

**CONSERVATION DISTRICT DEMONSTRATION PROGRAM
Remediation of Acid Mine Drainage, Western Pennsylvania**

NPS Category: Resource Extraction

Amount: \$ 123,500.00

Period: July 1, 2007 – June 30, 2008

Deliverables:

Monthly Status Reports

Educational Materials on AMRClearinghouse.org website

Database Listing of Organizations Assisted and Ongoing Projects

Develop Recommendations in 4 Targeted Areas within the WPCAMR Service Area for possible further investigation in which stream segments may be considered for delisting from the Integrated Water Quality List

Annual Report

INTRODUCTION

This program will continue to address the problem of abandoned mine drainage (AMD) in Pennsylvania. AMD is identified in the State Management Plan as the largest source of nonpoint pollution in the state. This program functions within the bituminous coal region of western Pennsylvania. A similar program (EPCAMR) operates within the anthracite coal region of eastern Pennsylvania.

This program is implemented in cooperation with the County Conservation Districts, with the lead role being completed by the Western Pennsylvania Coalition for Abandoned Mine Reclamation (WPCAMR). A Regional Coordinator and Watershed Coordinator work under the guidance of the WPCAMR Board of Directors with additional assistance from the county conservation districts and input from DEP. The Regional Coordinator manages the program, provides technical and administrative support to the conservation districts activities, serves in an advisory role to state and federal mine reclamation programs, manages a public outreach program, and pursues other sources of funding to complement this program. The Watershed Coordinator is responsible for the development, implementation and management of watershed organization support activities, watershed assessment and reclamation project activities and coordinates program implementation with the Regional Coordinator and the Conservation Districts. These people are familiar with abandoned mine drainage remediation technology, watershed organization development and comprehensive watershed management. The overall direction of the two staff positions is the responsibility of WPCAMR Board of Directors. They are located at the Donohoe Center in Greensburg in proximity to the Westmoreland County Conservation District.

As background, the WPCAMR was formed in 1982 by county conservation district leaders, and currently encompasses 23 counties. The Coalition is a local, state, federal, and industry partnership dedicated to improving water quality and reclaiming abandoned mine lands. WPCAMR has called for the full appropriation of the Abandoned Mine Reclamation Fund and provided testimony for reauthorization of the Surface Mining Control and Reclamation Act. The Coalition prompted DER administrators to seek input from the Conservation Districts in the development of Pennsylvania's AML program during the formative years of the Bureau of Abandoned Mine Reclamation. WPCAMR helped in development of the environmental objectives that the Department created to address AML and AMD issues. WPCAMR members have made recommendations for adjusting the remaining laws in an effort to bring more flexibility into existing laws to help lower the costs of reclamation. The Coalition was also instrumental in the formation of a national reclamation organization involving twenty states with similar goals. The Coalition was originally formed to accelerate reclamation work of mining problems only in Western Pennsylvania but has since developed close ties with the anthracite region of Eastern Pennsylvania.

The intent of this program is to support the reclamation of abandoned mine sites that have a significant impact on water quality and to develop local support for remediation efforts. It is also designed to help promote and establish the use of watershed management techniques as the basis for achieving water quality improvements in watersheds impacted by abandoned mine drainage and to advise and educate the general public on reclamation needs and issues.

With the “Growing Greener”, and now Growing Greener II, initiative, significant funding has been earmarked to the restoration of watersheds negatively impacted by abandoned mines, and gas and oil wells. WPCAMR will continue to assist in the implementation of the goals outlined in the legislation of Growing Greener.

The Office of Water Management continues its Nonpoint Source Management Program, which outlines goals, objectives and milestones associated with resource extraction activities. This program will compliment the overall objectives set forth in the management plan. The program will focus on watersheds with stream segments listed as degraded in Pennsylvania’s Integrated Water Quality Report.

Also included within the state’s program are a number of reclamation initiatives that include remining incentives and new approaches to addressing water quality concerns. By working with the Mineral Resources Deputate and the mining industry, the WPCAMR program will help to expedite reclamation activities. WPCAMR also serves the Pennsylvania Mine Reclamation Advisory Board (MRAB) as an ad hoc committee member on reclamation issues.

