Canoe River Aquifer Resilience Project

Public Workshop

September 29, 2021, 6:00 – 7:30 PM

SNEP

Southeast New England Program

Welcome & Introductions

Southeast New England Program (SNEP) Network

The Southeast New England Program Network is a collaborative network of partners with expertise in stormwater management, financing, water quality and habitat restoration, green infrastructure, low impact development, and watershed-scale conservation and restoration.
www.snepnetwork.org

SNEP

New England Environmental Finance Center

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Southeast New England Program

Our Mission

Empowering communities to achieve healthy watersheds, sustainable financing and long-term climate resilience through management of stormwater and restoration projects.

What We Do

Provide training and assistance to municipalities, organizations, and tribes to advance stormwater and watershed management, ecological restoration, and climate resilience in RI and MA, in conjunction with EPA's Southeast New England Program within EPA Region 1.

SNEP network Partners

Audubon Society of Rhode Island

Kimberly Groff Consulting

The University of Rhode Island

Save The Bay
Narragansett Bay
est. 1970

UNH Stormwater Center

The Nature Conservancy

Environmental Finance Center
Syracuse University

Brown University

Rhode Island School of Design
RISD
1877

Elizabeth Scott Consulting

Mass Audubon

New England Environmental Finance Center

Cape Cod Commission

Throwe Environmental

UNC Environmental Finance Center

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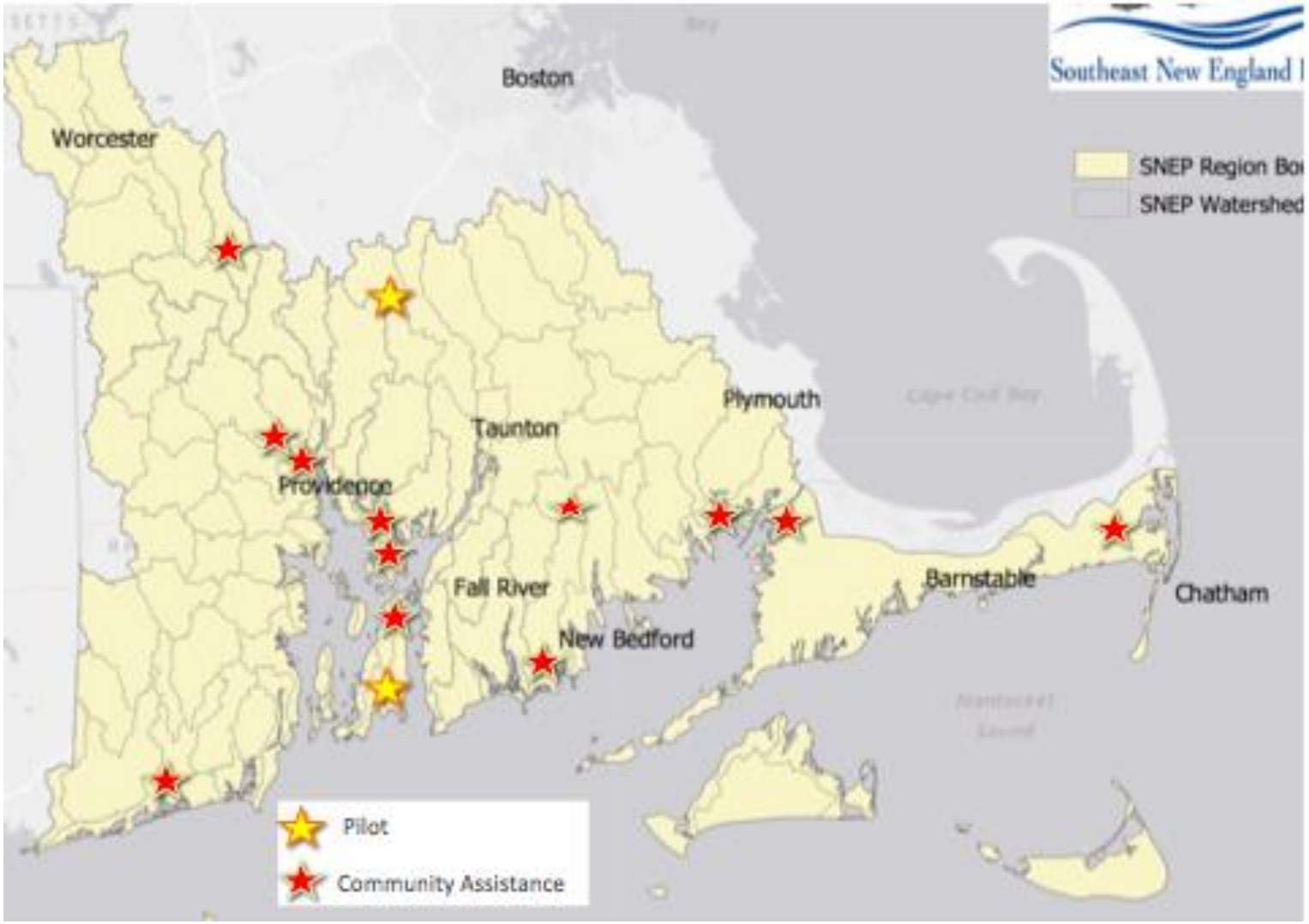
SNEP Projects



