QUARTERLY BROWNFIELD ROUNDTABLE

December 7, 2022

Office of Brownfield & Community Revitalization

Hazardous Discharge Site Remediation Fund (HDSRF) Update

- Staffing
  - 2 HDSRF Coordinators
- Status of the HDSRF
  - FY23 Uncommitted Balance = $66.6MM
- HDSRF Recommendations
  - CY22 Recommendations = $22.3MM

The Economic Impact of New Jersey's HDSRF Grant Program

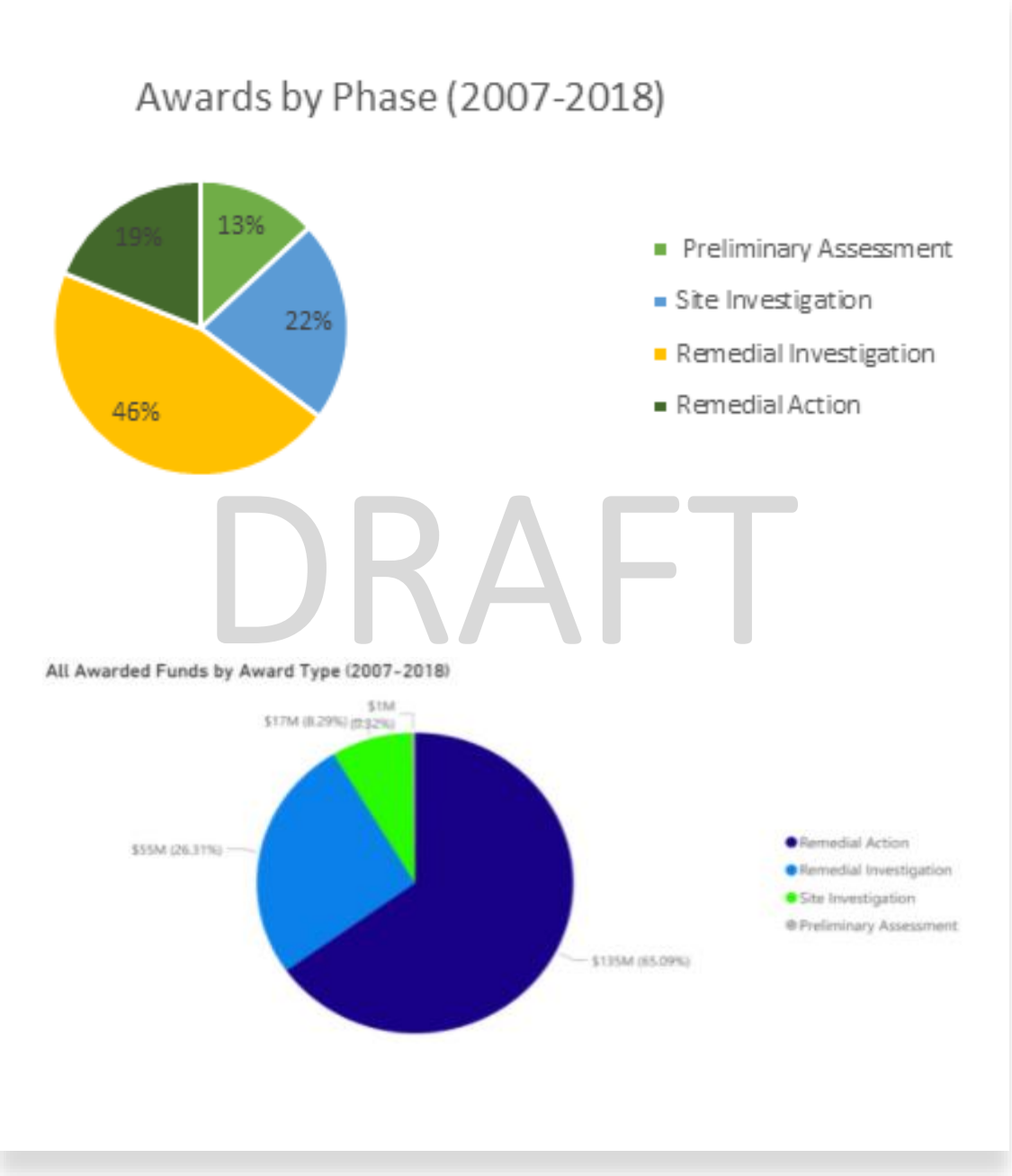
7 December 2022

Purpose

- HDSRF has been a successful program since 1993
- Interest to know the leveraging effects of the HDSRF Program over time
- EPA and some other states did economic analyses on their BF programs
- What can we learn from an economic analysis about the HDSRF Program?

Data

- 12-year time frame starting from the time the HDSRF legislation was changed to allocate more resources to public entities
- Grants to municipalities >$50,000

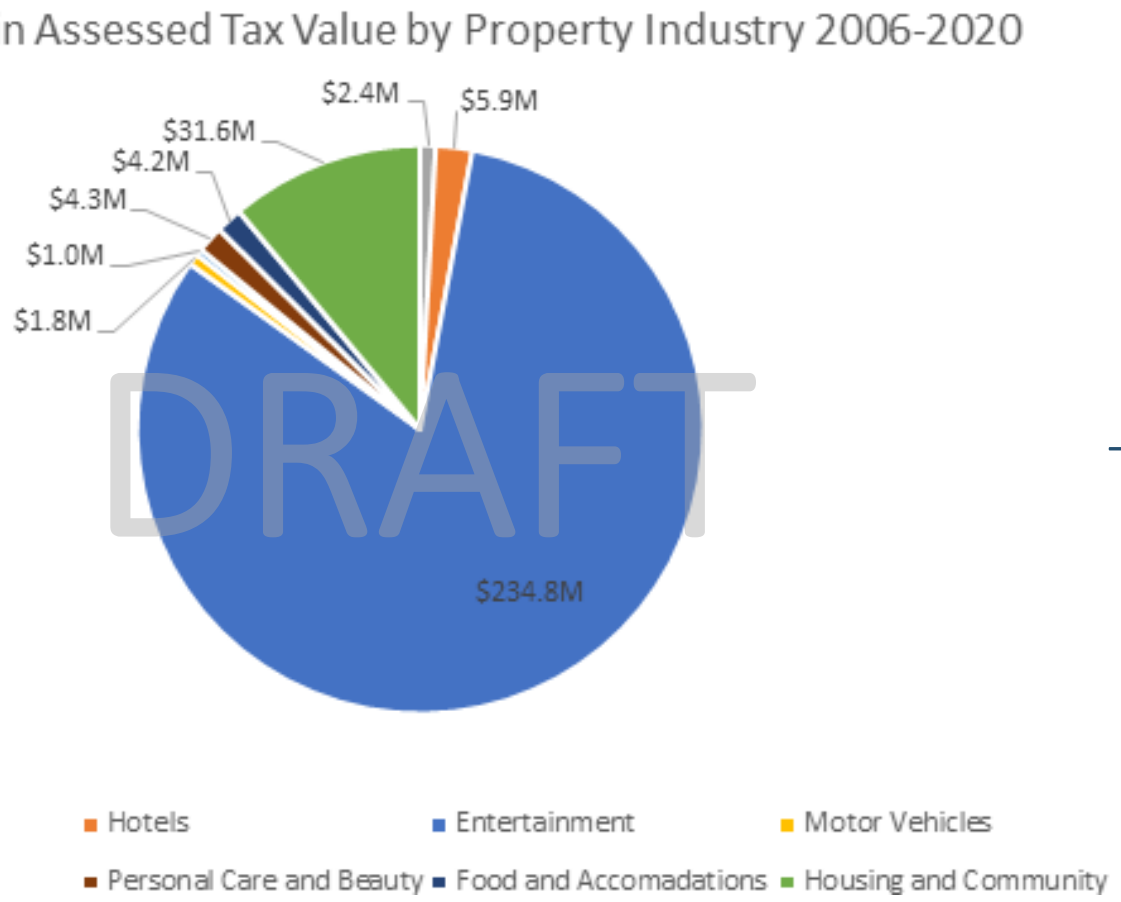


Breakdown of Awarded Funds

RESULT = Over 12 years, most awards were for RI; most dollars went to RA

Increase in Assessed Values of Sites that Received Remedial Action

$37.68 Million Awarded from HDSRF



$286.53 Million Increase in Taxable Assessed Value

Economic Impact of Residents in Brownfields Housing

Jobs created due to spending by Residents in Brownfields Housing

Amount of $ employees earned by working

Total economic output as a result of employment (including employee spending)

Impact Type	Employment (# of Jobs)	Labor Income	Output
Direct Effect	340	$16,000,000	$46,500,000
Indirect Effect	100	$7,700,000	$22,500,000
Induced Effect	115	$7,000,000	$20,500,000
Total Effect	**555**	**$30,700,000**	**$89,500,000**

Case Study: Haddon Towne Center

Assessed value of the tax block that contains the Haddon Towne Center site increased by over $50M (mostly in 2018). The site itself is worth $55M.

- A 6-acre site in Haddon Township, NJ, that was formally used for industrial purposes, was remediated and redeveloped into a mixed-use apartment complex, opening in 2017, thanks to $3.5 million in grants from NJDEP's HDSRF.

Before

After

Conclusion

The economists concluded that “HDSRF has had a substantial and concrete impact on the economy.”

The remediation of a single brownfield site can catalyze local redevelopment and revitalize entire communities.

Thank you!

