



NJIT  
**TAB** TECHNICAL ASSISTANCE TO BROWNFIELD COMMUNITIES  
presents

**Elise Molleur**  
*Brownfield Redevelopment Specialist*



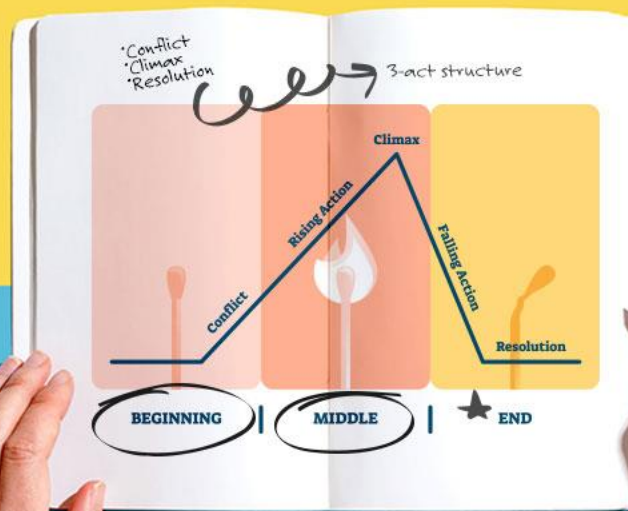
 **HCI**

*Including Guest Speaker*  
**Maria Coler**  
*Adjunct Professor, NJIT & President, HCI*

# Brownfields: A Story to Tell

Thursday, March 21, 2024  
1:00pm - 2:00pm EST

Made possible with funding from the US EPA





# Thank you for joining us today!

# This webinar will be starting soon.

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But first, some helpful information:



Today's session will be recorded.



The recording for this session will be available on our website: <https://www.njit.edu/tab/>



# Thank you for joining us today!

# This webinar will be starting soon.

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But first, some helpful information:



Use the Q&A box to queue up questions. Use the chat to share your thoughts.



We want to know your thoughts! Fill out our feedback survey after today's session.



Continue the conversation on our LinkedIn page! <https://bit.ly/3UYkHPR>



**Thank you for joining us today!**

**This webinar will be starting soon.**

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**But first, some helpful information:**



Experiencing technical issues? Know someone who is having trouble hopping on?

Reach out to me via email at [fm392@njit.edu](mailto:fm392@njit.edu)

# Today's Speakers:



## Elise Molleur

Brownfield Redevelopment Specialist, NJIT TAB

Email: [elise.molleur@njit.edu](mailto:elise.molleur@njit.edu)

Phone: 973-642-7280



## Maria Coler

Adjunct Professor, NJIT

*ENE662852 – Site Remediation, Spring 2024*

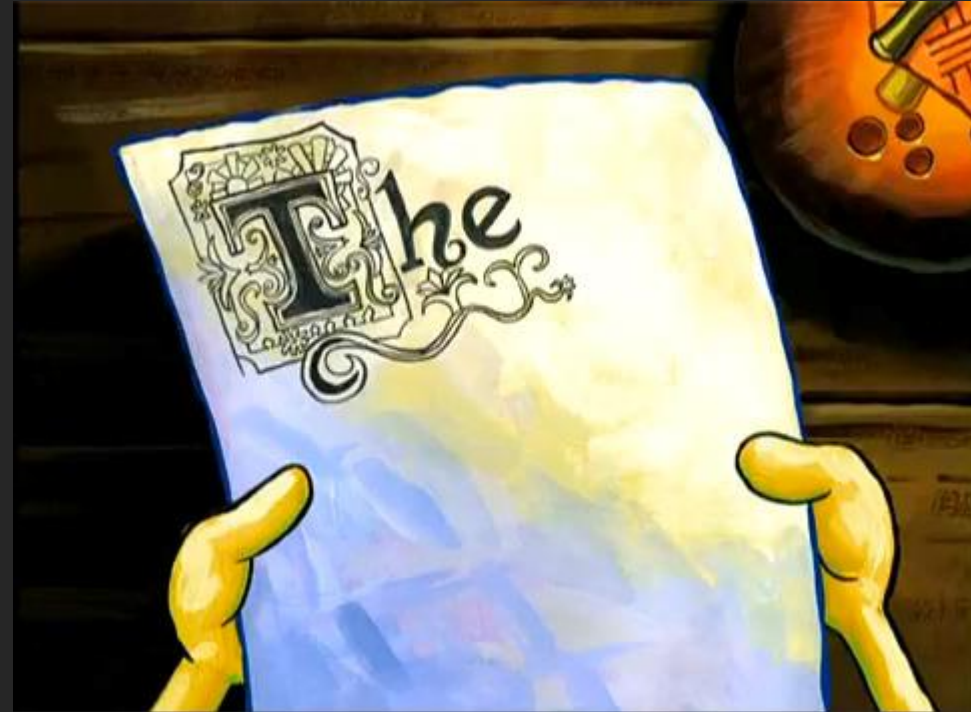
President, Hydrotechnology Consultants, Inc.(HCI)

Email: [mcoler@digbrowngogreen.com](mailto:mcoler@digbrowngogreen.com)

Phone: 201-222-1540

# Agenda

- Our history - path dependency and deep history
- Stories – what makes us listen?
- Traditional Three-Act Narrative Structure vs. Five-Point Indigenous Storytelling
- What is a Brownfield and why talk about them?
- Amplifying underrepresented voices
- Brownfield champions
- The audience members of Brownfield storytelling
- Grantwriting
- Data and emotion
- A real Brownfield story



**Main Takeaway: Storytelling is critical to gaining financial resources, partnerships, and community support for your Brownfield project.**



-Joanne Rogers, wife of Fred Rogers, in a 2003 interview with "The Atlanta Journal-Constitution"



# The Deep History and Path Dependency of Brownfield Sites



# Tools of the Trade

**DEEP HISTORY** illuminates forces that brought about changes to the environment, environmental consciousness, and environmental activism.

**PATH DEPENDENCY** is the notion that established pathways determine future developments.

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FEBRUARY 23, 1945 IN IWO JIMA, JAPAN

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## THE GREATEST GENERATION

U.S. MARINES-IWO JIMA, JAPAN, 1945



## A SHARED PURPOSE

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WOMEN'S LAND ARMY, GREAT BRITAIN



A VISION

NORMANDY BEACH, FRANCE



A DESIRE

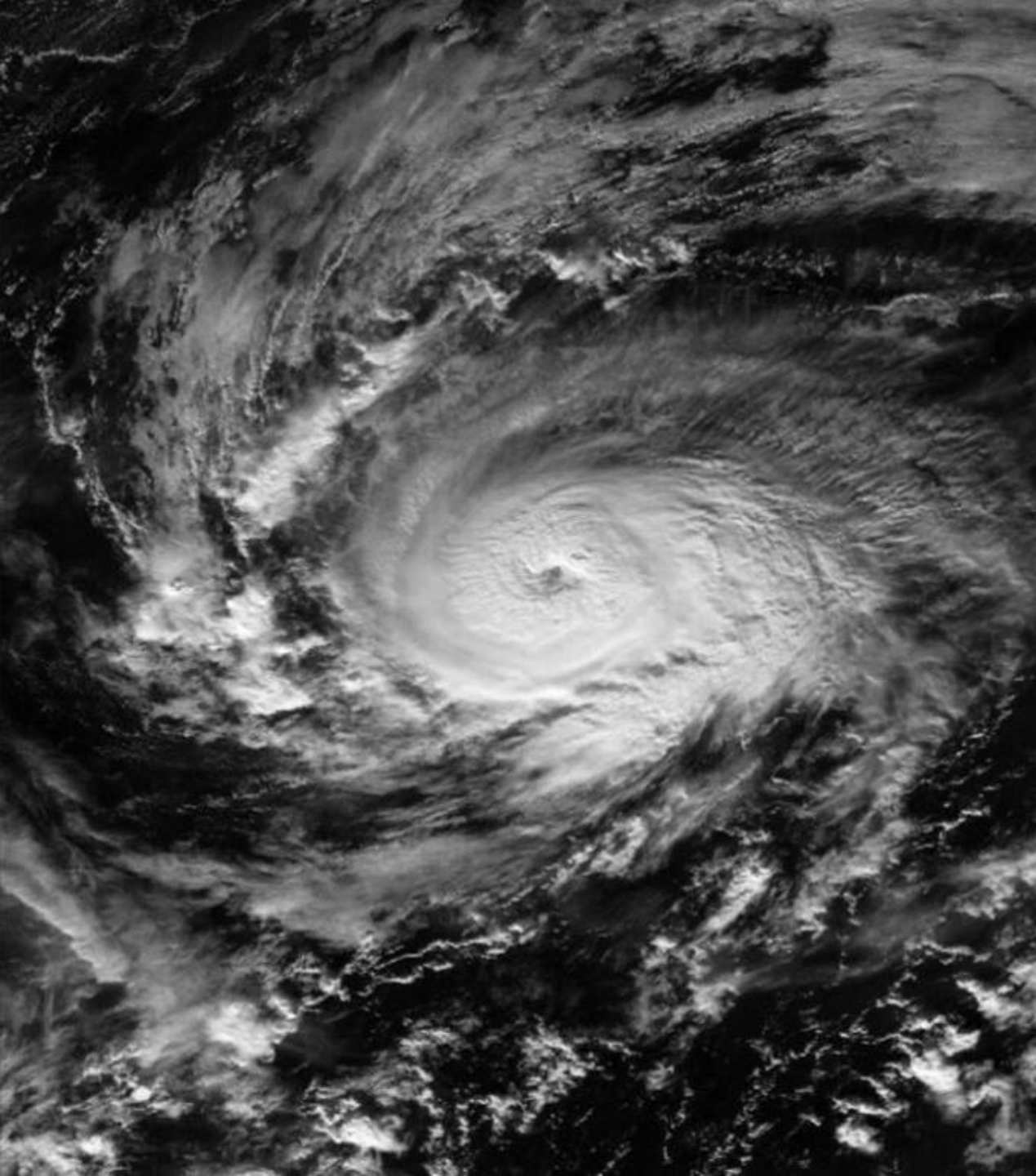
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UNITED NATIONS



