through the Recovery Act, totaling \$736,596, are not eligible or allowable project costs to be funded under the CWSRF program. Additionally, we believe that the remaining funding of \$632,298 may not be used for its intended purpose under the funding agreement, the Botanic Garden may not be able to complete phase II of the project, and the project as currently constructed is not being used for its intended purpose.

Conclusion

The Botanic Garden received Recovery Act funding to build three irrigation ponds. The Botanic Garden contracted with WG Land to build sediment ponds for Mashuda's mining reclamation activities that will eventually be turned into irrigation ponds. These ponds are not currently being used for their stated purpose under the funding agreement between the Botanic Garden and Pennvest, and whether the ponds will ever be used for irrigation is uncertain. Therefore, these costs are not eligible or allowable under the Recovery Act and the terms and conditions of the funding agreement, and they should be recovered.

Recommendations

We recommend that the Regional Administrator, Region 3:

1. Recover from Pennvest all Recovery Act funds awarded to the Botanic Garden of Western Pennsylvania totaling \$1,368,894.
2. Prevent the continued use of CWSRF funding for this project.

Botanic Garden, Region 3, Pennvest, and PA DEP Comments and OIG Evaluation

We received responses to our draft report from the Botanic Garden, Region 3, Pennvest, and PA DEP. Each commenter disagreed with our finding and corresponding recommendations. However, they did not provide any information that would cause the OIG to change its finding and recommendations.

Region 3 offered a suggestion to replace our two recommendations with one, and asserted that the fundamental issue was that the project description in the IUP was not complete. We believe this suggestion is inappropriate as EPA cannot change existing funding documentation to retroactively validate the approval of the project. We believe that our current recommendations, as written, are the proper course of action.

We have included the full responses of Botanic Garden, Region 3, Pennvest, and PA DEP, along with the OIG's evaluation, in appendices B, C, D, and E, respectively.

Chapter 3

Botanic Garden Project Costs Must Be Reduced by Potential Program Income

The Botanic Garden is operating a for-profit surface mining reclamation operation through Mashuda that will generate revenue for the Botanic Garden. The Botanic Garden used EPA Recovery Act funds to construct mine sediment ponds required for the mine to operate. The Botanic Garden's funding agreement with Pennvest contains an addendum that states that the recipient must comply with all relevant federal regulations. The Code of Federal Regulations (CFR), at 2 CFR 215.24(b)(3), requires that program income be deducted from the total cost of a project or program funded. The revenue generated by the mining is program income, and the Botanic Garden does not have a provision for offsetting the Recovery Act-funded project costs. By not offsetting the project costs with the program income, Recovery Act funds are subsidizing the Botanic Garden's mining operation and thereby increasing its potential mining revenue.

Botanic Garden Not Complying With Relevant Regulations

The Botanic Garden's funding agreement with Pennvest contains an addendum on Recovery Act requirements. The addendum states, in item 19, that the contractor must comply with all applicable laws, regulations, and program guidance, including Office of Management and Budget Circular A-110 on Administrative Requirements and Office of Management and Budget Circular A-122 on Cost Principles, codified in 2 CFR Part 215 and 2 CFR Part 230, respectively. Further, the addendum defines a contractor as:

Any person, including, but not limited to, a bidder, offeror, loan recipient, grantee, or subgrantee, who has furnished or seeks to furnish goods, supplies, services, or leased space or who has performed or seeks to perform construction activity under contract, subcontract, grant, or subgrant with the Commonwealth....

The Botanic Garden is a contractor because it seeks to perform, under the terms of the funding agreement from the commonwealth, construction activity—in the form of the three ponds—through a subcontractor and therefore must comply with all applicable laws, regulations, and program guidance. Regardless of whether the subject award is considered a grant or a loan, the signed funding agreement includes an addendum stating that all contractors must comply with the relevant regulations. Title 2 CFR 215.24 provides for the treatment of program income earned by entities and is applicable to the funding agreement. Program income is defined as gross income earned by the recipient that is directly generated by a supported activity or earned as a result of the award. Program income includes, but is not limited to, income from fees for services performed, the use or rental of real or personal

property acquired under federally funded projects, the sale of commodities or items fabricated under an award, license fees and royalties on patents and copyrights, and interest on loans made with award funds.

The Botanic Garden contracted with Mashuda to reclaim the abandoned coal mine. Under the \$7.9 million contract, all excess coal proceeds will go to the Botanic Garden. Therefore, the Botanic Garden is operating a for-profit mining reclamation that will generate revenue for the Botanic Garden. To start and continue mining operations, Mashuda was required by the mining permit to design and construct sediment ponds that would catch runoff produced by the mining operation. Three of these sediment ponds were constructed by WG Land and paid for with EPA-provided Recovery Act funds under the Botanic Garden's funding agreement with Pennvest.

When WG Land finished construction of the first phase of the project, the ponds were certified by PA DEP. The pond certifications indicate that Mashuda could not begin mining until Ponds 2, 5, and 6 were installed per the specifications listed in the original Mashuda mining permit. The sediment ponds are an essential part of the ongoing surface mining reclamation, and revenue generated from the coal proceeds would be considered program income under the definitions in 2 CFR 215.24.

Specifically, 2 CFR 215.24 addresses three ways in which loan or grant recipients must account for program income related to projects financed in whole or in part with federal funds:

- Title 2 CFR 215.24(b)(1) states that program income shall be added to funds committed to the project by the federal awarding agency and recipient, and used to further eligible project objectives. This provision may apply if the cost of building the irrigation ponds exceeds the existing budget. However, there is no indication of budget overruns at this time. In fact, since no contractor has been selected for phase II of the project, the costs to complete the project are unknown.
- Title 2 CFR 215.24(b)(2) states that program income shall be used to finance the nonfederal share of the project. However, because the Botanic Garden received funding with 100 percent federal loan forgiveness, there are no matching costs that would result in a nonfederal share of the project.
- Title 2 CFR 215.24(b)(3) requires a recipient to deduct program income from the total cost of a project or program funded with federal monies. This regulation applies and directs that the Botanic Garden must account for program income.

Title 2 CFR 215.24(b)(3) is the appropriate option because the Botanic Garden applied for, obtained, and used Recovery Act funds to reduce the cost of its unrelated mining reclamation. Reducing the costs of its mining reclamation will increase the

profits the Botanic Garden receives through the coal proceeds. Therefore, Recovery Act funding will increase Botanic Garden profits.

As of April 26, 2011, the Botanic Garden estimated that Mashuda had excavated and shipped 13,190 tons of coal to a contracted buyer at a cash value of \$728,493. The estimated value of the coal that will be extracted and sold from the mining operation is \$9,132,964. Based on Mashuda's mining contract of \$7,926,980, the Botanic Garden could realize an estimated profit of \$1.2 million. Reducing the expenses of a profit-making enterprise is not a reasonable use of federal funds. Therefore, the Botanic Garden should deduct program income from the total project cost as described in 2 CFR 215.24(b)(3).

Conclusion

The Botanic Garden will generate revenue through Mashuda's mining reclamation. The sediment ponds built with Recovery Act funds are integral to mining activities. Therefore, mining revenues should be considered program income under federal regulations, and program income must be deducted from the total cost of the project. However, the Botanic Garden did not identify the potential coal proceeds as program income. By not offsetting the project costs with the program income, EPA Recovery Act funds are subsidizing the Botanic Garden's mining operation and increasing its potential mining revenue.

Recommendation

We recommend that the Regional Administrator, Region 3:

3. If the full Recovery Act funds of \$1,368,894 are not recovered, reduce the project costs to be funded by the Recovery Act by the amount of program income earned by the Botanic Garden from mining operations and recover the amount earned in program income.

Botanic Garden, Region 3, Pennvest, and PA DEP Comments and OIG Evaluation

We received responses to our draft report from the Botanic Garden, Region 3, Pennvest, and PA DEP. All respondents disagreed with our finding and corresponding recommendation. All responses stated that the program income requirements of 2 CFR 215.24 do not apply to the Botanic Garden for various reasons. As a result, we conducted an additional review of regulations and the funding agreement. We did not find any additional information to change our finding that the Botanic Garden must account for program income generated from the mining reclamation activities. Regardless of whether the funding is considered a grant or a loan, the signed funding agreement includes an addendum stating that all contractors must comply with the relevant regulations. If 2 CFR 215.24 does not

apply to the Botanic Garden, it should not have been included in the funding agreement.

We have included the full responses of Botanic Garden, Region 3, Pennvest, and PA DEP, along with the OIG's evaluation, in appendices B, C, D, and E, respectively.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
1	10	Recover from Pennvest all Recovery Act funds awarded to the Botanic Garden of Western Pennsylvania totaling \$1,368,894.	U	Regional Administrator, Region 3		\$1,369	
2	10	Prevent the continued use of CWSRF funding for this project.	U	Regional Administrator, Region 3			
3	13	If the full Recovery Act funds of \$1,368,894 are not recovered, reduce the project costs to be funded by the Recovery Act by the amount of program income earned by the Botanic Garden from mining operations and recover the amount earned in program income.	U	Regional Administrator, Region 3			

¹ O = recommendation is open with agreed-to corrective actions pending
 C = recommendation is closed with all agreed-to actions completed
 U = recommendation is unresolved with resolution efforts in progress

Botanic Garden Timeline of Events

1988	The Horticulture Society of Western Pennsylvania (now Pittsburgh Botanic Garden) was founded.
1998	Botanic Garden signs a 99-year renewable lease with Allegheny County for land in Settler’s Cabin County Park, located near Pittsburgh, Pennsylvania.
2003	MTR Landscape Architects completes a comprehensive master plan of the garden.
02/2008	Mashuda signs a \$7,926,980 mining contract to reclaim the site.
08/2008	Botanic Garden requests that sediment ponds constructed for mining remain on the property permanently.
09/2008	Mashuda submits a mining permit application to PA DEP.
05/2009	Botanic Garden submits application for Recovery Act funding to Pennvest.
07/2009	EPA Region 3 receives Intended Use Plan and Green Project Reserve Checklist.
08/2009	Mashuda receives authorization from PA DEP to mine on the Botanic Garden site.
09/2009	Botanic Garden issues a change order to Mashuda, removing two sediment ponds.
09/2009	Botanic Garden put out a request for proposal for three sediment ponds to be funded by the Recovery Act.
11/2009	Botanic Garden is awarded \$1,368,894 of Recovery Act Funds with 100 percent federal loan forgiveness to install three permanent irrigation ponds and an entry culvert.
11/2009	Botanic Garden signs a contract with WG Land as the low bidder for the Recovery Act-funded project.
10/2010	WG Land completes phase I of the Recovery Act-funded project and has Ponds 2, 5, and 6 certified.
10/2010	Mashuda begins mining.

