

OSMRE/VISTAS AT WORK: BUILDING CAPACITY TO MEET CHALLENGES IN PRE-REGULATORY MINING AREAS¹

Dr. T Allan Comp², Sarah Meade, Amy Showalter, and Cody Zirkle

Abstract: The Office of Surface Mining Reclamation and Enforcement/VISTA Team was founded to address the socio-economic and environmental impacts of mining conducted prior to the Surface Mining Control and Reclamation Act of 1977. During its twelve year history, our Team's Volunteers in Service to America (VISTAs) have secured over \$13.5 million in grants for host communities and marshaled nearly 800,000 hours of volunteer time from community members (equivalent to 385 years of volunteer service).

In 2006, OSMRE estimated more than three million people in Appalachia lived within one mile of Abandoned Mine Lands (AML), defined by the Code of Federal Regulations as "un-reclaimed" coal-mined lands that existed before August 3, 1977, and for which there is no continuing reclamation responsibility. AML related environmental problems include surface and ground water pollution, and abandoned or sediment-clogged streams. These environmental conditions contribute to persistent poverty, high obesity rates and poor overall health. Incentives for business relocation and basic services have dwindled, while population and property values have plunged, leaving communities with limited capacity to provide solutions.

Similarly, in the Southwestern Rocky Mountains and High Desert, the boom-bust nature of mining towns in the hard-rock mining west created a legacy of rural communities struggling with similar challenges: high rates of poverty, unemployment, and economic distress, often overlooked in the shadow of the success experienced by nearby communities.

Though distance separates these two areas, the issues the communities face are similar. These communities are unified by the OSMRE/VISTA Team, an innovative partnership between OSMRE and VISTA. OSMRE/VISTAs work in the field to bring fresh eyes, an injection of hope, and hard work to address existing environmental and socioeconomic challenges.

Additional Key Words: AML, mining impacts, environment, socio-economic, water pollution, poverty, boom-bust, coal, hard-rock, community solutions

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² Dr. T Allan Comp is the DOI and OSMRE VISTA Team Founder and Program Officer in Washington, D.C. 20240; Sarah Meade is the OSMRE/WHWT VISTA Team Leader in Albuquerque, NM 87107; Amy Showalter is the OSMRE VISTA Team Coordinator in Beckley, WV 25801; Cody Zirkle is the OSMRE/ACCT VISTA Team Leader in Beckley, WV 25801.

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<http://www.asmr.us/Portals/0/Documents/Journal/Volume-4-Issue-1/Comp-WV.pdf>

Introduction

The OSMRE/VISTA Team operates with the support of both AmeriCorps VISTA and the OSMRE, providing a human resource to localized grassroots efforts which strive to alleviate poverty through environmental stewardship and economic opportunities in areas that have been impacted by mining conducted prior to the Surface Mining Control and Reclamation Act of 1977. The OSMRE/VISTA Team is comprised of two distinct teams: the Appalachian Coal Country Team which serves states throughout the Appalachian region; and the Western Hard-rock Watershed Team serving in Colorado and New Mexico. The mission of the team is to provide rural mining communities with the resources they need to make their communities cleaner, healthier places to live and work. Through projects that promote environmental stewardship, provide economic opportunities, and strengthen communities, OSMRE/VISTAs are bringing hope and results to the areas in which they serve.

Background

Volunteers in Service to America (VISTA) was initiated in 1965 to fight poverty in America. In 1993, VISTA was incorporated into the AmeriCorps network of programs, which falls under The Corporation for National and Community Service (CNCS), the federal agency charged with providing opportunities for Americans to engage in their communities through national service. The mission of VISTA is:

“to strengthen and supplement efforts to eliminate and alleviate poverty and poverty-related problems in the United States by encouraging and enabling persons from all walks of life, all geographical areas, and all age groups, including low-income individuals, elderly and retired Americans, to perform meaningful and constructive volunteer service in agencies, institutions, and situations where the application of human talent and dedication may assist in the solution of poverty and poverty-related problems and secure and increase opportunities for self-advancement by persons affected by such problems.”

In 2009 the Serve America Act edited the purpose statement of AmeriCorps VISTA to emphasize the long-term sustainability of projects and strengthening of local agencies and community organizations. VISTA has four key goals that frame VISTA programming, including: (1) anti-poverty, (2) community empowerment, (3) capacity building, and (4) sustainable solutions (Outlined in Fig. 1).

Capacity Building:

VISTA expands the ability of sponsor organizations to fight poverty. Rather than providing services to low-income individuals and communities, VISTAs strengthen and support organizations by building infrastructure, expanding community partnerships, securing long-term resources, coordinating training for participants, and much more.

Anti-Poverty Focus:

The statutory purpose of VISTA is to support efforts to fight poverty. The goal of every project must be to help individuals and communities out of poverty, not simply make poverty more tolerable. VISTA projects should focus on long-term solutions rather than short-term services.