VICTORY!

TIMES SQUARE, NYC



CLIMATE CHANGE  
ECOSYSTEM COLLAPSE  
ENVIRONMENTAL DEGRADATION

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GATHERING STORM OF CRISES



# BROWNFIELDS

**MORE THAN 1,000,000 SITES**



# REPOSITORIES OF MEMORY



FRENETIC PRODUCTIVITY

THE DNA OF THE NATION

ARCHITECTURAL BONES



# THE WORLD IS A BROWNFIELD

- RECLAMATION
- REGENERATION
- RESILIENCY
- PRESERVATION
- SUSTAINABILITY



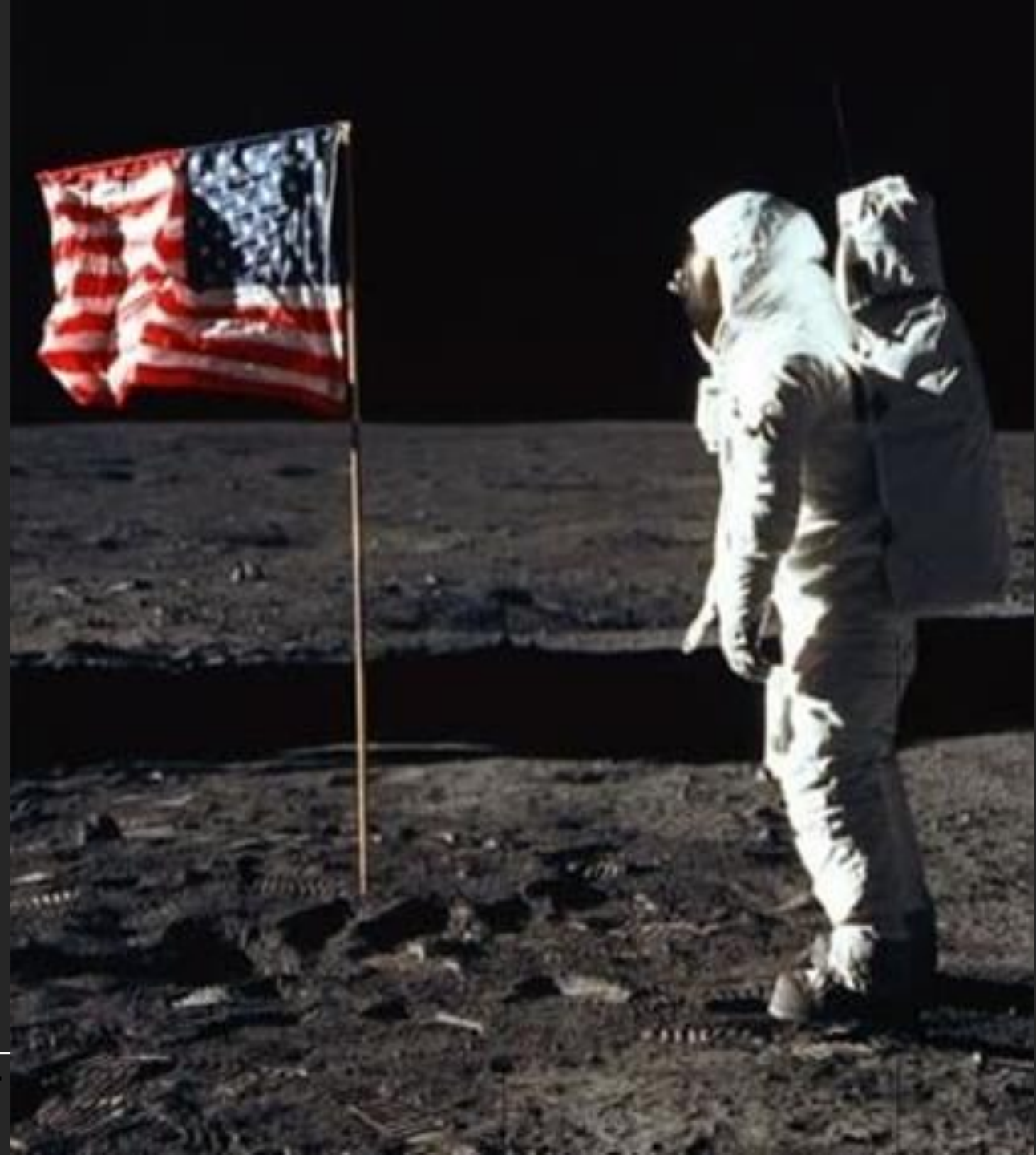
PRESIDENT JOHN F. KENNEDY



WWII PURPLE HEART MEDAL RECIPIENT

# THE MOONSHOT CHALLENGE

ONE WE ARE WILLING TO ACCEPT



GREENEST GENERATION(S)