Botanic Garden Response to Draft Report and OIG Evaluation



MEMORANDUM

TO: John Trefry
United States EPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Agency Mail Code 2421T
Washington, DC 20460

Shawn M. Garvin
Regional Administrator
United States Environmental
Protection
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

FROM: Pittsburgh Botanic Garden, Inc.
A Not-for-Profit 501(c)(3) Organization

DATE: October 31, 2011

RE: Response to Draft Site Visit Report: American Recovery and
Reinvestment Act Site Visit of the Botanic Garden of Western
Pennsylvania
Project No. OA-FY11-A-0218

I. INTRODUCTION

The Pittsburgh Botanic Garden, Inc. (“PBG”), a not-for-profit 501(c)(3) organization based in Pittsburgh, PA submits this response to the U.S. Environmental Protection Agency, Office of Inspector General (“OIG”), Draft Site Visit Report associated with the American Recovery and Reinvestment Act (“ARRA”) funded project in Settlers Cabin County Park, Allegheny County, Pennsylvania. As a charitable organization, relying largely on donations and grants, PBG is familiar with the utility of audits by granting agencies, organizations and donors. Having recently been audited by the Commonwealth of Pennsylvania with no substantive concerns regarding the use of ARRA funds to design and construct permanent stormwater collection, storage and irrigation facilities for garden development, PBG’s Board of Directors, staff and professionals were very disappointed by the conclusions derived by OIG. Compounding the disappointment is OIG’s very narrow perspective of a project that has been

under development for over 15 years.¹ By focusing on a snapshot view and a temporary aspect of site development, the OIG glossed over a wide spectrum of environmental site studies, pollution abatement technical requirements, regulatory support, environmental enhancement and the permanent benefits that the project provides.

Most surprising is the fact that the primary federal agency with jurisdiction concerning environmental protection, pollution remediation, brownfields recycling and sustainable development fails to recognize the nature of the project whose essence is to abate perpetual acid mine drainage (“AMD”) into the waters of the United States, remediate dangerous abandoned mine land conditions resulting from the region’s industrial legacy and allow unproductive and dangerous lands to be recycled for sustainable economic, recreational and aesthetic benefits. The following discussions provide information that leaves no doubt that the development of long term stormwater collection and irrigation facilities, as proposed and constructed by PBG, supported and approved by the Pennsylvania Department of Environmental Protection (“PADEP”), and funded by Pennvest utilizing ARRA funds is consistent with ARRA, goals and objectives including Readiness to Proceed, Job Creation, and the promotion of Water Conservation “Green” infrastructure projects. The following discussions provide information that leaves no doubt that the development of long term stormwater collection and irrigation facilities, as proposed and constructed by PBG, supported and approved by the Pennsylvania Department of Environmental Protection (“PADEP”), and funded by Pennvest utilizing ARRA funds is consistent with ARRA, goals and objectives including Readiness to Proceed, Job Creation, and the promotion of Water Conservation “Green” infrastructure projects.

II. BACKGROUND RELEVANT TO PROJECT

A. Abandoned Mine Lands - Vision for Reclamation

PBG has been in the process of developing a world-class botanic garden in Allegheny County, Pennsylvania since 1988, when it was founded as the “Horticultural Society of Western Pennsylvania.” It received tax-exempt status as a 501(c)(3) not-for-profit organization from the Internal Revenue Service in May 1991. Between 1991 and 1998, its members searched for an appropriate site to develop the Botanic Garden. In 1998, the

¹ It is noted that the report cover feature chosen by OIG to represent the project does not illustrate the actual permanent impoundments designed and constructed under the Pennvest ARRA project, but rather tends to support OIG’s apparent position that the project is a coal mine.

PBG selected a 280 acre site in Settlers Cabin County Park and entered into a 99-year renewable lease with Allegheny County, which was amended in 2006.² Notwithstanding that the property is located in a public park, the site unfortunately had been extensively coal mined by both underground and surface mining activities in the early and mid 1900s and meets the definition of “abandoned mine lands” (“AML”) under federal and state law.³ Abandoned mine land features associated with this property include acid mine drainage (“AMD”) discharges that pollute on-site and off-site streams, unreclaimed highwalls, unstable steep slopes, and significant mine subsidence conditions. As discussed below, PBG recognized that these conditions were inconsistent with the transformation of the site into a botanic garden and have been pursuing reclamation options for a decade.

In evaluating the property for garden development in 2002, PBG obtained funding from PA’s Nonpoint Source Program (funded by the EPA through section 319 of the Clean Water Act) to investigate the AMD problem. PBG engaged respected environmental and engineering consultants, GAI Consultants and Hedin Environmental, to complete a survey of the AMD discharges associated with the property and to provide pollution treatment recommendations. The consultants reported that the AMD problem was severe (100,000 GPD of water with pH 3 and high concentrations of toxic metals). PBG concluded that pollution treatment would be economically infeasible.



Acid mine drainage at the Pittsburgh Botanic Garden site. The water in the background averages 77 gpm with 3.0 pH, 39 mg/L aluminum, 10 mg/L iron, and 1 mg/L manganese.

² The Amended and Restated Lease was negotiated in large part due to the discovery of the magnitude of the abandoned mine features and consequent delay in developing the Botanic Garden.

³ See 30 U.S.C. § 1234; 30 C.F.R. § 700.5 and § 874.12; 52 P.S. §§ 5116, 5119.

Concurrent with the AMD investigation, other AML problems were inventoried. Surface mining in the 1950's and 60's left sinuous band of highwalls and steep unstable and landslide-prone slopes that needed reclamation before the public could be invited to the site. In many areas, ground above the deep mine had collapsed creating open subsidence holes into the mine voids below. The potential for more subsidence throughout the property is ever-present as it has been completely undermined. In September 2004, western PA was subjected to record rainfall when hurricanes Francis and Ivan passed through the region during one eight day period. At the unreclaimed site with its unmanaged non-point surface and mine water flows, the access road was washed out, trees on unstable mine out-slopes were lost, and a landslide occurred. AMD flows increased to unprecedented levels and were sustained at high rates well into 2005. PBG determined that comprehensive reclamation was mandatory if the garden was to proceed.



Subsidence hole located at the Pittsburgh Botanic Garden site. The subsidence is in the approximate location of a future parking lot.

The challenge to PBG has been to find the most cost-effective method to remediate these problems while not losing the vision of garden development. In pursuing economically feasible alternatives to reclaim the site, PBG learned that many AML sites have been reclaimed by private companies who partially finance the reclamation by recovering and marketing coal encountered during reclamation. PBG subsequently decided that this concept was the only economically feasible option available to eliminate the wide spread AML problems while simultaneously advancing the development of the botanic garden.

B. Irrigation Requirements: Optimizing Stormwater Management

A botanic garden has significant and sustainable irrigation needs. Following the hurricanes of 2004, the water pollution, landslides and subsidence conditions became more pronounced, and PBG recognized that complete site reclamation was necessary for a botanic garden free of the conditions and risks associated with the abandoned mines. Associated with that analysis was a review of potential alternative irrigation water sources. The use of AMD is precluded due to its toxicity, and developing and constructing water pollution treatment systems was impractical. Consistent with the eventual ARRA goals regarding water conservation, ultimately the decision was made to capture and recycle surface water from reclaimed properties for irrigation rather than purchasing potable water from a water utility as costs were estimated to reach up to \$70,000 per year. Stormwater collection and storage became the solution for irrigation. The development and utilization of permanent ponds for water storage and irrigation was considered consistent with sustainable site development during both construction and for permanent stormwater control and provided the added benefits of creating upland aquatic water features for the botanic garden. As the concept developed, however, it was recognized that permanent water storage impoundments must be designed and constructed according to different standards than temporary sediment ponds that would have been used during reclamation and grading. The ARRA Pennvest initiative provided the opportunity and additional funding to design and construct these impoundments as permanent features of the Botanic Garden.

C. OIG Misunderstanding of “Master Plan” Purpose

In attempting to support its narrow view that the permanent irrigation ponds were mere “sediment ponds” developed to support “mining,” OIG identified the fact that the design firm, M·T·R· Landscape Architects, LLC, developed a “Master Plan” for the Botanic Garden in 2003 and did not include permanent impoundments. OIG, however, misunderstands the nature of a Master Plan as it is an initial conceptual overlay of potential garden features on the real estate. It did not, nor could it, account for the three dimensional aspects of underground mines, subsurface groundwater flow from upgradient and hydrologically connected on and off-site underground mines, landslide features, subsidence openings and depressions, and related site conditions. A Master Plan, as developed by a landscape architect, is the first stage of a project where conceptual framework is prepared, however, it does not include any detailed designs or technical specifications. Such was the case in developing the Master Plan for the botanic garden since it did not, nor was it intended to, deal with permanent irrigation issues when it was developed and it did not consider the magnitude of the AML issues.

