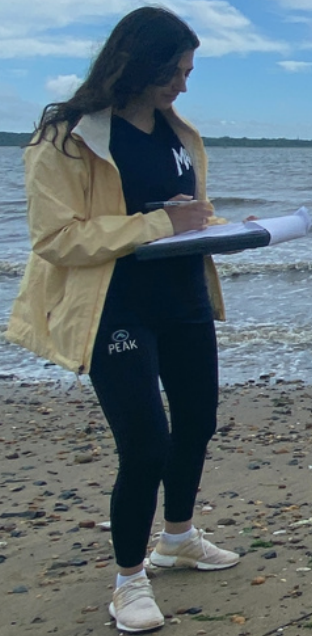




20
22

ANNUAL REPORT



A Message from the Board

Dear Friends of the Lower Raritan Watershed --

The Lower Raritan Watershed is home to soaring bald eagles, colorful trout and over 800,000 people. The balance between these is delicate and something that the Lower Raritan Watershed Partnership (LRWP) is mindful of as we pursue our vision "to restore the Raritan River and Lower Raritan Watershed through science and stewardship."

Our work in the watershed, including the community boat build, water quality monitoring, stream and river cleanups, stormwater management, environmental restoration, and educational programs all point toward a new promise for the Raritan.

We invite you to read a summary of our work in 2022 in the following pages, and join us to continue this work in 2023 and beyond.

The LRWP Board

Amy Braunstein, Esq
Heather Fenyk, Ph.D, AICP/PP
Missy Holzer, Ph.D
David Tulloch, Ph.D
Anton Getz

Johnny Quispe, Ph.D
Alex Zakrewsky
Doriann Kerber
Nandini Checko

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LRWP Vision, Mission & Approach to Action

LRWP VISION:

A HEALTHY RARITAN RIVER AND LOWER RARITAN WATERSHED COMMUNITY, RESTORED AND SUSTAINED THROUGH COLLABORATION, PARTICIPATORY SCIENCE, AND STEWARDSHIP.

LRWP Mission:

The mission of the Lower Raritan Watershed Partnership (LRWP) is to restore, enhance, and conserve, the natural resources of “New Jersey Watershed Management Area 9” (the Lower Raritan Watershed) through community based participatory science and stewardship, environmental and ecological education, and innovation.

LRWP Approach to Action:

The LRWP seeks to foster environmental appreciation and stewardship by staging and supporting nature-centered activities in the Lower Raritan Watershed, by cultivating science through community participation and collaboration in watershed research activities, and by communicating scientific findings about the watershed to residents and established decision-making bodies for informed decision making about policy, land use and landscape change.



About LRWP

The LRWP has no staff. We are grateful to our Board and the dozens of Rutgers, County and other volunteers who help coordinate and provide oversight for our work.

Board President

Heather Fenyk, Ph.D., AICP/PP

Board Secretary

Amy Braunstein, Esq.

Board Treasurer

Alex Zakrewsky

Water Quality Monitoring Outreach Coordinator

Jocelyn Palomino

Streamkeeper Volunteer Monitoring Coordinator

Jon Dugan

Boat Build Team

Derek Hartwick, C. Brian Smith, Amber Hennes, Colin Nickel

Legal Counsel

Philip George, Eric M. Bernstein & Associates, LLC

Web Development

Atanas Entchev, EntchevDotCom, LLC

GIS Special Project Intern

Gavin Wagner

Rutgers Partnerships

Dozens of Rutgers students conducted research and analyses and contributed to LRWP program and/or project development through courses taught or coordinated by Heather Fenyk, Karen O'Neill, David Tulloch and Michele Bakacs. Many thanks to these students and educators. Thanks also to Rutgers Professors Nicole Fahrenfeld and members of her lab including Cristian Sanlatte, Genevieve Ehasz & Piash Ahamed. Special thanks to Dan Van Abs and the Rutgers' Raritan Scholar Internship Program Interns Jonathan Sim and Chris McLaughlin.