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Overview Canoe River Aquifer Project

Why is this project happening?

- Communities are struggling to find solutions to real world climate related issues (flood, drought, heat etc.)

Hurricane Ida: Some areas are thought to have received 7 to 8 inches of rain, with one report of 9.5 inches in New Bedford

Photo credit: David L. Ryan/Globe Staff

Canoe River Aquifer Resilience

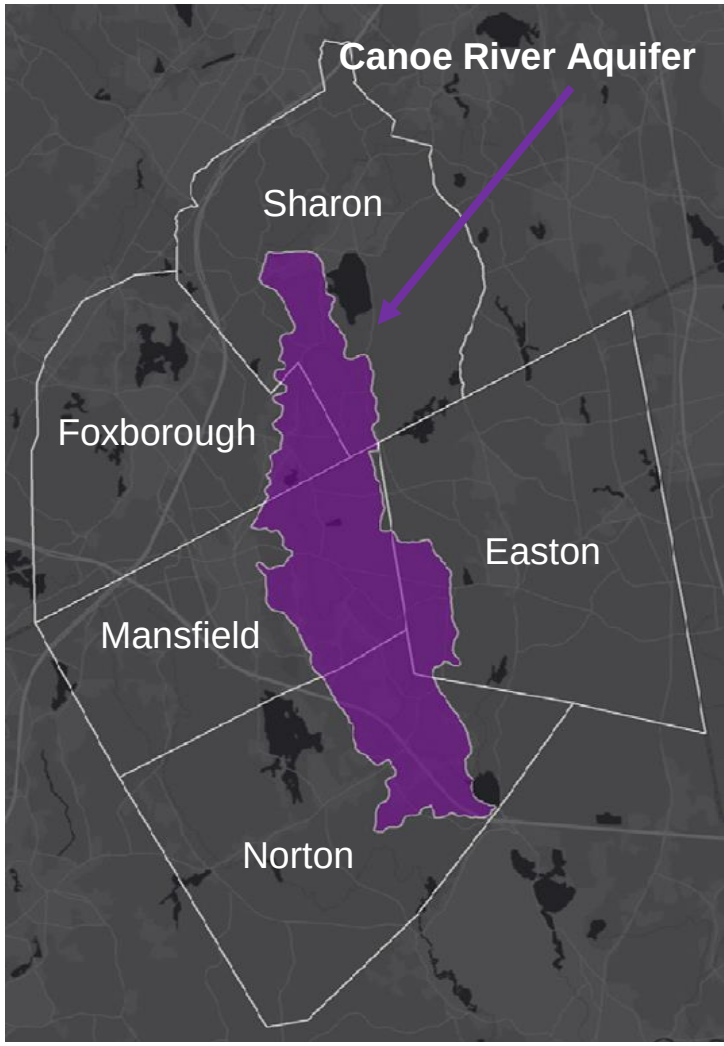
Why are we here?