Community Empowerment:

Prospective and current VISTA project sponsors must ensure their project engages low-income community residents in planning, developing, implementing, and evaluating the project. The project must be responsive and relevant to the lives of the community residents, and tap into inherent community assets, strengths, and resources.

Sustainable Solutions:

As directed by Congress, VISTAs are short-term resources that serve to build the long-term sustainability of anti-poverty programs. VISTA projects should be developed with a goal to phase out the need for VISTA members and maintain the ability of the project to continue without them.

Figure 1: VISTA Programming Framework

These four key goals identified by VISTA to guide their programming in 2009 align with the work of the OSMRE/VISTA Team, which originated as an innovative partnership between VISTA and OSMRE as the Appalachian Coal Country Watershed Team in 2002. As part of the OSMRE/VISTA team, college educated VISTAs served with local grassroots watershed groups in seven Appalachian states. Their mission was to mitigate coal-related water issues, particularly acid mine drainage (AMD), addressing both environmental and economic community needs, which were often linked. In 2006, state agencies in Colorado invited the OSMRE/VISTA Team to expand to serve hard-rock mining communities in Colorado and New Mexico, giving birth to the Western Hard-rock Watershed Team. Meanwhile, the OSMRE/VISTA Team's mission had expanded to include community agriculture, job training, and community development, creating a holistic approach to reclaiming communities. Today the Team is able to expand in all 25 states and three tribes with AML programs. The OSMRE/VISTA Team is an initiative that meets on

common ground: at-risk ecosystem improvement for economically disadvantaged households and communities.

Environmental Stewardship and Poverty Alleviation

Environmental impacts are a reality for communities where legacy mining occurred. Water and land bear the marks of pre-1977 mining practices, which affect the health and well-being of individuals living in those communities. As the mining industry has changed, available jobs and economic opportunities have become scarce. These are at-risk ecosystems. OSMRE/VISTAs offer assistance to these communities by creating sustainability within the organizations in which they serve, often improving the health of their communities through environmental stewardship and restoration projects.

One such project site is Friends of the Cheat (FOC), a nonprofit watershed group working to restore, preserve, and promote the Cheat River, which has been negatively impacted by a legacy of non-regulated land use practices. The Cheat River watershed drains approximately 1,422 square miles in northeastern West Virginia, southwestern Pennsylvania, and western Maryland. FOC strives to educate the community on their work and the economic, cultural, and aesthetic value of clean water. FOC engaged OSMRE/VISTAs in community projects for ten years beginning in 2003.

Over those ten years, OSMRE/VISTAs contributed to the organization's funding and structure, implementing projects that are still thriving. CAPABLE, once called Marcellus Shale, is a water quality monitoring program that the OSMRE/VISTAs helped to initiate. Preston County and surrounding area volunteers were recruited to test pH, temperature, conductivity, and flow of impaired waterways in their area, which included major contributors to the Cheat River watershed: Greens, Sovern, Bull, Pringle, Morgan, Heather, and Lick Runs.

OSMRE/VISTAs reported securing \$24,679.50 in grants and outside funding for the CAPABLE program. This funding allowed program members to have the proper tools to test and record their data, which was later used to draft Watershed Based Plans and access possible AMD treatment applications. These studies were pivotal in the planning and installation of fifteen AMD treatment systems by FOC and its partners to date. CAPABLE is still an active program that is now managed by FOC staff.

Educating community members about the effects of AMD goes hand in hand with restoration efforts. OSMRE/VISTAs reported securing \$15,500 to fund design and construction of an outdoor classroom/pavilion at the Cheat River Treatment site. This allows for on-site outdoor education for local schools. FOC's AMD education curriculum has brought school children from as far as North Carolina. In total, OSMRE/VISTAs have reported reaching nearly 2000 students and local community members with the Watershed Awareness and AMD Treatment curriculum. Education occurred through interactive tours along the river and its treatment sites, at conference presentations, and by teaching the curriculum at local schools.

OSMRE/VISTAs also organized and participated in numerous clean-ups along the river, as well as Adopt a Highway roadside clean-up. This involved recruiting volunteers to assist in project implementation, by building the capacity of the organization. FOC now has a great volunteer base, and a steady fifteen members in the water quality monitoring program. OSMRE/VISTAs also reported acquiring nearly \$300,000 in funding for other restoration efforts such as installing a limestone doser to neutralize the acidity of the water, and encourage the restoration of native brook trout to the river. Other projects include environmental assessment and surveying property within the watershed to determine where restoration efforts should be focused.

Since the formation of FOC in 1994, the organization's primary focus has been addressing the severe AMD pollution issues in the lower reaches of the watershed. Through coalition building, collaboration, and the implementation of AMD treatment systems, the Cheat River – named one of the country's most endangered rivers in 1995 – is once again alive with life. Restoring water quality alone will not solve the long-term problems and ongoing challenges the Cheat watershed faces. FOC OSMRE/VISTAs worked to educate the public on local and regional issues, best management practices, and environmental stewardship.