III. PROPERTY RIGHTS AND THE “DAYLIGHTING” RECLAMATION TECHNIQUE

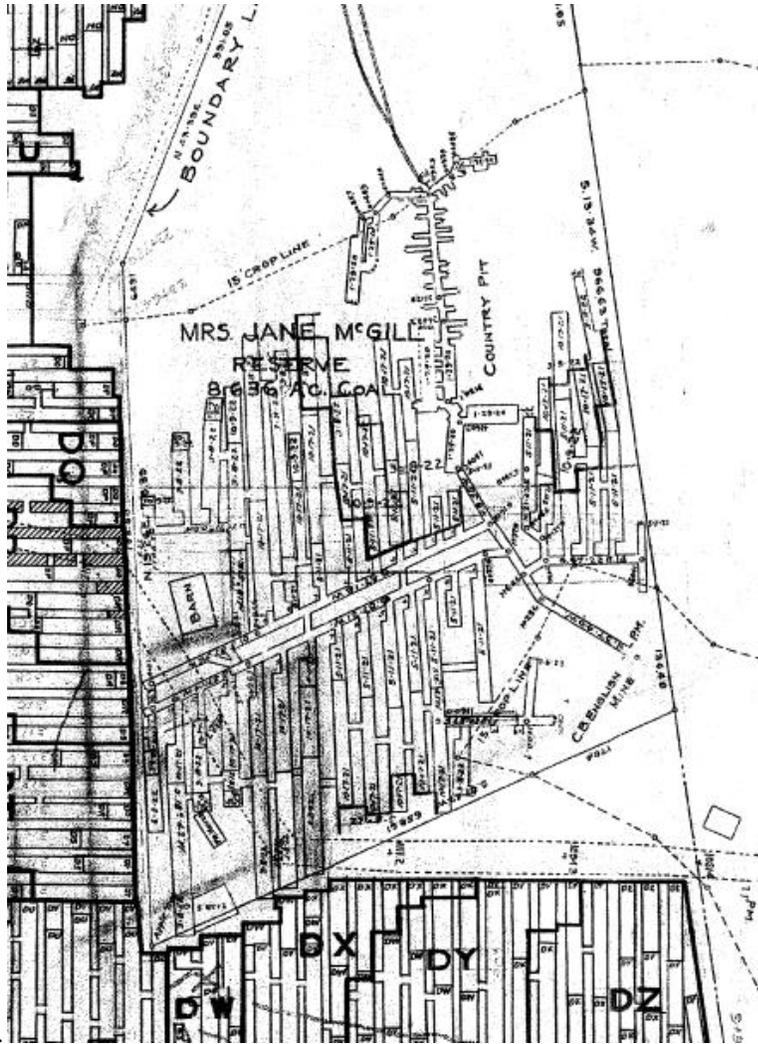
A. Property Rights

Since the surface estate and mineral estates were severed⁴ in the early 1900s, in order to fully reclaim the property, PBG needed control of both estates. As noted above, PBG had a surface lease with Allegheny County. To develop a complete reclamation plan, PBG sought and was deeded ownership interests in the remaining underground coal pillars from the mineral owner, Champion Processing, Inc. (“Champion”). As a charitable donation from Champion, by deed dated January 4, 2010, PBG received the remaining coal owned by Champion in Settlers Cabin Park and underlying the garden site.⁵

Having successfully obtained both the surface and mineral rights and after extensive engineering and technical review, PBG sought support for conducting the comprehensive reclamation plan through the well-documented mine reclamation technique referred to as “daylighting” the underground mines. Daylighting is a form of “remining” that removes the strata overlying the abandoned underground mine to expose and allow removal of the pollution and subsidence causing coal pillars and pyritic shales. It also allows total energy resource recovery. Using the technique, following coal removal the site is regraded to specific contours, topsoil is replaced and revegetated.

⁴ Ownership of any estate or interest in land may be severed from ownership of or an interest in any other part of the land. Thus, ownership of the surface, oil, gas, coal, limestone and any other definable part of the land are all capable of being severed and owned as separate estates. Such a severance can be made by deed, will, mortgage or lease.

⁵ See Coal Special Warranty Deed recorded in the real estate records of Allegheny County, Document No. 2010-1610, Book BK-DE-14162, Page 180.



Map of mine works beneath portion of Phase I Botanic Garden project.

B. EPA Supports Reclamation Technique

Throughout its Draft Report, OIG characterizes the reclamation project as a “mining project” but completely ignores the fact that since 1976, the EPA itself, along with many other federal and state regulatory agencies, has endorsed mine reclamation through remining as a highly effective method for lessening AMD and eliminating hazards and subsidence. In its 1976 “Feasibility Study: Deerpark Daylighting Project,” the EPA Office of Research Development concluded that “daylighting abandoned underground mines can be used to eliminate acid mine drainage from certain abandoned mine workings and also enhances the use potential of the land, minimizes the risk of future erosion, subsidence and stream sedimentation.”⁶ Of course, the reclamation project will extract the remaining coal but given the amount of federal research regarding AMD abatement and the limited federal funds available for AML reclamation, remining abandoned mine land projects are encouraged by federal and state agencies.⁷

As stated in the Pennsylvania regulations⁸:

“This subchapter provides incentives to encourage qualified operators to undertake reclamation and remining of abandoned mine lands and bond forfeiture sites for the purpose of eliminating hazards to human health and safety, abating pollution of surface and groundwaters and the contribution of sediment to adjacent areas, restoring land to beneficial uses and recovering remaining coal resources.”

The basis of the policy is a body of research that documents the benefits of reclamation projects through remining.⁹ EPA’s own Coal Remining Best Management Practices Guidance Manual¹⁰ states expressly:

⁶ EPA-600/2-76-110, June 1976.

⁷ See 30 C.F.R. §§ 773.13, 785.25; 52 P.S. § 1396.4h; 25 Pa. Code § 86.251. Pennsylvania encourages reclamation and remining of abandoned mine lands through five programs under the Surface Mine Conservation and Reclamation Act:

- Section 4.8 - Government Financed Reclamation and Construction Contracts
- Section 4.9 - Designating Areas Suitable for Reclamation by Remining
- Section 4.10 - Remining Operators Assistance Program
- Section 4.12 - Remining Financial Guarantees
- Section 4.13 - Reclamation Bond Credits

⁸ 25 Pa. Code § 86.251.

⁹ See, e.g., Hawkins, J.W., 1994. Statistical characteristics of coal-mine discharges on western Pennsylvania remining sites. *Bull. Water Resources* 30: 861-869; Hawkins, J.W. 1995. Characterization and effectiveness of remining abandoned coal mines in Pennsylvania. US Dept Interior, US Bureau of Mines RI 9562; Hawkins, J.E., Miller, K, Brady, K.B.C. and J. Cuddeback. 2002. Effectiveness of Pennsylvania’s remining program in abating abandoned mine drainage: Part 2 – Efficacy of best management practices. *In Proceedings of the 2002 Annual Meeting of the Society of Mining Engineers*, Feb 22-27, Phoenix, AZ; Skousen, J., Hedin, R., and B. Faulkner. 1997. Water quality changes and costs of remining in Pennsylvania and West Virginia. *In Proceedings of the 18th Annual West Virginia Surface Mine Drainage Task Force Symposium*, April 15-16, Morgantown, WV; Smith, M.W, Brady, K.B.C. and J.W. Hawkins. 2002.

“Review of existing data and information that was used to prepare this document indicates that re-mining operations accompanied by proper implementation of appropriate BMPs is highly successful in reducing the pollution load of mine drainage discharges. The information also shows that re-mining BMPs typically are used in combination as part of an overall and site-specific BMP plan. Critical to the effectiveness of a BMP plan in terms of water quality and AML improvement is that the plan is well designed and engineered, implemented as proposed, and that the implementation and subsequent post-mining results are verifiable.”

As a matter of fact, EPA itself has studied the concept and developed statistical summaries of its effectiveness and algorithms for analyzing abandoned mine sites that will benefit from re-mining.¹¹ In finding that daylighting the polluting, subsidence-prone mine was actually encouraged as the appropriate reclamation technique by EPA, among other regulatory agencies, PBG relied on the fact that several generations of federally funded environmental scientists, geologists and engineers recognize and support the method chosen for the PBG site.

C. Government Support

In developing public support for its vision, PBG met with senior PADEP officials including the Secretary, Deputy Secretary for Mineral Resources, regional PADEP administrators, the Allegheny County Executive, County Commissioners and senior staff. PBG attended numerous public hearings regarding the project. They also met with federal officials including both Pennsylvania Senators, the District Congressman, and the United States Department of Interior, Office of Surface Mining (“OSM”) Appalachian Region Director and state officials, all of whom applauded and reinforced the vision for reclaiming abandoned mine lands in an Allegheny County public park to a premium and permanent land use while abating pollution and providing a sustainable nucleus for local and regional economic development. The validity of PBG’s reclamation plan is further demonstrated by a recent site tour guided by US Department of the Interior and PADEP mining and reclamation staff where the site was used as an example of an ideal reclamation-through- re-mining project.