Engagement Snapshot

11,100 volunteer hours: \$359,529 in donated labor!*

Fundraising

Total Individual Contributors: 72

Total Contributions from Individuals: \$39,150

Corporate / Foundation Contributions, Grants & Project Revenue: \$32,220



1,423 followers



623 followers



493 followers



16 subscribers



Website Page

Views:

40,000+

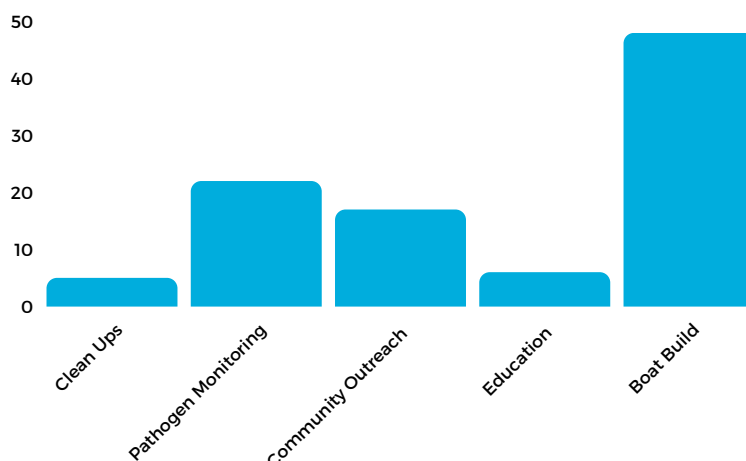


Newsletter

distribution:

1,996

LRWP hosted over 90 Events in 2022



**Based on the 2022 national estimate of \$32.39. This dollar amount is the value of an hour of volunteer time based on the hourly-earnings Current Employment Statistics estimate for private nonfarm and non-managerial occupations, plus a 15.4 percent increase for the value of fringe benefits.*

01: Environmental Monitoring

Pathogens Monitoring

Conducted in partnership with Rutgers Cooperative Extension of Middlesex County, and the Interstate Environmental Commission, our pathogens monitoring programs helps us track water quality issues including disease causing pathogens, fish kills, and red tide. From May - September we report out when the Raritan River is unsafe for boating, fishing or primary contact recreation.

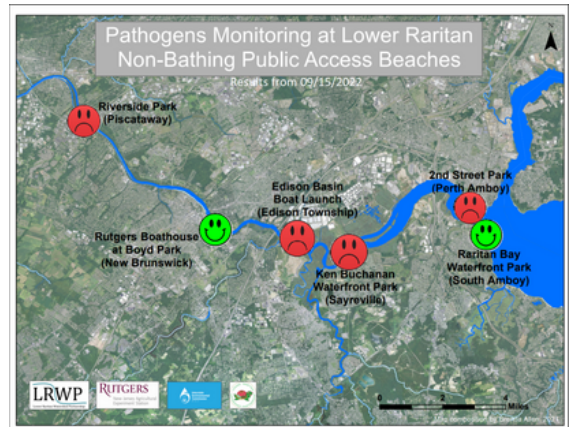
2022 marked the fourth year of our pathogens monitoring program

- Sampling was conducted every week for 22 weeks.
- Weekly results are reported on the LRWP webpage and shared via the Rutgers Hydrological Observatory: <https://tessera.rutgers.edu/rrho/>

Raritan River Pathogens Monitoring Results for 09/15/2022:

Site Name	Time sampled	Enterococcus in CFUs	Fecal Coliform in CFUs	Status
Riverside Park	8:14am	130	570	☹️
Rutgers Boathouse	8:46am	90	800	😊
Edison Boathouse	9:12am	180	1200	☹️
Ken Buchanan Waterfront Park	9:47am	110	520	☹️
South Amboy Waterfront Park	10:15 am	46	240	😊
2 nd Street Park	10:40 am	110	80	☹️

Enterococci results are reported in Colony Forming Units or CFUs. Suitable enterococci levels for primary contact should not exceed 104 cfu/100mL. *Results are preliminary, please wait for pending quality control.



60+ Volunteers
22 Weeks
6 Sites

Scan Here for Raritan River Water Quality Status



01: Environmental Monitoring

2022 Pathogens Monitoring Results

2019 - 2022 Results:

Enterococci water quality exceedances (69 samples per site)

Site	Percent Exceedances
1- Riverside Park, Piscataway	84%
2- Rutgers Boathouse, New Brunswick	66%
3- Edison Boat Basin	67%
4- Ken Buchanan Park, Sayreville	50%
5- South Amboy Waterfront Park	23%
6- 2nd St Park, Perth Amboy	45%