Alexa Kramer is an OSMRE/VISTA who is beginning her second term serving with Schuylkill Headwaters Association (SHA) located in Pottsville, PA. Alexa is the 6th AmeriCorps VISTA to serve in the Schuylkill Headwaters area. SHA works to protect and enhance the headwaters of the Schuylkill River by educating residents about the watershed and implementing projects to reduce and control pollution.

The pollution is caused in part by mining conducted prior to the Surface Mining Control and Reclamation Act of 1977, which resulted in untreated flows of acidic, metals-laden water,

commonly referred to as acid mine drainage (AMD). AMD results in metal and mineral deposits within streams, which can disrupt healthy aquatic life for years after the mine has closed. In addition to the pollution from AMD, many former coal towns never had adequate sewage infrastructure installed resulting in "straight pipes" that still feed untreated sewage directly from household toilets into creeks.

A main focus for Alexa and SHA is the Silver Creek Environmental Education Trail and Recreation (SCEETR) Park. The SCEETR project began in 2013 with OSMRE/VISTA Cataia Ives. Cataia worked on the concept plans, development, and actual planning of SCEETR. Cataia also applied for and received a grant to install interpretive signs around the trail leading to SCEETR. Today a ten-acre passive AMD treatment system is being transformed into SCEETR, an environmental education center which will be utilized by students, teachers, and the public. To complete the transformation, SHA will need to recruit volunteers as well as secure funding to complete infrastructure projects. This is where Alexa's involvement is crucial.

As an OSMRE/VISTA, Alexa is securing funding and building community partnerships to complete the project. She has submitted a grant for \$2,000, which will be used to increase accessibility to SCEETR by building a footbridge. Alexa and SHA are still awaiting approval of the grant. She has also reached out to a local construction company regarding placement of boulders/rocks along the grounds surrounding SCEETR meant to prevent ATVs from creating ruts and widening trails. Alexa has recruited the local Boy Scout troop to help plant trees along the bare spots on the grounds.

Alexa has engaged the community for ideas – collecting local advice on how to improve SCEETR, gathering lesson plans and activities from a local Education Coordinator of Trout Unlimited that will be utilized at SCEETR and other SHA events. Membership on the OSMRE/VISTA Team connected Alexa with another local OSMRE/VISTA, Brooke Esarey, who served with a project doing similar work in Indiana, PA. Brooke visited Alexa at SCEETR and provided ideas and suggestions from her own project.

SCEETR has already begun serving its purpose. SHA and the Schuylkill Conservation District led a tour for the Norm Thornburg Youth Conservation Camp at the Silver Creek treatment system, where 30 students from across the county learned about the effects of mining on water quality. They were also exposed to remediation efforts through the onsite treatment system. Tours of the AMD sites and SCEETR are ongoing through the year, providing experiential STEM education and exposure to the issues facing the Schuylkill River Watershed.



With the help of local educators, SCEETR provides a place-based opportunity for hands-on education. Lack of STEM education in the area is addressed by exposing students and community members to local environmental issues like AMD. The hope is that this will encourage the youth to become more invested in their environment and gain a greater knowledge-base of the biological sciences.

SHA's long-term vision for SCEETR involves more active stakeholder participation in creating a place that reflects local needs for recreational green space as well as Schuylkill County educators' needs to execute experiments and pursue applied education outside of the formal classroom. With a lack of STEM education in the area, this will allow students more exposure to environmental work in the area, informing students and other locals of AMD issues and remediation efforts.

In addition to further increasing general science literacy, curriculum used at Silver Creek exposes youth to the environmental science field through meaningful experiences that may inspire them to attend college or pursue careers in conservation. Schuylkill County faces an unemployment rate of 6.8%,³ SHA is hopeful that as area residents achieve higher levels of

³ All poverty data for this paper was sourced from OpportunityIndex.org

education and the local economy becomes more diverse, there will be greater economic opportunity for future generations.

Nearly 400 volunteer community improvement groups like Schuylkill Headwaters Association have formed in Appalachian coal country to combat poverty and the environmental impacts of legacy mining, and in the OSMRE/VISTA Team's thirteen year history, 386 young professionals have joined these groups in their work. Through projects like SCEETR, OSMRE/VISTAs creatively engage local challenges like AMD remediation by building local capacity, promoting educational opportunities, and empowering the community to be environmental stewards.