A similar program has been developed in the Eastern Pennsylvania anthracite coal region. Although the problems associated in the anthracite are similar in nature, they are also unique due to the geologic formations of the regions and the steps that were taken in the past to deal with water within the mines. WPCAMR and the Eastern Pennsylvania Coalition for Abandoned Mine Reclamation (EPCAMR) are working in cooperation to assure that successful planning and remediation techniques are communicated between the regions.

GOALS AND OBJECTIVES

This program, using funding under the Section 319 Grant Program, will further “institutionalize” the state’s AMD program through county conservation districts and local organizations. In addition, one of the highest priority categories of nonpoint source pollution in the state can be addressed in a more formalized manner, with an emphasis on the improvement of water quality, comprehensive watershed planning, assessment and restoration of degraded stream segments and local involvement. This program will become an integral part of the Department’s Growing Greener implementation strategy, the state’s Nonpoint Source Management Plan.

Specific goals and objectives of this program include:

1. To create, develop and support watershed organizations and partnerships in watersheds impacted by abandoned mine drainage. To coordinate and mobilize local community support for the improvement of water quality through the remediation of abandoned mine drainage sites, unreclaimed abandoned mine lands and abandoned oil and gas activities.
2. To support Pennsylvania’s Nonpoint Source Pollution (NPS) program by assisting watershed groups in the development and implementation of grants and AMD remediation projects under the DEP’s Section 319 program.

3. To assist in the implementation and continuing development of the Growing Greener and Growing Greener II programs by providing recommendations to program managers on how watershed groups and others involved in AMD remediation may best be served by the program.
4. To assist in the assessment of abandoned mine discharge sites and degraded watersheds in order to develop and implement the proper mine drainage abatement project which will show measurable environmental results, such as an improvement in water quality and enhancement in living resource habitat.
5. To enhance the working relationship between EPA, OSM, DEP, county conservation districts, industry and other agencies, groups and individuals by providing assistance and staff to address water quality and aquatic habitat problems caused by abandoned mine drainage.
6. To assist watershed associations and others in identifying available funding sources and other resources for developing comprehensive watershed management strategies.
7. To provide training and facilitation, through the cooperative use of PADEP and other government and private resources in the form of meetings, workshops and other means, and to assist watershed organizations and others in the formation of sound watershed management plans.
8. To help define in the implementation of the state's Growing Greener program, Nonpoint Source Management Plan, and the Landowner Reclamation Program the role that conservation districts can play. This may include the identification of areas which cannot be addressed within existing programs. Other areas where this program can complement the existing program might include monitoring the effectiveness of projects completed by the Department and others, and the necessary operation and maintenance of remediation projects.
9. To coordinate all sources of funding to insure success, and to document other activities which can complement this program. These funds and local activities can be used to provide a match for this and other reclamation programs.
10. To develop a better public understanding of nonpoint source mining related problems through a public outreach and education program.
11. To continue taking a lead role, along with EPCAMR, in the planning and execution of the PA statewide conference on Abandoned Mine Reclamation.
12. To take an increasing role in the ongoing Operation, Maintenance, and Replacement (OM&R) responsibilities necessitated by the Commonwealth's commitment to abating AMD through passive treatment systems.

IMPLEMENTATION PLAN

With the active involvement of WPCAMR, Conservation Districts, watershed groups, local governments, industry and private foundations in AMD clean-ups, federal and state programs now recognize the value of local commitment to such efforts. That recognition has led to direct funding assistance for the activities of local organizations. These organizations have funding opportunities through a number of programs including the following list.

- Pennsylvania's Growing Greener and Growing Greener II Programs. Its funding mandate includes components to:
 - Implement AMD cleanup and plug abandoned oil and gas wells;
 - Facilitate re-mining;
 - Provide grants to conservation districts, counties or other municipalities, watershed organizations and other authorized organizations from AMD abatement, mine cleanup efforts and well plugging;
 - Provide grants and technical assistance to plan and implement local watershed-based conservation efforts;
 - Improve water quality in watersheds impaired by nonpoint pollution ; and provide grants for safe drinking water and wastewater treatment. All of these directives could be included under this program
- EPA provides funding through the Clean Water Act Section 319 (h) program.
- The USDOJ-Office of Surface Mining has a program to also provide direct funding to local watershed groups for the construction of AMD remediation projects under the Watershed Cooperative Assistance Program and the Appalachian Clean Stream Initiatives.
- The USDA-NRCS also works with local groups by providing technical assistance through the Small Watershed Protection Program (or PL-566 Program).
- DEP Community Environmental Projects (CEP) program and the Reclamation In-lieu of Civil Penalties program. Under these programs, portions of funds collected as civil penalties have been used by local groups for watershed restoration activities. In those cases, the funds are usually used in areas where an infraction occurred. This type of support has been very well received at the local level and should provide a good way for the DEP Regional Offices to become more involved in local cleanup efforts. WPCAMR cooperates with the DEP Watershed Managers on all AMD related issues. This program strengthens those ties by preventing duplication among programs and by providing direct support to DEP coordinators.
- DEP's Innovative Technology Grants Program