Interim Soil and Soil Leachate Remediation Standards for PFAS

December 7, 2022

Erica Snyder, Research Scientist
Contaminated Site Remediation & Redevelopment Program
Bureau of Environmental Evaluation & Risk Assessment

Interim Soil and Soil Leachate Remediation Standards for PFAS

- Interim Remediation Standards for soil and soil leachate were developed for PFNA, PFOA, PFOS, and GenX
- Publication in New Jersey Register October 17, 2022
- Remediation Standards (N.J.A.C. 7:26D)
  - Ingestion-Dermal Exposure Pathway
  - Inhalation Exposure Pathway
  - Migration to Ground Water Exposure Pathway

Interim Soil and Soil Leachate Remediation Standards for PFAS

Contaminant	CAS No.	Soil Remediation Standard: Ingestion-Dermal Residential (mg/kg)	Soil Remediation Standard: Ingestion-Dermal Nonresidential (mg/kg)	Soil Remediation Standard: Migration to Ground Water (mg/kg)	Soil Leachate Remediation Standard: Migration to Ground Water (µg/L)
PFNA	375-95-1	0.047	0.67	AOC/Site-specific	0.26
PFOA	335-67-1	0.13	1.8	AOC/Site-specific	0.28
PFOS	1763-23-1	0.11	1.6	AOC/Site-specific	0.26
GenX	13252-13-6 & 6203780-3	0.23	3.9	NA	NA

Interim Soil and Soil Leachate Remediation Standards Website

- https://www.nj.gov/dep/srp/guidance/rs/interim_soil_ia_rl_rs.html

Table of Interim Soil Remediation Standards for the Ingestion-Dermal Exposure Pathway

Contaminant	CAS No.	Non-Carcinogenic Health-Based Criterion (mg/kg)		Carcinogenic Health-Based Criterion (mg/kg)		Reporting Limit (mg/kg)	Interim Soil Remediation Standard (mg/kg)		Effective Date	Fact Sheet
		Residential Criterion	Nonresidential Criterion	Residential Criterion	Nonresidential Criterion		Residential Standard	Nonresidential Standard		
Perfluorononanoic acid (PFNA)	375-95-1	0.047	0.67	NA	NA	0.001[3]	0.047	0.67	10/17/2022	October 2022
Perfluorooctanoic acid (PFOA)	335-67-1	0.13	1.8	NA[1]	NA[1]	0.001[3]	0.13	1.8	10/17/2022	October 2022
Perfluorooctane sulfonate (PFOS)	1763-23-1	0.11	1.6	NA[2]	NA[2]	0.001[3]	0.11	1.6	10/17/2022	October 2022
Hexafluoropropylene oxide dimer acid and Its ammonium salt (GenX)	13252-13-6 & 62037-80-3	0.23	3.9	NA	NA	0.01[3]	0.23	3.9	10/17/2022	October 2022

Table of Interim Soil Remediation Standards for the Migration to Ground Water Exposure Pathway

Contaminant	CAS No.	Ground Water Remediation Standard (µg/L)	Migration to Ground Water Soil Criterion (mg/kg)	Soil Saturation Limit (mg/kg)	Reporting Limit (mg/kg)	Interim Soil Remediation Standard (mg/kg)	Effective Date	Fact Sheet
Methanol	67-56-1	4,000	12	160,000	5	12	11/17/2021	April 2022
Perfluorononanoic acid (PFNA)	375-95-1	0.013	Area of concern / Site-specific[1]	NA	0.001[2]	Area of concern / Site-specific[1]	10/17/2022	October 2022
Perfluorooctanoic acid (PFOA)	335-67-1	0.014	Area of concern / Site-specific[1]	NA	0.001[2]	Area of concern / Site-specific[1]	10/17/2022	October 2022
Perfluorooctane sulfonate (PFOS)	1763-23-1	0.013	Area of concern / Site-specific[1]	NA	0.001[2]	Area of concern / Site-specific[1]	10/17/2022	October 2022

Table of Interim Soil Leachate Remediation Standards for the Migration to Ground Water Exposure Pathway

Contaminant	CAS No.	Ground Water Remediation Standard (µg/L)	Soil Leachate Standard* (µg/L)	Effective Date
Perfluorononanoic acid (PFNA)	375-95-1	0.013	0.26	10/17/2022
Perfluorooctanoic acid (PFOA)	335-67-1	0.014	0.28	10/17/2022
Perfluorooctane sulfonate (PFOS)	1763-23-1	0.013	0.26	10/17/2022

Explanation of Terms:
CAS No. = Chemical Abstracts System Registration Number

Applicability of the PFAS Interim Remediation Standards Process

- Applicable to all sites in the CSRR Program
  - If PA or equivalent evaluation rules out PFAS, then no need to collect samples for PFAS analysis
  - If SI indicates no PFAS above Interim Remediation Standards, then no need to carry forward to RI/RA
  - No order of magnitude provision as there were no previous standards
  - No phase-in period as there were no previous standards (effective and enforceable as of October 17, 2022); however, similar to the interim ground water standards, there will be an allowance to create a separate case with separate timeframes to address these soil contaminants

Applicability of the PFAS Interim Remediation Standards Process

- When do I need to address PFAS
  - New Sites
    - Address PFAS in PA or Equivalent Evaluation
    - (i.e., #2 fuel oil vs. #2 fuel oil fire with firefighting foam applied)
  - Active Sites
    - Address PFAS in PA Addendum (or Equivalent Evaluation) or via SI/RI Sampling
  - Sites that Received Restricted RAO
    - Address PFAS in the Next Biennial Protectiveness Certification
  - Sites that Received Unrestricted RAO
    - Address in PA or Equivalent Evaluation when Site Reenters CSRR Program

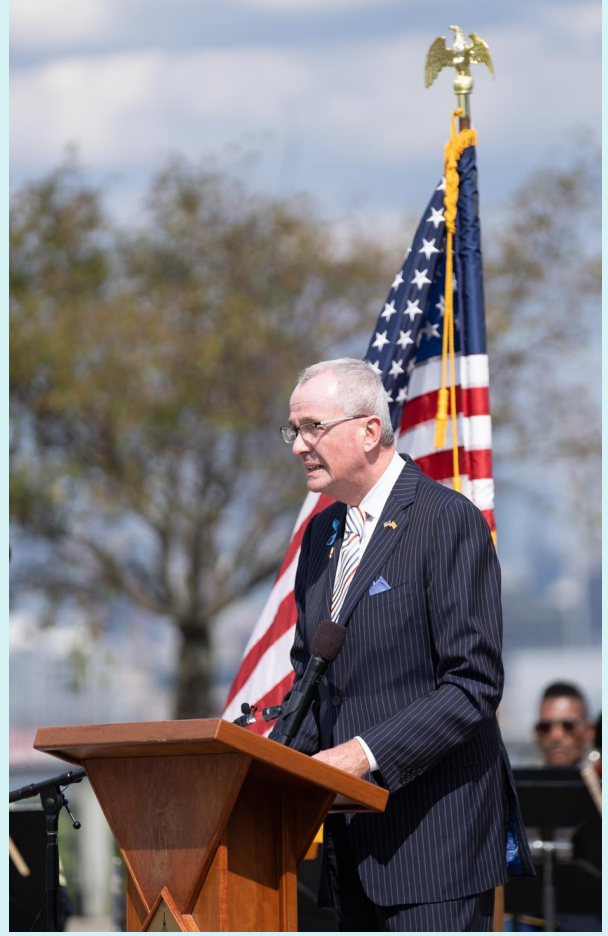
Contacts

- **General Questions/Administrative**
  - BCAIN Duty Officer (609) 292-2943
- **Remediation Standards Questions**
  - Allan Motter (609) 984-4532, Allan.Motter@dep.nj.gov
  - Erica Snyder (609) 984-0325, Erica.Snyder@dep.nj.gov

PFAS Interim Soil and Soil Leachate Remediation Standards for PFAS

December 7, 2022

Questions?



Thank you!

NEW JERSEY • DEPARTMENT OF ENVIRONMENTAL PROTECTION •

Opportunities for Southern NJ's local governments and nonprofits to showcase brownfield redevelopment projects and obtain valuable advice, guidance, and resources

Cailyn Bruno

Project Manager, NJIT Technical Assistance to Brownfield Communities Program and NJ Brownfields Assistance Center @ NJIT

Breaking Brownfields

WANTED: BROWNFIELD REDEVELOPMENT PROJECTS

- IF YOU ARE A SOUTH NJ COUNTY, MUNICIPALITY, OR NONPROFIT WITH A BROWNFIELD REDEVELOPMENT PROJECT AND COULD USE SOME EXPERT ADVICE, THIS EVENT IS FOR YOU!

- PRESENT YOUR PROJECT AND CHALLENGES TO A MULTIDISCIPLINARY PANEL OF EXPERTS WHO WILL GIVE YOU THEIR INDUSTRY-BEST, TECHNICAL KNOW-HOW AND ADVICE ON HOW TO OVERCOME PROJECT CHALLENGES, LEADING TO SUCCESSFUL REDEVELOPMENT.

ULI Philadelphia

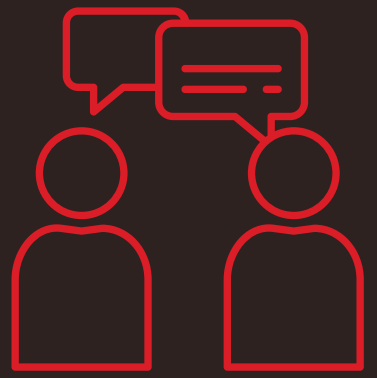
Breaking Brownfields

SAVE THE DATE!!