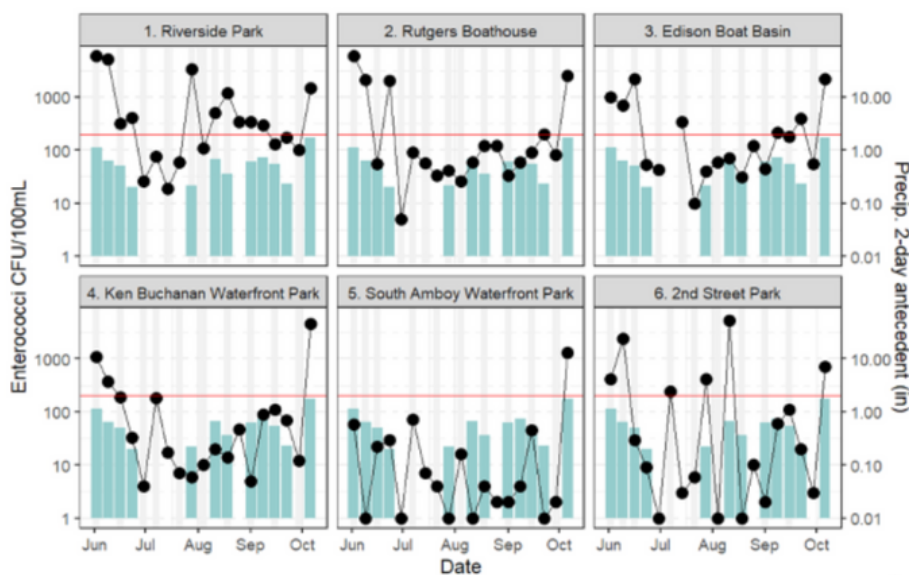
Enterococci standard= 104 cfu/100 ml for single sample or 30 cfu/ 100ml for 30 day geometric mean.

These results are preliminary and awaiting quality control.

Other variables

- 2-day antecedent PCP
- Air and Water Temperature
- Salinity
- Conductivity
- PH
- Dissolved Oxygen
- Tides
- Barometric Pressure

Results: 2022 *Enterococci* results (19 samples per site)



Variation in *Enterococci* data statistically correlated with

- Precipitation*
- Salinity*

*p<0.001

Analysis done by Dr. Fahrenfeld

02: Watershed Restoration

Streamkeepers & Stream Monitoring

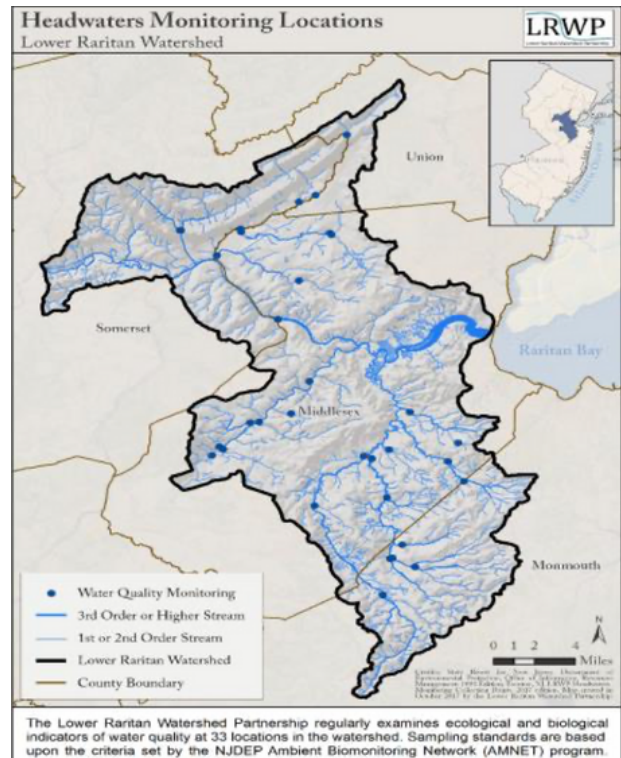
Our Streamkeepers conduct visual habitat assessments, and some sample for macroinvertebrates. They report out annually on the health of their adopted stream segment and identify locations for clean-ups, removal of invasive vegetation and streambank restoration.



4H Eco Maniacs assess tree canopy, Middle Brook



4H Eco-Maniacs measure stream depth, Ireland Brook



In 2022 the LRWP trained a group of 4H Youth to monitor sites along the Ireland Brook in East Brunswick and Middle Brook in Bound Brook. Both sites were representative of very different habitats, both forested and developed. The 4-H Eco-Maniacs were taught how to take measurements of temperature, velocity, and ten different environmental factors including items like tree canopy cover and aquatic vegetation.