In combination, these programs are leading to a significant increase in AMD related projects being put on the ground.

Funding alone, however, cannot accomplish the goal of restoring our degraded AMD impacted watersheds. The successful development and implementation of AMD remediation projects and

watershed restoration plans depends on proper site evaluation and project coordination. Often local sponsors are very motivated to get something done but don't know how to proceed. Without proper guidance they can waste valuable time and resources. **This program will provide that guidance through one-on-one assistance both in the field and with administrative support.**

Because local organizations and Conservation Districts vary in their abilities and needs the WPCAMR AMD / AML program must be adaptable to meet those varying needs. Establishing new watershed groups and assisting recently established groups to become well organized is a priority. Also, providing support for well established groups to get projects on the ground will continue to be an important part of the WPCAMR AMD program.

However, as WPCAMR has worked with local groups to clean up AMD problems in watersheds it has become very obvious that two critical components necessary to the restoration of AMD impacted watersheds are too often missing: (1) Detailed information on the chemistry and flows (quantity) of discharges and (2) The development of comprehensive AMD remediation plans (which can only be based on chemistry and flow data). This program emphasizes the necessity to gather and compile information in a systematic manner allowing for the design, prioritization and implementation of comprehensive AMD remediation plans within watersheds. In cooperation with EPCAMR, guidelines for this process have and will continue to be developed.

Since the establishment of the WPCAMR AMD program, the Coalition has developed an ever-increasing role in helping to institutionalize Pennsylvania's mine reclamation program. The Coalition will continue to represent local interests at state and federal agency meetings, workshops and conferences. WPCAMR will also continue to serve in an advisory capacity to state and federal committees regarding AML and AMD issues.

WPCAMR and EPCAMR have also committed to working with the Pennsylvania Senior Environment Corps (PaSEC) and the Environmental Alliance for Senior Involvement (EASI) in developing a volunteer monitoring corps of retired Pennsylvanians to work in watersheds presently being monitored by PaSEC or EASI that are impacted by AMD. As part of that partnership WPCAMR and EPCAMR have assisted EASI in developing job descriptions for volunteers and establishing prototype testing kits and field manuals for the volunteers.

Because of its unique position as a non-partisan organization, WPCAMR can serve as a liaison between local interests and DEP, industry and other agencies. In the past the Coalition has served in this capacity with landowners, on review committees and at workshops. This program will allow those activities to continue and expand upon them as well.

Starting in fiscal year 2003, two related issues have taken on a new importance in Pennsylvania: (1) mining operations which have significant ongoing (perpetual) environmental obligations that are declaring bankruptcy but do not have adequate funding mechanisms to provide for the ongoing obligations; and (2) the threat posed by rising mine pools that are predicted to reach levels which may then discharge devastating quantities of polluted water into streams and rivers. Recognizing the potential environmental and economic impacts of these issues, WPCAMR has acted as a voice in elevating the awareness level in the environmental community and the general public. At the request of former DEP Secretary Hess, the Pennsylvania Mine Reclamation Advisory Board

(MRAB) has formed a subcommittee known as the Orphan Mine Discharge Task Force to make recommendations to the state on ways of attacking these problems. The Task Force is working on several fronts, which include funding, legal, technical, and outreach. The Task Force has provided direction to the Department for ways of dealing with these monumental problems, including a change in perspective to viewing mine pools as a significant water resource. WPCAMR acts as an advisor to the Task Force and will continue to update the environmental community and public on these critical issues.