MARCH 21ST

9AM-12PM

NJ IAWG Brownfields Collaborative Forum



- Showcase your brownfield project; Discuss the challenges you're facing
- Obtain valuable advice, guidance, and resources from federal and state agencies/departments
- Build/strengthen relationships with these federal and state agencies/departments

FEDERAL Agencies
US Army Corps of Engineers
US National Park Service
USDA - Natural Resoures Conservation Services
US EPA Region 2
US Economic Development Authority
FEMA Region 2
U.S. Department of Housing and Urban Development
Federal Highway Administration
Agency for Toxic Substances and Disease Registry
US Department of Agriculture
STATE Agencies/Organizations
NJ State Planning Commission
NJ Business Action Center (OPA)
NJ Dept. of Community Affairs
NJ Dept. of Labor
NJ State Council on the Arts
NJDEP - Revolving Loan Fund
NJDEP - Office of Permitting and Project Navagation
NJDEP - Division of Water Quality - CSO
NJDEP - Office of Brownfield and Community Revitalization
NJDEP - Division of Water Quality
NJDEP- Green Acres Program
NJ Division of Travel and Tourism
NJ Economic Development Authority
NJ Environmental Infrastructure Trust
NJ Historic Trust
NJ Housing and Mortage Finance Agency
NJ Redevelopment Authority
NJ Department.of Transportation
NJ Transit
North Jersey Transportation Planning Authority
Delaware Valley Regional Planning Commission
South Jersey Transportation Planning Organization
South Jersey Economic Development District

CAILYN.BRUNO@NJIT.EDU

Update on NJEDA Brownfield Programs

Barbara Vadnais, PE
Team Lead-Brownfield Incentives, Brownfields and Sustainable Systems, NJEDA
bvadnais@njeda.com
December 7, 2022

NJ EDA
ECONOMIC DEVELOPMENT AUTHORITY

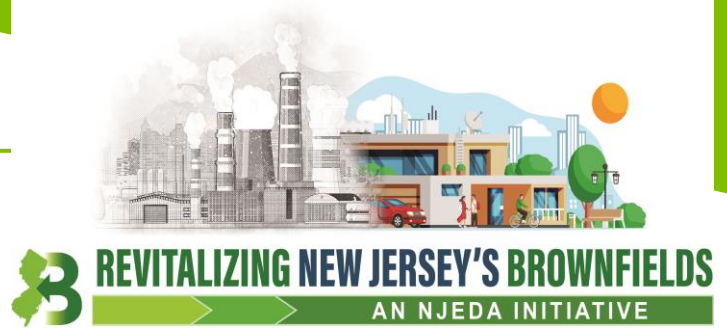
NJEDA Brownfield Programs and Initiatives

REVITALIZING NEW JERSEY'S BROWNFIELDS
AN NJEDA INITIATIVE

- NJ Brownfields Assistance Center at NJIT
- Hazardous Discharge Site Remediation Fund (HDSRF) (jointly administered with NJDEP)
- Brownfields Redevelopment Incentive Program
- Brownfields Impact Fund
- USEPA Brownfield Planning and Assessment Services

NJEDA
ECONOMIC DEVELOPMENT AUTHORITY

Key Features of the Brownfields Redevelopment Incentive Program

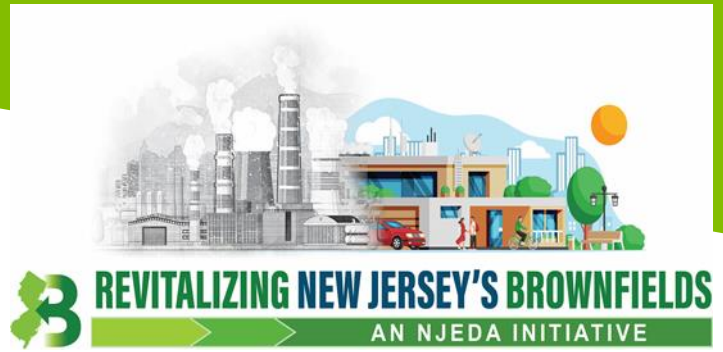


- **Capped** at **$300 million over 6 years**
  - Option to roll over unused program tax credits yearly as needed
  - Option to use funds from succeeding year if required
- Awards **50 - 60 percent of remediation costs**
  - Up to 50 percent of remediation costs for eligible properties, up to a maximum of $4 Million
  - Up to 60 percent of remediation costs for qualified properties located in a Government Restricted Municipality or a Qualified Incentive Tract, up to a maximum of $8 Million
- Tax credits awarded via **competitive** application process
  - EDA cannot discuss specific projects once the application window is open
- **Prevailing wage for building services** for 10 years following project completion
- One-time tax credit which is issued at completion of remediation
- Tax credit is transferrable

NJ EDA ECONOMIC DEVELOPMENT AUTHORITY

29

Status of Brownfields Redevelopment Incentive Program



- BRIP Rules
- On-line Application
- Promotion and Outreach


eda
Visit njeda.com or email
brownfields@njeda.com
for more information
brownfields@njeda.com | njeda.com
609.858.6767
NJEDA

BREAK – 15 MINUTES

INLAND FLOOD PROTECTION

Vincent Mazzei, NJDEP, Watershed & Land Management,
Assistant Commissioner

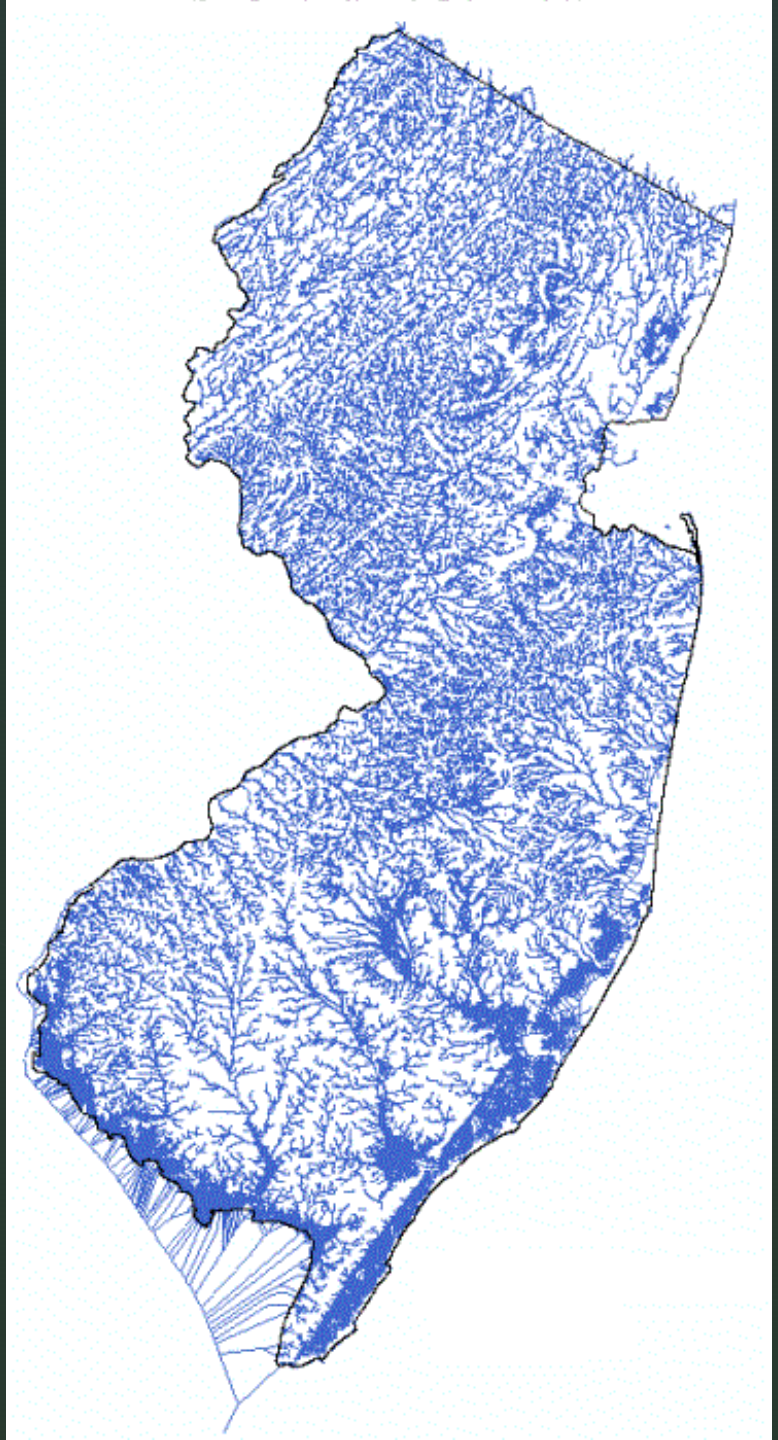
INLAND FLOODING

Watershed and Land Management Program

NJ Department of Environmental Protection

7 December 2022

- New Jersey's original settlements were along navigable waterways
- As a result, many of the State's population centers are located within flood hazard areas today
- Older development was often built without regard for potential flood risk



RISK ASSESSMENT

- People need to be aware of flood risks when buying, renting, occupying or developing property
- Mapping is a good starting point to assess risk but flooding often exceeds mapped floodplain limits
- Floods don't stop at a line on a map