The OSMRE/VISTAs serving with the Western Hard-rock Watershed Team serve with projects engaging similar watershed challenges. Throughout Colorado and New Mexico, rural communities, diverse forests, and precious waterways have been severely impacted by legacy mining and industrial flux. Hard-rock mining companies left as hastily as they arrived, leaving abandoned lands laced with toxins or devoid of nutrients. Pollution seeps from abandoned mines, tailings piles, and waste rock piles, staining rivers orange and leaching toxic concentrations of metals like Fe and Al into streams and groundwater. These heavy-metal concentrations kill fish, stunt plant growth, and severely impair the region's streams and rivers, preventing them from properly supporting the surrounding ecosystem and wildlife sanctuaries. OSMRE/VISTAs recognize that healthy forests and watersheds are critical to protecting the extensive and diverse life found across the Rocky Mountain West. Their projects work to reverse the overuse and abuse by communities along their waterways, conserving and protecting natural resources and wildlife sanctuaries through filtration and other best watershed practices.

Communities across the country are working to reclaim their waterways, and OSMRE/VISTAs are joining in that work. OSMRE/VISTA Lorraine Garcia serving with the Hermits Peak Watershed Alliance (HPWA) is currently developing partnerships and writing an Urban Waters grant application for \$50,000 to improve a portion of the Gallinas River which runs through Las Vegas, New Mexico and is a source of city drinking water. The mission of the Hermits Peak Watershed Alliance is to foster land stewardship to ensure the long-term vitality of the human and natural communities of the Hermit's Peak region, specifically the Gallinas, Sapello, and Tecolote watersheds. Outside of the Las Vegas urban area, upstream stretches of the Gallinas River have been restored through bank stabilization, development of fish habitat and planting of native plants.

Lorraine has been acting to garner the support of the City of Las Vegas, Friends of the Wildlife Refuge, the Department of Transportation, and two local contractors in creating a collaborative plan focusing on a similar revitalization the Gallinas River's urban stretch. The restoration project entails building in-stream structures, storm water treatment, drainage, and widening a flood plain for a fifth of a mile on the river. Currently the size of the project is limited due to the high cost of each structure, but HPWA hopes that with demonstrated success, the city of Las Vegas will fund restoration of the river's complete urban stretch which is about 2.5 miles.

As an OSMRE/VISTA Lorraine has played a key role in gaining city support to improve the walking trail that parallels the river and install signs for interpretation. The signs along the walking trail will highlight the benefits and reasons for in-stream structures, increasing community education on local environmental issues. Improving storm water drainage and attracting visitors to walk along the river and shop at local businesses are dual goals of the project. With 26.7% of the population in San Miguel county living below the poverty level, any revitalization work within the town will benefit the region. The river improvement and trail creation will encourage transactions with local businesses and add value to the downtown area of Las Vegas, increasing tourist activity in San Miguel County – revitalizing both the local ecosystem and economy.

Within another community in Colorado, the Lake Fork Valley Conservancy in Lake City has been focusing their efforts to restore a waterway downstream from its local old Ute-Ulay Silver Mine complex. This project, known as the Henson Creek and Lake Fork River Enhancement Project, is parceled into two phases to improve nearly two miles of the lower Henson Creek where it joins the Lake Fork of the Gunnison in the Town of Lake City and passes through private property downstream. The project's mission is to realign areas of the river that threaten public trails, restore flow to Lake City's historic irrigation channels, stabilize banks, and enrich trout habitat for fly fishing. This project builds on the community engagement of OSMRE/VISTA Casey Carrigan, who created a short survey to gauge community interest in the enhancement project in early 2012 and gathered 100 responses from community members and land owners.

Current OSMRE/VISTA Stephen Norton tracked and documented Phase I of the project, which entailed the restoration of the banks of the Lake Fork River upstream from its confluence with Henson Creek and the construction of a park and river bank extension at the confluence. Before the construction, the edge of the town's "Memorial Park" ended in a highly eroded, inaccessible

cliff side. Now there is easier public river access which supports the town's summer tourism, recreation, and fly-fishing industry. Stephen along with the previous OSMRE/VISTA, Katherine Daly, wrote grants and coordinated community events to raise project funds, developing partnerships to focus the vision and advance the enhancement project. Stephen, who just began his second VISTA term is focused on enhancing Memorial Park (at the town's south end) and creating a new public park at the town's north end. When the project is completed, the parks will have 500 feet of new trail lined with historical and ecological interpretative signs and a waterfront terrace for gathering and recreation. The LFVC OSMRE/VISTA project aims to support the local economy by restoring the Lake Fork River. In Lake City, abandoned mines threaten to continue releasing heavy metals into the rivers, and the community struggles to produce viable jobs. The tourist season serves as the town's major economic generator. This is crucial for the population of 2000⁴. The river enhancement and interpretive trails project will improve public access to the river and increase the tourist attraction for town events.