Streams Monitored in 2022

- Ambrose Brook Sites 1 & 2
- Bound Brook Site 3
- Green Brook Site 3
- Ireland Brook
- Middle Brook Site 2
- Mile Run Brook

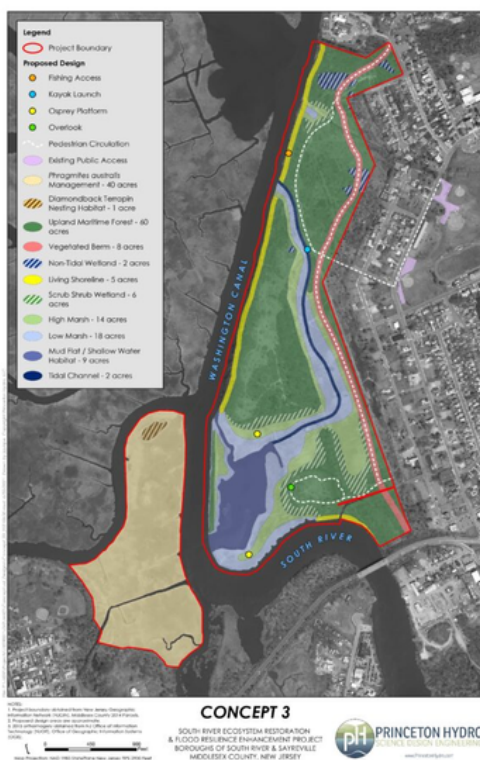
02: Watershed Restoration

South River

Working toward Resilience

Building on a 2021 National Fish and Wildlife Foundation grant (\$249,639), the Lower Raritan Watershed Partnership continued to advance development of a permit-ready engineered design for restoration of a 165-acre coastal eco-park along the South River through grant writing and community outreach.

Our intent with this project is to reduce coastal inundation and erosion along about 2.5 miles of shoreline for neighboring flood-prone communities and enhance breeding and foraging habitat for 10 state-listed threatened and endangered avian species.



Feature

Effect

3,000 linear feet of living shoreline

provide protection from erosion, reduce the wake and wave action, and provide habitat for aquatic and terrestrial organisms.

Tidal channel connecting existing mud flat on the southeastern part of the site

provide tidal flushing to proposed low and high marsh habitats along its banks.

Designated nesting habitats for Osprey & Diamondback Terrapin

Provide habitats for threatened and special concern species

02: Watershed Restoration

Trash Traps

In partnership with the Borough of Dunellen and with Cornell Dubilier Superfund settlement funds, the LRWP designed a Trash Trap litter collection device implementation project for a site downstream from the Plainfield Transfer Station. Installation in 2023 will coincide with development of metrics to assess device impact on plastics and trash reduction. We welcome volunteers to join us for clean-up days for these assessments.



WILDLIFE

Reduction of plastic debris may also benefit aquatic and semi-aquatic wildlife by reducing microplastic ingestion and potential exposure to contaminants.



MANPOWER

The installation of a trash reduction device would help to alleviate the manpower associated with volunteer cleanups.



PUBLIC PERCEPTION

The implementation of a litter trap will benefit the aesthetics of the area and enhance public perception and usability of recreational areas along the Raritan River.



COMMUNITY

Community engagement in monitoring and education should further strengthen community ties and current litter reduction efforts.



Location

Approximate Coordinates:
40.599305, -74.463213

- Green Brook at Jefferson Avenue (Dunellen and Green Brook)
- Access via New Jersey American Water property and/or Dunellen or Green Brook property
- Downstream from Plainfield Transfer Station



Trash Trap

The Bandalong can operate year-round at a variety of different flow conditions without any mechanical assistance.

Two interpretive signs will be installed on either side of the Green Brook. One sign will be installed on the fencing on the Dunellen side, the other sign will be installed on the fencing in Green Brook.

02: Watershed Restoration

Stream Clean Ups

Earth Day Clean Up of Mile Run Brook
(New Brunswick)

International Clean-up Day at
Mountainview Park (Middlesex)

Multi-site Mile Run Brook Clean Up
(New Brunswick)

Multi Site Green Brook Clean Up
(Dunellen, Middlesex Borough, Green
Brook, South Plainfield, Plainfield)

South River/Sayreville Clean Up



03: MS4 Compliance

Through the LRWP's Municipal Stormwater Management Assistance Program, we work directly with municipalities to help them meet federal stormwater management requirements and to increase understanding of how our waterways and streetways are connected.

Examples of the direct assistance the LRWP provides:

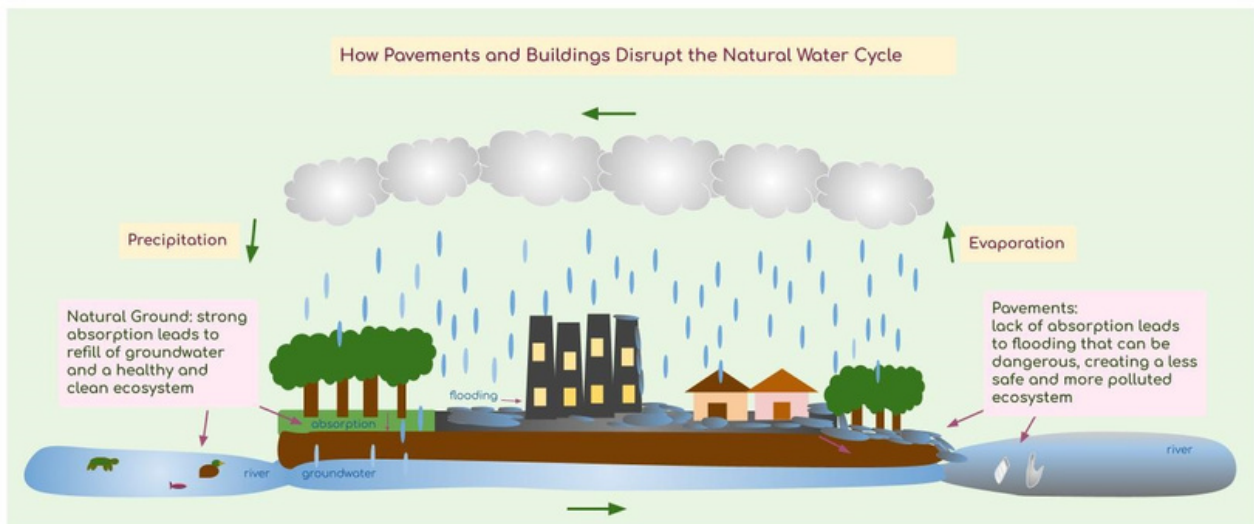
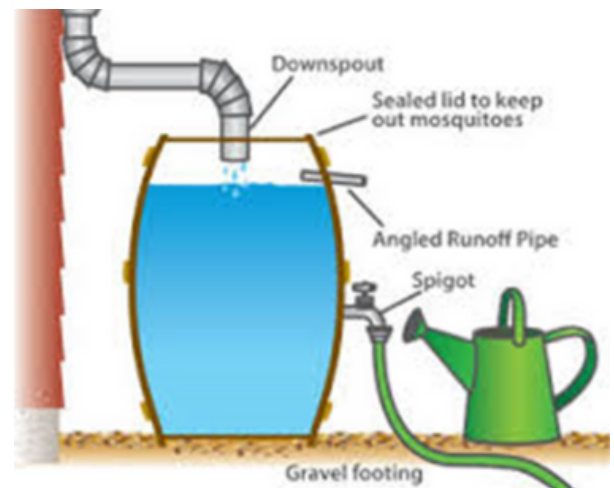
General Public Outreach

Target Audience Outreach

School/Youth Education & Activities

Community Involvement Activities

Watershed Regional Cooperation



An MS4 (Municipal Separate Storm Sewer System) is called a separate system because it does not combine with the sanitary sewer system and it is designed to gather water on the streets via storm drains and pipes and release it, without treatment, into local streams and rivers. Poor stormwater management in our communities not only leads to compromised water quality, but also flooding.

04: Watershed Education

#lookfortheriver

Boyd Park Sculptural FRAME

By engaging community members in taking and sharing photographs of the landscape, the LRWP's #FRAMES repeat digital photography project brings awareness to areas at risk for sea level rise, littering, and development pressures.



This project developed as a collaboration between the Lower Raritan Watershed Partnership, coLAB Arts, the City of New Brunswick, and sculpture artist Toby Horton. Grant funding was provided by the Middlesex County Board of County Commissioners through a grant award from the Middlesex County Cultural and arts trust fund.

Awakening Lyell's Brook Through Dance



In 2022 the LRWP and Rock Dance Collective presented “Raritan Landscape Reemergence: Awakening Lyell’s Brook Through Dance”, a short filmed movement rhapsody to educate and engage audiences around connection and access to the Raritan River.

05: Boat Build



The LRWP Boat Build Project aims to provide the inaugural fleet of a community-based rowing program on the Raritan River.