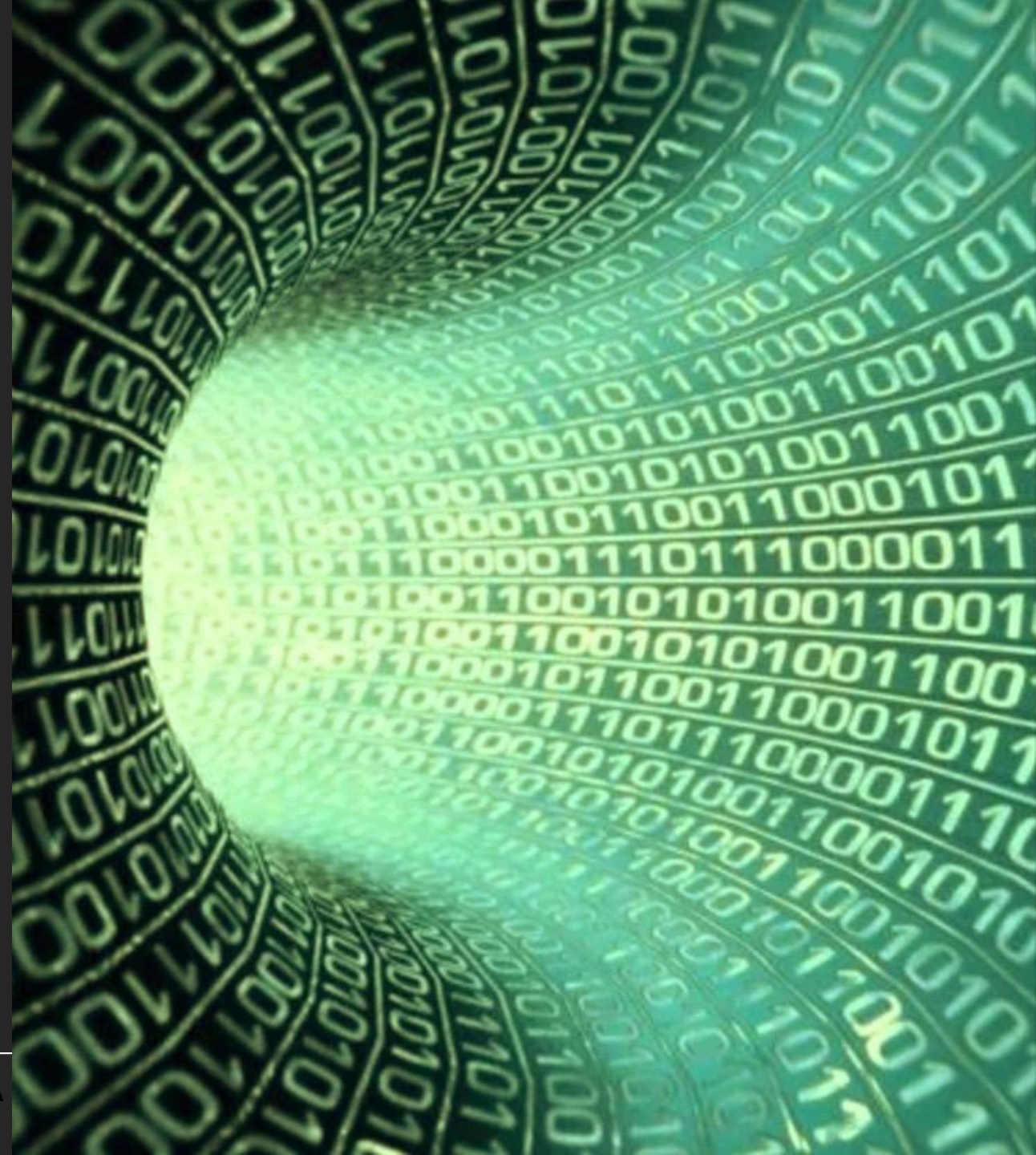


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CHALLENGED TO RISE

LIKE. NOTHING.  
WE'VE. SEEN.  
BEFORE.

DELVE DEEP INTO THE DATA





SMART,  
CONSCIOUS  
GOVERNMENT AND  
CAPITAL



TRIPLE-BOTTOM-LINE THINKING

**WHY?**

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===== PRESIDENT JOE BIDEN =====

# **BUILDING A BETTER AMERICA**

===== BUILD.GOV =====

## **A GUIDEBOOK TO THE BIPARTISAN INFRASTRUCTURE LAW FOR STATE, LOCAL, TRIBAL, AND TERRITORIAL GOVERNMENTS, AND OTHER PARTNERS**

## Bipartisan Infrastructure Law

Once-in-a-Generation  
Investment in National Infrastructure

\$21 Billion in Brownfield  
Remediation

Environmental Justice

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# Complementary Climate Investments in Recent Legislation

## INFLATION REDUCTION ACT (AUGUST 2022)

**\$2 billion**  
for domestic manufacturing grants



**\$3 billion**  
for zero-emissions equipment and climate action plans at ports



**\$3 billion**  
for Neighborhood Access and Equity Grants to improve transportation access



**\$9.7 billion**  
for better reliability and resilience in rural areas



**\$8.6 billion**  
in rebates for energy efficiency upgrades



**\$27 billion**  
for a national climate bank to finance green projects in underserved communities



**\$19.5 billion**  
for climate-smart agricultural practices



## INFRASTRUCTURE INVESTMENT AND JOBS ACT (NOVEMBER 2021)

**\$7.5 billion**  
for charging infrastructure

**\$5 billion**  
for clean or zero-emission school buses

**\$66 billion**  
for passenger and freight rail

**\$65 billion**  
to modernize and expand the national grid

**\$3.5 billion**  
to the Weatherization Assistance Program

**\$21 billion**  
in environmental remediation funds

**\$3.3 billion**  
for wildfire risk reduction

# Inflation Reduction Act

Largest Investment in Climate Change Mitigation and Climate Resiliency in the History of the World

\$27 Billion for Green Energy Projects in Underserved Communities



Sources: Sen. Cantwell, the White House, BlueGreen Alliance, National Wildlife Federation, Evergreen Action, Bipartisan Policy Center

Graphic by: Alison Davis



So, how will you tell the story of your town/city and your site in the Golden Age of Brownfields?

Let me tell you a story about one of my favorite places.

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**City of Newark**

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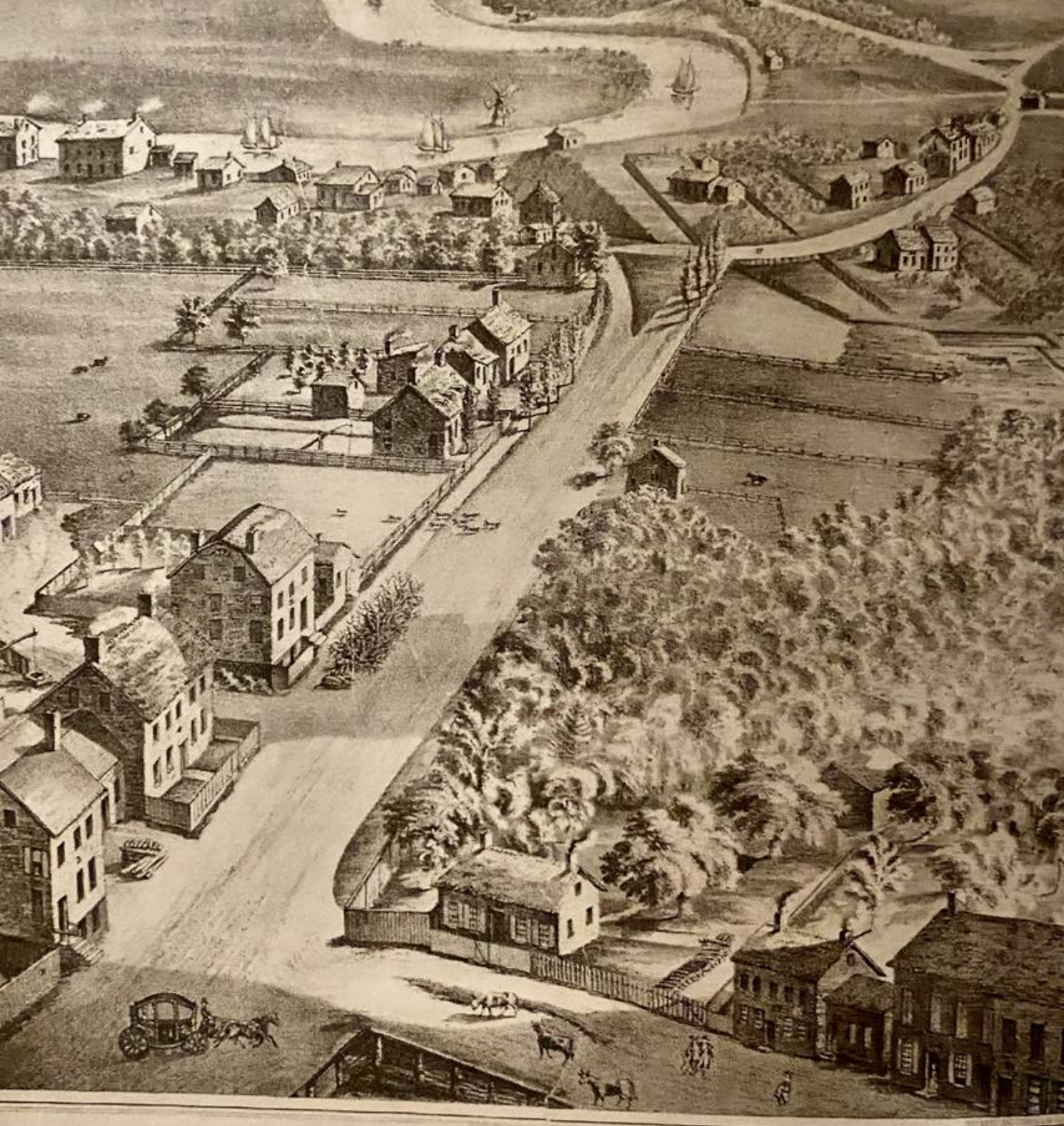
MADE IN NEWARK

## Deep History

*“The story of Newark is America’s story. It is the story of colonization, independence, growth and maturity. It is the story of a brave people.”*

~Lyndon B. Johnson, during a 1966 speech commemorating Newark’s 300<sup>th</sup> anniversary, said the following:

---



NEWARK,

# Path Dependency

In the late 1700s, construction of bridges spanning the Passaic and Hudson Rivers

Major rail and waterway infrastructure projects of the pre-Civil War era left lasting marks all over increasingly urban northern New Jersey.

