

<b>SEMIANNUAL PROGRESS REPORT #2 – Urban Waters Small Grant 2014-16</b>  “Neighborhood Environmental Trios: Engaging Youth in the Health of the Middle Rio Grande,” Earth Force	<b>Grant Agreement No. UW-00F85901</b>
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July-December, due by 1/31;     January –June , due by 7/31

<b>Work plan Deliverables Due this period</b> <ul style="list-style-type: none"> <li>• Convene partner forums each quarter</li> <li>• Participate in River Rally 2015 and Urban Waters Learning Network meetings</li> <li>• Support approximately 325 students in watershed inventories, conducting water quality monitoring at Valle de Oro National Wildlife Refuge, and creation of action projects addressing environmental issues</li> <li>• Use data management dashboard to measure results (Conduct evaluation)</li> </ul>	<b>Grant Award</b> <b>\$ 60,000.00</b>
	<b>Previous Drawdowns</b> <b>\$11,545.30</b>
	<b>Drawdowns this Period</b> <b>\$20,033.84</b>
	<b>Balance</b> <b>\$28,420.86</b>

**Deliverables Completed this period and Associated Costs**

- Partner forums were held on 1/14/15, 3/5/15, and 5/7/15, with USFWS, Amigos Bravos, Middle Rio Grande Urban Waters ambassador, City of Albuquerque, Friends of Valle de Oro NWR, and other refuge stakeholders
- Earth Force and project partners facilitated water quality testing, lesson planning, or in-school student activities 21 times during this 6-month period.
- Professional development workshop has been scheduled for 8/4/15, for at least 10 educators, representing 5 new schools currently being recruited for the 2015-16 school year
- Planning held for World Water Monitoring Day in October 2015, potentially in conjunction with EarthEcho International
- Support provided for 472 students from 5 Albuquerque Public Schools, including 12 lesson-planning visits with educators, 2 facilitated field trips to Valle de Oro, 5 self-organized water quality field trips, and 4 educational presentations by students
- Collecting project data to measure results, including environmental inventory data (mostly water quality) and qualitative formative evaluation data from educators and students

Earth Force encumbered \$24,347.14 in the second 6 months of this project, including \$10,200.34 in personnel and \$14,146.80 in direct costs such as equipment and supply purchases, bus rentals, printing, and staff travel, as well as a \$4,000 subgrant to Amigos Bravos. (This total includes June expenses which we not drawn-down by 6/30/15.)

**Project Highlights this period:**

Students developed and implemented impressive environmental action projects. Two schools in particular – Coronado Elementary and Truman Middle School – completed exemplary projects:

Coronado, a dual language school near Albuquerque’s National Hispanic Cultural Center, paired a 1<sup>st</sup> grade classroom with a 5<sup>th</sup> grade classroom to study water quality at the bosque near the Hispanic Center and at Valle de Oro. The 1<sup>st</sup> graders made monthly visits to the Rio Grande and conducted water quality tests, giving their collected data to the 5<sup>th</sup> grade class. The older students took the data and used it as a seed for a year-long investigation into dog waste’s role in urban water quality. Their long-term investigation tied all parts of their curriculum together, and included heavy lessons in science, literacy, art, technology, math, and social studies. They created multiple culminating student products: an Earth Day TV news spot on KOAT, a video explaining stormwater runoff, a PowerPoint presentation, dog treat carriers as a fund-raiser, and a presentation to City of Albuquerque officials explaining their finding and recommendations. Educators Lauren Gutierrez and Barbara Andreu

rose to the challenge this project presented, worked diligently, and exceeded expectations.

Truman Middle School, through the 120-student MESA (Math Science Engineering Achievement) enrichment program, conducted chemical, physical, and biological tests at their school and the refuge. Finding elevated phosphorus levels in their samples, they searched for and studied informational texts about phosphates. For their action project, they prepared a presentation about their study, and included tips about reducing phosphate pollution. It was presented at River Rally (May 2) and the MESA Awards Banquet and Parents Night (May 4). Educators/advisors Lynn Schuler and Jenny Duff guided this work and have both expressed excitement for continuing with Earth Force in the coming school year.

At Montessori of the Rio Grande and Lew Wallace Elementary, projects were planned and partially implemented. Montessori students learned about ecological restoration at the refuge. They took their learning back to their school campus, applying it to planting suggestions around a constructed wetland. Lew Wallace's 3<sup>rd</sup>-5<sup>th</sup> gifted students planned a May water festival, but were unable to host the event due to scheduling conflicts. No project resulted from our work at Ernie Pyle Middle School, though they did conduct inventorying activities.

Quarterly partner forums allow for coordination among the project team. Our January 14 discussion focused on river safety and resulted in a "Water Safety Policy" distributed to all of our schools. On March 5, representatives of organizations conducting educational activities and environmental research on the refuge met with community members, and shared progress reports in a round-robin. On May 7, a similar group convened; Earth Force facilitated a SWOT Analysis (Strengths-Weaknesses-Opportunities-Threats). A set of strategic suggestions for education at the refuge was captured.

As part of our project evaluation, we conducted a series of Most Significant Change Technique interviews. Stories from 5 educators and 6 students were captured. These interviews are the qualitative portion of our project's evaluation. We also began planning for administering our pre-/post-student surveys, which are the quantitative evaluation component.

After Albuquerque Public Schools released on May 22, we began summer work on three major tasks: qualitative evaluation analysis (transcribing interviews, pulling out themes, and documenting memorable stories for presenting to participants), activity guide revising (writing an environment history of the South Valley, selecting geographically and ecologically appropriate activities (including scanning macroinvertebrate data for a Middle Rio Grande specific biological index), and school recruitment.