Another OSMRE/VISTA project that demonstrates the impact VISTAs have in building the capacity of community organizations engaged in environmental stewardship is the San Juan Watershed Group (SJWG) in Aztec, NM. OSMRE/VISTAs who have served with SJWG have cultivated partnerships, projects, and outreach initiatives. The SJWG engages citizens and local agencies working to raise the San Juan River and all its tributaries' water quality to the national standard. The SJWG and OSMRE/VISTAs that serve with the organization understand that protecting local natural resources benefits the area's residents, particularly those living in poverty, which includes 20.4% of the population in San Juan County. Melissa May, the first OSMRE/VISTA with the project, played a major role in developing the organization's proposal for an EPA Section 319 grant to fund a microbial source tracking program for the San Juan Basin

⁴ The recreation and tourism industry is the second largest employer in the nation, supporting jobs for more than 6.8 million people and generating more than \$450 billion in 1996. Martin Donohoe, 2003,



Left: Confluence – Enhancement Project Phase1/Day 1.

Right: The newly completed park at the confluence of Henson Creek and the Lake Fork River.

in 2011. SJWG hoped to use MST technology to identify the animal source (e.g. human waste, cattle, waterfowl, etc.) of *E. coli* samples to target source locations of bacteria within the watershed. Sections of the San Juan, La Plata, and Animas Rivers are all currently listed on the 303(d)⁵ for fecal coliform bacteria. Although the initial application for the EPA 319 Funding was rejected, Melissa helped to acquire funding for the MST study from BHP Billiton, owners and operators of New Mexico Coal. The EPA 319 proposal was also later integrated into another grant proposal to the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) by the organization's second OSMRE/VISTA Julia Campus, this grant successfully procured additional funding for the project. The partnership with BHP Billiton has provided technical support and funding for the creation of a publicly available GIS database to house the data collected from the Microbial Source Tracking (MST) project which was started in 2013.

⁵ State listing of impaired waterbodies required by the Clean Water Act. <https://www.scdhec.gov/HomeAndEnvironment/Water/ImpairedWaters/Overview/#1>

Julia Campus planned and recruited a GIS committee which developed an outline for the database making it publicly accessible and user-friendly, increasing it's usefulness for area residents and local conservation professionals.

The current OSMRE/VISTA Conn Fraser continues to coordinate and organize outreach meetings to educate the public about the MST study results regarding agriculture, waste water treatment and septic systems, and their impact on the E. coli levels in the river. The completed meetings have allowed the public to share ideas, and better understand their local ecosystem. The OSMRE/VISTAs at SJWG have also developed an Outreach Committee which writes articles for local papers, develops educational materials for schools, and generally introduces the public to the work of SJWC and water quality in the Four Corners area. Each OSMRE/VISTA has assisted in developing and organizing a public Watershed Forum geared towards educating people about water quality in the region. The current OSMRE/VISTA continues to assist with educational activities such as training Navajo Prep students for the EnviroThon Environmental Education Competition. These efforts to increase community education and outreach have furthered the long-term goal of the organization to engage all citizens who live in the watershed and use the water, ultimately gaining community buy-in to SJWG's projects.

The success of the San Juan Watershed Group was integral in establishing an OSMRE/VISTA project at Animas Watershed Partnership (AWP), an organization developed to mirror the work of the SJWG upstream in Durango, Colorado. The AWP OSMRE/VISTA often collaborates with Conn on San Juan Watershed issues.⁶

Western Slope Conservation Center (WSCC), another current OSMRE/VISTA project in Paonia, Colorado, is located in an area affected by gravel pit mining. Nine OSMRE/VISTAs have been involved in area remediation and conservation efforts in the past six years, addressing energy development, public lands, water quality monitoring, recycling, river restoration, and public access. These OSMRE/VISTAs have been a vital resource in long term planning and community partnership development. OSMRE/VISTAs at WSCC have helped develop Action Plans for the Delta County Recycling Committee, expanding the work of previous VISTA's.

⁶ Daniel Lassman, the first AWP OSMRE/VISTA, served on AWP's VISTA Committee – sharing advice and knowledge to help with future VISTAs adjustment to VISTA service, a Four Corners VISTA survival guide was created as a resource.

This goal setting document assisted the OSMRE/VISTAs in gaining new public relations partnership for the Committee with the Delta County Commissioners. OSMRE/ VISTAs with WSCC have also taken on the development of outreach tools and educational opportunities, contributing to WSCC's committed efforts to effectively connect the community to informational materials on local conservation issues available via their website, Facebook, newsletter, and weekly emails.

WSCC's main OSMRE/ VISTA project focus has been the development of the Paonia River Park which was a former in-stream gravel pit. This park is the only access point to the 33 mile North Fork of the Gunnison River and a product of years of collaboration between local watershed groups, town government, and citizen volunteers - all facilitated and managed by the WSCC. OSMRE/VISTAs have assisted in securing funding, documenting and promoting the in-stream river restoration projects to increase fish habitat, facilitating the construction of an ADA path connecting the park parking lot and riverside trail, and installation of integrated artwork and fencing. Improvements to the park offer a more functional, interactive, and aesthetic space to gather and enjoy the river, and serve as the first phase in a development plan which will eventually transition park ownership to the Town of Paonia.