Effectiveness of Pennsylvania’s re-mining program in abating abandoned mine drainage: Part 1 – water quality improvements. *In* Proceedings of the 2002 Annual Meeting of the Society of Mining Engineers, Feb 22-27, Phoenix, AZ; Smith, M.W., Smith, K.B.C. and J.W. Hawkins. 2002. Effectiveness of Pennsylvania’s re-mining program in abating abandoned mine drainage: water quality impacts. *Trans Soc. Min. Metal. Exploration* 312: 166-170; US Environmental Protection Agency. 2001. Coal Re-mining – Best Management Practices Guidance Manual. EPA-821-B-01-010. 624 pp.

¹⁰ EPA-821-B-01-010, December 2001.

¹¹ See Coal Re-mining Statistical Support Document, EPA-821-01-011, published by EPA’s Office of Water, Engineering and Analysis Division, discussing the Clean Water Act, § 301 (Rahall Amendment) supporting incentives and encouraging re-mining as a method to abate perpetual AMD.

IV. RECLAMATION CONTRACTOR

As the project evolved from the original lease with Allegheny County, to meetings and discussions with local, state and federal agencies, studying the site conditions and developing a comprehensive reclamation plan, in 2007, PBG finally issued a Request for Proposals to conduct the reclamation and construction project. Following field meetings, clarification sessions and interviews with prospective contractors, the Mashuda Corporation (“Mashuda”) was chosen as the preferred contractor for numerous reasons including its extensive experience in daylighting underground mines to allow highway construction for the Pennsylvania Turnpike Commission and Pennsylvania Department of Transportation, its reputation for high quality and efficient, large earth-moving projects and the very important fact that it would accept the recovered coal as its primary consideration for the project. In February 2008, the Reclamation and Construction Grading Agreement (“Reclamation Agreement”) was executed under which Mashuda was responsible for all of the means and methods associated with the reclamation project including any permitting, coal removal and sales and land grading. The contractor was also granted a license to remove and do its best to sell any recovered coal.

It was originally anticipated that the project would be conducted under a Government Financed Construction Contract (“GFCC”)¹² between Mashuda and the PADEP. It was later determined by the PADEP that the framework and environmental controls found under its permitting program supporting reclamation by remining would provide a better regulatory template for its review rather than the GFCC, hence Mashuda sought and obtained a surface mining permit for the reclamation project. Regardless of the regulatory vehicle used for review by the PADEP, the project is widely known and acknowledged as one of the most creative and visionary reclamation projects in the Appalachian coal fields.

V. DRAINAGE CONTROL: OPTIMIZING SURFACE HYDROLOGY

Construction projects including reclamation projects must meet surface water control and discharge requirements under the Clean Water Act. As discussed above, the project designers, M-T-R, and consultants associated with the project recognized that the Botanic Garden would require significant water resources for irrigation purposes

¹² See 52 P.S. § 1396.4h, under which Pennsylvania encourages and authorizes incidental and necessary removal of coal to support reclamation of abandoned mines.

The use of polluted groundwater is obviously precluded, and the purchase of public water for irrigation purposes would be too expensive and inconsistent with sustainable development concepts. Therefore, the concept of optimizing surface water recovery and conservation use by designing the surface grading plan and construction of permanent irrigation impoundments and an underground water storage system to capture and retain stormwater was developed. The PBG design team determined it would be wise to develop permanent stormwater retention basins that would far exceed minimal and temporary requirements for the reclamation project.

PBG engaged Civil and Environmental Consultants (“CEC”) to optimize permanent pond locations consistent with a grading plan and surface hydrology. CEC chose three out of six pond areas for permanent impoundments. CEC also developed plans and specifications according to standards for permanent impoundments as opposed to smaller temporary sediment ponds ordinarily used in grading, reclamation or mining projects. For example and notwithstanding OIG’s characterization of the impoundments as mere “sediment ponds,” enhanced sized/permanent impoundments require significant materials handling, lift construction, compaction standards requirements, embankment slopes and outfall controls that would not otherwise be required. PBG recognized that it would be most efficient and cost effective from a construction management perspective for the reclamation project to temporarily use the permanent impoundments for sediment control. As noted throughout this response, one of the reasons for conducting the daylighting operation is to abate the acid mine drainage, therefore, it was well known that along with controlling stormwater, by intercepting the mine voids, the contractor would also encounter polluted mine drainage. The mine drainage requires various levels of chemical treatment prior to being discharged and handling both surface and groundwater encountered with the project must be as efficient as possible. Any intercepted AMD is collected and treated in separate treatment ponds which then may be discharged into the permanent impoundments prior to discharge to the waters of the United States. However, such interim and transient uses of the permanent impoundments in providing sediment control and possibly receiving treated polluted water encountered in excavation of the remaining coal pillars does not belie that they are permanent impoundments engineered and constructed to collect, store and recycle 2.5 million gallons of water to supply the garden’s future irrigation needs as stated in the Pennvest/ARRA application. Further and compelling is that the Phase II portion of the project, which OIG fails to address, includes the installation of a large underground stormwater storage system that has no relation with the active reclamation activities.

VI. CONTRACT DOCUMENTS/FULL DISCLOSURE

PBG's interest in reclaiming the abandoned mines associated with its leased property in Settlers Cabin County Park has been widely publicized and discussed, the subject of many meetings with high-level governmental officials, engineering and environmental professionals, and has been the destination of numerous site tours with both public and private sector officials, donors and contractors. PBG has been an "open book" in obtaining its lease, obtaining mineral ownership, defining the site conditions and problems, developing long term solutions and obtaining contributions in support of its vision. When President Obama announced the ARRA and it was determined that Pennsylvania would pursue projects through Pennvest, PBG knew that it had a "shovel ready" project and applied for a grant in May 2009. At that time, it was widely known by the PADEP and subsequently by Pennvest that the project involved reclamation that would abate pollution and adverse abandoned mine conditions and required coal removal. During the summer of 2009 and concurrent with the Pennvest review of PBG application, the Mashuda permit application was also being reviewed, and ultimately approved in August of 2009. In September 2009, the plans and specifications for the enhanced permanent irrigation ponds and water storage system were developed and consistent with federal bidding requirements, the availability of bid documents was published in the Pittsburgh Tribune. It fully described the nature of the project. See Attachment A.

The Pennvest application submitted by PBG made no attempt to disguise the fact that a construction of irrigation ponds as permanent impoundments would temporarily be used during reclamation activities. The ARRA application did not require an extensive discussion; however, the "Project Narrative" expressly states:

"HSWP is remediating former deep mining conditions of 180 ac of its 452-ac site, located in Settlers Cabin County Park. Grading of the site occurs in conjunction with that cleanup, and we are planning to construct (3) sediment basins that will be converted to permanent irrigation storage facilities at that time to supply the future irrigation needs of the garden. . . The proposed ponds combined will have the capacity to collect, store, polish and recycle 2.5 million gallons of surface runoff, which is water the Botanic Garden would otherwise have to purchase from a municipal drinking water source. . . "

Although perhaps the description of the reclamation technique could have provided more detail, that is a distinction without a difference. The fact is that the ponds were planned for and will be used as described in the application – for future irrigation needs of the garden. Further, PBG viewed the project as a wise use of funds in support of a public benefit project and consistent with the goals of

sustainable development, green projects, water conservation and ARRA desire for “shovel-ready” projects.

In its supporting documentation submitted to Pennvest, the contract with Mashuda was fully disclosed and the fact that a surface mining permit was the chosen regulatory vehicle. The Pennvest ARRA funded Irrigation Ponds and Water Storage System Construction Agreement, also reviewed by Pennvest, was carefully drafted in a manner to fully integrate those activities with the Reclamation Project and even addressed the prospect of multiple contractors working on the same property in pursuit of one goal: the development of the botanic garden. It expressly describes the Reclamation Agreement and obligations of contractor cooperation. The RFP, advertisement and subsequent Agreement went to lengths to inform prospective and the selected contractor that the Reclamation Project would be in a coal removal regulatory environment and therefore forewarned them that all activities would be viewed through the regulatory lens of a mining operation, particularly from a worker safety perspective. The funding agreement with Pennvest therefore incorporates the plans and specifications, contract terms and special conditions related to the reclamation project as they are incorporated into the ARRA funded contract.

VII. COAL RESOURCES

The daylighting operation envisions overburden removal and carefully removing the remaining coal pillars and associated carbonaceous material, which is the source of acid mine drainage. As noted above, PBG received the coal as a charitable contribution from Champion on January 4, 2010. But for the fact that there might be coal resources at a depth to make them economically recoverable, there would be no way to reclaim Settlers Cabin land for any public purpose. The fact that Mashuda agreed to the extensive reclamation work with payment primarily coming from its potential sale of any coal recovered in recreating a tract suitable for a botanic garden was consistent with the PBG purpose and vision, encouraged by law, public officials and private donors. Since PBG is a not-for-profit 501(c)(3) organization, the use of its coal for reclamation services on its land should not be viewed as providing a “profit” to PBG. To the contrary, PBG is using a charitable contribution to further its related and primary purpose, that is, the development of a world class botanic garden in a public park for the benefit of the region while reclaiming abandoned mine lands and abating perpetual acid mine discharges. Further, the extent of coal recovery is unknown, as is the price of coal at any point in time. There is no way to know the value of the remaining coal. The Mashuda contract provides a fixed cost for the reclamation activity and all

parties are hoping that the old coal companies and “pillar robbers” following them in the Depression, left enough to allow the metamorphosis of this site from an industrial legacy to an oasis in Allegheny County, Pennsylvania. The OIG imputes that PBG is a profit-making entity and mischaracterizes a well considered solution to an environmental dilemma as a “coal mine” not worthy of ARRA support. Nothing could be further from the truth.