Of critical importance to the abandoned mine reclamation effort is the federal Abandoned Mine Reclamation Fund (AMRF) annual appropriation to Pennsylvania. Also known as Title IV of Surface Mining Control and Reclamation Act, this provision of the legislation was scheduled to sunset in 2004, but has been extended into 2006. Should the cessation of these annual appropriations occur, it will curtail a very significant amount of ongoing reclamation work in Pennsylvania and other historically impacted states. Working in partnership with the AML Campaign, a loose coalition of environmentally inclined stakeholders including the Pennsylvania Environmental Council, the Western Pennsylvania Watershed Program, WPCAMR, EPCAMR, Western PA Conservancy, DEP, and watershed groups, a comprehensive educational campaign directed primarily toward state and federal legislators on the importance and merits of this vital legislation will be continued in hopes that similar legislation may be introduced and passed, thus continuing the program beyond 2006. WPCAMR has been and will continue to be a very active partner in the campaign to reauthorize funding for the AMLF and to refine the mechanism in which funding is directed to states for reclamation purposes.

WPCAMR has taken a lead role in a basin-wide effort within the Ohio River watershed to form an organization to act on behalf of the basin, akin to the Susquehanna River Basin Commission and Delaware River Basin Commission. Through a DEP grant administered by WPCAMR, a series of 10 public forums were held to gauge interest in the desirability of forming a basin wide organization. Through the grant's steering committee, that process will continue by processing the input of the forums and by developing a model and recommendations for a possible organizational structure. Partnerships with existing organizations are seen as a vital component to the success of any such new organization, as well as the desirability to highlight the efforts of local groups in the Ohio Basin. This program will continue to promote the formation of an organization which will bring increased focus on the issues and concerns within the Ohio Basin. WPCAMR has submitted a Growing Greener proposal for the purpose of carrying the process to the next level of actually forming the Alliance. This proposal unfortunately was not successful in obtaining funding. Nonetheless, we believe the formation of an Ohio Basin alliance has merit and we will continue to explore venues that will give Ohio Basin the voice it deserves. Related to this is the appointment of WPCAMR's Watershed Coordinator to the Pennsylvania's Water Resources Committee representing the Ohio Basin.

WPCAMR has received funding from the Western Pennsylvania Watershed Program for the purpose of specifically targeting coal refuse piles having a decent potential for removal or reclamation. Using methods developed in the previous WPCAMR study "Project Gob Pile" as a basis for prioritization, a number of coal refuse piles will be singled out as likely candidates, and work plans and strategies developed to facilitate reclamation work.

Related to this is an ongoing WPCAMR program to promote power plants that employ circulating fluidized bed technology in burning coal refuse. Throughout the Commonwealth, millions of tons of coal refuse are being removed and burned for power at no cost to taxpayers. In the process, the coal refuse sites are reclaimed, often in part by using the beneficial alkaline ash resulting from the combustion of the coal refuse, to an environmentally acceptable condition. This win-win situation is a tremendous success story that deserves promotion.

WPCAMR has implemented a Growing Greener Technical Assistance Grant (TAG) now known as AMRClearinghouse.org. The objective is to create a web-based one-stop-shop information clearinghouse aimed at watershed associations impacted by AMD. The execution of this grant is fully compatible with the program objectives and provides an expanded delivery mechanism for educational outreach. Expanding on the work done with the first TAG, WPCAMR was awarded a second Growing Greener TAG to continue with the website. The major thrust of this new phase is digitizing Scarlift Reports from the 1970's and publishing them on the website. 80 Scarlift Reports have been processed by this project, making that substantial body of work available to anyone who might benefit from its existence. WPCAMR continues to maintain and upgrade the website which annually enjoys approximately 250,000 hits.

Environmental education continues to be a major objective of this program. WPCAMR has recently partnered with other organizations in the formation of the Abandoned Mine Drainage Education Coalition (AMDEC) whose mission is to develop high quality resource materials on AMD/ AMR suitable for delivery in public schools employing the new academic standards. WPCAMR has taken an active and supportive role in this new coalition. Using Growing Greener funding, St. Vincent College is the sponsoring organization in carrying the concept to fruition.