<sup>T</sup> Newark became the hub of northern NJ





## Many Great Inventors and Industrialists Set Up Shop in Newark

Thomas Edison

Seth Boyden

Moses Combs  
&  
Franklin Murphy

# HOW NEWARK BECAME NEWARK

*The Rise, Fall and Rebirth of an American City*

BRAD R. TUTTLE



## Newark is Everycity, U.S.A.

Only with a steeper rise,  
sharper turns, and a  
much more dramatic plunge.

### Urban America in Extremis

Industrial Abandonment

Racial Conflict

Fiscal Insolvency

Dire Poverty



## Deep History

Newark's fate is inextricably bound to the way we choose to tell its story.

As America Rises to the Challenges of the 21<sup>st</sup> Century It Will Once Again Look to Cities Like Newark

The Cycle of American Greatness and Weakness Found It's Full Expression in Places Like Newark

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## Why This Brownfield in This City?

Newark and America's second precipitous rise is dependent, in part, on the symbols of their decline—brownfields



With Imagination and Storytelling—  
And Employing  
Brownfields as the Building Blocks  
of a Sustainable Future—  
We Can Build a Better World Informed by  
Triple-Bottom-Line Thinking for Them!

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Thank You!



Maria Coler, CEO and Founder  
HYDROTECHNOLOGY CONSULTANTS, INC.  
mcoler@digbrowngogreen.com

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Adjunct Professor, NJIT

# What makes a good story?

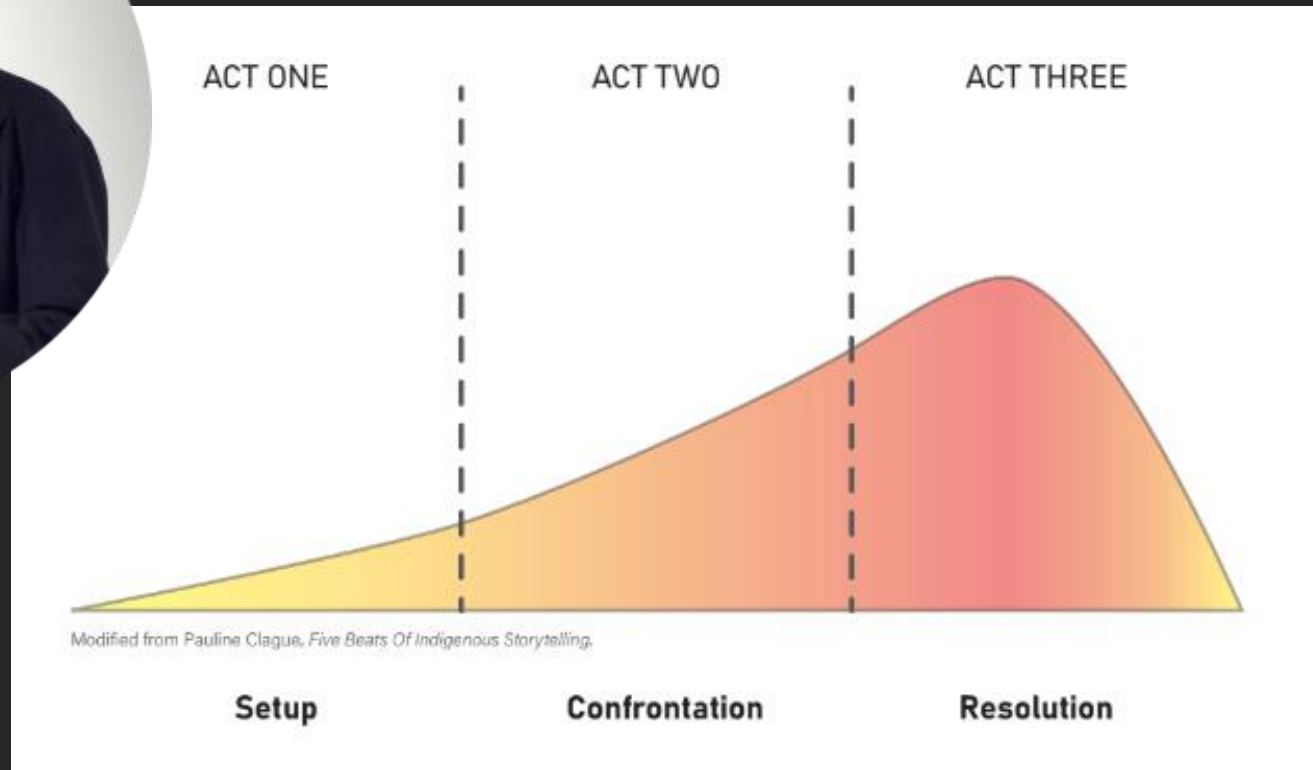
- Know your audience
- Emotion - love the stories you tell
- Share *your* story - make it relatable and/or personal
- Characters





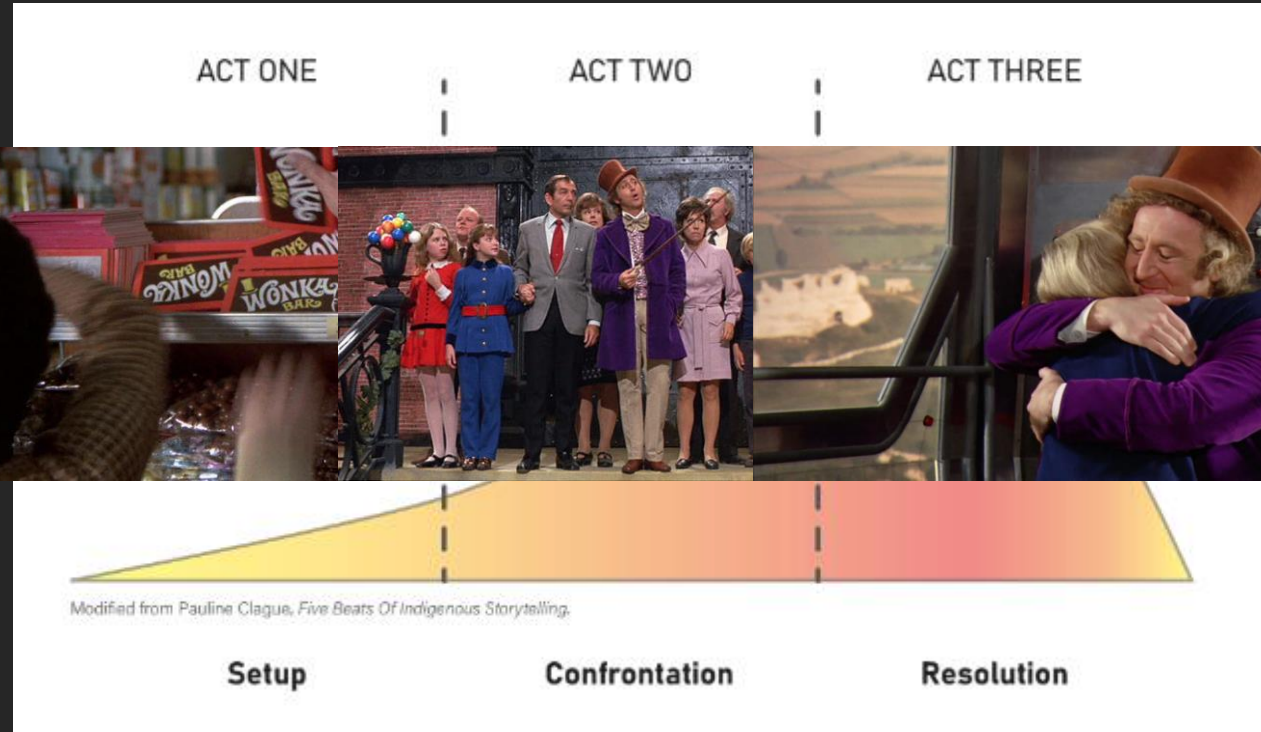


Syd Field



# Storytelling: Traditional Three-Act Narrative Structure

# Storytelling: *Willy Wonka & the Chocolate Factory* Three-Act Narrative Structure



**Introduction**  
 Charlie lives in poverty with his family. Grandpa Joe explained to Charlie that the gates of the Wonka Factory remain locked to prevent further sabotage from spies who were sent to steal Willy Wonka's recipes. Wonka announces that five Golden Tickets were hidden in chocolate Wonka Bars; the finders of the tickets will receive a factory tour and a lifetime supply of chocolate.

