

**Rhode Island Rivers Council
FY2015 Legislative Grant Program
Project Final Report Narrative**

Watershed Council: Narrow River Preservation Association (NRPA)

Funded Project: Exploring Narrow River through the Lens of Science and Art

Project Summary: *On Tuesday morning, June 9, 2015 several yellow school buses rolled into the Middlebridge Marina parking lot at 9:30 am with 100 6th grade students from Narragansett Pier Middle School and their teachers and some parents ready to explore Narrow River through science and art activities developed by NRPA Board members Richard Grant, Charlie Biddle and Veronica Berounsky and by Janet Stone, 6th grade science teacher at the school. The students used seine nets to collect river creatures, sketched the riverscape, made fish prints on t-shirts, measured the amount of salinity and other parameters in the water, and pressed seaweed prints. But more importantly, by the time the students left at 1:30 pm, they had got their feet wet, they became curious, and they enjoyed the hands-on learning. All involved considered it a rousing success and we believe we have gained 100 new stewards of Narrow River. The event was sponsored by NRPA with a grant from the RI Rivers Council and the RI Water Resources Board.*

Background: The mission of the Narrow River Preservation Association is to preserve, protect, and restore the environment and the quality of life for all communities within the Narrow River Estuary and Watershed. As stewards of the watershed, education has always been a primary focus of NRPA. In 2012, the Town of Narragansett (through the Narragansett Land Conservancy Trust) bought a 9.51 acre piece of river front property adjacent to the Middlebridge Bridge in Narragansett, RI. The Narragansett Land Conservancy Trust approached Narrow River Preservation Association (NRPA) about holding educational activities on the property that would highlight the property. For NRPA this is a tremendous opportunity to highlight the property as a center for educational programs and to increase awareness of the unique cultural and natural history and also the challenges facing the Watershed. For the past two summers, NRPA has held monthly family-oriented summer programs that focused on learning about Narrow River and its Watershed through science and art. With this RIRC grant we have been able to run a day long similar program for all the 6th grade school children of Narragansett.

Accomplishments: This has accomplished several goals: 1. It built interest and enthusiasm for the summer programs. 2. It introduced a new audience to the site and its education opportunities. 3. The students and their teachers learned much about Narrow River while taking part in “hands on” activities and having fun. 4. NRPA now owns equipment and supplies needed for these art and science activities so the program can be self-sustaining. 5. The “Field Studies Notebook”, a deliverable of the project, describes the activities in detail and can serve as a guide for a similar day with other students. 6. NRPA found out which art and science activities were of most interest to the students and which activities needed some adjusting. 7. The Town of Narragansett was interested enough to ask us to put on a similar day for their summer day camp.

What we did: After the students left the bus, they were given a string backpack imprinted with the NRPA logo and containing supplies for the day’s art and science projects. Seeing students wearing these backpacks all day was a good sign that they would use them. By wearing this backpack at school and bringing them home, it is hoped that siblings and parents and friends will ask about the Narrow River activities and the student will share what she/he has learned. See attached “Field Studies Notebook” for details of the day’s schedule and activities. This field notebook also contains maps and data sheets that the teachers can download and print for the activities along with lists of species and fact sheets for the River and its organisms.

The activities and their goals for middle school students are listed below:

Activity	Goal
#1 What’s in the River? Living Organism in the Estuarine Environment	Learn about the animals and plants that live in the waters and sediments of the River.
#2 Water Quality Testing	Learn how to test the quality of the water for pH, salinity, nitrogen, and read temperature
#3 Making Fish Print T-shirts	Learn this technique while also learning about fish.
#4 Pressing and Printing Seaweed	Learn how to press seaweeds (algae) while also learning about different types of algae.
#5 Images of the Narrow River Estuary	Walk along the salt marsh, look back at Middlebridge, and be inspired to draw.