With the help of the OSMRE/VISTAs, the organization has been able to incorporate public input into park planning. In May 2013, the WSCC received a \$45,000 grant from Colorado Parks and Wildlife to create a plan for trails and other improvements at the River Park. Public engagement was a top priority, and OSMRE/VISTAs assisted in organizing, promoting, and facilitating three public meetings hosted by the nonprofit. The public meetings included a tour of the Park, and a presentation by the project's Landscape Architect of the concept design and plan for Park trails and improvements. Comments and suggestions from these gatherings led to several important revisions in the plan, which reflected the park user's interests. There was also a final public meeting to present the final master plan. OSMRE/VISTAs assisted in marketing the public meetings which served as vital opportunities to promote the Park plans in local media and on social media.

As a project with the OSMRE/VISTA Team, WSCC was able to apply for and host a National Civilian Community Corps (NCCC) crew, a team of direct service members who serve a variety of organizations and projects within a few weeks. For six days in June 2013, a NCCC team of eight members served alongside Paonia community members to clean up and improve a half mile of

trail, remove debris from the river bank, install fifteen Waterboxx planter boxes, and plant 30 trees in the Paonia River Park. Additionally, they helped weatherize a gazebo and paint a stadium sign board in the Paonia Town Park. The River Park is a positive revitalization project within the community, offering local employment opportunities for local artists, architects, and builders, and improving green space for a community where 14.6% of the population lives below the poverty line.



Local artists, architects and volunteers helped put together the beautiful landscape that makes up the Paonia River Park. This was made possible in part through the human capital that our OSMRE/VISTA Team provides.

Environmental stewardship represents the proven key to alleviating poverty and related problems in communities affected by the environmental impacts of mining. Whether through education or remediation efforts that provide cleaner waterways, environmental stewardship addresses the immediate need of all communities for healthy watersheds. Additionally, by addressing at-risk ecosystems in rural communities, environmental stewardship provides “an income source to those without other assets, [as] ecosystems moderate and buffer the rural economy and increase economic equity⁷.” Environmental and economic impacts are closely

⁷United Nations World Resources Report, <http://wri.org/publication/world-resources-report-2010-2011>

linked, particularly in rural areas where natural resources can be cultivated into supplementary income.

Economic Opportunity and Poverty Alleviation

Fueling the industrialization of the United States, coal mining supported economic growth for more than a century in Appalachian coal country. The birth of the coal industry built hundreds of new coal-company towns in Appalachia populated by thousands of citizens. Between wealthy coal barons and many hard-working coal miners, these Appalachian communities were proud places with busy beginnings. The dramatic closure of mines after World War II left many unemployed, creating a depressed economy and a landscape compromised by years of unregulated resource extraction.

OSMRE/VISTA Nathan Tauger lives and works in a building called The Mullens Opportunity Center, or as the community affectionately calls it, “The MOC” in Mullens, WV. The building serves as a community incubator where office space is cheap and ideas become reality through the leadership of community champion Dewey Houck. Nathan serves with Rural Appalachian Improvement League (RAIL), and is focused on starting and creating a West Virginia AmeriCorps Youth Program utilizing the resources available through the MOC, RAIL, and Dewey Houck. The year-long program will focus on providing ten local youth opportunities to develop professional skills while advocating for and protecting the environment through community service. In Wyoming County, 25% of the population and 30% of children live below the poverty line, and the unemployment rate is 4% higher than the national average – this shows a need for economic opportunities in the form of job skills and employment options in the community.

One of the main pathways for these youth will be the opportunity to develop sustainable farming practices on Abandoned Mine Land (AML). The youth will learn the process of farming from preparation of soil to harvesting the produce, or farm to plate. RAIL has acquired plots of land that will hold multiple hoop houses per plot. One hoop house has already been built with the help of volunteers.

Nathan has reached out to other local Conservation Corps and Youth Corps to get advice and ideas on how to create a model member development program. He has also visited the high schools in the surrounding area to promote the program and is in contact with local community colleges, in order to provide the youth involved in the project with information about enrolling in college

and filing for financial aid. Each youth in the program will have a local resident serve as their mentor, providing support and guidance all along the way. Nathan has presented at the local Rotary Club to gain mentors for the program and walked away with donations and promises of support, he is tirelessly searching out community resources and partnerships to make the Youth Program a reality.

By empowering young leaders, communities once powered by coal are finding new sources of economic opportunity. OSMRE/VISTAs are providing support to these community efforts.

OSMRE/VISTA Ryan Devine served in Wayne, WV at Coalfield Development Corporation (CDC). CDC's mission is to provide quality and affordable homes, create quality jobs, and generate opportunities for improved quality of life for low-income families in southern West Virginia. CDC provides training to disadvantaged youth through a program called Quality Jobs Initiative (QJI). Through this program, youth get on-the-job construction training and some in-class education. Currently, CDC has two active QJI programs, one in Wayne, WV and the other in Mingo County. There are ten current members in the program across the two QJI groups. Wayne County and Mingo County, WV have unemployment rates above the national average (6.4% and 11.3%, respectively). The poverty level for the counties also lies well above the national average (20% and 22.9%, respectively). The QJI programs provide opportunity to an impoverished region through job and life skills training.

