



NATIONAL
WILDLIFE
FEDERATION

Resilient
Schools and
Communities

RiSC Film Viewing Guide



Exploring Topics of Climate Education

Given that students, on average, only get two hours of climate instruction per school year, our hope is that this Viewing Guide will help teachers explore the topics of climate change, climate justice, community resilience, climate anxiety, and climate solutions with their students. This Guide allows teachers and students to view the film “Where it Floods,” begin to have guided climate conversations, and to explore some of the RiSC program’s in-classroom lessons and resources, without having to participate in the program or implement the entire curriculum.



IN THIS GUIDE:

- A viewing guide with discussion questions differentiated by grade bands: 4-5, 6-8, 9-12;
- A compilation of definitions of resilience – a nuanced topic for discussion;
- A recommended selection of RiSC lessons and resources; and
- Additional external resources for teachers wanting to explore relevant topics further.

About the Film: “Where it Floods: Planting Hope in Coney Island”

The climate crisis represents a significant threat to New York City’s 8.4 million inhabitants, including more than 1 million K-12 students. In the coming decades, more frequent extreme weather events, rising temperatures and extreme heat, changing precipitation, rising sea levels, and the loss of land, homes, businesses, and lives will impact New York City. Teachers tell us that they don’t have time to teach about the climate crisis and they lack adequate training. This Guide offers a bite-sized entry point to discuss the issue and explore potential solutions.

“Where it Floods: Planting Hope in Coney Island” (10 min.) follows New York City students on the frontline of climate activism in Coney Island as they participate in RiSC, a climate

education program connecting schools with local residents and organizations to help build community resilience. The film interviews students and longtime Coney Islanders about their lived experiences with climate change and gentrification over time, and the persistent needs of their community that remains vulnerable to climate impacts ten years after a major hurricane laid it to waste. Through a combination of science, history, and civic engagement, students begin to understand the connections between social and environmental vulnerabilities. By revegetating dunes along Coney Island’s shoreline, they are empowered with the knowledge and skills to implement local climate solutions that help protect nearby residents’ homes from flooding.

“Our vision of climate resilience is not about ‘bouncing back.’ Instead, it is about bouncing forward to eradicate the inequities and unsustainable resource use at the heart of the climate crisis.”

- Movement Strategy Center, CA



Who is NWF

The National Wildlife Federation (NWF) is the nation's largest grassroots wildlife conservation and education organization, with a mission of uniting all Americans to ensure wildlife and people thrive in a rapidly changing world. We are a true Federation, with a nationwide reach of 53 state and territorial affiliate organizations, more than six million members and supporters.

NWF believes that in order to save wildlife and ourselves, we need to ensure that all Americans have access to clean air and water, safe communities, equitable access to nature, and protection from the ravages of climate change. We are committed to ensuring that climate solutions benefit everyone equitably, including historically disenfranchised, frontline, rural, and fossil fuel-dependent communities.

We have a broad and impactful suite of K-12 programs and resources to address the climate crisis that engage student leaders and educators in taking meaningful action in their schools and communities. Use NWF's [Teach10Hours4Climate](#) Guide to explore free and downloadable climate education resources.

In New York, NWF convenes the Climate & Resilience Education Task Force in partnership with WE ACT for Environmental Justice - an intergenerational body of educators, students, NGOs, and community members collaborating to advance statewide climate education policy. A youth steering committee, comprised of NYC high school students, spearheads aligned initiatives.

What is RiSC?

The National Wildlife Federation's award-winning Resilient Schools and Communities (RiSC) program and curriculum educates middle and high school students about climate science, climate impacts, climate justice, and the natural and built solutions that increase climate resiliency.

RiSC engages students in exploring structural racism that causes inequitable exposures to climate risks and harms. Students use digital tools and surveys to understand their community's vulnerability to natural hazard risks. Through hands-on service-learning projects - like dune restoration and tree planting - they learn how they can help mitigate the impacts of flooding and extreme heat in their community. The program has also created opportunities for interactions with local residents through oral history interviews and community events. Preliminary results from formal evaluation show that the RiSC program model and action-oriented curriculum alleviate climate anxiety in students by engaging them in meaningful learning and action.

The RiSC program has been adapted in New Jersey, Texas, and the U.S. Virgin Islands and is currently being adapted in Puerto Rico. NWF is working towards a streamlined version of the program that can be used across the country in communities facing climate impacts.