Who worked on the project: Originally two NRPA Board members, Richard Grant - an accomplished painter, and Lynn Wolslegel – a retired former science teacher, were going to oversee the project. As mentioned in our interim report, Lynn Wolslegel had a family situation arise and she could not participate but NRPA Board members Charles Biddle and Veronica Berounsky stepped in to help. Both have been very active in the summer educational program and were a great asset to the program. NRPA’s contact at the Narragansett Pier Middle School, 6th grade science teacher Janet Stone, was unbelievably helpful and enthusiastic and knowledgeable. The program could not have been carried out so successfully without the other activity leaders: Pati Sylvia, a painter and also a member of the Narragansett Land Conservancy Trust; Jeanne Tsakeres, a retired Narragansett Middle School teacher; Catalina Martinez, a marine educator with the National Oceanic and Atmospheric Administration (NOAA) based in Narragansett; Sheldon Pratt, a marine researcher at the Graduate School of Oceanography in Narragansett; Terry Burke, Narragansett Middle School art teacher; and also the NRPA Program Coordinator, David Smith.

Positives of the Project:

- The enthusiasm of the students for most of the activities was very evident. You know students will enjoy seining in the River and painting with fish, but they also found it “cool” to see what was left on a filter after river water strained through it.
- A key factor is the teacher. Because Janet Stone has an excellent reputation as a science teacher and has a large network, we were able to get volunteers to lead the activities that we weren’t running ourselves. Janet was also able to get several parent volunteers and even a former student to assist with the activities.
- By putting photos on Flickr on the www.narrowriver.org website, students and teachers were able to look at them. You can also reach them directly via

<https://www.flickr.com/photos/126585095@N02/sets/72157653953565858>

Challenges of the Project:

- The Project's first challenge was finding out that one of the principals of the grant, Lynn Wolslegel, would not be able to participate. Although there are no other science teachers on the NRPA Board, other Board members were able to fill in.
- The "Images of the Narrow River Estuary" Activity only engaged a limited number of students. As one of our artist pointed out, "a blank piece of paper can be very intimidating". For the next time we do this, we may give the students paper with outlines of the river scene or of river animals or plants that they can complete.
- It was difficult to get the local press to come out and cover the event because they are short staffed. Also, despite a lengthy phone interview and emailing photos, the story was bumped because of all the graduation stories. Instead we will be submitting photos again with a news release to the local papers.

Explanation of leveraged funds:

An NRPA Board member who is a trained scientist revised and updated the 2005 Field Studies Notebook to reflect the Middlebridge location and planned Art and Science activities for this project. This cost is leveraged funds and time is valued at \$100/hour for 5 hours of a trained scientist for a total of \$500.

There were several meetings for planning attended by NRPA Board members Richard Grant, Charles Biddle, Veronica Berounsky and Narragansett Pier School science teacher Janet Stone. This cost will be leveraged funds: \$100/hour for an artist, an experienced outdoorsman, a scientist and a science teacher for 2 hours times three meetings for a total of \$600 time 4 people equals \$1200. Janet Stone and Veronica Berounsky also met four more times for 1 hour each to go over details and order equipment and supplies so this would be 4 hours times 2 people times \$100/hr equals \$800. So the total leveraged time for planning was \$2000.

Tuesday June 9th was the Art and Science Field Day. NRPA Board members were on site 9:00 am to 2 pm (5 hours). Hours for science teacher Janet Stone were usual school day hours. For the 3 NRPA Board members, this was leveraged hours (funds): \$100/hour for 5 hours of 3 Board members = \$1500. There were also four volunteers that led activities. Two were on site for 5 hours. Two were trained scientists so spent 3 hours onsite and spent 1 hour preparing and 1 hour putting supplies and equipment away. So four additional people spent 5 hours each working on Field Day for a total of 20 hours times \$100/hr equals \$2000. Together, people leveraged \$3500 on the Field Day.

The final report was written by the Board member who is a trained scientist \$100/hour for 4 hours by the Board member, plus one hour of review by other Board members (artist, outdoorsman, and scientist, or) for a total of \$500.

Total leveraged hours equaled leveraged funds of \$6,500

**Rhode Island Rivers Council
FY2015 Grant Program
Original Budget Form**

Organization: Narrow River Preservation Association (NRPA)

Project: Exploring Narrow River through the Lens of Science and Art

Date: Oct 20, 2014

Item	Paid by Watershed Council	Paid by Rivers Council	Leveraged Funds	Total Project Cost
STAFF AND CONSULTANTS				
Salaries and Wages		\$200	\$2300	\$2500
Consultants/professional fees				
PROGRAM				
Travel - Bus rental (2)		\$400		\$400
Supplies for field – see budget details		\$264		\$264
Supplies for students – see budget details		\$550		\$550
Computer flashdrives	\$100			\$100
EQUIPMENT (please describe)				
Seine net		\$120		\$120
Waders (2 pair)		\$160		\$160
Microscope		\$200		\$200
Refractometer		\$100		\$100
OTHER (please specify)		\$200		
TOTAL	\$100	\$2194	\$2300	\$4394