VIII. CONCLUSION

PBG respectfully requests that the United States Environmental Protection Agency, Office of Inspector General reconsider its conclusions in light of the information submitted in this response. By viewing the entire Botanic Garden development history, challenges and benefits, and how the Pennvest ARRA project effectively and efficiently supports those goals, it should be clear that providing funds for stormwater collection and storage is consistent with ARRA goals and objectives.

OIG Response: The Botanic Garden provided a great deal of background information on its history in an attempt to demonstrate that its project is consistent with Recovery Act goals and objectives. We recognize this background information and included much of it in our own report.

The OIG understands that complete site reclamation was necessary for development of the Botanic Garden site due to acid mine drainage issues. We also understand that Recovery Act funds provided the opportunity to design and construct these irrigation ponds as permanent features of the garden. We agree that the purpose stated in the funding agreement to install “3 irrigation ponds to collect, store, and recycle 2.5 million gallons of water for irrigation of the botanic garden” is consistent with Recovery Act goals and objectives. However, as observed in our site visit in May 2011, the ponds are currently being used for reclamation activities to capture mining runoff. Although these sediment ponds may eventually be converted to irrigation ponds as stated in the funding agreement, we maintain that the ponds are not now being used for their intended purpose. The funding agreement is the official contract or legal document that we must base our review on. It did not contain any language on the ponds initially being used for reclamation activities. In our report, we do not take the view that the OIG and EPA discourage reclamation activities, as the Botanic Garden suggests in its response. Instead, our role is to review the use of Recovery Act funds in light of applicable federal regulations and governing funding agreements. The Botanic Garden claims that it “was well known” that polluted mine drainage would be encountered and states that it has been an “open book” throughout its endeavors. However, during our review we found that EPA Region 3 was unaware that reclamation activities were taking place and that the ponds were being used as mining sedimentation ponds prior to being converted to irrigation ponds.

The Botanic Garden stated that the OIG did not address the phase II portion of the project. On the contrary, the OIG specifically addresses phase II of the project in the “Background” section of chapter 1 as well as in the chapter 2 discussion of our first finding. We state in chapter 2 that one of our concerns regarding phase II of the project is that it will never be completed, and we described three reasons for this concern. First, the ponds must be treated for acid mine drainage prior to being used for irrigation. Second, the ponds cannot be used for their stated purpose until Mashuda has completed its

mining activities. Finally, there is currently no one under contract to compete phase II of the project. In its response, the Botanic Garden did not provide any plausible date or realistic timeline for when the ponds will actually be used for irrigation, the purpose stated in the ARRA funding agreement. The Botanic Garden also did not address any of these three concerns we listed in our report.

With regard to chapter 3 of our report, the Botanic Garden argues that the program income regulation does not apply because the Botanic Garden received the coal as a charitable contribution from the mineral owner, Champion. However, Mashuda's contract with the Botanic Garden does not state that the coal is a charitable donation; the contract only states that excess proceeds go to the Botanic Garden. Additionally, the funding agreement, which was signed by the Botanic Garden, contained federal requirements, including the program income regulation. Accepting the funds and signing the funding agreement was a voluntary measure that the Botanic Garden undertook. By signing the funding agreement, the Botanic Garden agreed to follow the federal regulations.

In summary, the Botanic Garden did not provide the OIG with any information that would cause us to change our findings and recommendations.

EPA Region 3 Response to Draft Report and OIG Evaluation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

November 7, 2011

SUBJECT: Draft Site Visit Report:
American Recovery and Reinvestment Act
Site Visit of the Botanic Garden of Western
Pennsylvania Project No. OA-FY11-A-0218

FROM: Shawn M. Garvin
Regional Administrator, Region III
U.S. Environmental Protection Agency

TO: Robert Adachi
Director of Forensic Audits
U.S. Environmental Protection Agency
Office of the Inspector General

Thank you for the opportunity to comment on the September 29, 2011 draft report on the American Recovery and Reinvestment Act (ARRA) Site Visit of the Botanic Garden of Western Pennsylvania, Project No. OA-FY11-A-0218. The draft report references two (2) findings:

Draft Findings

1. “The Botanic Garden used Recovery Act funds to construct ponds that are not being used for their stated purpose. The Botanic Garden’s loan agreement with PENNVEST states that the Botanic Garden will build irrigation ponds to collect, store, and recycle water for future irrigation needs. However, the ponds are being used as sediment ponds to capture runoff from a mining operation”; and
2. The Botanic Garden is operating, through a contractor, a for-profit surface mining operation that will generate revenue for the Botanic Garden and that the revenue generated by the mining activity would be program income that must be used to offset the Recovery Act-funded project costs. By not offsetting the project costs with the program income, Recovery Act funds are reducing mining operation costs and thereby, increasing the Botanic Garden’s potential mining revenue.

Regarding the draft finding that neither the Intended Use Plans (IUP) nor the Green Project Reserve Checklist provided to Region III make any mention of mining activities associated with the Botanic Garden project, it is accurate that the project description states “construction of three (3) irrigation ponds to collect, store, and recycle 2.5 million gallons of water for irrigation of the botanic garden.” Although the construction of stormwater ponds is an eligible project to receive funding under the Clean Water State Revolving Loan Fund Program (CWSRF), Region III concurs that the project description could have better captured the full breadth of what is happening and planned at the site by indicating that the work was to occur in two (2) phases.

Under Phase 1, the Botanic Garden built three permanent irrigation ponds, which are not currently being used for their stated purpose. The ponds could have been built when the site preparation work (re-mining activity) concluded. To keep costs and construction activity down, the applicant, a non-profit, integrated construction of the ponds with other construction activity. Although not specifically detailed in the project description, stormwater sedimentation ponds are an eligible project under the CWSRF. It is fully expected that at the end of the mine reclamation process, the ponds will be cleaned, a fourth pond will be constructed and one (1) pond will be converted to an underground irrigation pond through the installation of storage tanks as part of a “Phase 2”. The transformation of mine scarred land to a botanic garden is a significant environmental accomplishment.

Regarding the draft finding that the mining activity is creating program income for the Botanic Garden, loan recipients are not subject to the federal grant regulations and the grant regulations, by their terms, do not apply to loan recipients. The draft report cites an older Office of Management and Budget (OMB) guidance (OMB Circular A-110, requirements for federal grants with nonprofit organizations). OMB Circular A-110 is now located in the Code of Federal Regulations (CFR) at 2 CFR Part 215. EPA adopted these regulations; they are located at 40 CFR Parts 30. The program income section in 40 CFR 30.24 is essentially the same as 2 CFR 215.24. The section applies to grant and subgrant recipients as opposed to loan recipients under a grant. The definition section in the grant regulations excludes loans from the definition of award. The appropriate section is 40 CFR 30.2(e) in the EPA grant regulations and 2 CFR 215.2(e) in the OMB A-110 guidance:

(e) Award means financial assistance that provides support or stimulation to accomplish a public purpose. Awards include grants and other agreements in the form of money or property in lieu of money, by the Federal Government to an eligible recipient. The term does not include: technical assistance, which provides services instead of money; other assistance in the form of loans, loan guarantees, interest subsidies, or insurance; direct payments of any kind to individuals; and, contracts which are required to be entered into and administered under procurement laws and regulations.

There is a similar definition of “grant” in EPA's grant regulations covering state and local grant recipients at 40 CFR 31.3:

Grant means an award of financial assistance, including cooperative agreements, in the form of money, or property in lieu of money, by the Federal Government to an eligible grantee. The term does not include technical assistance which provides services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Also, the term does not include assistance, such as a fellowship or other lump sum award, which the grantee is not required to account for.

Based on the language above, loan recipients are not required to follow the grant requirements that are in Part 30 or Part 31 grant regulations. The regulations apply to grant and subgrant recipients. Region III does not concur with this finding since the grant regulations are not relevant as they do not apply to loan recipients by their terms.

Proposed Recommendation

The draft report recommends that the Regional Administrator, Region III, recover from PENNVEST ARRA funds in the amount of \$1,368,894 awarded to the Botanic Garden of Western Pennsylvania. It is also recommended that Region III prevent the continued use of CWSRF funding for this project. To date, \$736,596 was spent by Botanic Garden on “Phase 1,” i.e. the construction of three (3) stormwater retainage ponds and a culvert. \$632,298 remains available for “Phase 2”. The use of SRF funding for stormwater management ponds and/or water reuse are eligible projects, therefore, the incurred costs are eligible. Since the fundamental issue is the project description provided in the IUP, EPA suggests a more appropriate recommendation is to ensure that complete project descriptions are provided to EPA as part of the IUP approval process. EPA will request that PENNVEST review the ARRA, FY’ 10, and FY’ 11 IUPs within six months and confirm that project descriptions accurately depict the funded activity. Any differences will be reported to EPA and if warranted, amendments will be made to IUPs.

Thank you for the opportunity to provide input. It is EPA’s intent to continue to closely monitor this project through completion. At a minimum, we will request quarterly status updates from PENNVEST and the Pennsylvania Department of Environmental Protection. Attached are additional comments for your consideration which relate to the factual accuracy of the draft report. Should you have any questions regarding this response, please contact Ms. Magdalene Cunningham, CWSRF Coordinator, at 215-814-2338.