WHERE IT FLOODS:

Viewing Guide and Questions

FOR GRADES 4-5, 6-8, 9-12

WHERE IT FLOODS

PLANTING HOPE
IN CONEY ISLAND



VOCABULARY:

- Climate Adaption
- Climate Mitigation
- Community
- Emergency Management Plan
- Resilience
- Vulnerability
- Tidal Flooding
- Nuisance Flooding

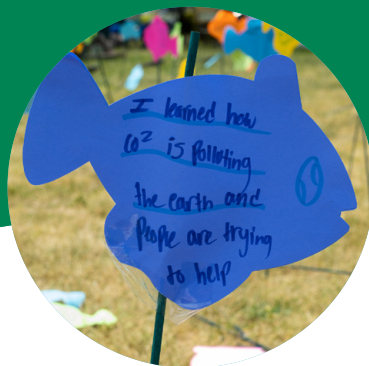
Viewing Questions:

Discussion Questions Before Viewing

1. What does community mean to you?
2. What does resilience mean to you?
3. What climate impacts affect your neighborhood, city or region?
4. What role do/can youth play in addressing climate impacts in a community?

Discussion Questions While Viewing

1. What is New York City surrounded by that makes its coastline especially vulnerable to climate change?
2. What has to be done to save coastlines — what has to happen within communities and cities?
3. Who are the agents of change in this film?
4. What are the RiSC students studying?



5. What used to protect Coney Island from flooding?
6. Who are the original inhabitants of Coney Island?
7. According to the timeline, when and what happened that began creating issues with flooding?
8. What were some experiences of the residents of Coney Island after Hurricane Sandy and what were some of the inequities discussed in the film?
9. The impacts from Hurricane Sandy were felt equally across the area, but what were, and continue to be, some of the inequities discussed in the film?
10. Water doesn't just rise along the coast; where else is water coming from?
11. What is the purpose of dune grass planting?
12. Why is it important to involve the community when developing and implementing a community disaster plan?
13. What is climate anxiety?
14. What does it take to create a climate resilient community?

Discussion Questions After Viewing

1. What role should community knowledge play in creating emergency plans?
2. What are some of the impacts of sea-level rise along the Coney Island shoreline? Why care/Why is it important to address?
3. Why do you think it's important for youth to address climate issues in their communities?
4. How can youth work in collaboration with adults in their community?
5. What questions do you have?
6. What actions will you take to address climate impacts in your community?
7. Complete the RiSC "[Postcards From the Future](#)" visioning activity. What do you think the future in 2080 will look like if communities take climate action?

WHERE IT FLOODS:

Viewing Guide and Questions

ANSWER KEY

VOCABULARY:

Climate Adaptation: adjustments in ecological, social or economic systems in response to actual or expected climate impacts. Adaptation can range from building flood defenses, setting up early warning systems for cyclones, switching to drought-resistant crops, to redesigning communication systems, business operations and government policies (United Nations Climate Change).

Climate Mitigation: reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing sources of these gases (i.e. stopping the burning of fossil fuels for electricity, heat, or transport) or enhancing the “sinks” that accumulate and store these gases (such as the oceans, forests, and soil) (United Nations Intergovernmental Panel on Climate Change).

Community: a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage. (Dictionary) Community can also be a feeling and a set of relationships with others that are characterized by a sense of trust, belonging, safety, and caring for each other through their shared lived experiences. (Stanford Social Innovation)

Emergency Management Plan: A plan developed that, when implemented, provides prompt action and warnings that can save lives, minimize physical damage to structures and property, and allow for better resilience. (Ready.gov)

Resilience: Community resilience is the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. (FEMA)

Vulnerability: Climate vulnerability describes the degree to which natural, built, and human systems are at risk of exposure to climate change impacts. Vulnerable communities experience heightened risk and increased sensitivity to climate change and have less capacity and fewer resources to cope with, adapt to, or recover from climate impacts. These disproportionate effects are caused by physical (built and environmental), social, political, and/or economic factor(s) exacerbated by climate impacts. These factors include, but are not limited to, race, class, sexual orientation and identification, national origin, and income inequality. (Governor’s Office of Planning and Research-CA)

Tidal flooding: also known as high tide flooding, describes increasingly common flooding conditions along the coast due to rising sea levels, sinking land, and the loss of natural barriers (NOAA).

Nuisance flooding: minor tidal flooding that occurs at high tide and is often associated with minor impacts such as old sea walls being overtopped, water in low-lying areas of roads, and stormwater systems that have water coming in through the outtake pipes. Not necessarily widespread or damaging, but is becoming more of a problem (NOAA).