Another WPCAMR education-based initiative is "AMD Education for Decision Makers". This pilot program is funded with a Growing Greener grant and is aimed at mid-level decision makers, most notably township supervisors. The program teaches the basics of AMD and how cleaning it up can result in a stronger community. The approach combines the local conservation district and watershed association along with a WPCAMR AmeriCorp member who jointly produce customized materials and presentations based on templates developed in the program. The program is funded through June 2005, yet we continue to find opportunities and audiences where the program can be extended at a very modest cost.

Yet another popular WPCAMR educational program is "Ask Me About Pyrite". In this program, students (ranging from 5th grade upward) are taught about the genesis of AMD from the mineral pyrite and some solutions. They learn that the same iron oxide responsible for coloring streams can also be used as a pigment. As a capping exercise, the students tie-dye tee-shirts with iron oxide.

In 2005, WPCAMR joined the Consortium for Scientific Assistance to Watersheds (C-SAW), a group of environmental organizations able to deliver various services to watershed groups. The program is funded by a Growing Greener grant. WPCAMR has taken the place of California University of Pennsylvania in representing western PA interests because of Cal-U's

inability to commit adequate resources. Through this program WPCAMR can deliver a variety of organizational and technical workshops and scientific consultation on watershed issues.

WPCAMR will continue to explore and promote new AMR technologies and methodologies. While a variety of passive treatment systems have become the mainstay for dealing with AMD, their application is not always practical. Novel or alternative treatment strategies are needed for these challenging situations. More focus will be placed on dealing with the reuse of mining refuse, such as dealing with coal refuse materials or metals recovery. Developing innovative new and improved means for dealing with the problems will be promoted. WPCAMR has been able to dovetail with the aforementioned DEP Innovative Technology Grants Program by becoming the formal sponsor of three proposals which have been awarded over \$750,000.

WPCAMR was a key player in a change of venue for the annual statewide AMR conference in 2005. In conversations with OSM, an opportunity to partner with that agency for a combined AMD "technology transfer" conference of national stature became a possibility. WPCAMR advanced the concept of a joint conference and broadened it to include Southern Alleghenies Conservancy in cooperation with DEP to provide a conference component on resource recovery. This was a wise way to get the biggest bang for the buck and a way to strengthen ties among agencies while providing a very valuable service to the AMD / AMR community. The 2005 Mine Technology Treatment Conference was heralded as a great success with approximately 300 attendees and an impressive program of nationwide experts on new technologies for dealing with AMD. OSM was quite grateful for roles played by WPCAMR and the other partners who collectively made the conference possible. OSM is interested in again doing a similar conference in another 4 or 5 years and will likely seek a similar partnership. WPCAMR applied for funding for the 2006 -2008 conferences through Growing Greener but was regrettably not successful. However, we will continue to play a lead role into the future by seeking alternative funding. We are planning the 2006 conference with the theme "Bask to Basics" aimed at watershed groups as the target audience, where we envision providing a number of workshops on various fundamental topics important to mining impacted watersheds. Funding sources for 2006 include the Consortium for Scientific Assistance to Watersheds (of which WPCAMR is a partner) and the Western PA Watershed Program. WPCAMR has also taken the lead in changing how conference planners meet and communicate with a much greater emphasis on electronic means. For example we have established a listserv and a website dedicated to conference planning, provided conference call assess, and will explore on-line meeting software. Without any doubt, this will lower the overall costs for the conference organizers that would otherwise deal with the time and expenses of travel for regular face-to-face meetings.

WPCAMR is also exploring the concept of pollution trading mechanisms as a means of promoting and providing financial incentives for reclamation of mine-scarred lands. Carbon sequestration credits, among others, may ultimately be a means to finance reclamation projects. We have submitted Growing Greener grant requests in 2004 and 2005 (both unsuccessful) for demonstration projects on how carbon sequestration with reclaiming and revegetating scarred mine lands could act as a model for funding future projects.