Attachment

OIG Response: With regard to finding 1 of our report, EPA Region 3 agrees that the project description could have better captured the full breadth of the project. However, Region 3 states that although the use of ponds as stormwater sedimentation ponds is not detailed in the project description, this use is eligible under the CWSRF. We agree that

the use of these ponds for the mining reclamation process may be eligible under the CWSRF, but we maintain that it is not eligible under the funding agreement. The funding agreement does not include any language on the ponds being initially used as sedimentation ponds; therefore, we believe that they are not being used for their intended purpose as irrigation ponds for the Botanic Garden. Region 3 asserts that the fundamental issue was that the project description in the IUP was not completed and suggested that a more appropriate recommendation would be to combine our two recommendations with one that states, “ensure project descriptions are provided to EPA as part of the IUP approval process.” We do not believe that this proposed recommendation is appropriate, as EPA cannot change existing funding documentation to retroactively validate the approval of this project. The Botanic Garden did not describe the ponds as sedimentation ponds to EPA throughout the funding approval process. Additionally, the Region 3 CWSRF project officer was unaware that the ponds were being used for mining reclamation activities until the OIG brought it to her attention. We do not consider it appropriate to change the IUP description to legitimize the project. We retained our draft report recommendation.

With regard to finding 2 of our report, the funding agreement addendum states in item 19 that the contractor must comply with all applicable laws, regulations, and program guidance, including the federal regulation on program income. The funding agreement is a legal and valid document; thus, the requirement applies to the Botanic Garden project.

EPA Region 3 made a number of points on regulations applying to grant recipients versus loan recipients that dispute our finding. In our draft report, we referred to the Recovery Act funding awarded to the Botanic Garden as a loan, and to the contract as the loan agreement. Region 3’s response states that because the Botanic Garden is a loan recipient rather than a grant recipient, 2 CFR 215.24 on allocation of program income does not apply. However, regardless of whether the subject award is considered a grant or a loan, the signed funding agreement includes an addendum stating that all contractors must comply with the relevant regulations. If 2 CFR 215.24 does not apply to the Botanic Garden, it should not have been included in the funding agreement. We retained our draft report recommendation and deleted references to a “loan agreement.” The final report includes the term “funding agreement,” as that is the term used in the official document.

In addition, OIG conducted an additional review of the regulations and the funding agreement between Pennvest and the Botanic Garden. In this review, we found that the funding agreement specifically refers to the funding as a grant with federal loan forgiveness. The funding agreement states, “All references to Loan Amount shall be the intended repayment amount and all references to Grant Amount shall be the intended principal forgiveness amount.” Additionally, the project specific terms of the funding agreement lists loan amount as \$0 and grant amount as \$1,368,894 with federal loan forgiveness. The funding agreement provides contradictory language stating that the funding agreement is a grant with loan forgiveness. Regardless of whether the funding agreement is a grant or loan, the inclusion of the requirements in the addendum requires compliance with 2 CFR 215.24.

Attachment
Specific Comments

Chapter 1

1. Page 3, first bullet and 4th Paragraph: The report refers to plural Intended Use Plans (IUPs). There was only one IUP although it was amended to add additional projects. The Botanic Garden project was included in the amended IUP.

OIG Response: We agree, and we adjusted the report accordingly.

2. Page 3, second bullet: The report incorrectly states that PENNVEST provided the Green Project Reserve (GPR) Checklist. The Checklist was Region III's documentation of its review of the information provided by the Pennsylvania Department of Environmental Protection (PADEP).

OIG Response: We agree, and we adjusted the report accordingly.

3. Page 3, 3rd Paragraph: The report states that "the region could not add projects or suggestions to any of the projects." This is not an accurate description of the Region's review of the State's IUPs. EPA routinely asks questions and requests additional documentation to ensure projects are eligible. Requests for additional documentation were sent to PENNVEST and PADEP to ensure the American Recovery and Reinvestment Act (ARRA) projects were eligible, especially for the GPR.

OIG Response: During our field work, we found conflicting information on this point. However, to address Region 3's concern, we deleted this sentence from our report.

4. Page 3, 3rd Paragraph: The report states that the project "scored 0/100" on PADEP's evaluation. The score is not indicative of the environmental benefits associated with the project. It is the result of:
 - Non-point source projects, such as this one, are not required to be individually ranked in the CWSRF program.
 - PADEP's project ranking system at the time the project was scored was designed for conventional stormwater projects; the system was not designed or intended to rate the environmental benefits achieved by a project of this type.
 - Although not required, PADEP has revised its project ranking system to include all nonpoint source projects.
 - ARRA stated that projects were to be funded "notwithstanding the priority rankings they would otherwise receive..." The overall project is the transformation of a deep mine with associated acid mine drainage into a botanic garden. The mine reclamation activities being conducted are designed to remediate existing water quality impairment. The stormwater runoff from the mine site is causing water quality problems. Local streams, Robinson Run and Chartiers Creek, are listed as impaired from acid mine drainage.

OIG Response: We understand that this score may not be indicative of the environmental benefits associated with the project. However, this score was the criterion used for the evaluation, and if it was not relevant, it should not have been used. We modified the report to include Region 3's concern on this point.

5. Page 4, 2nd Paragraph: The report states that the authority for the PENNVEST loan was under Section 319 of the Clean Water Act (CWA) as a "green infrastructure" project of the Green Project Reserve. Green Infrastructure projects were specifically included in ARRA, not Section 319 of the CWA.

OIG Response: We agree, and we adjusted the report accordingly.

6. Page 6 of the report states: "Currently, no firm is under contract to complete Phase II of the project." PENNVEST informed EPA that the Botanic Garden is in the process of procuring another contractor to complete the project work. PENNVEST indicates that Phase II of the project will be completed before June 30, 2013.

OIG Response: While we acknowledge this information, we believe that our concern that no firm is under contract to complete phase II is a valid concern, and we did not change any text in our report in response to this comment.

Chapter 2

7. Page 8, last paragraph: The report misstates the nature of the non-ARRA mine reclamation activity being conducted by the Botanic Garden under the contract with Mashuda by referring to it as "an active coal mine operated by Mashuda" and "operating surface mine."

The reclamation activities are being conducted under a PADEP permit issued under Subchapter F of the Chapter 87 Mining Regulations which applies to re-mining abandoned sites that have a pre-existing discharge. This permit was issued with the intent to improve local water quality. Similarly, a goal of the CWSRF program is to implement projects that address existing water quality problems. This project meets the eligibility criteria of the CWSRF program.

OIG Response: We understand Region 3's concern with describing the site as "an active coal mine" and "operating surface mine." Although these descriptions reflect what we found during our site visit to the Botanic Garden, we agree that re-mining is considered reclamation activities. We changed some text throughout our report to demonstrate that mining is in fact reclamation. However, although addressing existing water quality problems is a goal of the CWSRF program and is eligible under the CWSRF program, we maintain that reclamation activities are not what Recovery Act funding was provided for.

8. Page 9, 1st paragraph: The draft report states that the Office of the Inspector General does not know when, if ever, the ponds will be completed. The draft report lists three reasons. The first two bullets will not impact commencement of Phase II construction. It is contemplated and planned that the ponds will be cleaned out prior to use for irrigation. Secondly, Mashuda only needs to be finished mining in the area of the irrigation ponds for Phase II to commence. PENNVEST informed EPA all work associated with the construction of the ponds is expected to be completed before June 30, 2013. This is six months before the Commonwealth's grant project period ends. There are safeguards in place to ensure that PENNVEST is able to require the repayment of funds should the gardens not be completed.

OIG Response: We disagree with Region 3 that the first two bullets will not impact phase II construction. Throughout our review, we did not find any information to indicate that the acid mine discharge infected ponds can feasibly be used for irrigation before they are treated. Second, although phase II construction can commence when Mashuda is done mining in the area, the ponds will not be used to irrigate the Botanic Garden until the entire reclamation activity is complete and the Botanic Garden is developed. While Region 3 claims that Pennvest has safeguards in place to ensure project completion, such safeguards were not apparent in our review. Therefore, we did not change our report text in response to these concerns.

Chapter 3

9. Page 11, first sentence: The report states: "The Botanic Garden is operating a for-profit surface mining operation through Mashuda that will generate revenue for the Botanic Garden." As explained above, Mashuda received a permit for "mine reclamation" and is not an active "mining operation". The revenues generated by the mine reclamation activities are currently paying for that work. The Botanic Garden has not received any of the estimated revenue from the mine reclamation activities. It is inappropriate to suggest the offsetting of actual costs since no revenues are being generated by the Botanic Garden and since the loan recipient is not subject to program income requirement.

OIG Response: As we described above in our response to comment 7, we have changed text throughout the report to demonstrate that mining is in fact reclamation. With regard to the comment on program income, our response to Region 3 states that we believe that the Botanic Garden is subject to the program income requirement.

Pennvest Response to Draft Report and OIG Evaluation

October 25, 2011

Mr. John Trefry
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 2421T
Washington, DC 20460

Re: Botanic Garden of Western Pennsylvania
ME No. 73167

Dear Mr. Trefry:

This correspondence is in response to the draft Site Visit Report your office forwarded to EPA Region III dated September 29, 2011 in regard to the Botanic Garden of Western Pennsylvania project funded with ARRA money, approved by the PENNVEST Board of Directors in July 2009 as a principal forgiveness loan, and included in the Intended Use Plan dated July 21, 2009.

Report Chapter 1 – Introduction

Purpose/Background/Botanic Garden of Western PA/Reclamation Efforts – No Comment

Recovery Act Funding for Botanic Garden

The Project Priority List (PPL) only provides a general description of funded water conservation projects; no reference to mining operations is warranted as the PENNVEST funded project in question relates to storm water recovery and recycling for irrigation facilities.