SNEP Network is assisting local towns to protect the Canoe River Aquifer.

The area is experiencing rapid change from development and climate change, such as more frequent and intense storms, rising groundwater, and higher temperatures.

For many people in our communities, it is the ONLY viable source of drinking water.

It is critical to protect this water and the natural systems around it that keep it clean!



Taunton Pilot: Canoe River

Deliverables:

- Up to 10 priority projects identified, prioritized, and next steps outlined
- Workshops tailored to communities' capacity building needs for overcoming barriers
- Sam Wright Field (Norton) wetland restoration monitoring - *baseline metrics to measure before and after conditions and understand the impact of the project locally and regionally*

What's been done to date:

- Towns have identified problems
- Problem areas are being mapped
- Steering Committee formed – meets every 2 months
- Hired Horsley Witten Group
- Developed Public Engagement Plan
- Public Meetings - begin today
- Created Project web page and Story board
- Easton Wetland Restoration Sam Wright Field - case study
  - Sampling and Analysis Plan
  - Volunteer training and monitoring

Timeline

Public meetings:

In between each data collection phase to get additional input from the larger community

Public Engagement

Workshop #1 – Build Knowledge and Understanding

Estimated Date: September 29, 2021 - Today

Purpose:

- Explain why the Project is happening.
- Understand the priority issues related to resilience in each Project community.

Workshop #2 – Prioritize Projects

Estimated Date: Late January 2022

Purpose:

- Present outreach done to date and how that has shaped project selection criteria.
- Present the criteria used to select projects and their basis from prior public input.
- Present a "short list" (20-25 max) of projects that meet criteria.
- Work with communities to refine this list that will be further reviewed

Workshop #3 – Project Summit

Estimated Date: Spring/Summer 2022

Purpose:

- Present final list of projects.
- Give participants and the public an opportunity to reflect on the work of the project.
- Go over next steps of the Project and what happens going forward.

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Nature Based Solutions

Nature Based Solutions (NBS)

What are NBS?

NBS protect, manage, and restore natural areas to absorb and filter water.

More affordable and sustainable, and just as effective or even more, than hard infrastructure (pipes and drains).

More commonly known concepts such as *"Green Infrastructure"* and *"Low Impact Development" (LID)* are types of NBS.

Nature Based Solutions (NBS)

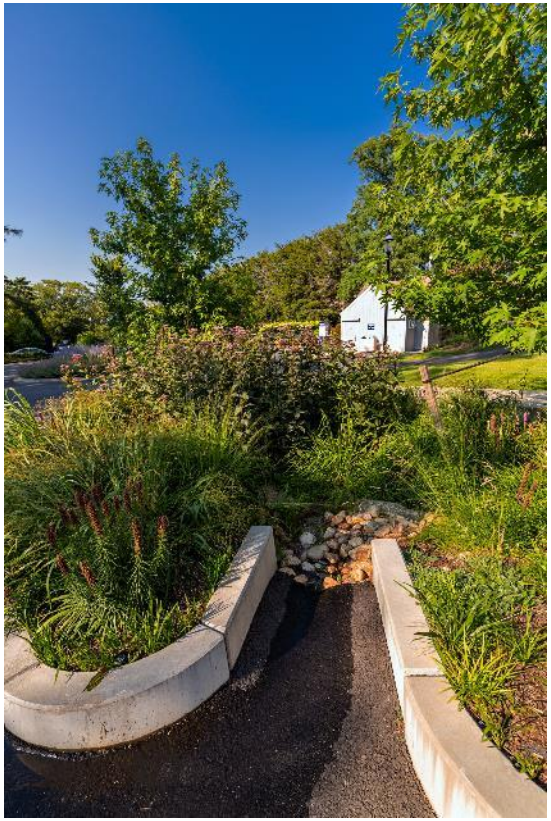
NBS can be things we build to mimic nature or simply making sure nature is protected and can do its job!