We had an active six months sharing our project in professional circles. At River Rally (May 1-4 at Santa Ana Pueblo), we took part in Friday's Urban Waters Learning Network meetings, presented KIC-NET as part of "Youth Take Action: Three Creative Approaches to Youth Engagement" on Saturday, and had seven students and two educators from Truman Middle School present their project as a poster during the networking reception on Saturday evening. In February, a fact sheet about KIC-NET, "An Urban Waters Impact Story: A Model to Engage Youth," was published by the Urban Waters Learning Network. We had peer-reviewed presentations accepted for three upcoming conferences: Water Environment Federation Technical Exhibition and Conference (Sept. 30 in Chicago), North American Association for Environmental Education Annual Conference (Oct. 17 in San Diego), and American Water Resources Association Annual Conference (Nov. 19 in Denver). Finally, KIC-NET was accepted as an "Accomplished" program in Change the Equation's Colorado STEMworks database.

For our autumn World Water Monitoring Day event, we met with EarthEcho International (home organization for World Water Monitoring Challenge) about scheduling Phillippe Cousteau for an appearance. This remains tentative.

**Problem Areas, Delays, or Areas of Concern for this period:**

In response to feedback from teachers, we worked with our partners at Amigos Bravos, Valle de Oro National Wildlife Refuge, and the Friends of the Valle de Oro National Wildlife Refuge to modify project duties in Year 2, especially in interfacing with students. Julia Bernal, a Native

American Water Corps member who has been working at Valle de Oro for the last year, will have her term extended through the cooperation of the refuge, the Friends group, Amigos Bravos, Earth Force and Conservation Legacy/Environmental Stewards. With her environmental education experience, Julia will be the first choice for facilitating field work for students at the refuge. Christian LeJeune, Amigos Bravos Urban Waters coordinator, will focus on their project and other monitoring work, while remaining available to consult on student analysis and action projects.

**Unresolved Problems, Delays, or Areas of Concern from the Previous Period**

We continued to manage our budget, with the recognition that about \$5,000 in additional funding for our Year 2 would allow us to meet all transportation and equipment needs. The Friends of Valle de Oro did earmark \$5,000 for transportation to and from the refuge. We continue to discuss this with partners and to search for additional support.

**Resolutions to Problems Previously Reported**

The MOU between Earth Force and the City of Albuquerque was signed on March 10, 2015. It will be completed on October 31, 2015, with payment of \$10,000 to be invoiced on the closing date. These City dollars serve as part of our project's match. In addition, we will work with partners, especially schools, to capture further match since many educators are putting many hours into this project.

Erika C. Rodriguez was hired as an Earth Force program coordinator in January 2015. She holds a BA from Lake Forest College in environmental studies, educational studies, sociology, and anthropology. Having administered an environmental leadership program for three years, she has experience in stream monitoring and environmental education, with both adults and youth. She joins Donny Roush and Genora Givens as Earth Force staff assigned to this project.

**Activities Anticipated/Planned for Next Six Months and Budgeted Costs:** We will hold a partner forum at the refuge on Aug. 3 and a full-day educator professional development workshop on Aug. 4. We will have the Albuquerque edition of the KIC-NET Activity Guide to distribute at this workshop. On Aug. 5, Donny Roush and Erika Rodriguez will participate in a New Mexico Museum of Natural History and Science educator workshop on the Bosque Education Guide. We will distribute copies of this extensive curricular resource and the KIC-NET guide to all project schools following the workshop.

Planning will continue for World Water Monitoring Day. Scheduling of field work/school visits to the refuge will be made through Valle de Oro AmeriCorps water educator Julia Bernal, whose term is being extended. Bus rentals will continue to be paid directly by Earth Force. During the school year, we will have five new schools to support, as well as student surveys and a May youth summit to organize. The summit will serve as a culminating and public demonstration of learning, with table top displays, student presentations, and an authentic audience of stakeholders.

I certify that this report is true and correct, project is on schedule except as noted, and funds are being utilized as planned and agreed to in the award document.

Signature of Project Official \_\_\_\_\_

Printed Name Donny Roush

Date 7/23/15

Title Director, KIC-NET Stormwater Partnerships

**Attachments:**

1. Coronado Elementary 5<sup>th</sup> grade presentation
2. Truman Middle School MESA presentation
3. Earth Force Water Safety Policy

4. May 7 partner forum minutes
5. Most Significant Change Technique interview guide
6. River Rally 2015 presentation
7. Urban Waters Learning Network fact sheet
8. Change the Equation acceptance letter and review summaries
9. Pierce Foundation letter
10. Erika Rodriguez resume
11. Amigos Bravos status report
12. EJSSCREEN report on Albuquerque's South Valley

**Media links:**

Friends of the Valle de Oro newsletter:

<http://friendsofvalledeoro.wildapricot.org/Resources/Documents/Volume%20%20Issue%201%20January.pdf>

Valle de Oro social media: <https://www.facebook.com/ValleDeOroNationalWildlifeRefuge>

Earth Force social media: <https://www.facebook.com/EarthForceGREEN?fref=ts>

<http://earthforce.org/blog/kic-net-program-flourishes-in-and-out-of-the-water/>

<http://blog.yourwatercolorado.org/2015/02/19/colorado-water-education-pilot-project-expands-nationally/>

"There's too much dog poop in the Rio Grande," April 22, 2015 – KOAT-TV News: <https://youtu.be/lxrPHWFODs4>