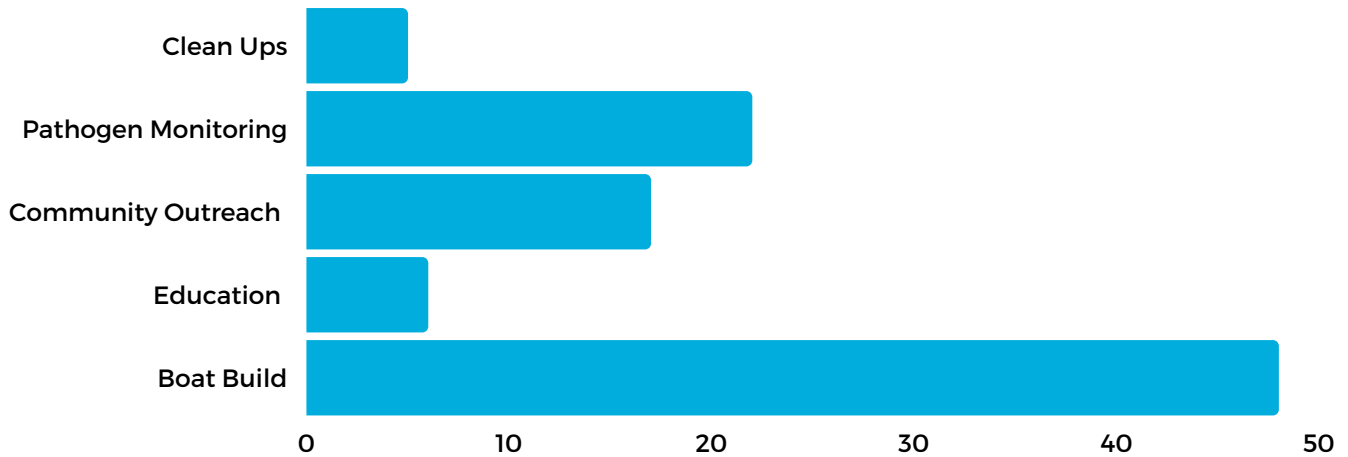
In March we moved into our new boat build space at 101 Raritan Avenue in Highland Park! Throughout 2022 over 100 participants of all ages developed woodworking skills, building paddles and 'stable recreational' rowing vessels that will serve as the inaugural fleet for a youth rowing program.

Many thanks to boat build leads: Derek Hartwick, C. Brian Smith, Amber Hennes, Colin Nickel and all our volunteers!



06: 2022 Events

LRWP hosted over 90 Events in 2022



- Raritan River Festival
- Earth Day Clean Up
- What's in Your Water? Lunchtime Talk
- New Years Day Hike
- Holiday Potluck
- Build Your Own Cutting Board
- Municipal Action to Adress Stormwater Flooding Workshop
- South River Guided Paddle
- Boat Build Open House
- Green Brook Clean up at Mountainview Park
- Restoring Aquatic Habitat Through Climate Ready Infrastructure
- What's in Our Water Info Session
- Mile Run Brook Clean Up
- Multi Site Green Brook Clean Up
- Rain Barrel Build Workshop
- Launch of NJ Regional Clean Stream Council
- South River Ecosystem & Flood Resiliency Webinar
- On Mentorship: LRWP in conversation with No Water No Life
- Woodworking for Women: Make Your Own Paddle
- Understanding Urban Stream Health
- Tabling at Municipal Earth Day & Environmental Festivals
- River Paddles and RV Rutgers Boat Trips
- Water Quality Monitoring Trainings & more...

07: Looking Forward in 2023

Raritan River Birthstone

Working with NJDEP, in Fall 2023 we anticipate placing a stone marker where the South Branch meets the North Branch to form the Raritan River. The marker will identify the birthplace and source of the Raritan River.



English/Spanish Video Training Series

We continue to create quality educational videos in English and Spanish to support our water quality monitoring programs - please consider underwriting one of our releases.



LRWP Membership

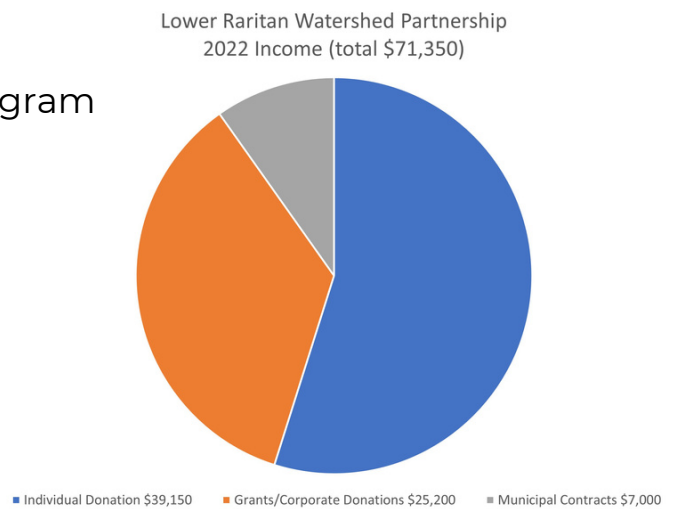
We look forward to inviting you to join us as members in 2023!