CONSERVE existing forests and wetlands

RESTORE degraded habitats

IMPROVE developed areas to mimic nature

NBS help preserve the natural landscape and minimize impervious surfaces to make stormwater more of a resource than a waste product.



Types of NBS

Rain Gardens

Porous Pavers

Rainwater Harvesting

Bioswales

Stormwater Planters

No-Mow Buffer Areas

NBS Flood Resilience (riverine) –
Sam Wright Wetland Restoration

Aerial Plan - Existing Conditions
Sam Wright Field
Easton, MA
Environmental Consulting & Restoration, LLC

Legend
Parcel Boundary

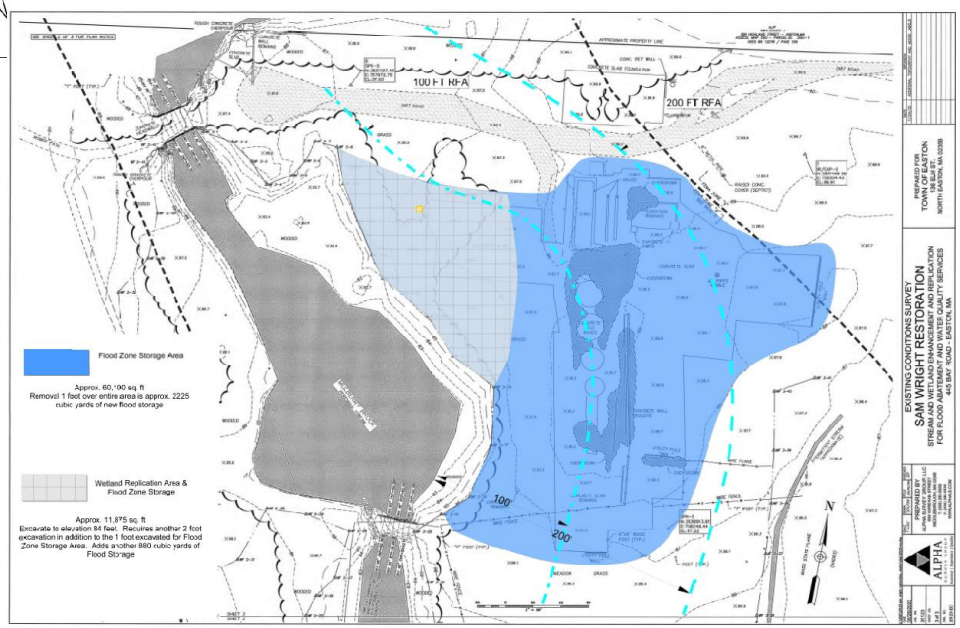
Notes:
1.) Basemap Source: Aerial imagery from drone survey conducted by CCR on July 30, 2020.
2.) Parcel Boundary Source: MassGIS