As explained by the Pennsylvania Department of Environmental Protection (DEP) and PENNVEST staff during the OIG site investigation, this project meets all priority standards set for the state by Congress and EPA to approve ARRA projects. These include Readiness to Proceed (Settlement completed and construction begun prior to February 17, 2009); Job Creation (15 jobs were estimated to be created at the time of approval) and the promotion of “green” infrastructure projects (the purpose of this project is to store and recycle 2.5 million gallons of water and reduce the amount of treated water needed for irrigation, tying this project directly to supporting water conservation and green infrastructure categories). The priority system used to score this particular project was not a good fit for non-point source projects, but was

used consistently for all projects of this nature in order to help sort out fundable projects for consideration. All Non-Point Source Green Project Reserve projects that were technically complete and ready to proceed within the prescribed timeframes were recommended to the PENNVEST Board for funding.

The final point made in this section makes reference to mining operations. I am informed that this re-mining operation was evaluated and given a permit under the DEP Chapter 87 Regulations. This permit could not have been issued unless the re-mining actions were intended to remediate an existing water quality problem caused by former mining. The PENNVEST funded project is not to re-mine the area; rather it is to construct the water runoff recycling ponds to be used for irrigation of the Botanical Gardens. Final completion of the facilities and installation of tankage will take place prior to June 2013 (deadline for use of ARRA funds).

Pond Construction –

The final comment in this section relates to timing of the reclamation project. This schedule is not directly related to the completion of the recycling ponds funded through the PENNVEST program. Further, we have been informed by the applicant that portions of the Botanic Garden are already in place, and the expectation is to phase completion of the facility.

Scope and Methodology – No Comment

OIG Response: PA DEP's project criteria resulted in a score of zero points out of 100 for the Botanic Garden project. PA DEP stated that the project criteria they used were not a good fit for non-point source projects; however, they did not cite this in the evaluation. In addition to the PA DEP evaluation, the Green Project Reserve Priority List, dated July 21, 2009, rated the Botanic Garden project as -291 for a Pennvest/Recovery Act project. The Botanic Garden was the only project with a negative Recovery Act rating to be approved by PA DEP and Pennvest.

Additionally, we concur that the Pennvest/Recovery Act-funded project is to construct ponds to be used for irrigation. However, during our site visit to the Botanic Gardens, we observed that the ponds built with the Pennvest/Recovery Act funds are not currently being used for irrigation. Instead, they are being used to catch mining runoff. Nowhere in the funding agreement does it state that the ponds will initially be used for mining. Therefore, we maintain that the ponds are not being used for their intended purpose as described in the funding agreement—the official contract that we based our review on. Additionally, although the planned final completion of the project is prior to the deadline for the use of Recovery Act funds, there is currently no one under contract to complete the project, and mining activities are estimated to be finished in 2014.

Report Chapter 2 – Botanic Garden Project Costs Should Be Recovered

The recipient had a choice to make when implementing this project to construct the storm water collection recycling ponds. One alternative would be to wait until all work on the site had been completed and then re-enter the site and construct the facilities on the designated site after all other reclamation work had been performed. The alternative chosen path was to integrate the construction work with other necessary activities in order to achieve the end result with less overall construction activity. This will keep costs down. Another benefit is that this will function as an interim facility to control runoff while the site is being reclaimed and ready to develop those portions of the Botanic Gardens. Reducing mobilization costs and utilizing these recycling ponds to expedite the reclamation process is a benefit of the project management expertise of this not-for-profit entity and adds to the overall cost-effectiveness of this project.

This is not significantly different from a contractor setting up temporary soil and erosion control facilities for a traditional wastewater treatment facility while under construction, but removed after the treatment plant has been finished and final grading and seeding has been completed. The difference here is that the money spent on these recycling ponds will not be wasted, as they are not to be removed, rather they will be improved to complete the second phase of this effort and provide for a long-term process to collect and provide water to support the Botanic Garden. No additional funding is being spent to implement this project in this fashion, the activity is eligible, the ponds are being used in the interim to control run-off from the site, and they would have been constructed to the same base level for the long term use in the collection and recycling activities.

The suggestion that the ponds, as currently constructed, are not being used for the original final purpose is true. The problem is that this is an incomplete statement. The ponds are in the stage they are supposed to be at this time, until phase 2 completes the improvements as described in the approval. As another example, it would be like not allowing the excavation and foundation work to be part of a treatment plant project because the excavation and foundation do not provide for treatment of wastewater. In both cases, the completed project will provide for the facilities to function as designed.

PENNVEST staff has been in contact with the Botanic Garden staff and have an updated implementation schedule that will provide for the completion of the PENNVEST funded portion by spring 2013.

OIG Response: The OIG reviewed this project in light of applicable federal regulations and the funding agreement. The funding agreement is the official contract in which details of the project are laid out and the document we must use to achieve our objective of determining whether these funds were used appropriately. We observed during our site visit and understand that phase II of the project is not yet complete. We do not believe that our statement that the ponds are not being used for their intended purpose is incomplete, because the funding agreement does not indicate that the ponds will ever be

used for mining purposes. Even when the project is completed, the ponds would have been used for mining initially, followed by irrigation. We understand that conducting the two projects simultaneously benefited the Botanic Garden by keeping costs down; however, Recovery Act funding was not provided to the Botanic Garden for this reason. We maintain that Recovery Act funds awarded to the Botanic Garden should be recovered.

In addition, we maintain our concern that the project may never be completed for the reasons listed in chapter 2 of our report. Based on our review, Mashuda estimates that mining reclamation activities will continue for at least 3 more years, meaning the current sediment ponds will not be ready for conversion to permanent irrigation ponds until at least 2014. Additionally, after mining is completed, the ponds must be treated for acid mine discharge before they can be used for irrigation. Finally, as mentioned in our comment above, no company is under contract to complete phase II of the Recovery Act-funded project to convert the ponds to permanent irrigation facilities. These issues support our recommendation that Recovery Act funds should be recovered, as there is no assurance that the project will be completed as intended.

Report Chapter 3 – Botanic Garden Project Costs Must Be Reduced by Potential Program Income

The OIG report is incorrect in their assumption that this project violates Title 2 CFR 215.24 because there is program income. Title 2 CFR Parts 215 and 230 apply to federal grants made directly to non-profits; they do not apply to the CWSRF and; therefore, do not apply to this project. The CWSRF grant is to the state, and the loan (not a grant) is made under the CWSRF by the state to the non-profit organization.

OIG Response: The Botanic Garden’s funding agreement with Pennvest contains an addendum on additional Recovery Act requirements. The addendum states in item 19 that the contractor must comply with all applicable laws, regulations, and program guidance, including Office of Management and Budget Circular A-110 on Administrative Requirements and Circular A-122 on Cost Principles, codified in 2 CFR Part 215 and 2 CFR Part 230, respectively. Pennvest states in its response that this principle does not apply to the Botanic Garden; however, it is included as a requirement in the funding agreement Recovery Act addendum. The funding agreement is a legal and valid document; thus, the requirement applies to the Botanic Garden project.

Summary –

The site visit report suggests that \$1,368,894 be recovered and that no CWSRF funds be used for the water recovery and conservation activities encompassed by the project.

This recommendation is based upon an incorrect interpretation of the project and the requirements that follow ARRA and CWSRF funding.

The ultimate goal is to proceed with the installation of the three irrigation ponds to collect, store and recycle 2.5 million gallons of water to supply the Botanic Gardens irrigation needs. DEP has told us that proper reclamation of the mine site necessitates re-mining of the site in order to ensure proper closing and long term remediation. This is necessary to promote the ultimate use of the site and adequate disposition of water runoff.

The expectation that the IUP and Green Reserve Checklist would include detail as to how a related, but not directly funded, activity is expected to impact this project is stretching the process. The IUP lists are to focus on funded projects/activities. Detail on work to prepare the sites is never included in those descriptions. This work is preliminary and necessary for the water quality/conservation project to move forward. To install the water recycling and irrigation ponds prior to this occurring would add costs to the overall project and could be considered poor construction management. The added benefit to the site and the savings of project costs by providing the temporary function of collection run off from the site is consistent with accepted construction practices; reducing the overall project cost and mitigating the level of surface disturbance and erosion control issues by using the same pond sites to be worked as the permanent recycling and irrigation facilities. The focus of this project is water providing a long term irrigation supply for the Botanical Garden currently under construction. This project addresses those issues in a comprehensive fashion. The fact that the project will also support the proper closure of the mine is an added benefit that actually facilitates attainment of the project's fundamental purpose. Most importantly, in our view, this incidental activity does not add any costs that would otherwise be incurred to achieve the fundamental purpose of this project.

I also enclose a copy of the project review performed by an independent consulting firm on contract with the Pennsylvania Office of Budget Comptroller's office. This detailed review provides additional background regarding the project ownership and scope of work. I would like to point out a couple of comments made by this consultant on page 2 of their report:

To paraphrase the 3rd Paragraph, they indicate that the final completion of the botanic attraction is primarily funded through an RACP grant (Commonwealth of PA) already awarded and that even if that scope of work never occurs, the first two phases can serve as a complete standalone project, as an environmental problem will have been addressed and long term storm water management implemented.

I hope this addresses your concerns in regard to you draft report. I urge you to reconsider your position on this project and support the clean water green initiative being implemented in Allegheny County.

OIG Response: We understand that the reclamation activities were necessary for the water quality/conservation project to move forward. We also understand that the IUP and Green Project Reserve Checklist would perhaps not include all of this information. However, we remain concerned that the EPA was not notified throughout the application process that the project would initially be used for mining. We found that the Region 3 Recovery Act project officer for CWSRF funds did not know that the Botanic Garden is currently a coal mining reclamation site. Recovery Act funding was not provided so that the ponds could initially be used for mining reclamation activities, followed by conversion to permanent irrigation ponds.

