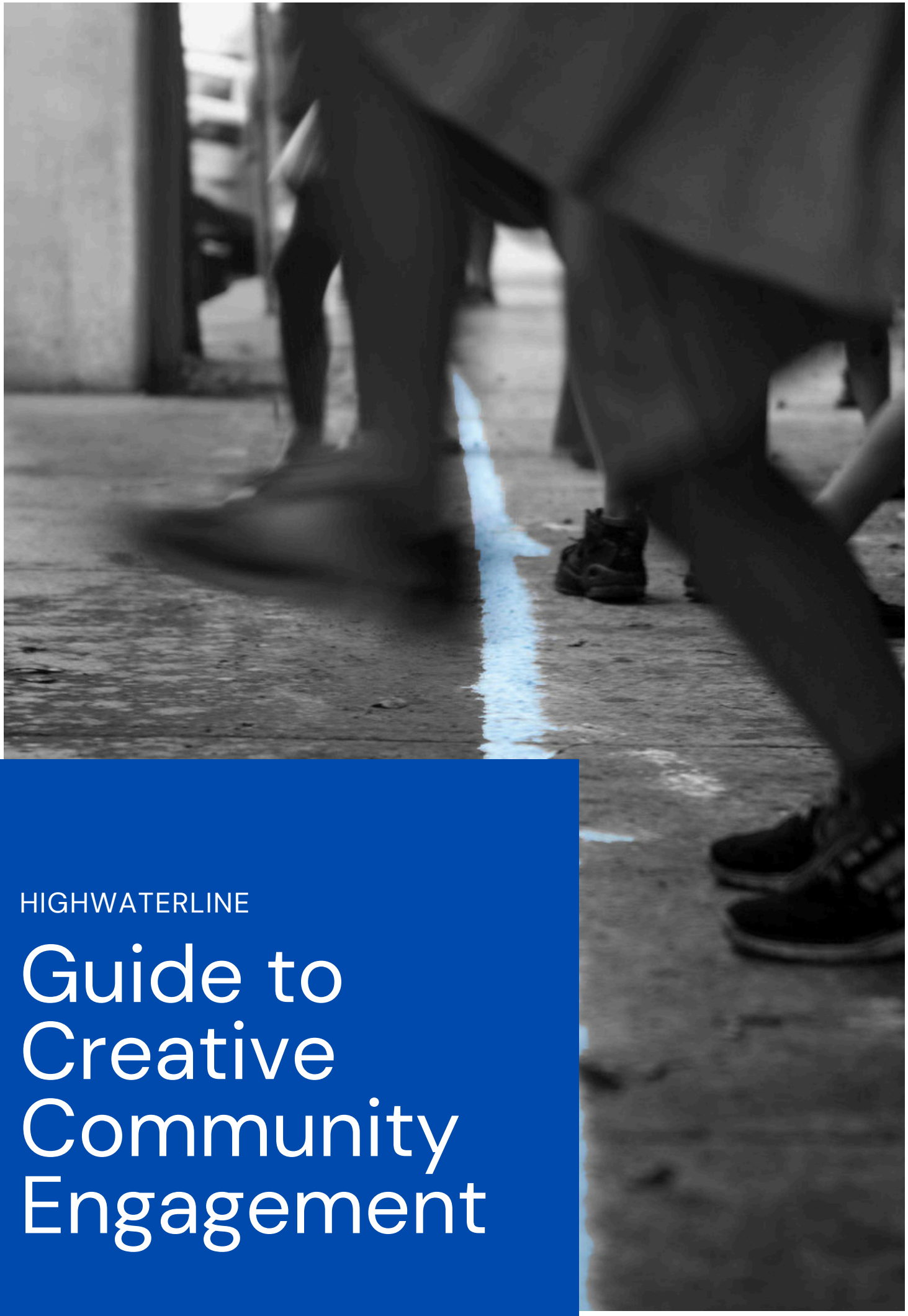


HIGHWATERLINE

Guide to Creative Community Engagement

Table of contents

01 About

A letter from Eve & Heidi

We are excited that you are here and that you are interested in creating a HighWaterLine (or curious to learn more about this interdisciplinary initiative.) We worked really hard to bring the HighWaterLine to life in all of its incarnations. We were also incredibly lucky to collaborate with amazing communities from whom we learned an immense amount of new information. We believe this is a great project for other communities, so we want to provide you a guide to help you realize a successful HighWaterLine. What's in it for us? (Why give it away?) We'd love to see HighWaterLine happen around the world – in a lot of different styles, and we would love to see it make a real difference in every community in which it takes place.