Date: August 18, 2020
Scale: 1 inch = 60 feet

0 30 60 120 180 240 Feet

N

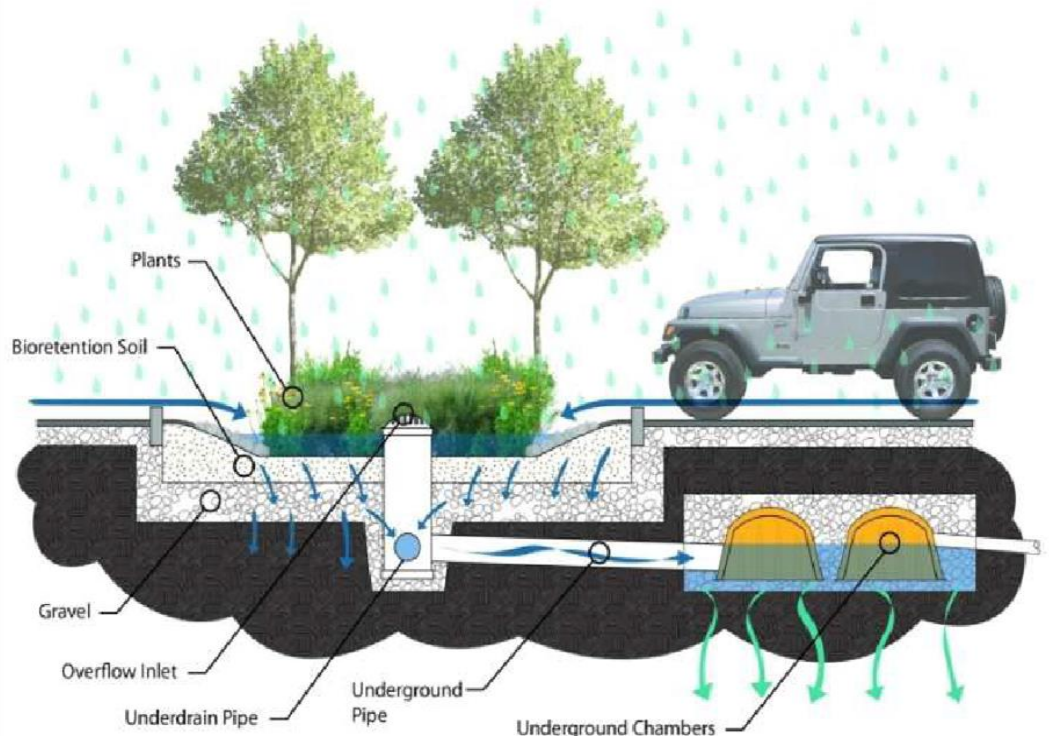
Funding: MVP Action Grant



Crane St. Stormwater BMP - Norton

Funding: DEP S.319 Grant

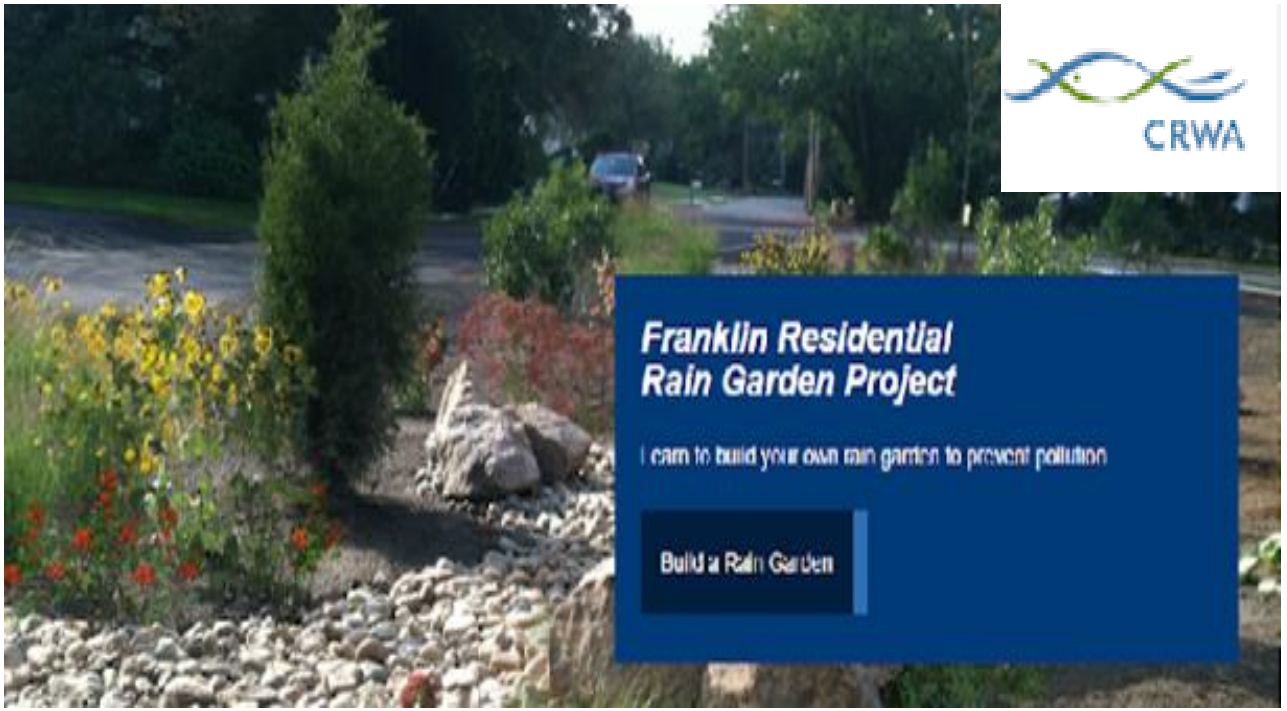
NBS Flood Resilience (stormwater) – Bridgewater State University