We disagree with Pennvest's comments regarding the project review performed by the Pennsylvania Office of Budget Comptroller's office. Pennvest states that "even if the [second] scope of work never occurs, the first two phases can serve as a complete standalone project." This may be true, but the purpose of the Recovery Act-funded project is to "install three permanent irrigation ponds that will collect, store and recycle 2.5 million gallons of water to supply the garden's future irrigation needs." If the final phase to convert the land to a Botanic Garden is not completed, the project is not meeting its intended purpose under the funding agreement. We agree that the project does address a long-term stormwater management issue, but this issue was not the purpose of Recovery Act funding.

Sincerely

Paul K. Marchetti
Executive Director

Enclosure

cc: Maggie Cunningham
Veronica Kasi
Jayne Blake
Larry Gasparato
Brion Johnson

PA DEP Response to Draft Report and OIG Evaluation



OFFICE OF WATER MANAGEMENT

October 31, 2011

Mr. John Trefry
US EPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 2421T
Washington, DC 20460

Dear Mr. Trefry:

I am writing to you in response to the US EPA Office of Inspector General Report, "American Recovery and Reinvestment Act Site Visit of the Botanic Garden of Western Pennsylvania."

Funding was provided to the Botanic Garden of Western Pennsylvania. The Botanic Garden is a non-profit entity organized to construct a large public botanical garden at an old abandoned coal mine site. The ARRA funded project is designed to conserve water and promote innovative use of stormwater control practices.

The three recommendations of concern in the report are:

1. EPA Region 3 Administrator should recover from PENNVEST all American Recovery and Reinvestment Act (ARRA) funds awarded to the Botanic Garden of Western Pennsylvania totaling \$1,368,894.
2. EPA Region 3 Administrator should prevent the continued use of Clean Water State Revolving Loan Fund (CWSRF) funding for this project.
3. If the full Recovery Act loan amount of \$1,368,894 is not recovered, reduce the project costs to be funded by ARRA by the amount of program income earned by the

Botanic Garden from mining operations and recover the amount earned in program income.

These recommendations are based on, what I believe to be, a misunderstanding of the project, its environmental benefits and its fit as a CWSRF project. The report does not acknowledge the environmental benefits of the project nor does it specifically explain why the project is ineligible.

Please consider the following:

1. The report mentions the ranking framework for the project and the lack of points for environmental benefit. What the report does not detail is the explanation of the framework that my program staff provided to the OIG investigators. ARRA guidelines required agencies to prioritize funding based on 1) readiness of project to proceed to construction, 2) potential for job creation, and 3) the promotion of “green” infrastructure. This project met all three of the criteria.

OIG Response: During our interview with PA DEP’s Recovery Act Green Project evaluator, he stated that he did not know the ponds would be used for mining purposes when he evaluated the project. For a comprehensive, effective evaluation to have taken place, such information should have been made known.

2. This project is designed to both conserve water and promote innovative use of stormwater management practices, both of which are criteria for “green” infrastructure. The scoring framework in place when this project was scored is designed for conventional stormwater projects, and did not give the environmental benefits of this project enough credit. PADEP has since revised our ranking framework for nonpoint source projects such as this, where a more accurate representation of the environmental and water quality benefits of this project can be made. Using this revised ranking framework, this project would have scored extremely high.

OIG Response: The Green Project criteria evaluation resulted in the project being rated at zero points out of 100. If the criteria that resulted in the zero-point rating were not applicable, they should not have been used for the evaluation. In addition, the project received a -291 rating in Pennvest’s Green Project Reserve Recovery Act evaluation. With these rankings, the OIG fails to see how this project would be a priority for Recovery Act funding.

3. In addition to the surface stormwater runoff from the abandoned mine sites, there is an existing water quality problem at the site due to acid mine drainage from underground mining in the area. Robinson Run and Chartiers Creek, streams that run through the area, are both listed as impaired in Pennsylvania’s *Integrated Water Quality and Assessment Report due to acid mine drainage*. The current mining activities referenced in the OIG report are designed to remediate this impairment. These activities are being conducted pursuant to a permit issued by DEP under

Subchapter F of the Chapter 87 Mining Regulations. This subchapter applies to re-mining sites with a pre-existing mining discharge where the outcome of the project will be an improvement in local water quality. One of the goals of the CWSRF program is to implement projects that address an existing water quality problem. This project meets these eligibility criteria.

OIG Response: We agree that one of the goals of the CWSRF program is to implement projects that address an existing water quality problem. However, Recovery Act funds were not provided to the Botanic Garden for this purpose. Had the funding agreement included in the project scope remaining activities to address an existing water quality problem, then it would have accurately reflected the intended purpose of the project, and we would not have questioned it. The funding agreement does not, however, include this information.

4. The report describes a significant amount of confusion between the loan application submitted by the Horticultural Society, the final loan agreement, the project description, and the Intended Use Plan submitted to EPA, Region 3. ARRA guidelines required agencies to prioritize funding based on 1) readiness of the project to proceed to construction, 2) potential for job creation, and 3) the promotion of “green” infrastructure.

In preparing the documents listed in the report the applicant, my program staff and PENNVEST staff focused on the “green infrastructure” characteristics of this project and the fact that the project was designed and ready to go to construction. We believed that the conversion of these sediment ponds into permanent structures to capture stormwater for re-use as irrigation water for the botanic gardens fit three of the four categories of EPA criteria for “green infrastructure” in a very consistent manner (water conservation, green infrastructure designed to manage and re-use stormwater and environmentally innovative). The fact that the applicants were also involved in the “remediating of the site from past mining activities” simply did not come up as part of our focus at the time the project reports were prepared for EPA. These re-mining activities are interpreted as a further benefit to the project and an indication of the level of commitment on the part of the applicant to complete the project as described.

OIG Response: We believe that Pennvest should have informed Region 3 that the ponds would initially be used as sediment ponds. There are numerous disparities between the project description in the initial Botanic Garden application and the final funding agreement. These disparities concern us considering the many factors that influence whether the project will be completed. If the project is not completed, then Recovery Act funding was provided to build sedimentation ponds that will never be used for irrigation purposes. As stated above, had remaining activities been included as an intended purpose of the project in the funding agreement, the funding agreement would have accurately reflected the intended purpose of the project. However, the funding agreement, which is the official document we must base our review on, does not include this information.

5. The report mentions a change order for \$30,000. DEP is uncertain as to why this change order has been mentioned in this report. The change order was issued in order to stay in compliance with the CWSRF program. The program requires that all contracts funded with CWSRF funds must be awarded through a competitive bid process. Since the two stormwater management facilities were going to be constructed as part of the project funded by PENNVEST, they could no longer be constructed under a pre-existing contract the Botanic Garden of Western Pennsylvania had with Mashuda Corporation. Thus the reduction in monies to Mashuda Corporation.

OIG Response: The Mashuda change order was included in our report to show that sedimentation ponds were to be constructed and installed as a part of Mashuda's mining contract. By issuing a change order and reducing the cost of Mashuda's contract, the Botanic Garden reduced the overall cost of reclamation and thereby increased the profit it will make from the sale of coal extracted from the site. We believe this is important information for our report.

6. Most projects funded by the CWSRF are done in multiple phases and can take several years to complete. Simply because of the nature of the projects constructed, there can be significant delays for any number of reasons, Therefore, to require an applicant to return program funds because the original intent of the project is not completely achieved in the first phase of the project or because the project is behind schedule is not practical. By requiring the implementation of the first two recommendations in this report, EPA would be setting a precedent that will significantly impair the ability, of many states, to implement this program in the future. Both phases of this project need to be completed in order to achieve the project goals. There are enough safeguards in place to ensure that PENNVEST will be able to require the repayment of funds should that become necessary.

OIG Response: Even if all phases of the project are completed, the intended purpose of the project remains different from what was stipulated in the funding agreement. The ponds are initially being used for mining reclamation purposes, which is not included in the funding agreement.

7. The third recommendation is based on Title 2 Code of Federal Regulations (CFR) Parts 215 and 230. This rule applies to federal grants made directly to non-profits. This is not the case here. The CWSRF grant is to the state, and the loan (not a grant) is to the non-profit organization through the CWSRF, not directly from the federal government. Therefore, this regulation does not apply to the CWSRF. In fact, there is no federal regulation related to the CWSRF that applies to the generation of profits by a loan recipient such as the Botanic Garden of Western Pennsylvania.

OIG Response: The Botanic Garden's funding agreement with Pennvest contains an addendum on Recovery Act requirements. The addendum states in item 19 that the contractor must comply with all applicable laws, regulations, and program guidance, including Office of Management and Budget Circular A-110 on Administrative Requirements and Circular A-122 on Cost Principles, codified in 2 CFR Part 215 and

2 CFR Part 230, respectively. PA DEP states in its response that this principle does not apply to the Botanic Garden; however, it is included as a requirement in the funding agreement Recovery Act addendum. As long as the funding agreement is legal and valid, this requirement applies to the Botanic Garden project.

In conclusion, I strongly encourage you to revisit the report and eliminate these three recommendations. Implementation of these recommendations will have a serious detrimental effect on the future implementation of the CWSRF program in Pennsylvania. If you have any questions or concerns about these comments, please contact Veronica Kasi by e-mail at vbkasi@pa.gov or by telephone at 717.772.4053.

Sincerely,

Kelly J. Heffner
Deputy Secretary

cc: Jean Bloom, US EPA, OIG
Maggie Cunningham, EPA Region 3
Paul Marchetti, Executive Director, PENNVEST
Veronica Kasi, PA DEP

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