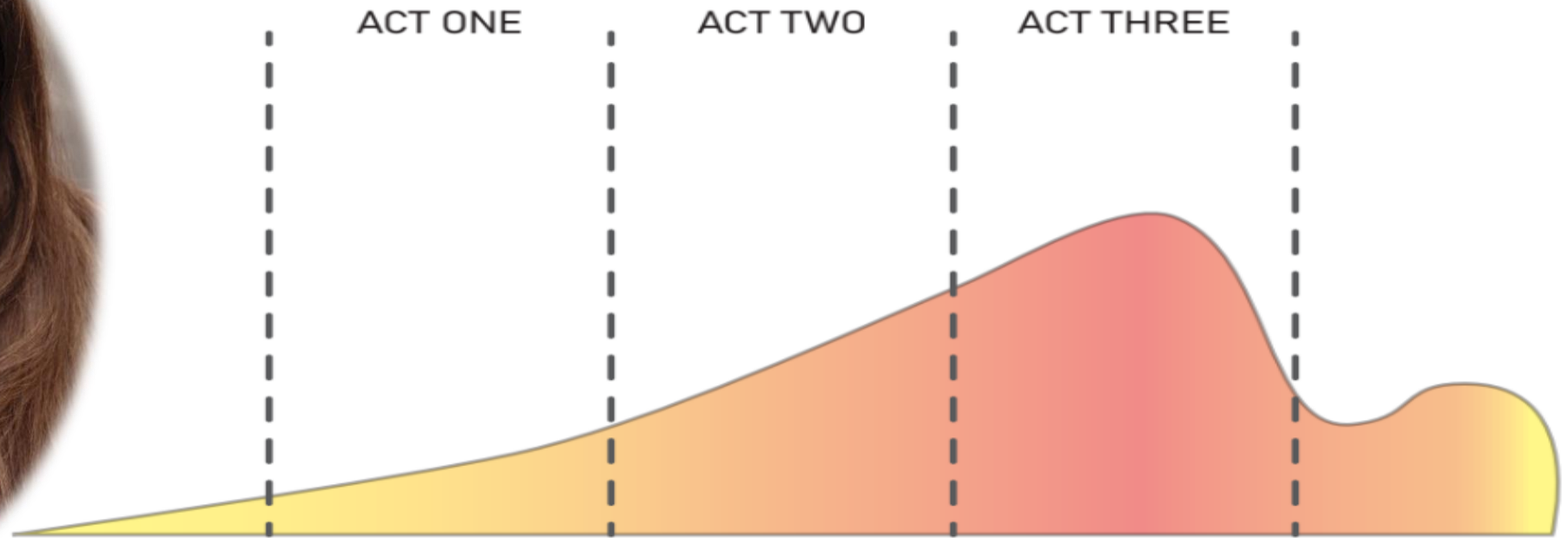
**Rising Action**  
 The first four tickets are found by Augustus Gloop, Veruca Salt, Violet Beauregarde, and Mike Teevee. The final ticket is found by Charlie who chooses Grandpa Joe as his chaperone. The ticket winners arrive at the factory and are greeted by Wonka himself.

**Crisis**  
 Each child's character flaws cause them to give in to temptation, resulting in their unusual "elimination."

**Falling Action**  
 Following the downfall of the other children, Wonka announces that Charlie has passed the morality test and gifts his factory to Charlie and his family upon Wonka's retirement.



Pauline Clague



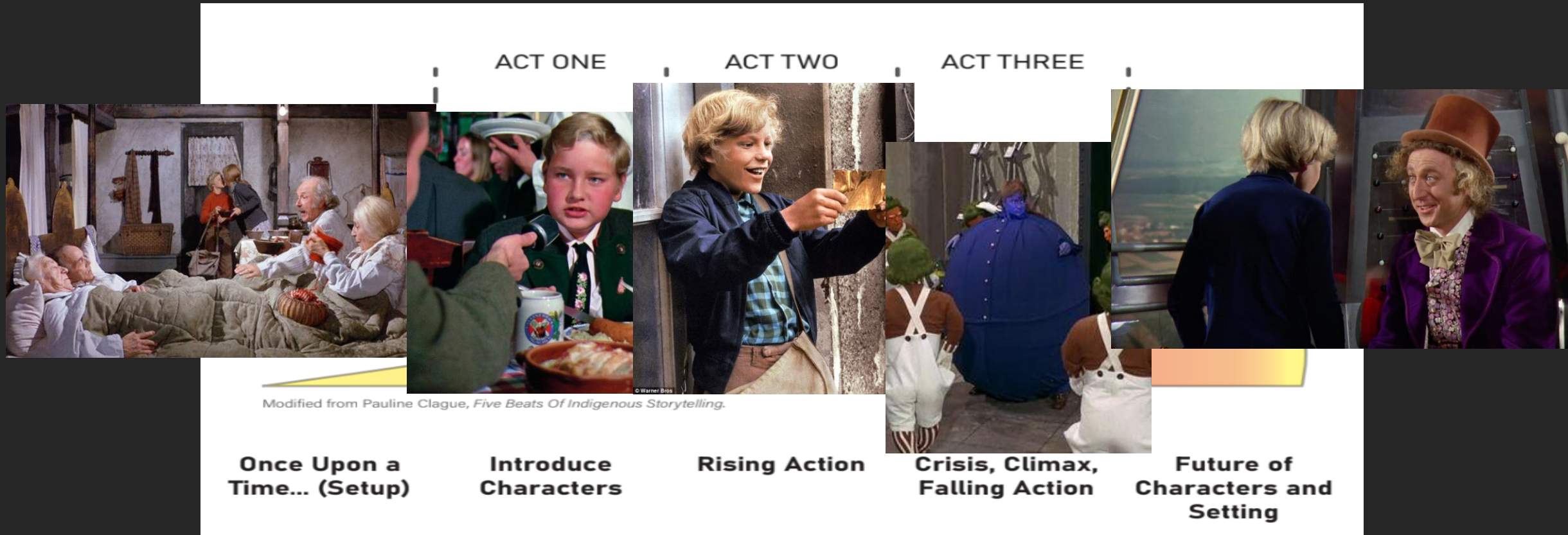
Modified from Pauline Clague, *Five Beats Of Indigenous Storytelling*.

**Once Upon a Time... (Setup)**      **Introduce Characters**      **Rising Action**      **Crisis, Climax, Falling Action**      **Future of Characters and Setting**

# Storytelling: Five-Beat Indigenous Storytelling

# Storytelling: *Willy Wonka & the Chocolate Factory*

## Three-Act Narrative Structure



### Once Upon a Time...

Who is Charlie? Who does he live with? Why is his family living in poverty? What sort of challenges do the Buckets face in their small home? Who is Willy Wonka? Why did he close off his factory to this public?

### Introduction

Willy Wonka announces that five golden tickets are hidden in his chocolate Wonka Bars. Children and adults scramble to buy Wonka Bars and win this lifetime opportunity.

### Rising Action

Charlie finds the last golden ticket and chooses Grandpa Joe as his chaperone to Wonka's factory.

### Crisis

Four of the five children are eliminated from the factory tour one-by-one due to their character's flaws (gluttony, greed, sloth, and pride).

### Falling Action

Charlie passes the morality test and is the inheritor of Wonka's factory.

### Future of Characters

How does the Bucket family feel about moving in to the factory? Is the factory doing well under Charlie and Grandpa Joe's supervision? Will they open the factory to the public again?