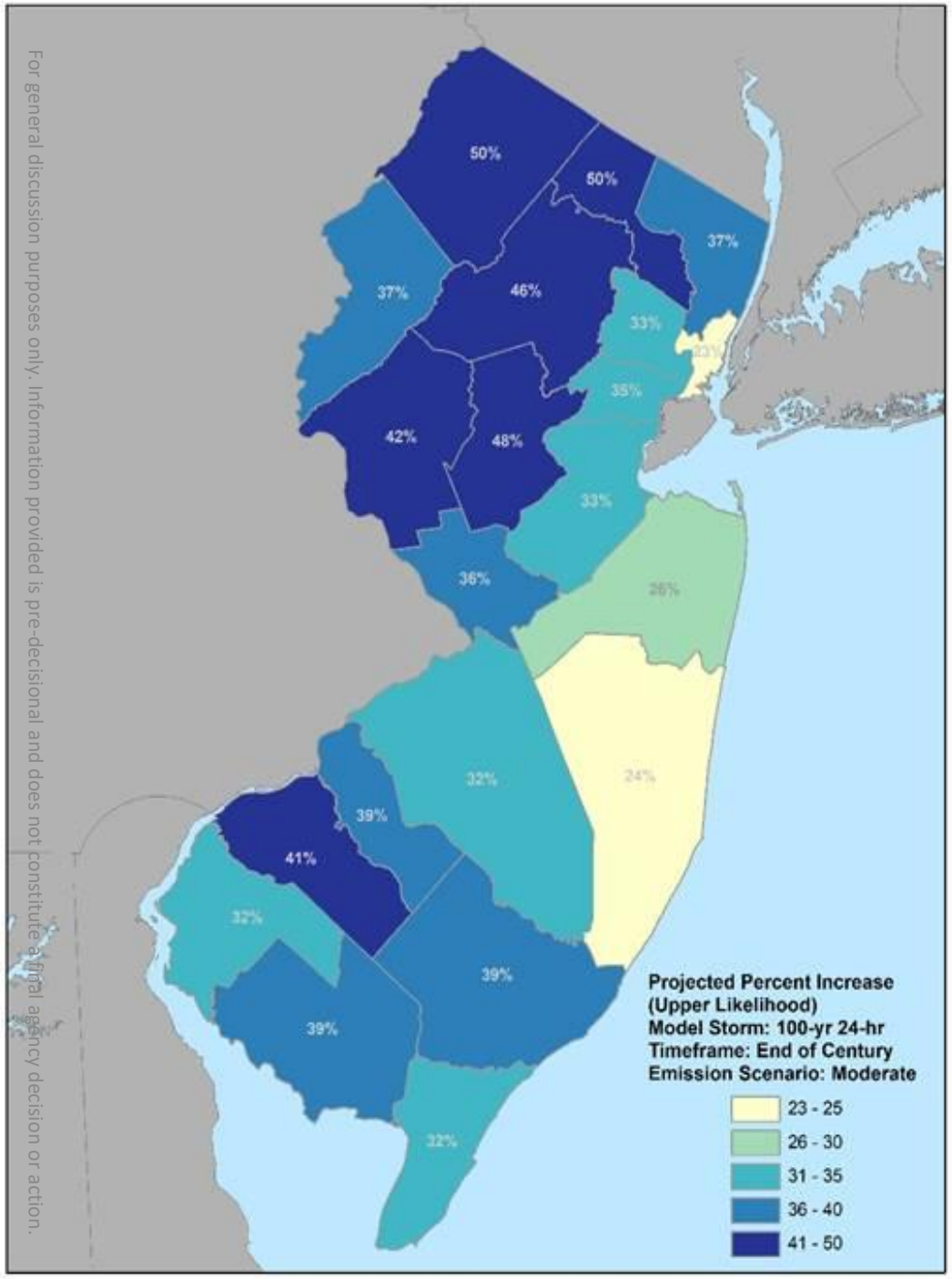
FLUVIAL FLOOD RISK

- Mapping is based on past hydrology that does not account for increasing precipitation due to climate change
- Mapping is incomplete - does not cover all floodplains in NJ
- Mapping can underestimate today's actual flood risk

▸INTENSIFYING RAINFALL & FLOODING IN NEW JERSEY

NJDEP and the Northeast Regional Climate Center, a National Oceanic and Atmospheric Administration (NOAA) partner, released studies in November 2021, which:

- **Confirm increases in extreme precipitation across New Jersey over the last 20 years**
- **Project further increases in precipitation intensity over coming decades**



More Rain = More Stormwater Runoff

More Runoff = Increased Riverine Flow

More Flow = Higher Flood Elevations

CURRENT PRECIPITATION

Since 1999:

- **The 2-year storm has increased as much as 5%**
- **The 10-year storm has increased as much as 7%**
- **The 100-year storm has increased as much as 15%**

FUTURE PRECIPITATION

Over the coming decades:

- **The 2-year storm is likely to increase by as much as 24%**
- **The 10-year storm likely to increased as much as 27%**
- **The 100-year storm likely to increased as much as 50%**

To make the data more user-friendly, DEP developed a weighted county-by-county average of adjustment factors for publication in its rules.

EFFECTS OF INCREASING EXTREME PRECIPITATION

- Added stress on already overtaxed infrastructure
- Overwhelmed stormwater management systems
- Increased fluvial flood depths
- Increased risk to life and property

IDA COMPARED WITH FLOOD HAZARD RULES: CASE STUDIES

The current FHACA Rules set the design flood elevation (DFE) as the higher of:

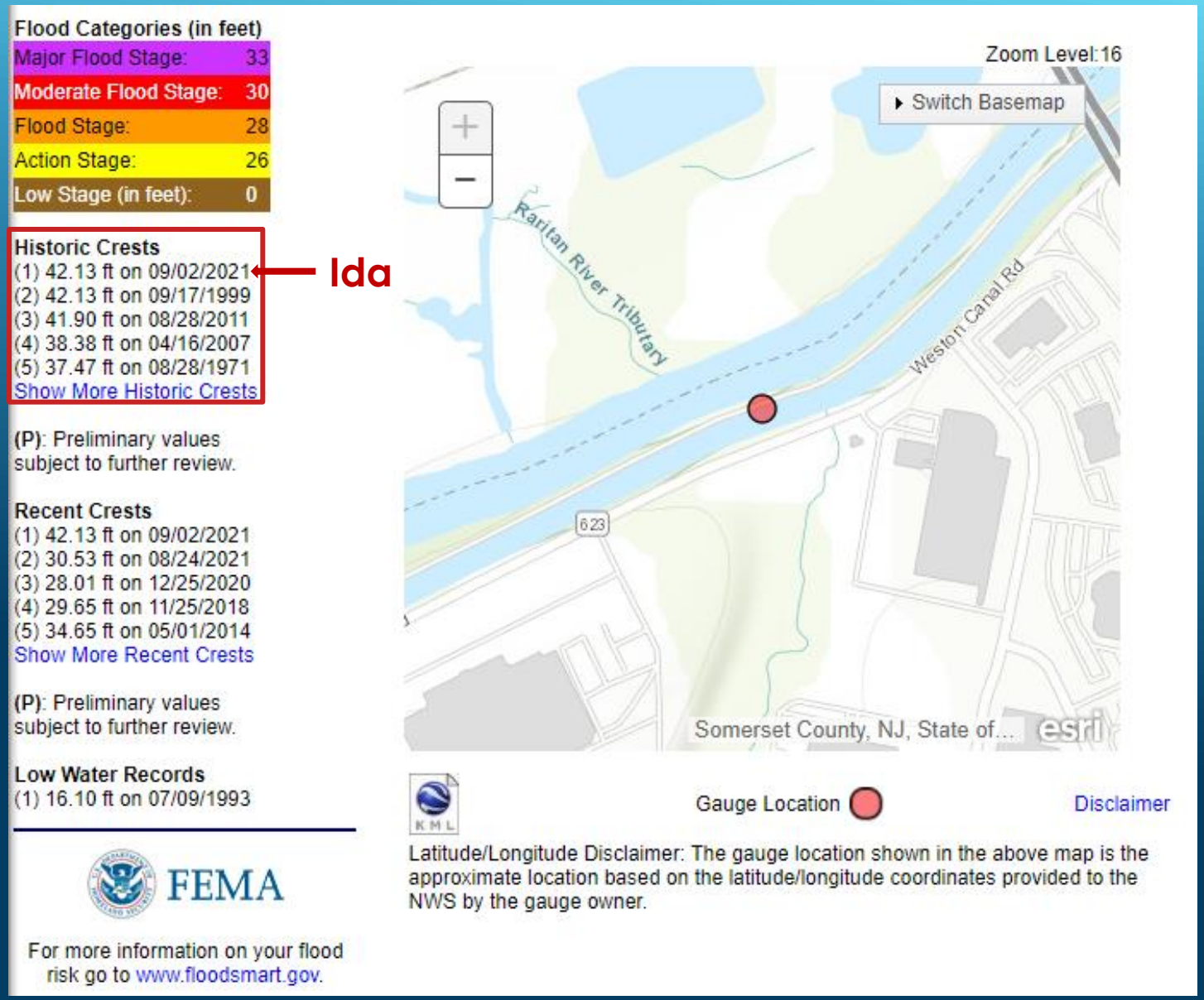
- Flood elevation mapped by NJDEP (where available)
- FEMA 100-year elevation plus 1 ft

Ida case studies show average elevations of 3.1 feet above FEMA's 100-year flood elevation.