OSMRE/VISTA Amelia Pridemore assisted with getting the QJI program started with an Arts Place America grant. This grant assisted in acquiring the Corbin warehouse, which is currently being renovated by QJI members to create a multi-business community center. The Quality Jobs initiative is structured on what is called the 33-6-3 model. CDC is a licensed general contractor that is involved in several types of construction in the community, as well as deconstruction projects, which facilitates hands-on construction work for its members 33 hours a week. Six hours a week are devoted to classes in which crew members attend a local community college. Local community colleges, partner with CDC to give credit for certain on-the-job training activities that take place during the 33 hour portion of practical learning. This enables crew members to receive the equivalent of full-time credit, giving them the opportunity to complete a degree in two years' time. Crew members also commit to participating in three hours of life skills training a week

where they are challenged to learn about managing finances, culture, physical health, and other things essential to live a quality life.

The Corbin warehouse will house an art gallery attached to eight apartment units called a “live-work” area, a sound recording studio, a café, and perhaps one day a dance studio. Mil conducted and recorded two extensive research documents, which contributed to the relevance of the QJI project. One revolved around the abandoned and dilapidated building problem of West Virginia and the other centered on arts-based economic development opportunities in the West Virginia coalfields. OSMRE/VISTAs are helping reclaim communities through their service.

Bringing quality homes to the coalfields of West Virginia is also a vital aspect of CDC’s mission—it is listed first in their mission of “Quality Homes, Quality Jobs, Quality Lives” because a quality job and life are harder to attain without a quality place to call home. The QJI crew actually assists building and rehabilitating some of these properties/homes. Developing safe, attractive properties that tenants can afford is CDC’s way of achieving that mission. QJI members are also assisting in rehabilitating a local apartment complex, Twelve Point. Several of these apartments were damaged from a recent flood and needed to be gutted and re-constructed.

CDC also endeavors to decrease tenants’ dependency on government assistance. This is why CDC offers the tenants mentoring, as well as educational and career opportunities in order to meet goals that they set for themselves. Building-wide events at each development are also held, because knowing one’s neighbors builds a sense of community in the development and further increases the quality of the home for all tenants.

To date, there have been two members to fully complete and graduate the QJI program. Both students have found employment, one full-time with the cabinet business that provides all of CDC’s homes/properties with cabinets, and the other is working with a local construction crew. Ryan has been documenting the QJI members’ paths through video and interviews, along with reports that the members complete. As said before, there are ten current members in the program. CDC is also looking to expand to a nearby county, Lincoln County, to start a fine-woodworking QJI program.



Members of the QJI program working on construction plans for Twelve Point project.

Another job opportunity that CDC is currently developing will be located at Trout's Hill Coffee. It will be West Virginia's first ever tenant-operated coffee shop, providing employment and training opportunities for the tenants of CDC's Urlings building. In order to assist the coffee shop construction, Ryan started an online Kick Starter campaign with a goal of \$10,000. Relying on his coursework in Film and Media, Ryan created a video for the campaign showcasing the project's accomplishments and work that still needed to be done. The campaign reached and surpassed its goal within a few weeks. The coffee shop's grand opening is scheduled for September 2015, allowing time to complete the construction and train tenants to participate in running a business.

Through these initiatives CDC is not only breaking the cycle of poverty, but also creating and providing opportunities for those in the community to gain life skills. With the work and assistance provided by the first two VISTAs, CDC's capacity has been built to the point that the organization would like to hire a staff person rather than complete the VISTA project's third year. This falls in

line with the OSMRE/VISTA Team's core goal of building local capacity to create long-term community based solutions.

Economic revitalization within rural legacy mining towns is key to overcome the lasting impacts from the historic boom and bust cycle in both Appalachia and the West. Victor, Colorado is an OSMRE/VISTA project site in Teller County. The city has a rich gold mining history, and a one-industry economy has contributed to 8.2% of Teller County's population living below the poverty line. The city has hosted an OSMRE/VISTA for two and a half years. The current OSMRE/VISTA works with the Main Street program's Downtown Revitalization and Economic Acceleration Movement (D.R.E.A.M.) Committee as well as the Victor Gold Camp Ag and Mining Museum (VGCAMM). The function of the D.R.E.A.M. team is to implement a process of downtown revitalization under the Colorado Main Street Program. The first OSMRE/VISTA (and current VISTA supervisor), Becky Parham assisted in developing an organizational structure, strengthening communication between the four committees and the City of Victor, and applying for and receiving the designation of a Main Street Candidate with the Department of Local Affairs, which opened the committee to more resources.