NBS Drought Resilience - Franklin

NBS Projects:

- Tree boxes
- Residential Rain Garden Projects
- Road Narrowing
- Sidewalk Removal
- Public Education
- Water Conservation



https://www.soakitupfranklinma.org/

Land Acquisition for Severe Storm Resilience

Mattapoisett

Partnership between the Town, the Mattapoisett Land Trust and the Buzzards Bay Coalition to purchase 120 acres of pristine forest, streams, freshwater wetlands and coastal salt marsh in the Pine Island Pond area of Mattapoisett.

Funding: MVP Action Grant

The power of a bylaw: Westford

- Adopted a Conservation Subdivision bylaw in 1978
- Requires conservation and conventional plans

<u>Benefits</u>

- 1,700 Acres of land Protected
- Preserved local habitat and water resources
- Created 13 miles of hiking trails & public recreation
- Town saved millions of dollars

Rail Trail in Westford

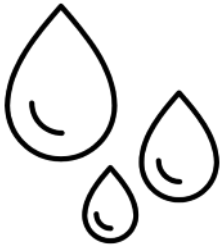
Benefits of NBS

Reduced Flooding

Long-Term Cost Savings

Improved Water Quality

Water Quantity



Recreational Opportunities

Improved Quality of Life

Improved Public Health

Creation of Habitat

Climate Change Mitigation

Work to Date

All 5 communities have started identifying NBS!

Municipal Vulnerability Preparedness Plans (MVP)
Easton, Norton, Mansfield – *completed*
Foxborough and Sharon – *in progress*

Hazard Mitigation Plans
Easton, Foxborough, Sharon

Literally hundreds of potential projects have been identified so far!

The goal of this project is to narrow that down to ***ten projects*** *that we can implement*

MVP
Municipal Vulnerability Preparedness

How do we Choose?

1. **Scientific Analysis –** which NBS are going to have the greatest ecological impact?
2. **Regional Benefits** – which NBS will have positive impacts across the 5 towns?
3. **Ready to Go –** which NBS have local support to get built soon and be properly maintained?
4. **Environmental Justice** – which NBS are going to help people and communities most vulnerable to climate change? And . . .

5. **Community Needs –** which NBS are going to best address what people in these communities care about most?

That's why we're here today! To make sure community needs help us choose the 10 projects to implement.

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Small Group Discussions

Purpose of Discussions

Listen and Learn from YOU!

What are the most important issues where you live that NBS can help address?

Greening the neighborhood
Fixing flooding
Cleaning Rivers and Streams
Cooling down the neighborhood
Providing wildlife habitat
Increasing access to open space
Replenishing our drinking water supply

Others?

For the next 60 minutes . . .

1. Show us on the map

What areas of your community . . . ?

Frequently flood

Lack green space or trees

Experience drought/low water levels

Have too much pavement

Have known/suspected pollution

2. Discuss

What's causing these issues?

Who are impacted most?

3. Prioritize

What are our top 3 issues?

Thanks for your time and input today!

Please share additional thoughts, questions, comments with:

Krista Moravec: kmoravec@horsleywitten.com
774-413-2900 x 307

Share our online survey with your friends, family, and colleagues! Open through October.

https://arcg.is/0fXfa5