- This is 2.1 ft higher than the current DFE

RARITAN RIVER AT BOUND BROOK

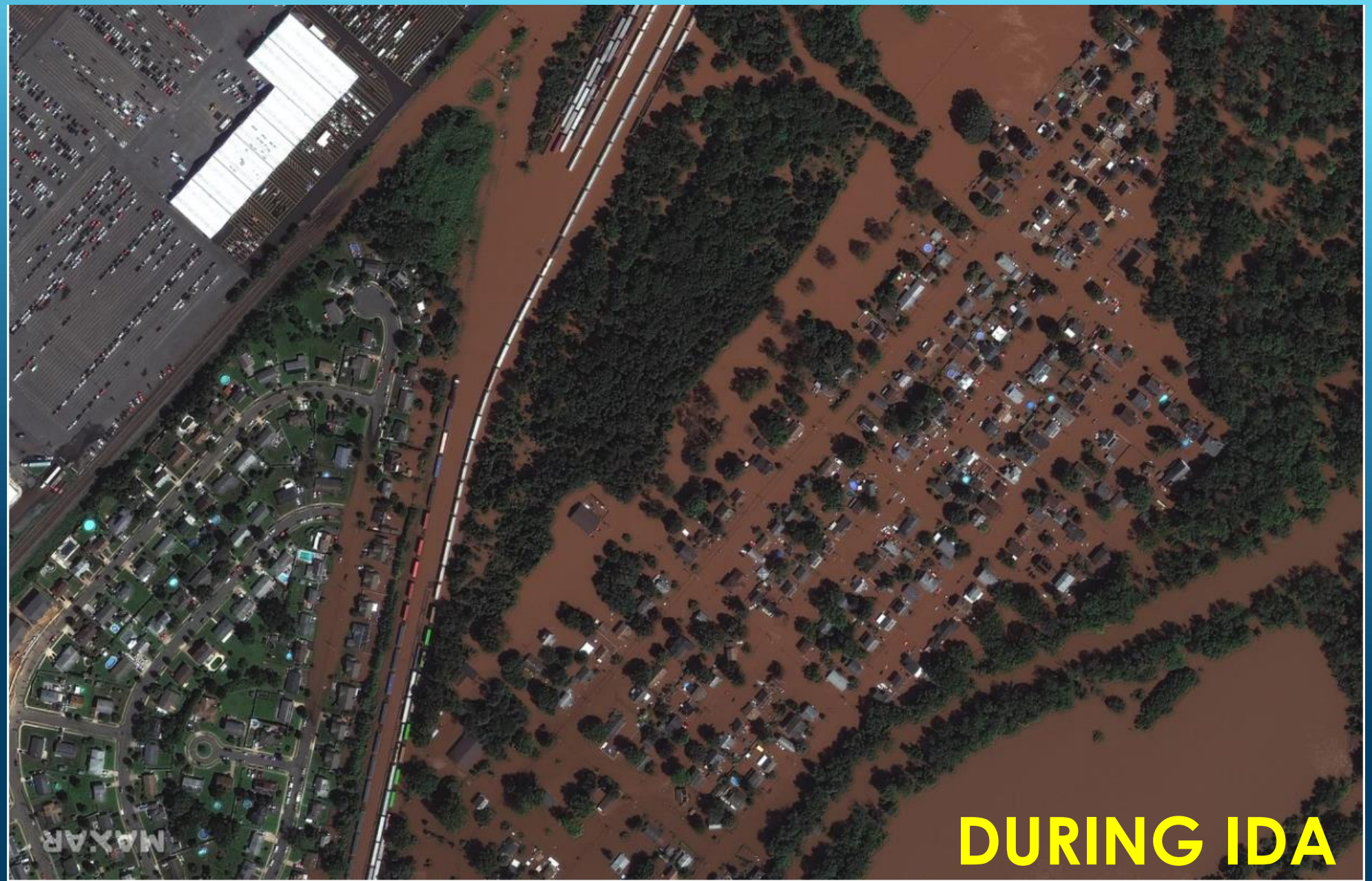
RARITAN RIVER AT BOUND BROOK



- Flooding during Ida equaled 1999's Hurricane Floyd, which was the highest elevation ever recorded at Bound Brook.
- IDA peaked at 42.13 ft NGVD (41.21 NAVD) which is:
  - 3.01 feet above FEMA 100-year elevation (38.2 ft NAVD)
  - 0.21 ft above FEMA's 500-year flood elevation (41.0 ft NAVD)
- The 500-year flood elevation at this location has been exceeded three times since 1999.