The Main Street model provides the City of Victor an established framework that empowers local citizens and community leaders. The second OSMRE/VISTA, Melissa Eckhardt helped to build the program's volunteer recruitment strategy, improved outreach materials (brochures, directories, fact sheets, websites, and a mobile app) and developed new partnerships with heritage groups while attending numerous meetings and festivals to promote the town and organization. Current OSMRE/VISTA Kyle DeCarolis has continued the work of the previous VISTAs, assisting with the organization's engagement events (Christmas "Parade of Lights," "Race Day in Victor, CO" and the Gold Camp Christmas that is jointly hosted with a neighboring town.) All of these events have served as substantial economic opportunities for the businesses within the city, as well as opportunities to increase awareness and understanding of the local history and culture. Kyle has assisted in raising awareness of the organization and their events to surrounding towns, contributed to the strategic planning for the development of the Victor Gold Camp Ag and Mining Museum's (VGCAMM) and its volunteer program, and continues building partnerships with other Main Street programs throughout Colorado to foster an exchange of practiced-based knowledge.



Here, Kyle DeCarolis stands with the outhouse cart they constructed as a marketing device to promote Victor Race Day at the Manitou Springs Emma Crawford Coffin Cart Race, thus promoting the Main Street Program.

Community Building and Poverty Alleviation

Environmental stewardship and economic opportunities provide unique spaces for community involvement. Successful capacity building unites a community, and working toward these two goals are productive and viable avenues to community unification. When people work together for a common purpose, like restoring their ecosystem, or providing opportunities for youth, they forge stronger individual and community connections. Social science research shows that people live longer and deal more successfully with disaster and other challenges when they have social networks and connections (Klinenberg, 2002). Community involvement can help improve the lives of people living in poverty – this is true both in improving their ecosystems and building a network of support that improves their chances of survival.

OSMRE/VISTAs know this and are constantly cultivating a sense of community within the rural legacy mining towns and counties they serve. By engaging residents in efforts promoting environmental stewardship and economic opportunity they bring citizens together in common, community enterprises. OSMRE/VISTAs further strengthen local networks through projects that demand a large volunteer and partnership base, building the community's ability to not only

survive, but thrive.

Table 1: VISTA contribution from Fiscal Year 2014, OSMRE VISTA Team data includes both ACCT and WHWT data.

OSMRE VISTA's contributions through 2014			
	ACCT	WHWT	OSMRE TOTAL
In-kind resources developed by OSM/VISTA (\$ value)	\$87,542.76	\$195,776.36	\$283,319.12
Non-grant cash resources developed by OSM/VISTA (\$ value)	\$52,824.29	\$100,024.10	\$152,848.39
Grant-related funding developed by OSM/VISTA (\$ value)	\$346,314	\$300,430.50	\$646,744.50
# of projects either created/facilitated by VISTA that provide volunteer/service opportunities for community	149	214	363
Total # of Hours worked by Community Volunteers	22,805	11,209.50	34014.5
# of new Community Volunteers recruited by VISTA	452	706	1158
# of new economic development projects and/or community revitalization projects developed this quarter	38	88	126
# individuals trained in job or employment skills	36	190	226
# of events that raise awareness about the environment in community and personal health	75	195	270
# of youth served in an education setting	2,939	8,090	11029
# of Acid Mine Drainage (AMD) sites monitored	41	8	49
# Trees planted through projects organized or facilitated by VISTA	6,861	1,783	8644
Projects developed on Abandoned Mine Land	9	3	12

Conclusion

Environmental stewardship, economic opportunities, and community building are key to alleviating poverty in rural areas struggling to respond to the challenges left by legacy mining. By implementing projects to clean up contaminated water, re-use abandoned mine lands, and revitalize former mining boom towns, OSMRE/VISTAs and the organizations they serve are engaging and restoring their communities.

OSMRE/VISTAs provide the valuable resources of human capital and hope. Their contributions strengthen projects which build sustainable solutions to environmental and economic

challenges faced by their communities. Their service as a part of the OSMRE/VISTA Team acknowledges the connections between poverty, environmental stewardship, economic opportunities, and community involvement. OSMRE/VISTAs rally and inspire those within their communities to provide leadership in project implementation after the OSMRE/VISTA's departure, creating a lasting impact of effectively reclaiming communities.

Literature Cited

- Donohoe, Martin. 2003 Causes and health consequences of environmental degradation and social injustice. In Social Science Medicine, 2003 Feb:56 (3):573-87.
[http://dx.doi.org/10.1016/S0277-9536\(02\)00055-2](http://dx.doi.org/10.1016/S0277-9536(02)00055-2)
- Klinenberg, E. (2002). Heat Wave. Chicago: The University of Chicago Press.
<http://dx.doi.org/10.7208/chicago/9780226026718.001.0001s>.
- United Nations Development Programme, United Nations Environment Programme, World Bank and World Resources Institute. *United Nations World Resources Report: Decision Making in a Changing Climate*. October 2011. Accessible online:
<http://wri.org/publication/world-resources-report-2010-2011>.