WPCAMR sees operation and maintenance of passive treatment systems as an ongoing issue that needs to be adequately addressed if the Commonwealth is to protect (a) the investments that have

been made in passive treatment systems over the years and (b) the environmental improvements that have been made. WPCAMR has three Growing Greener funded projects related to this. The first is a project that allow the revisiting of 18 projects originally funded by the Coalition in the mid 1990s (using 319 funds) that were some relatively early passive treatment projects in the Commonwealth. At the time of funding operations and maintenance were not emphasized. There was little attempt by WPCAMR, as a general rule, to monitor how these projects fared over the years. The grant allows us to determine the state of each of these projects as well as relevant histories of how they have functioned, the problems they've encountered, and the ongoing operations and maintenance they've received. A second Growing Greener funded project (with follow-on Growing Greener funds) has the ultimate aim of providing resources to chemically monitor publicly funded passive treatment systems. The initial funding will allow the establishment of a web-based database that will be used to administer the program and act as both a repository of information and an early warning system to alert users of possible failures of their systems. The project will also include a pilot program where laboratory analyses and field analyses are judged side by side to help determine the most cost-effective and pragmatic methods to be used in a full scale program. The Coalition will actively look for other opportunities to help ensure that passive treatment systems are adequately maintained. WPCAMR is also the fiscal sponsor for DEP's "Quick Response" program which provides funding to watershed groups (through Growing Greener II funding) whose Growing Greener eligible BMPs are in need of immediate repair. This new initiative should ultimately save money and preserve environmental quality by addressing problems quickly.

In 2004, WPCAMR finalized its strategic plan that was developed over a year and a half period by a core strategic planning group, but also included input from outside stakeholders and WPCAMR's general membership. What follows are the four main goals of the Action Plan:

- 1. *Affirm role as credible, responsible leader in AMR.***
 - a. Establish a public relations campaign to include the AMRClearinghouse web site, Abandoned Mine Posts online newsletter, Annual Report, the Strategic Plan, brochures, displays, conference attendance, speaking engagements, staged events, newspaper articles, spotlighting of success stories, and participation in conservation organizations and spotlighting success stories.*
 - b. Promote AMR and build organizational capacity of Watershed Associations through communication, regular meetings, technical assistance, workshops, etc.*
 - c. Continue to be a leader in organizing the PA Statewide Annual AMR Conference.*
 - d. Participate in statewide and regional organizations and taskforces such as the PA Association of Conservation Districts, Mining Reclamation Advisory Board (MRAB), NPS Liaison Workgroup, Citizens Advisory Council, and the PA Water Resources Planning Committee, and Environmental Quality Board (EQB).*
- 2. *Create a stronger, interdependent coalition by uniting member conservation districts.***
- 3. *Seek conservation districts' official endorsement of WPCAMR's long range plan to promote unity, workload sharing, and funding increases and to avoid duplication of services.***
 - a. Strengthen current board by improved orientation efforts and communication plan.*
 - b. Increase organizational expertise and geographic influence through board member diversification.*

- c. *Make site visits to each conservation district to establish presence, promote organization/goals, recruit/increase membership involvement and strengthen communication network.*
 - d. *Build synergy with member conservation districts through member attendance at quarterly meetings and staff visits to districts.*
- 4. *Sustain the Coalition through adequate and diversified funding.***
- a. *Sustain the Coalition and provide quality services to member conservation districts.*
 - b. *Promote WPCAMR through public relations campaign to potential funders.*
 - c. *Develop detailed annual operating budget.*
 - d. *Secure funding through grants, corporate support/sponsorship, membership, and nonmember fee-for-service.*
 - e. *Research various funding avenues; maintain lists of potential funders, grant programs, and partners.*
- 5. *Encourage the practice and promote the development of effective, efficient and practical solutions in AMR.***
- a. *Research improvements to existing technologies and the building and testing of new technologies.*
 - b. *Collaborate with educational, private sector, government agencies and others regarding current and promising AMR projects.*
 - c. *Assist in locating testing sites for new technologies via conservation district and DEP recommendation.*
 - d. *Assist in conducting field evaluations and attaining landowner permission.*
 - e. *Seek funding to test new technologies.*
 - f. *Promote new technologies through outreach and education.*
 - g. *Seek funding to support proper operation and maintenance practices for existing treatment systems through service programs.*

An examination of the goals and subgoals of the strategic plan indicate a strong agreement with the aforementioned elements of the Implementation Plan.