**Rhode Island Rivers Council
FY2015 Grant Program
Final Budget**

Organization: Narrow River Preservation Association (NRPA)
Project: Exploring Narrow River through the Lens of Science and Art
Completion Date: June 30, 2015

Item	Paid by Watershed Council	Paid by Rivers Council	Leveraged Funds	Total Project Cost
STAFF AND CONSULTANTS				
Salaries and Wages		\$200	\$6500	\$2500
Consultants/professional fees				
PROGRAM				
Travel - Bus rental (2)		\$228		\$228
Supplies for field – see budget details		\$596		\$596
Supplies for students – see budget details		\$654		\$654
Printing & laminating aerial photos	\$22	\$18		\$40
Computer flashdrive (1)	\$21			\$21
EQUIPMENT (please describe)				
Seine net		\$61		\$61
Waders (1 pair)		\$199		\$199
Microscope (2, different types)		\$144		\$144
Refractometer (4)		\$93		\$93
OTHER (please specify)				
TOTAL	\$43	\$2194	\$6500	\$8737

Notes on the final budget: Because RIRC awarded all the Watershed Council proposals an extra \$200, we decided to buy better quality waders that should last longer and have a lifetime warrantee. Also, because the Field Studies Notebook could be emailed, we only need one flashdrive. The \$22 for printing and laminating aerial photos is paid for by NRPA to cover the \$21.75 budget overrun.

Budget Details: RIRC FY 2015 grant to NRPA

	amount	price each	total price
student supplies			
string backpacks	100	\$3.06	\$306.00
t-shirt for fish print	100	\$3.13	\$313.00
NRPA pencil	100	\$0.10	\$10.00
crayon 4 pack	100	\$0.25	\$25.00
SUBTOTAL STUDENT TAKEHOMES			\$654.00
transportation			
bus and driver	2	\$113.75	\$227.50
SUBTOTAL BUSES			\$227.50
Activity supplies			
What Lives in the River? Living organisms in the estuarine environment.			
seine net	1	\$58.78	\$58.78
seine poles	2	\$1.00	\$2.00
dip nets	2	\$4.99	\$9.98
bait net	1	\$1.99	\$1.99
waders	1	\$199.00	\$199.00
compound microscope for slides	1	\$84.98	\$84.98
dissecting microscope for dish	1	\$58.48	\$58.48
slides and cover slips (package of 75)	1	\$5.75	\$5.75
forceps	2	\$3.75	\$7.50
light	1	\$0.00	\$0.00
solar powered aerators	2	\$29.99	\$59.98
buckets	4	\$1.00	\$4.00
shovels	4	\$1.00	\$4.00
sieves - smaller mesh	2	\$11.44	\$22.88
sieves-bigger mesh	2	\$10.65	\$21.30

Water Quality Testing

refractometer (for salinity)	4	\$23.20	\$92.80
salinity calibration solution	1	\$5.00	\$5.00
pipettes for refractometer	1	\$6.10	\$6.10
digital thermometers	4	\$11.09	\$44.36
pH paper	1	\$14.95	\$14.95
nitrogen test papers	1	\$25.94	\$25.94
phosphate test papers	1	\$0.00	\$0.00
filters for chlorophyll	50	\$0.42	\$21.00

Making Fish Print T-shirts

paints	10	\$12.00	\$120.00
brushes	20	\$2.44	\$48.80
whole fish	30	\$0.00	\$0.00

Exploring the Salt Marsh

drawing paper	100	\$0.05	\$5.00
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Pressing Seaweeds

trays	8	\$1.00	\$8.00
toothpicks (box) heavy	2	\$1.00	\$2.00
weight paper	100	\$0.05	\$5.00
plant press	3	\$51.20	\$153.60

SUBTOTAL ACTIVITIES

\$1,093.17

NRPA Office work

scanning field studies notebook			\$200.00
print and laminate aerial photos	12	\$3.34	\$40.08

SUBTOTAL NRPA OFFICE

\$240.08

TOTAL OF ALL

\$2,214.75