# What is a Brownfield?

“Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

-EPA

**Brownfield Champion** – An entity or individual whose Brownfield site has been successfully redeveloped.

# Superfunds vs. Brownfields

Superfunds goals are to:

- Protect human health and the environment by cleaning up contaminated sites
- Make responsible parties pay for cleanup work
- Involve communities in the Superfund process
- Return Superfund sites to productive use



# Why do we tell stories of Brownfield sites?

- Articulate ideas
- Gather input
- Appeal to audiences
- Catalyze community involvement
- Gain funding, partnerships, and grantors (necessary step in grant writing)
- Support underrepresented voices

## Brownfields Success Story

### Bringing Clean Energy to an Abandoned Waterfront *Woodbridge, New Jersey*

El Paso Energy Corporation (EPEC) Polymers, Inc. owns a 185-acre parcel of land along the Raritan River in Woodbridge Township, New Jersey, that has a history of industrial activity. In the late 1800s, clay mining on the property supported the region's brickmaking industry, and organic chemical manufacturers operated a plant there until the mid-1980s. Since then, state and federal environmental investigations have confirmed contamination of the groundwater beneath the plant with volatile organic compounds, including vinyl chloride, trichloroethylene, and methylene chloride.

A portion of the property also was contaminated by materials the U.S. Army Corps of Engineers dredged from the Raritan River in the 1940s and 1950s. Tidal marsh areas were bermed and isolated hydraulically from the river to allow for placement of the dredged material and to install a municipal sewer main along the riverfront. Berming and filling the tidal marshes destroyed the natural habitat and created a large monoculture of Phragmites, a rapidly growing reed that chokes waterways and displaces native wildlife.

After the EPEC Polymers plant closed in 1986, the property remained vacant and contaminated for decades, making it particularly unappealing to developers concerned with remediation costs. In 2009, the New Jersey Department of Environmental Protection (NJDEP) partnered with Woodbridge Township to help return the property to productive use. With support from public and private investment, the site soon will house the Woodbridge Energy Center and the Woodbridge Waterfront Park. Though remediation and redevelopment have taken a tremendous amount of work, project officials say the promise of new jobs, clean energy, green space, and public access to the riverfront has made all the effort worthwhile.



An aerial shot of the Heyden Newport Chemical Corp. manufacturing plant in Woodbridge Township, New Jersey, in 1957. Investigators later confirmed groundwater contamination at the site.



An artist's rendering of the Woodbridge Energy Center, planned as part of a major effort to return a previously vacant and contaminated property along the Raritan River to productive use.

**EPA Grant Recipient:**  
New Jersey Department of  
Environmental Protection

**Grant Types:**  
EPA CERCLA 128(a)

**Former Uses:**  
EPEC Polymers, Inc.,  
Chemical Manufacturing Plant

**Current Uses:**  
Woodbridge Energy Center,  
Woodbridge Waterfront Park



# Stories Matter: Amplifying Voices

- Boost the voice, not become the voice
- What can storytelling do for marginalized voices?
  - Increase visibility
  - Improve self-esteem
  - Increase social awareness
  - Foster empathy

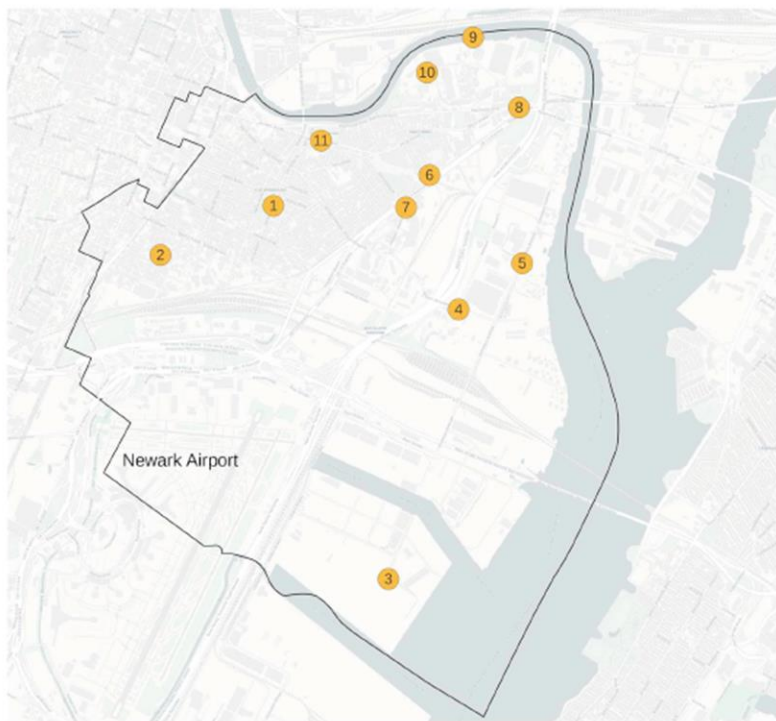


# Ironbound – Newark, New Jersey

Dr. Ana I. Baptista



## Ironbound Toxic Tour



- Toxic Tour Stop
- 1. Independence Park
- 2. South Ironbound
- 3. Port Newark
- 4. PVSC
- 5. Chemical Row
- 6. Foot of Hawkins
- 7. St. Charles St.
- 8. Incinerator
- 9. Passaic River
- 10. Diamond Alkali
- 11. Riverbank Park



# Why is it important for “Brownfield champions” to tell their story?

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Inspire others

Can be a catapult for your next Brownfield

Show the impact it has on a community



# KNOW YOUR AUDIENCE – UNDERSTAND THEIR MOTIVATION

Which factors (e.g. job creation, quality of life, property value) do you think the following stakeholders are most concerned with?

1. Elected Officials
2. Property Owners
3. Developers or Investors
4. Residents
5. Grantors



Choose a stakeholder or two and  
write your answers in chat!



# Elected Officials



Focused on ECONOMIC IMPACT

- Jobs
- Sales and property tax
- Blight removal
- Their general legacy

# Property Owners

## FAMILY LEGACY

- Property value
- Resale potential
- Lease rates
- Free money
- Clean bill of health
- Inheritance



An illustration on the left side of the slide shows a hand in a blue sleeve dropping a gold coin into a brown money bag with a yellow dollar sign on it. The background is dark teal with a diagonal split.

# Developers/Investors

A SENSE OF “FOMO”

Want to know about...

- Return on investment
- Neighborhood potential
- Land value
- Lease rates
- Market demand

# Residents



## WANT SOMETHING TO LOVE

- Livability/safety
- Sense of place/community
- Neighborhood potential
- Elimination of blights
- Quality of life
- Amenities

# Grantors

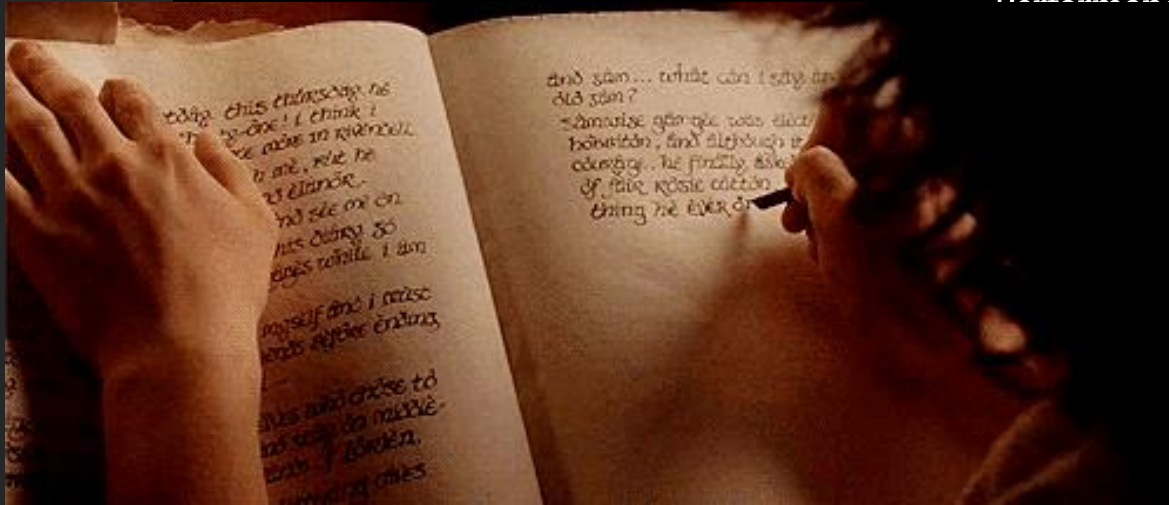


## WANT TO SEE MONEY WELL SPENT

- Results
- Shareable information
- Groundbreaking ceremonies
- Stories that show all of the above



# Grantors and Grantwriting



- State & Tribe Community-wide Up to \$2,000,000 5 years

Revised 4 years

Community-wide 4 years

Ordinary doesn't get funded.