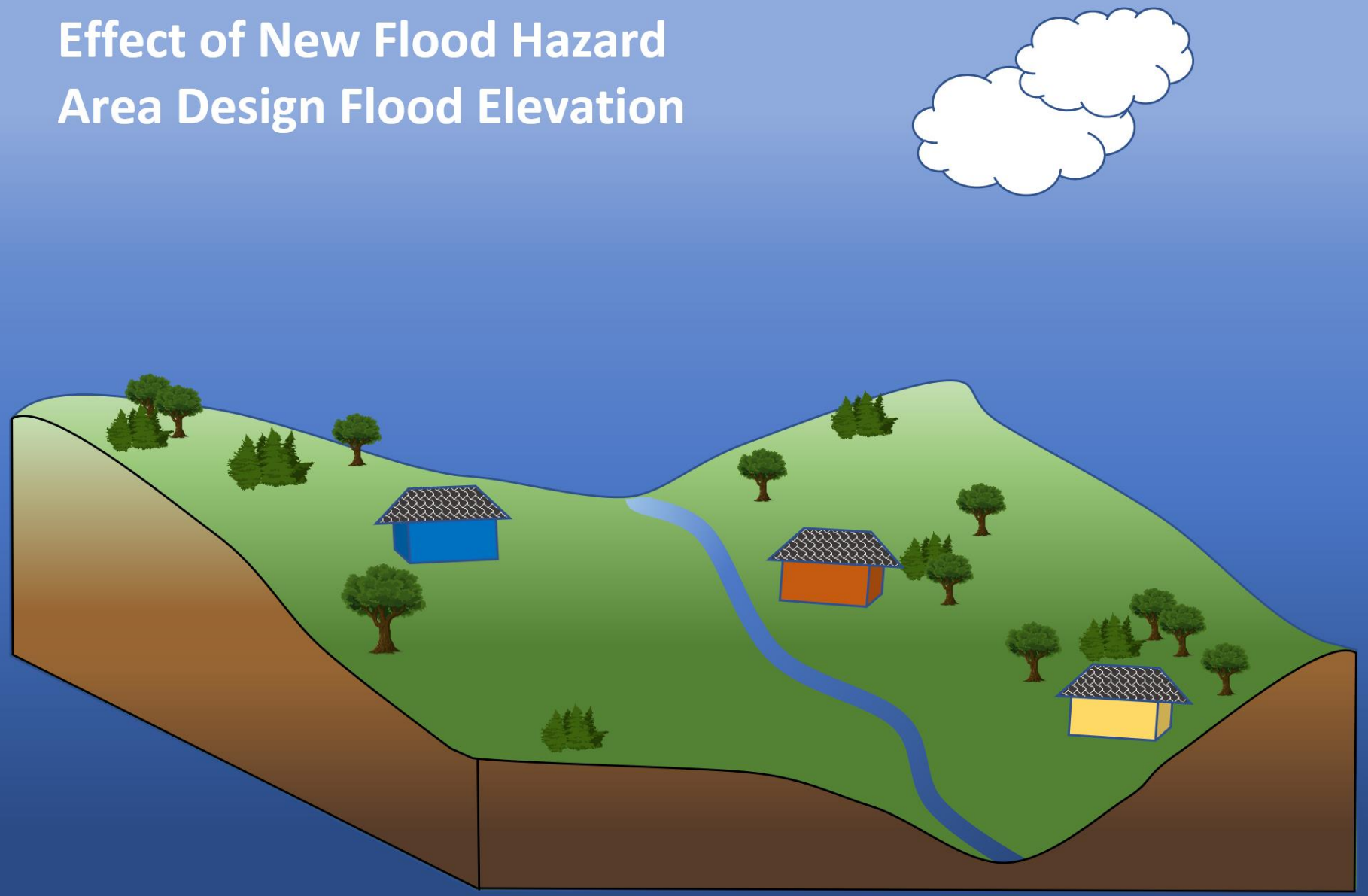
MILLSTONE RIVER AT MANVILLE

MILLSTONE RIVER AT MANVILLE

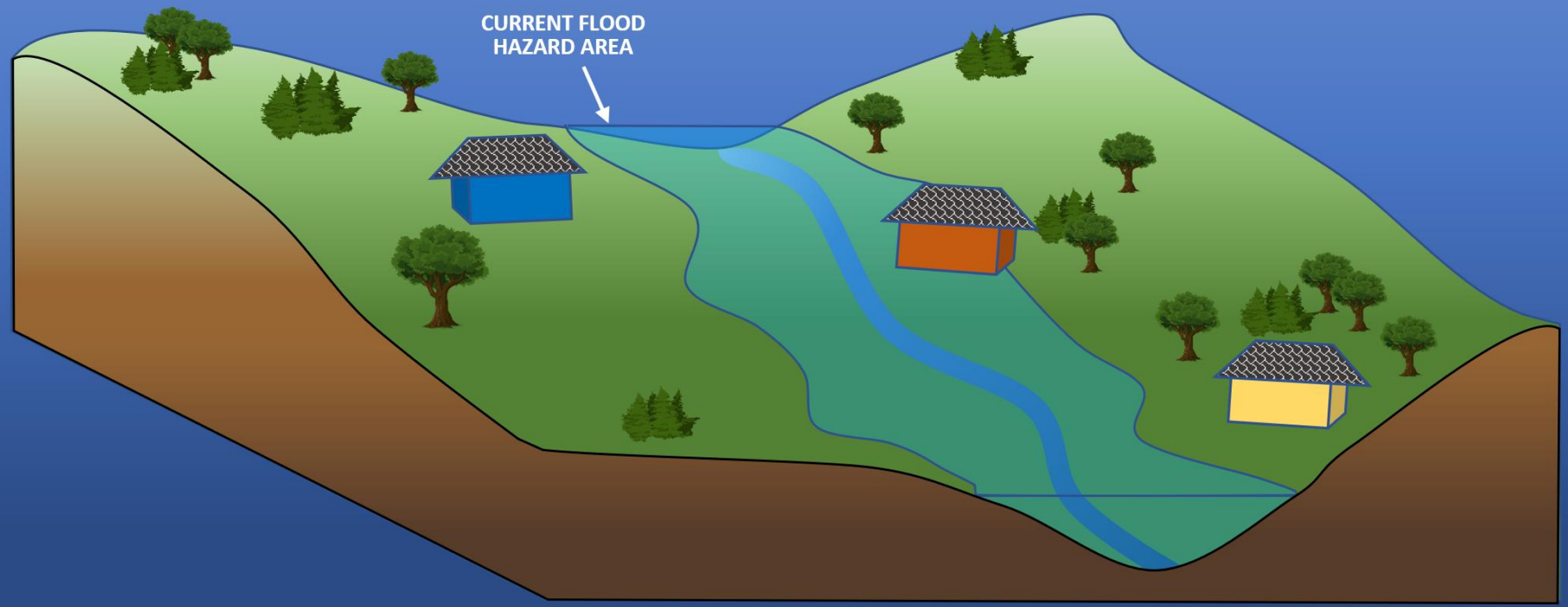


MILLSTONE RIVER AT MANVILLE

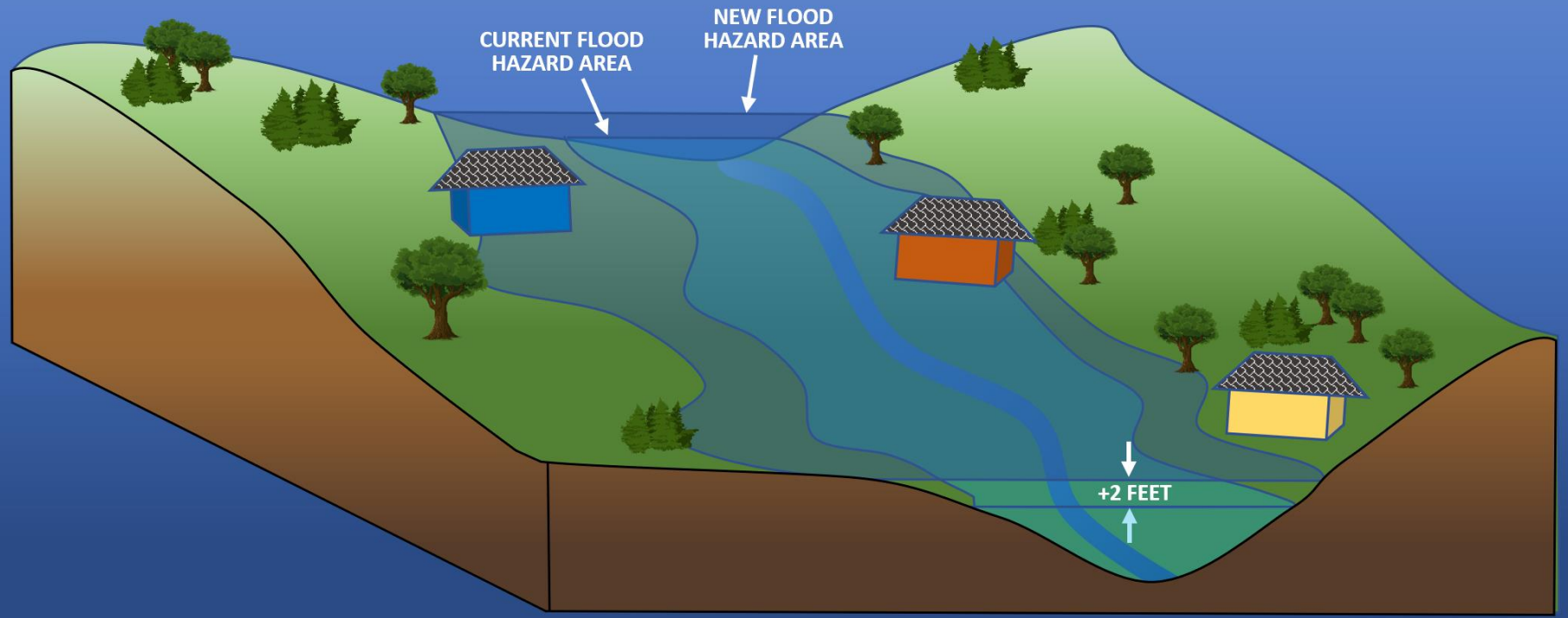
Effect of New Flood Hazard Area Design Flood Elevation



Effect of New Flood Hazard Area Design Flood Elevation



Effect of New Flood Hazard Area Design Flood Elevation



Questions or Comments?

vincent.mazzei@dep.nj.gov
www.nj.gov/dep

CCI UPDATE

Frank Mclaughlin, OBCR

CCI UPDATE

The Community Collaborative Initiative has moved to be under the NJDEP Community Investment & Economic Revitalization Program (CIER) under the leadership of Elizabeth Dragon.

For more information, please contact:

Elizabeth Dragon: Elizabeth.Dragon@dep.nj.gov

Art Zanfini: Arthur.Zanfini@dep.nj.gov

NJDEP's Natural and Working Lands Strategy & Camden, NJ's Waterfront South Rain Gardens Park

by Frank McLaughlin & Katie Hogue, NJDEP/OBCR

7 December 2022

IMMEDIATE RELEASE: April 20, 2022

"MURPHY ADMINISTRATION CELEBRATES EARTH WEEK WITH NEW $15M INVESTMENT IN NATURE-BASED INFRASTRUCTURE THAT WILL HELP NEW JERSEY FIGHT CLIMATE CHANGE"

DEP Commissioner LaTourette Announces Blue and Green Carbon Grants to Enhance Salt Marshes, Living Shorelines, Forests and Urban Parks to Sequester Greenhouse Gases

NJDEP Natural Climate Solutions Grant Program

NJDEP Natural Climate Solutions Grant Program Summary:

Source: Regional Greenhous Gas Initiative (RGGI)

Grants: TOTAL: $15million; $250,000-$5,000,000/project *(Deadline: 9/16/2022*)*

Duration: 3 years

Project Categories:

1) Living Shoreline
2) Restoring Tidal Flows in Tidal Wetlands
3) Tidal Salt Marsh Vegetation Restoration
4) Submerged Aquatic Vegetation Restoration
5) Forest and Woodland Restoration
6) Urban Forest Canopy and Water Quality Restoration

*** The DEP will award additional application review points to projects in Overburdened Communities that have borne a disproportionate share of environmental inequities over the years.**

The Natural Climate Solutions Grant program is designed to fund on-the-ground implementation of projects that create, restore, and enhance NJ's natural carbon sinks, such as salt marshes, seagrass beds, forests, urban parks and woodlands, and street trees.

Waterfront South Rain Gardens Park

Remediation of Abandoned Gas Station to Create Park & Manage Stormwater Runoff


Site Abandoned >15 years

Tank Removal (June 2010)

Contaminated Soil Removal (June 2010)

Funded by:
USEPA Brownfields Assessment Grant (Petroleum)
DEP Supplemental Environmental Project Settlement (p/o $655,000)

Waterfront South Rain Gardens Park

Remediation of Abandoned Gas Station to Create Park & Manage Stormwater

Waterfront South Rain Gardens Park

Data Collection and Calculations

To **estimate** the amount of CO_2 Sequestered in each tree:

1. Determine the total (green) weight of the tree.
2. Determine the dry weight of the tree.
3. Determine the weight of carbon in the tree.
4. Determine the weight of carbon dioxide sequestered in the tree
5. Determine the weight of CO_2 sequestered in the tree per year

In order to perform these calculations, we needed to measure the DBH and height of each tree.

An estimated 63.06 tons of CO_2 have been sequestered by the stand-alone trees.

*Does not include the vegetation in the rain gardens themselves, grasses, scrubs and carbon in the topsoil.

Turning Brownfields into Benefits:

Open Space, Stormwater Management & Carbon Sequestration

1 ton CO_2 = 23,000 miles in the avg car (once around the world), 18 dairy cows in weight, 25 million plastic straws, 1 trip by plane from Paris to NY, or 121,643 smartphones charged.

With approximately 63 tons of carbon sequestered by trees at Waterfront South Rain Gardens Park, it is an excellent example of how brownfield remediation and green infrastructure (800,000 gallons of stormwater annually) are keeping climate pollutants from entering our atmosphere while improving the quality of our resources and beautifying our communities.

Thank you!

BDA UPDATE

Bill Lindner, Manager

Land Use Enforcement and Contaminated Fill Soils

NJDEP - Bureau of Coastal and Land Use Enforcement

December 2022

CLUE and Other CONTACTS

Report Possible Violations to DEP Hotline or Use the WARNDEP Mobile App:

Call the DEP Hotline
1-877-WARN-DEP
1-877-927-6337

WARN NJDEP

Trenton Office: 609-292-1240

Hunterdon So. Somerset, Middlesex, Mercer, Inland Monmouth, Burlington, Camden, Gloucester Western Atlantic, Cumberland, Salem, NW Ocean (Jackson, Plumsted, Manchester and Lakehurst)

Toms River Office: 732-255-0787

Cape May, Coastal Monmouth, Ocean, Atlantic

Chester Office: 908-879-3769

Bergen, Essex, Hudson, Morris, Passaic, No. Somerset, Sussex, Union, and Warren counties

Or send all relevant information (Location Address, Block/Lot, Description, of Activities, etc.) via email to the DEP Communications Center:

commcenter@dep.nj.gov

Division of Land Resource Protection - Technical Support Center: (609) 777-0454

Bureau of Flood Control (State Study Maps & FEMA Coordination) : (609) 292-2296

Laws and Regulations We Enforce

- **Acts and Statutes**

  Freshwater Wetlands Protection Act, N.J.S.A. 13:B-1 (1988)

  Flood Hazard Area Control Act , N.J.S.A 58:16A-52 (1929 "Stream Encroachment Law", revised 1962 & 1980 FHACA)

  Coastal Area Facility Review Act (CAFRA), N.J.S.A. 13:19-1 (1973)

  Waterfront Development Statutes, N.J.S.A. 12:5-3

  The Wetlands Act of 1970, N.J.S.A 13:9A-1

  Highlands Water Protection and Planning Act, N.J.S.A 13:20-1 (2004)