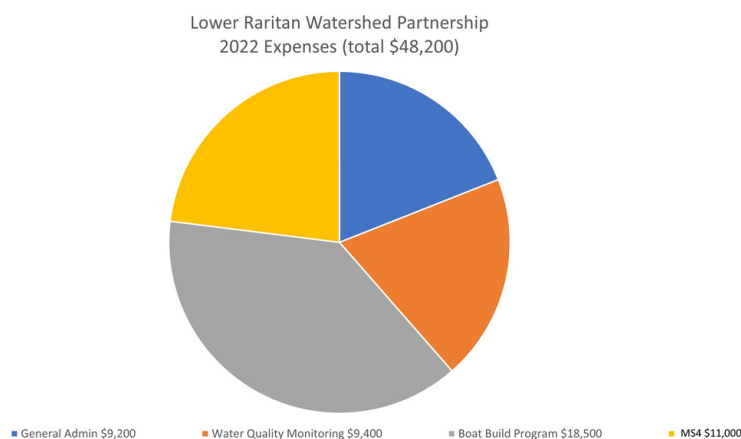
08: Financial Statement

The majority of the LRWP's 2022 income stream in the amount of \$71,350 came from individual donors. Addition grant funding and/or corporate gifts provided by:

- Middlesex County Board of County Commissioners through a grant award from Middlesex County Cultural and Arts Trust Fund
- The Watershed Institute
- Hudson River Foundation
- PSEG Foundation
- Duke Farms Foundation
- Johnson & Johnson Matching Gifts Program
- Qualcomm Matching Gifts Program



In 2022 expenses totaled \$48,200. Eighty one percent (81%) of expenses were directly programmatic (boat build, water quality monitoring, and municipal stormwater management MS4 assistance. Nineteen percent (19%) of expenses were for general administration including: insurance, accounting/legal, web hosting & management, volunteer expenses (first aid training), and office supplies.



09: Donors

Anonymous
Anonymous
Anonymous
Anonymous
Joel Aalberts
Darvene Adams
Grace Agnew
Paul Alirangues
Leon Alirangues
Phyllis Beals
Donald Beetham & Mary Denver
Staci Berger
Edward Bort
Amy Braunstein
Elise Bremer-Nei
Nina Broadhurst
Lynn Brotherton
Gregg Bucino
Doreen Camardi
Darlene Cavalier
Chris Chappell
Theodore Chase
Nandini & Tim Checko
Alvin Chin
Jason Cilento
Piers & Premala Cleman-Chandra
Ed & Susan Clerico
Chris Coulthard
Susanna Cuyler
Jasmine Dali
Sheila Daly
Barbara Dellarosa
Jacki Dickert
Kara Donaldson
Jillian Dorsey
Tristram & Laura Drew
Susan & Lowell Edmunds
Heather Fenyk
Dianne Fenyk
Julie Fenyk
Cynthia Fenyk
Maya Fenyk
John & Dianne Fenyk
Becky & Os Finne
Carrie Fisher Ferraro
George & Leona Fluck
Lois & Jim Fruen
Andrew Gehman
Anna & Peter Gerwel-Merrett
Anton Getz