# Imagine a future...

Can you picture this Brownfield site following redevelopment? What does it look like? Are people there? What jobs were created with this new development?

Write your  
ideas for  
this site in  
chat!



*Astoria Landfill located in Astoria, Oregon  
(active from 1965-1985)*

# Imagine a future...



*Former Landfill*



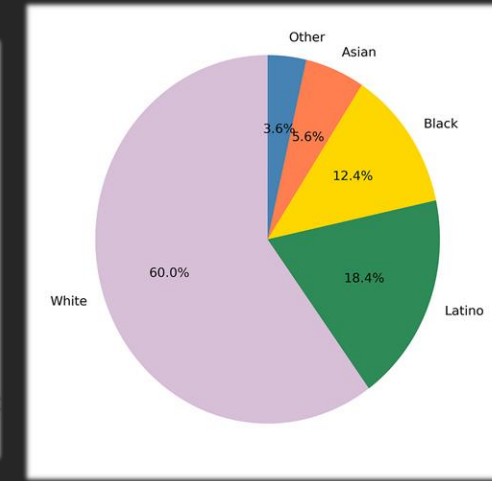
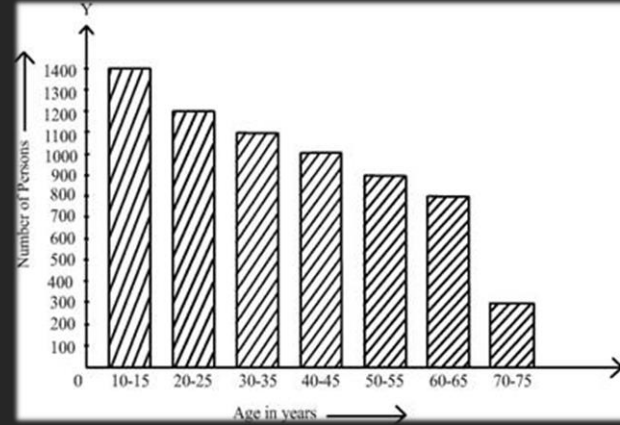
*Current CMH Field*

# Data

What kind of data is collected during the redevelopment process?

- Community-Member Demographics
  - Average incomes
  - Race
  - Population
  - Average age
- Local Information
  - Amount of affordable housing
  - Amount of brownfield sites... and why?
  - Land acreage
  - Community goals and visions

How do we transform this?



To this?



# Emotion in Storytelling

Can improve public engagement and appeal to a more diverse audience

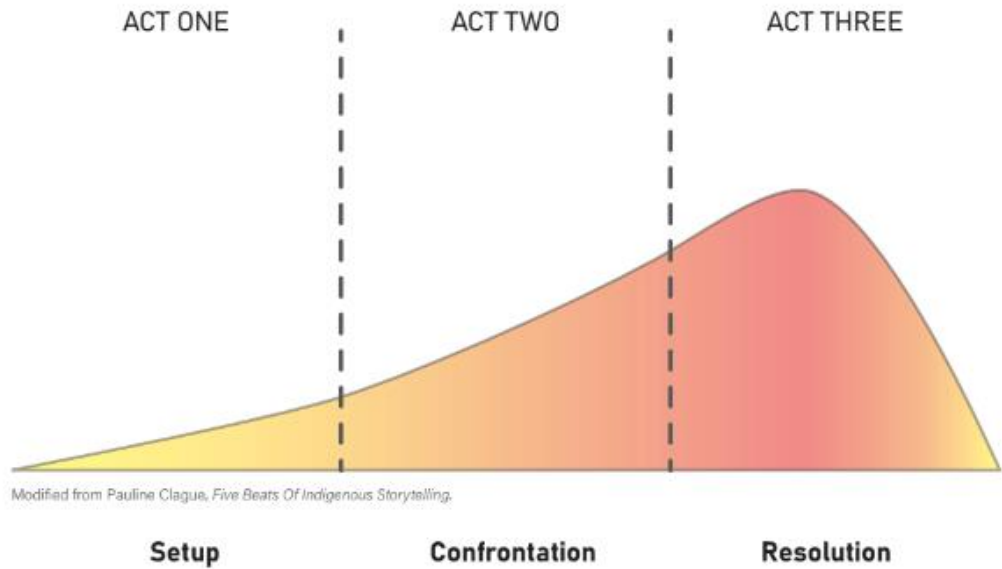
Can...

- engage underserved communities
- break down polarizing barriers
- realign planning projects for inclusive long-lasting changes

Has the **power** to synthesize different voices when identifying common hopes, aspirations, and visions of a place



# Storytelling: Brownfields in the Three-Act Narrative Structure



## Introduction

The post-war industrial decline led to factory closures throughout Johnson City, New York. These abandoned structures stood as a reminder of hard times for 40 years.

## Rising Action

The sister factories Century and Sunrise are sold to investors. The site is assessed and contamination is identified. The structure remains intact.

## Crisis

The site is cleaned up and the existing structure is repurposed.

## Falling Action

Century Sunrise Redevelopment opens in 2018, providing affordable housing within Johnson City.



*Source: Google Maps  
(April 2012)*



*Source: Google Maps  
(September 2019)*

# Storytelling: Brownfields in the Three-Act Narrative Structure

Before and After – from Factory Buildings to Affordable Housing



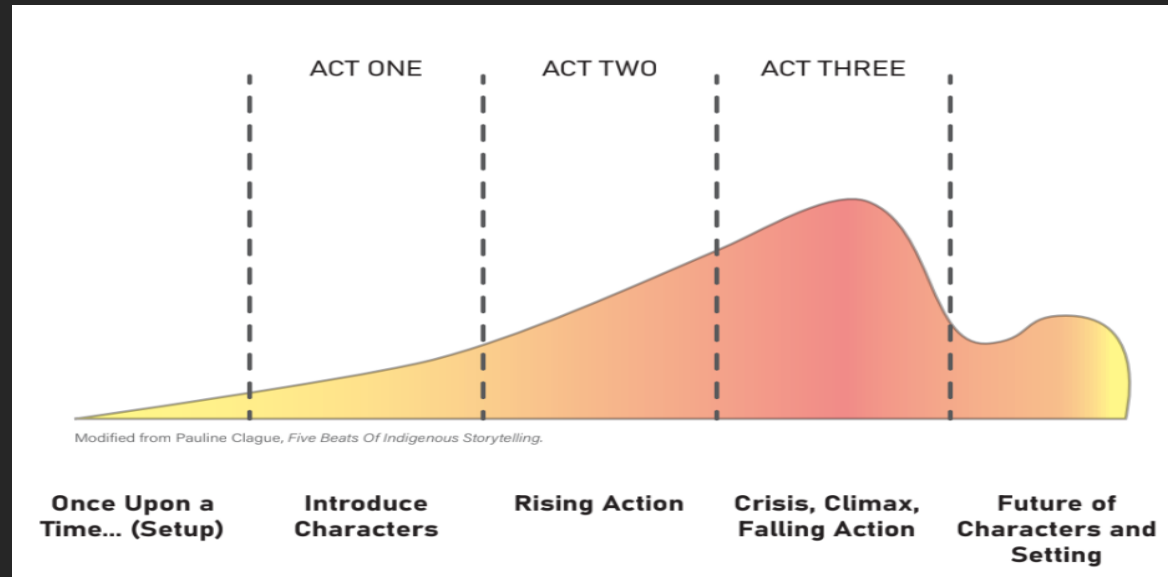
Source: Google Maps (April 2012)



Source: Google Maps (October 2023)



# Storytelling: Brownfields Beyond the Three-Act Narrative Structure (Before, After, and Beyond)



## Once Upon a Time...

The Endicott-Johnson Corporation was a major cultural and economic force in the development of Johnson City. The company treated workers fairly and used their land to provide recreation space for the community.

## Introduction

The post-wear industrial decline led to EJ factory closures throughout the city. These abandoned structures stood as a reminder of hard times for 40 years.

## Rising Action

The sister factories Century and Sunrise are sold to investors. The site is assessed and contamination is identified. The structure remains intact.