Answer Key:

Discussion Questions Before Viewing

1. What does community mean to you? *Student responses will vary.*
2. What does resilience mean to you? *Student responses will vary.*
3. What climate impacts affect your neighborhood, city or region? *Student responses will vary. These resources may be helpful if students are unfamiliar with current impacts locally.*
 - » [Rise of Extreme Heat](#)
 - » [Unnatural Disasters](#)
4. What role do/can youth play in addressing climate impacts in a community?
 - » Join [CRETf's Youth Steering Committee](#) to advocate for more climate education in schools. Learn about climate change causes, effects, and solutions, then share your knowledge with others.
 - » Join youth-focused climate organizations and groups, like Fridays for Future, to amplify your voice and actions.
 - » March, rally, and campaign to raise awareness and demand action from leaders.
 - » Start a climate club in your school and encourage your school, community, and local government to adopt climate-friendly policies.
 - » Reduce your meat consumption, ditch single use plastic, and save energy.
 - » Engage in, or start your own, climate action projects in your community.
 - » Register to vote and vote for candidates who prioritize climate action. When you're old enough, run for office yourself!
 - » Express yourself through creative outlets like writing, art, music, or film to raise awareness and inspire others.
 - » Get outside to appreciate the beauty of nature/connect with the natural world. Nature heals.

Discussion Questions While Viewing

1. What is New York City surrounded by that makes its coastline especially vulnerable to climate change?
Rivers and the ocean.
2. What has to be done to save coastlines — what has to happen within communities and cities?
Build more resilient communities and work toward a more environmentally just city.
3. Who are the agents of change in this film?
Middle and high school students. Local residents/community activists.
4. What are the RiSC students studying?
The impacts of climate change and resource inequity in Coney Island.
5. What used to protect Coney Island from flooding? *Marshes.*
6. Who are the original inhabitants of Coney Island? *The Canarsie people, prior to colonization, and the Shinnecock and Unkechaug tribes of Long Island today.*
7. According to the timeline, when and what happened that began creating issues with flooding?
In 1937 Coney Island Creek was filled for development.
8. What were some experiences of the residents of Coney Island after Hurricane Sandy?
No access to transportation, medical services, no food, no clean water, no lights for months, no showers, the government came to supply emergency food and water to the community, cut off from other communities for a long period of time.
9. The impacts from Hurricane Sandy were felt equally across the area, but what were, and continue to be, some of the inequities discussed in the film? *Resource allocations to help people rebuild their homes after Sandy.*
10. Water doesn't just rise along the coast; where else is water coming from? *Storm water comes up from storm drains into the streets.*
11. What is the purpose of dune grass planting? *Grasses help to stabilize the dunes, prevent sand from migrating into the road, decreases risk of erosion, over time will protect residents from coastal flooding.*
12. Why is it important to involve the community when developing and implementing a community disaster plan? *The community has lived experiences, knows what is really needed, and is an opportunity to marry community knowledge with city resources.*
13. What is climate anxiety? *It is fundamental distress about climate change and its impacts on the landscape and human existence. That can manifest as intrusive thoughts or feelings of distress about future disasters or the long-term future of human existence and the world, including one's own descendants. (Yale Sustainability). In stronger forms, climate anxiety can manifest as various anxiety symptoms such as sleep disturbance, distress, and strong fear (Ecopsychopedia).*
14. What does it take to create a climate resilient community? *A mix of education, community collaboration, and "putting in the work."*



Discussion Questions After Viewing

1. What role should community knowledge play in creating emergency plans? *Local residents know where the problems and needs are in a community and should be included in the development of emergency plans.*
2. What are some of the impacts of sea-level rise along the Coney Island shoreline? *Flooding not just from the coast but up from the storm drains in the streets, loss of land mass, loss of human lives and wildlife, changes to daily life, like impacts on modes of transportation, home, work, play, and school.* Why care/Why is it important to address? *Student responses will vary.*
3. Why do you think it's important for youth to address climate issues in their communities? *Student responses will vary but may include things like 'youth are the decision makers of the future and have a right to have input into decisions that will affect them the most.'*
4. How can youth work in collaboration with adults in their community? *Student responses will vary but may include 'reaching out to community leaders, learning about work already taking place, understanding the lived experiences of people in the community, planning, implementing, and maintaining projects together, speaking up and addressing climate injustice.'*
5. What questions do you have? *Student responses will vary.*
6. What actions will you take to address climate impacts in your community? *Student responses will vary.*
7. Complete the RiSC "Postcards From the Future" visioning activity. What do you think the future in 2080 will look like if communities take climate action? *Student responses will vary.*