  Riparian Lands Statutes (Tidelands Act), N.J.S.A. 12:3-1

- **Rules and Regulations**

  Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A-1

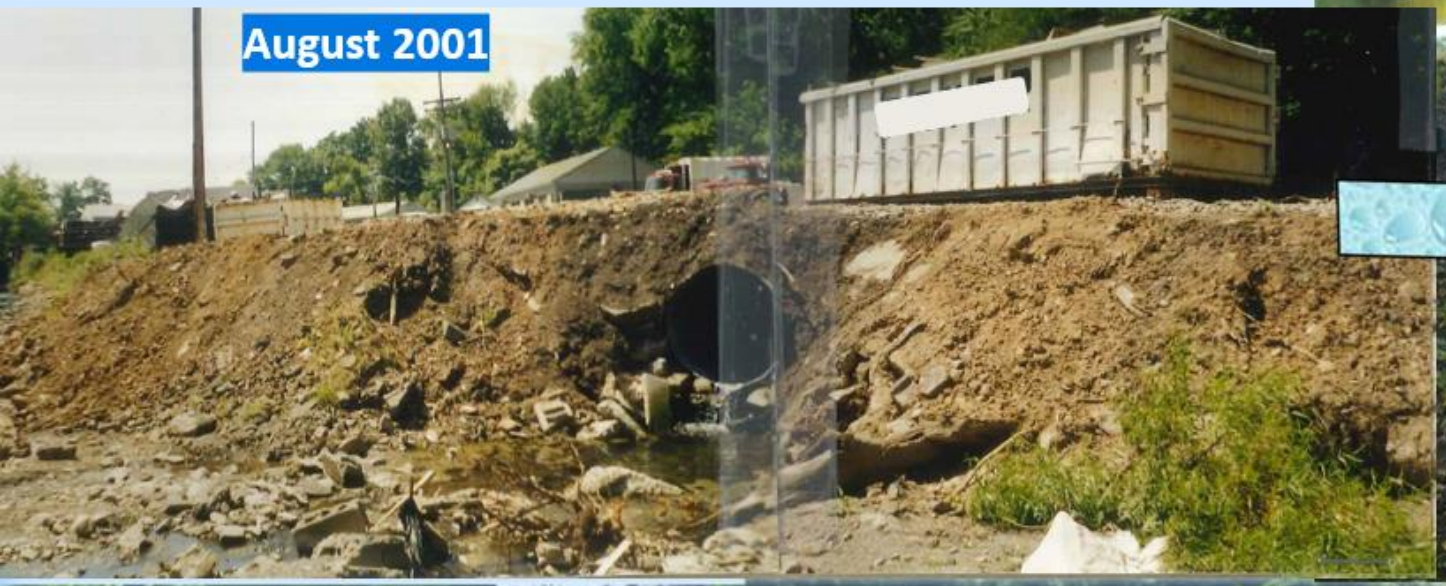
  Flood Hazard Area Control Act Rules (Stream Encroachment), N.J.A.C. 7:13-1

  Highlands Water Protection and Planning, N.J.A.C. 7:38-1

  Coastal Permit Program Rules, N.J.A.C. 7:7-1

  Coastal Zone Management Rules, N.J.A.C. 7:7E

FLOODWAY RESTORATION (Fall, 2013), Chatham, NJ



After 4-6 feet of fill (approx. 2,400 cubic yards) removed from floodway of the Passaic River.

NOTE: NO SOIL CONTAMINATION ISSUES AROSE AT ANY TIME AND RESTORATION PROCEEDED WITHOUT ANY COMPLICATIONS

JUNE 2016

Donofrio Site, Rockaway, NJ

Portion of site facing Rockaway River at discovery in April 2004

- Initial inspections in 2004 revealed ongoing clearing of vegetation, filling and grading on several acres within the floodway of the Rockaway River and Beaver Brook and associated riparian zone. The fill was later found to contain low levels of polyaromatic hydrocarbons (PAH's) which precluded normal removal and disposal but would require the soil material to be disposed of at a landfill.
- Notices of Violation were issued to the property owner and an additional responsible party.

- Litigation over liability ensued between the property owner and the additional responsible party, which was not resolved until 2012.
- In 2008 the Department issued an Administrative Order with Penalty Assessment to all responsible parties requiring removal of fill and restoration of the affected areas.
- Litigation, with frequent settlement discussions, ensued between the Department and the responsible parties and continued until a Final Order was issued by the Commissioner in January 2019. The Final Order reiterated the requirement for fill removal and restoration of affected areas.

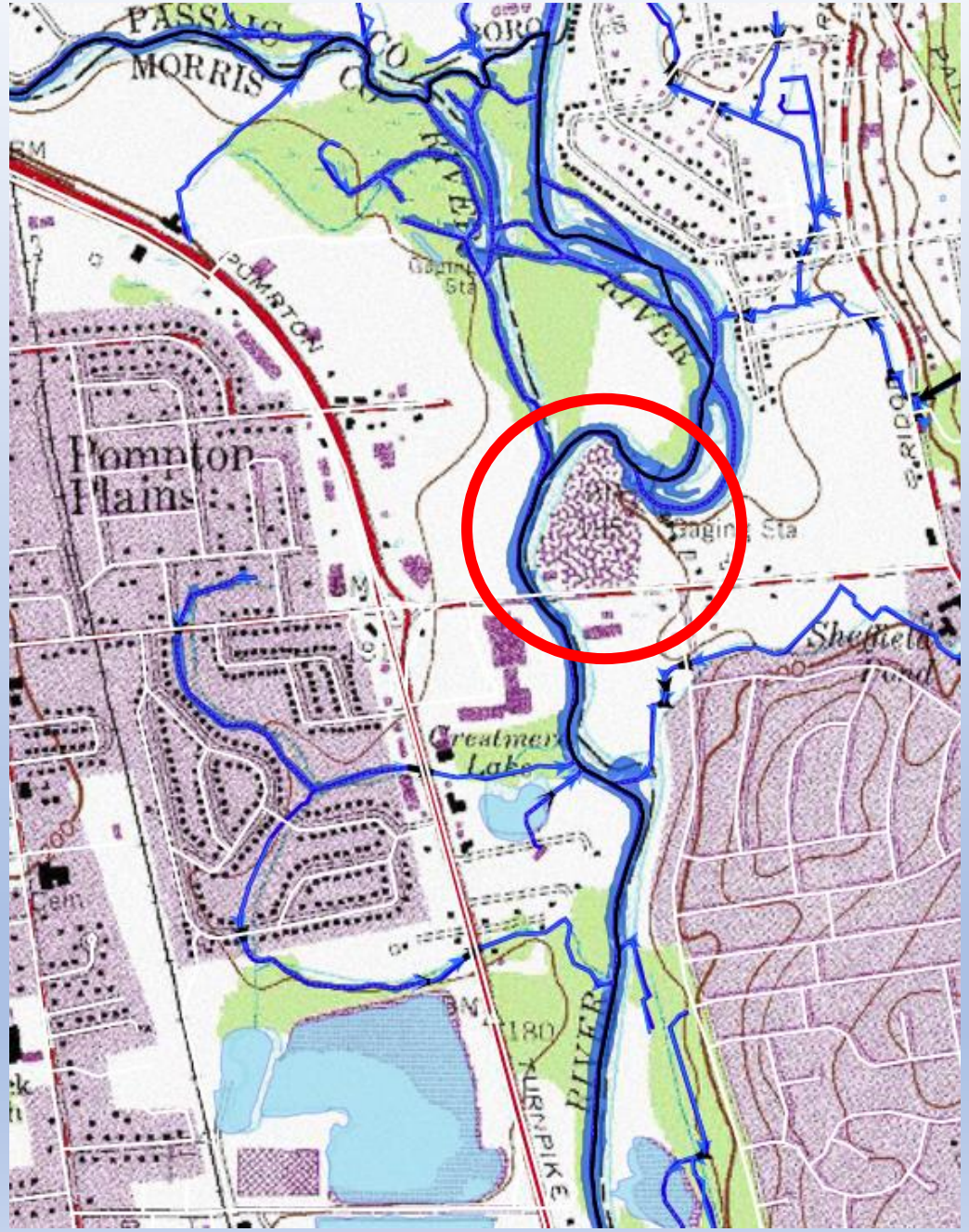
Donofrio Site, Rockaway, NJ

- In March 2020, the Department entered into an Administrative Consent Order with the property owner, wherein they would implement a restoration plan that had been previously prepared by an environmental consultant.
- Fill removal and restoration work began in Spring 2020 and was completed by the midsummer. Approximately **3,180 cubic yards** of slightly contaminated material ("dirty dirt") was removed from the floodway and riparian zone and transported to Kingsland Landfill for disposal.
- Cost of remediation = $299,674.
- During the 2021 growing season, the restoration was found to have successfully provided greater than 85% areal vegetative coverage within the restoration area.