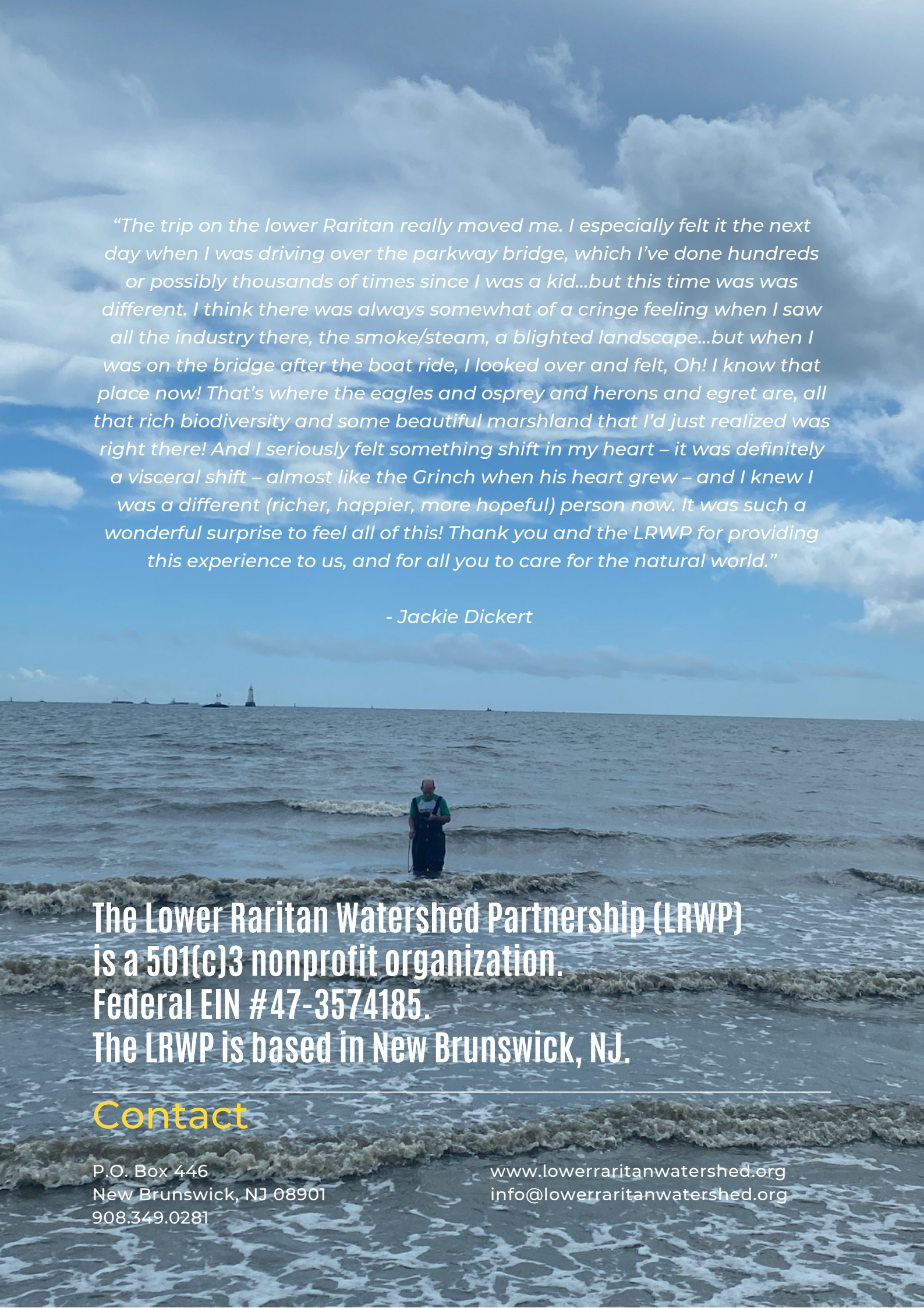
Patrick Gilliam
Ann D. Gordon
Roxanne Hayes
Margaret Holzer & David Robinson
James Horvath
John Hsu
David Hughes
Lena Illenye
Stanislav Jaracz
John Jengo
Raymond & Alberto Johnson -Bermido
Joan Kaplan
Maura Karatz
James Kelly
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Irene Riegner
Adriana Rivera-Iberico

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Christine Slattery
Christopher Smiga
Andrea Specht
Kurt Spellmeyer
Sandy Spina
Emilie Stander
Erin Stretz
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Yasoda Tammana
Barbara ten Broeke
Michael Toole
Jean Tufts
Dan Tufts
David & Tonya Tulloch
Andrea Tyson
Dan Van Abs
Craig Vogt
Rich Walling
Tina Weishaus
Allan Williams
Keith Wilson
Donna Wilson
Ken Yetman
William York
Michele Yusko
Alex Zakrewsky

Corporate Sponsors / Community Partners

Borough of Highland Park
Borough of Middlesex
County of Middlesex
Duke Farms Foundation
NY/NJ Hudson River
Foundation
Johnson & Johnson
Network for Good
NJCEC
Organigaya Cafe
PSEG Foundation
Qualcomm
The Watershed Institute

*Many thanks to our donors for their generous support.
We will only realize a cleaner Lower Raritan with your help!*

A person wearing waders stands in shallow, rippling water. In the background, a lighthouse is visible on the horizon under a blue sky with scattered white clouds. The overall scene is a coastal or marshland environment.

“The trip on the lower Raritan really moved me. I especially felt it the next day when I was driving over the parkway bridge, which I’ve done hundreds or possibly thousands of times since I was a kid...but this time was different. I think there was always somewhat of a cringe feeling when I saw all the industry there, the smoke/steam, a blighted landscape...but when I was on the bridge after the boat ride, I looked over and felt, Oh! I know that place now! That’s where the eagles and osprey and herons and egret are, all that rich biodiversity and some beautiful marshland that I’d just realized was right there! And I seriously felt something shift in my heart – it was definitely a visceral shift – almost like the Grinch when his heart grew – and I knew I was a different (richer, happier, more hopeful) person now. It was such a wonderful surprise to feel all of this! Thank you and the LRWP for providing this experience to us, and for all you to care for the natural world.”

- Jackie Dickert

**The Lower Raritan Watershed Partnership (LRWP)
is a 501(c)3 nonprofit organization.
Federal EIN #47-3574185.
The LRWP is based in New Brunswick, NJ.**

Contact

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908.349.0281

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