Select RiSC Lessons and Tools

- [Climate Change Crash Course lesson](#). Students learn the foundational science of climate change including the difference between weather and climate. An activity models how human activity is warming Earth's atmosphere and changing Earth's climate. Includes slide deck, teacher guide, lesson, and template for activity.
- [Urban Heat Island lesson](#). Students explore the temperature of different surfaces within their own school block or yard to build understanding of the urban heat island effect, and the need for resilience to extreme heat in a city covered in concrete and gray infrastructure. Includes slide deck, teacher guide, lesson, and student data sheet. Thermometers and meter sticks required.
- [Climate Justice – Ecological and Social History of Coney Island](#). Slide deck covering the ecological and social history of Coney Island, including its original Indigenous inhabitants and the impacts of colonization and industrialization on the land and community.
- Climate Central's [Surging Seas Risk Zone Map](#). Digital tool provides the ability to explore inundation risk up to 30 meters across the world's coastlines as well as local sea level rise projections.
- [RiSC Vulnerability Assessment](#). Choose from a mini or comprehensive survey to understand and assess how your school, community and neighborhood may be affected by the impacts of climate change. Allow enough time for a walk-through.
- [Green and Grey Infrastructure lesson](#). Slide deck engages students in thinking like coastal engineers and landscape architects about how to design climate resilient communities.
- [Drag and Drop Coastal Redesign Activity](#). (Use slide deck link in the previous bullet, slides 44 to 49.) **FIRST, create your own copy before using.** Students may copy, paste, drag and

drop green and gray infrastructure features to help design a resilient coastline. Art activity optional. Art supplies required for optional activity.

- [Oral History Interview and Podcast lesson](#). Students learn about the structural inequities impacting residents in a frontline community, learn about what a podcast is, then engage in [creating their own podcast](#).
- [Listening Exchange](#). A Listening Exchange involves two people taking turns listening to each other. It provides a space for students to share their feelings and to practice active listening.
- **Additional Resources**
 - » [Station 15](#). In this 14-minute PBS Short Docs documentary, a teenager investigates the city's water pumps.
 - [Station 15 activities](#)
 - » [Hollow Tree](#). This film follows three teenagers in Louisiana as they start to understand the causes and impacts of the climate crisis in their community.
 - » [NWF: Unnatural Disasters StoryMap](#)
 - » [NWF: The Rise of Extreme Heat Story Map](#)

Climate Anxiety

- [When Climate Change Starts to Feel Real: Moving Beyond Climate Anxiety](#). A lesson from The Morningside Center
- Confronting Climate Anxiety. From UC Davis, read and watch: [8 Scientists Turning Climate Anxiety Into Climate Action](#)
- [How Students are Using Advocacy to Overcome their Anxiety about Climate Change](#). An EdWeek video story
- [High School Teachers Lesson Plan: Writing About Climate Emotions and Concerns](#).

Climate Solutions

- [Road Trip Nation](#). Road Trip Nation is an initiative of the New York State Energy Research and Development Authority (NYSERDA) which sends a team of young people out to interview clean energy professionals in the state. A [Clean Energy Portal](#) helps connect career seekers with training, education and local career opportunities.
- [Project Drawdown Climate Solutions 101](#). Six course units featuring conversations with experts who are spearheading game-changing climate solutions.
- [NWF Offshore Wind](#). Learn how NWF is advancing a clean energy future by developing wildlife-friendly offshore wind.
- [Solutions the Game](#). Students ages 10+ must work together to think critically and strategically deploy various climate solutions to reduce global emissions.
- [Energetic board game](#) helps students understand the real-world decisions involved in decarbonizing New York by 2035 and engages them in exploring energy options.

Conclusion

Climate education is a critical tool to help citizens understand the impacts of the climate crisis and advance collective climate action. In order for New York to achieve its ambitions for 100% zero-emission electricity by 2040, as outlined in the Climate Act—state law—robust K-12 climate education, professional learning for teachers, and green Career and Technical Education programs will be required. Teachers are encouraged to explore the entire RiSC curriculum online and use climate events as teachable moments in the classroom. A RiSC Replication Toolkit has been created for those wishing to adapt or replicate the program in their communities. High school students interested in climate education policy are invited to join the Climate & Resilience Education Task Force Youth Steering Committee. Visit cretf.org to learn more.



To learn more about the RiSC program, visit www.riscnyc.org

For questions or additional information, contact Emily Fano, fano@nwf.org