## Crisis

The site is cleaned up and the existing structure is repurposed.

## Falling Action

Century Sunrise Re-development opens in 2018, providing affordable housing within Johnson City.

## Future of Characters

The redevelopment attracts new residents and furthers development within the city. Many former industrial sites have since been remediated and given new life, providing needs such as affordable housing and public recreation space.

“EJ” = Endicott-Johnson Corporation



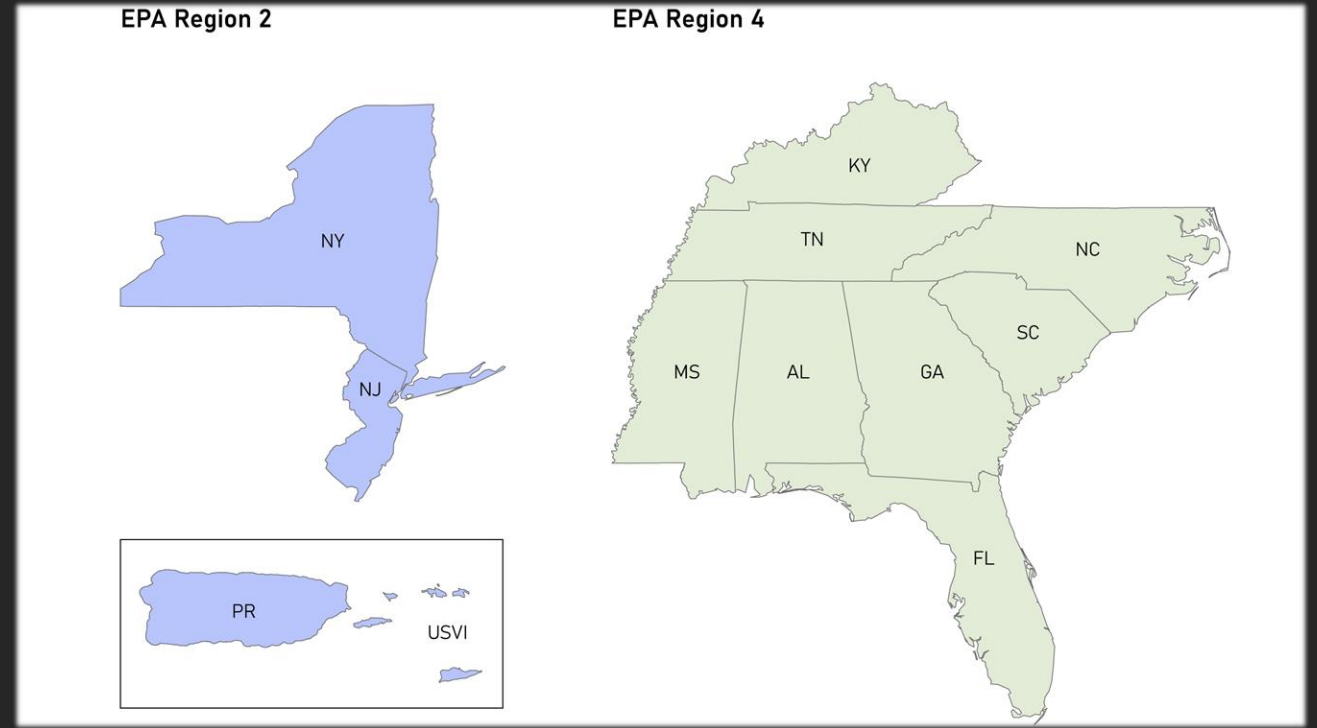
# Takeaway

- Brownfields are vacant or underutilized sites with confirmed or potential contamination
- Tell stories to...
  - articulate our ideas and visions
  - appeal to different audience members
  - Support and amplify voices
  - catalyze community involvement
- Grantwriting - tell the story of your site and the story of the people in your community
- Critical to gaining financial resources and partnerships



# NEED HELP?

NJIT TAB serves as an independent resource to state, territory, regional, county, tribal, and local government entities, and non-profits attempting to learn about, identify, assess, cleanup, and redevelop brownfields.



So, can we learn to love  
a site once we get to  
know it?

# Thank you for your time!

## Questions?

Elise Molleur



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Maria Coler



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(201) 222-1540

Center for Community Systems - <https://research.njit.edu/communitysystems/>

NJIT TAB Program - <https://www.njit.edu/tab/>

# Upcoming Events 2024

## EPA Region 2



**NJIT** | **TAB**  
Technical Assistance to  
Brownfield Communities  
presents  
**Carrie Martin, AICP**  
Environmental Sustainability Planner, Center for Community Systems

### Life After BOA

Leveraging Your BOA Designation to Complete the Brownfield Revitalization Process

Thursday, March 28, 2024  
11:00am - 12:00pm EST

Made possible with funding from the US EPA

### Life After BOA Webinar March 28, 2024

LinkedIn Event Page  
<https://bit.ly/3lg1Qbt>



MOHAWK VALLEY  
**BROWNFIELDS  
DEVELOPER  
SUMMIT**  
NETWORK. EXPLORE. INVEST.

### Herkimer College Herkimer, NY

Mohawk Valley  
Brownfield Basics  
April 10, 2024

Mohawk Valley  
Brownfield Developers Summit  
April 23 & 24, 2024

## EPA Region 4



**UK** Community and Economic  
Development Initiative of KY  
*Martin-Gatton College of Agriculture, Food and Environment*

### University of Kentucky – CEDIK Lexington, KY

Scott County Extension Office  
Brownfields Grant Writing  
Bootcamp  
April 1 & 2, 2024

### TAB In Your Area

If you'd like NJIT TAB to visit  
your area, feel free to  
contact us!

# In Case You Missed It

**Pop-Up Progress: Unveiling the Temporary Magic of Temporary Brownfield Makeovers**

Presented By:



Caitlyn Bruno, PG, LSRP  
NJIT Technical Assistance to Brownfield Communities



Spencer Gober, AICP  
Delaware Valley Regional Planning Commission



NJIT | TAB Technical Assistance to Brownfield Communities

**Pop-Up Progress: Unveiling the Magic of Temporary Brownfield Makeovers**



NJIT | TAB Technical Assistance to Brownfield Communities  
presents

**Joseph M. Reiner**  
Brownfield Redevelopment Specialist


**Brownfield Contaminants and Human Health**



Thursday, February 29, 2024  
1:00pm - 2:00pm EST

Made possible with funding from the US EPA


**Brownfield Contaminants and Human Health**



NJIT | TAB Technical Assistance to Brownfield Communities  
presents

**Carrie Martin, AICP**  
Environmental Sustainability Planner, Center for Community Systems

**Climate Change and Brownfields 101**



Thursday, March 7, 2024  
12:00pm - 1:00pm EST

Made possible with funding from the US EPA

**Climate Change and Brownfields 101**

Both these webinars with associated presentations and resource links can be found on our website!

[www.njit.edu/tab/webinars](http://www.njit.edu/tab/webinars)

# What is



NJIT provides free technical assistance to state, regional, county, tribal, and local government entities and nonprofit organizations interested in learning about, identifying, assessing, cleaning up, and redeveloping brownfield sites in EPA Regions 2 & 4.

## Contact Us



[tab@njit.edu](mailto:tab@njit.edu)



(973) 642-4165



[www.njit.edu/tab](http://www.njit.edu/tab)



<https://www.linkedin.com/company/njit-tab/>

# Sources

- <https://www.ayresassociates.com/storytelling-campaigns-spur-brownfield-redevelopment/>
- <https://deqblog.com/2020/10/02/from-former-grocery-store-to-the-garden-of-surg-ing-waves-a-brownfields-success-story/>
- <https://www.maulfoster.com/news/astoria-municipal-landfill-redevelopment-wins-brownfield-phoenix-award/>
- <https://theagency-ny.com/broome-county-binghamton-economic-business-news/adaptive-re-use-of-two-historic-endicott-johnson-buildings>
- <https://en.wikipedia.org/wiki/Superfund>
- [https://en.wikipedia.org/wiki/Church\\_Rock\\_uranium\\_mill\\_spill](https://en.wikipedia.org/wiki/Church_Rock_uranium_mill_spill)
- <https://narativ.com/dei/boost-dei-with-storytelling/>
- <https://camd.northeastern.edu/featured-work/how-a-new-england-town-fights-environmental-injustice-one-brownfield-at-a-time/>