Donofrio Site, Rockaway, NJ

Restoration Area in June 2021

Top Soil Depot/Rombough, Wayne, NJ



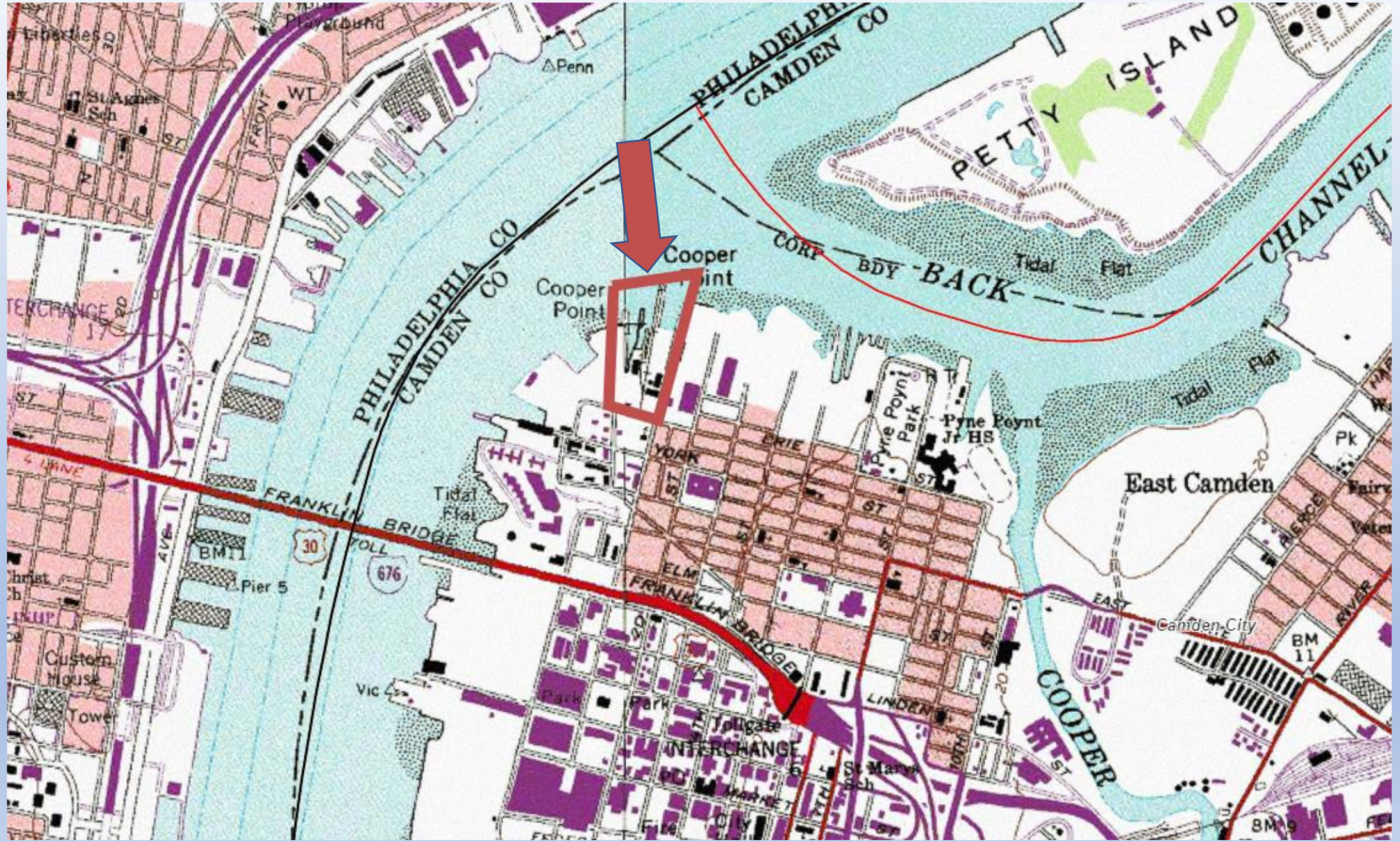
Top Soil Depot/Rombough, Wayne, NJ

HARLEIGH CEMETERY, Camden, NJ

Harleigh Cemetery, City of Camden – 12/16/2006 and 4/12/2018 Pictometry

HARLEIGH CEMETERY, Camden, NJ – Nearmap Imagery of March 3, 2022

Camden Ship Repair site (75 Erie St LLC)



Camden Ship Repair site (75 Erie St LLC)

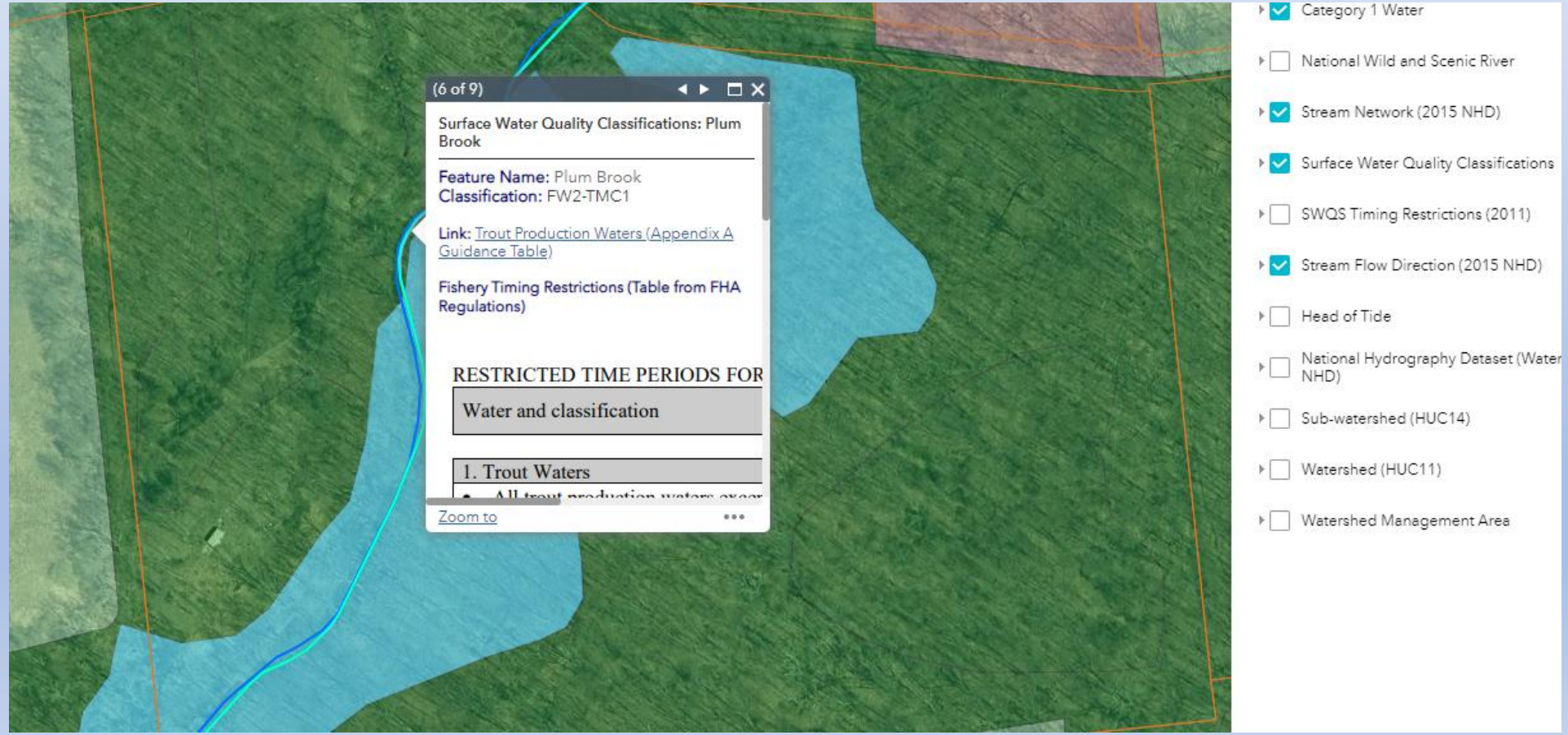
Early 2019 – DEP discovered that new owner was importing soil – up to 90,000 cubic yards

Camden Ship Repair site (75 Erie St LLC)

Rural Site in Delaware Township, Hunterdon County

Rural Site in Delaware Township, Hunterdon County

- Elderly homeowners who also own 25-acre property across the street, which is
- Completely Forested, approx. 1/3 is mapped as potential wetlands, associated with
- Plum Brook, classified as Category 1, Trout-Maintenance waters (300-foot riparian zone).
- Owner's grandson found an ad on Facebook Marketplace offering "free fill". Claim they only wanted 6-10 truckloads to repair access trail.
- Owners claimed they weren't home when 50-100 truckloads of fill were delivered and graded into a widened 700-foot long "driveway".
- Investigation found the fill of unknown quality originated at three construction sites in Newark.
- CLUE, Solid Waste & Huntco Health Dept investigated, discovered a significant portion of fill contained solid waste demolition material.
- Sampling in 2021 revealed contaminants in the fill including benzo(a)pyrene and metals (mercury, cadmium & lead)
- Enforcement actions taken (Solid Waste is the lead). Currently the case is in Alternate Dispute Resolution (ADR)
- The trucker may also be facing a significant enforcement action.
- This matter also became a Site Remediation case in 2021. Owners have retained LSRP to address Specific Known Contaminated AOC's.



Rural Site in Delaware Township, Hunterdon County

Wetlands
Cleared and Filled
6,000 sq. ft.

Riparian Zone
Cleared and Filled
Approx. 50,000 sq. ft.

Estimated Total Fill
in Regulated Areas
1,500 – 2,000
cubic yards

Rural Site in Delaware Township, Hunterdon County

2021 SAMPLING RESULTS: "Yep, its Dirty Dirt"

#9	6" 7"	Test Pit #1- subsurface yielded pieces of brick, wire/plaster, and asphalt Test Pit #2 - subsurface yielded pieces of plastic and asphalt
#10	1-5" 8"	Composite sample between surface/berm and test pit Surface/within a berm – yielded pieces of concrete, asphalt, and glass Test Pit – went into asphalt millings down to native soil at 8"
#11	1-3"	3 points At/Near Surface and within a berm- within area for composite sample, subsurface yielded pieces of wire, concrete, and asphalt
#12	7" 1-2"	Composite sample between test pit and within a berm above surface grade Test Pit - subsurface yielded asphalt millings at 7" Near Surface – yielded asphalt millings

Sampling ended at 2:36 pm.

NOTE: Only one sample, #10 in the test pit, was native soil attainted at a depth of 8 inches below grade.

Upon completing of the sampling/investigation, I discussed the turnaround time and the analytical testing required to ensure that the requirement as per the AONOCAPA were met.

Analytical Results:
On 6/24/2021, Mr. informed me that analytic results had been received by him but that the report file was incomplete. On 7/6/2021, the analytical results were received through Ms. , Mr. 's attorney. The analytical report was reviewed and exceedances of lead (in two (2) samples) and benzo(a)pyrene (in four (4) samples) above the NJDEP Residential Direct Contact Soil Remediation Standards was observed. Also, exceedances of Mercury (in eleven (11) samples) and Cadmium (in four (4) samples) above the NJDEP Default Impact to Groundwater (IWG) Soil Screening Level was observed.

NOTE: IWG results for Mercury and Cadmium were provided as Delaware Township, where this property is located, relies on ground water for drinking/potable water.

CLUE Restoration Results: 2003 to 2017 (Approx.)

Freshwater Wetlands Restored	= 325.31 acres
FWW Transition Area Restored	= 189.44 acres
FWW/TA Areas Deed Restricted	= 130.26 acres
FWW Mitigation (thru Mitigation Banks)	= 20 acres
Flood Haz. Riparian Zone Restored	= 46.65 acres
Total Land Donations (all types)	= 206.3 acres
Coastal Wetlands Restored	= 50.84 acres
CAFRA Zone Lands Restored	= 49.85 acres
Highlands Area Restored / Deed Restored	= 7.18 acres

TOTAL LANDS RESTORED & PRESERVED = 1,025 ACRES

Other attributes:

Fill Removed from Flood Hazard Areas	= 110,228 cubic yards
Total $$ Contributed to Mitigation Banks	= $1,345,899

USEPA UPDATE

Terry Wesley, Brownfield Section Chief

Schenine Mitchell, Brownfields Program Coordinator

OPEN DISCUSSION

CONCLUSION/ THANK YOU!