Specific priorities for the Regional Coordinator and Watershed Coordinator include:

1. Evaluate the status of activities within watersheds (high priority and otherwise) to determine local involvement / activity and local capabilities.
2. Coordinate efforts of the districts, organizations and individuals involved in mine drainage remediation and land reclamation programs.
3. Support and assist in the implementation of the objectives outlined in Growing Greener program.
4. Act as a catalyst to initiate the development of watershed associations and related organizations in areas where they do not now exist and are deemed necessary (priority watersheds or degraded sub-basins of others) by:

- a. working with individuals and groups with a common interest in watershed remediation to develop comprehensive remediation plans,
 - b. providing up-to-date information on reclamation and AMD treatment technologies,
 - c. providing point-of-contact information on agencies, industries and individuals involved in reclamation,
 - d. demonstrating the importance of the educational community being involved as active participants in watershed projects throughout Pennsylvania and other areas of the country,
5. Act as a moderator between groups in discussions concerning mine reclamation efforts.
 6. Act as a liaison between the mining industry, the environmental community and government agencies.
 7. Promote the use of remaining initiatives in reclamation efforts.
 8. Expand the roles and involvement of the Conservation Districts in comprehensive watershed restoration planning efforts.
 9. Development of a partnership approach with the public, government, industry and private foundations in order to support mine reclamation efforts.

Public - Generate a public outreach program to increase public awareness and support for this program and other mine reclamation programs.

Industry - Establish contacts and liaison with businesses and industries that could play a role in reclamation activities through developing new technologies and new markets for products (i.e. alkaline addition, metal extraction, iron oxide, bio-solids, etc.)

Government - Coordinate activities among bureaus and agencies on reclamation projects, liaison between government agencies and local groups and individuals and industry entities, work with groups and individuals to develop and update comprehensive reclamation strategies, facilitate ways for all groups to work together.

10. Pursue and expand environmental educational and outreach opportunities within the context of mine reclamation and AMD remediation at all levels (adult, elementary, middle, high school, and higher ed.). New venues for education and outreach include:
 - a. Abandoned Mine Drainage Education Coalition – a newly formed partnership of organizations whose goal is to develop high quality resource materials suitable for delivery in public schools employing the new academic standards. WPCAMR is among the founding partners of this group.

- b. AMRCClearinghouse.org - a web based information source for abandoned mine reclamation issues
 - c. Outreach to local decision makers – a program designed specifically to educate decision makers such as township supervisors, city councils, and county commissioners on AMD issues as they relate to their community.
11. Evaluate and comment on technical remediation designs and watershed restoration plans.
 12. Pursue all avenues of funding for reclamation work.
 13. Provide input relating to local, regional, statewide and national abandoned mine related issues.
 14. Continue to be a lead partner along with EPCAMR and other organizations in the planning and presentation of the Annual Pennsylvania Conference on Abandoned Mine Drainage.
 15. Expand WPCAMR’s organizational capacity by pursuing funding from a variety of sources.
 16. Provide administrative support for the WPCAMR program.

Assuming a July 1, 2007, start date, the following milestones will be completed to continue this program:

1. Maintain tracking system for program progress documentation.

Responsible Party: Regional Coordinator
Completion Date: As needed
Output: Monthly Status Report

2. Continuation of the development of educational information on all aspects of mine reclamation, which will be used to update the AMRCClearinghouse.org website regarding AMD and reclamation.

Responsible Party: Regional and Watershed Coordinator
Completion Date: June 30, 2008
Output: Reclamation materials for web site

3. Update of the watershed-based list of organizations and individuals assisted by WPCAMR and identification any related projects.

Responsible Party: WPCAMR Regional and Watershed Coordinators.
Completion Date: July, 2008
Output: listing of those receiving assistance and projects being implemented by each.

4. Identify and recommend candidate streams in 4 Targeted Areas within the WPCAMR Service Area for further investigation for delisting from the Integrated Water Quality List. WPCAMR will work in cooperation with BWM using GIS resources to initially identify the 4 targeted areas using such information as known AMD impacted stream segments and reclamation activities that may have resulted in water quality improvements (e.g. treatment systems, gob pile removal, re-mining). Once targeted areas are selected, WPCAMR will use other information sources including local conservation district and watershed group personnel to locate stream segments in which possible water quality improvement is documented or otherwise indicated. The intent is to assist BWM by giving them solid leads for possible streams for delisting while realizing that some targeted areas may result in a recommendation for no further investigation.

Responsible Party: WPCAMR Regional and Watershed Coordinators

Completion Date: June, 2008

Output: Reports, as developed, detailing findings in targeted areas.