HighWaterLine is at its core, an art project. The intention of the artwork is to facilitate much needed conversations and creative solutions around climate change. Each HighWaterLine is different and responds to the specific needs of the community creating it. We hope that it will be a galvanizing force for your community, as well as reflect the personality of your community.

While we have provided a lot of information, please note that unforeseen opportunities and challenges may arise that will shift your actual timeline, how you realize the artwork and more. Please view this as a general roadmap for creating a HighWaterLine and a not step by step instruction manual.

We are grateful for the support we received in bringing this Guide to life, including funding from The Compton Foundation & Invoking the Pause as well as the tireless support from community coordinators as well as editor Pamela Allen.

Please contact us directly if you have any questions or are interested in having us consult on a HighWaterLine in your community.

In the spirit of resilience,

Eve & Heidi

Before you get started...

How to use this guide

This guide provides a roadmap on how to realize a HighWaterLine in your own community, as well as some ideas for building community resilience to climate change at the local and regional level. We recommend you begin by reading the intentions of the HighWaterLine and then review the navigation to understand the breadth and depth of this project. You can also learn more about other iterations at evemosher.com/highwaterline.org

Once you are ready to undertake the project, work from the timeline, utilizing other portions of the guide as support and reference as you move through the project. At any point during the process, we welcome you to reach out to us for help or clarification.

This guide, while specifically written for the HighWaterLine, may be useful for other creative projects. We would love to hear from you about projects that emerge from this guide, please share your work and photos with us!

Intentions

HighWaterLine is an art project.
HighWaterLine is grounded in scientific data.
HighWaterLine localizes and personalizes climate change.
HighWaterLine creates a new space for real conversations on climate change impacts as well as viable regional solutions.
Meeting people where they are, both physically and philosophically is essential in all aspects of realizing a HighWaterLine.
Listening is as important as sharing.

History of HighWaterLine

Curiosity

HighWaterLine began with curiosity, Eve's curiosity about what climate change would do to her own city – New York.

She came across The Metro East Coast Assessment, a report that examined the expected changes in New York City's coastline due to climate change. The report talked repeatedly about how coastal areas within ten feet above sea level, an area historically expected to flood once every hundred years, would become inundated by flooding and storm surge as frequently as once every 4 years by the 2080's. She decided that while looking at a map gave some understanding of this data, walking that line, and in fact marking that line would be a very different experience.

Marking a line

In 2007, the HighWaterLine project was born.

With blue chalk and a sports field marker, Eve drew the 10-foot above sea level line over 70 miles of coastline, along the way having conversations with people she encountered. The project lasted six months and the conversations were about climate change – what did people know, what had they experienced to date, what role could we all play in making positive strides towards increased sustainability and building resilience locally. Along the way she passed out Action Guides, which included steps that people could take to mitigate climate change in personal and community aspects of their lives, as well as methods for engaging with the greater community working on climate change.

photo courtesy of Pete Bedwell

History cont'd

HighWaterLine 2.0

In the summer of 2012, Heidi Quante, an interdisciplinary human rights & environmental artist, approached Eve about using her artwork as a new community organizing initiative. The idea was to bring the HighWaterLine to other communities vulnerable to sea level rise and flooding, starting with Miami and the UK, and amplify the original artwork with original community trainings and workshops. In 2013 with generous support from the Compton Foundation, Invoking the Pause, The Kresge Foundation, The Miami Foundation, The Whitman Institute, and 11th Hour Project, Heidi moved to Miami to collaborate with diverse communities. She led a series of original workshops over the course of 4 months. In this expanded iteration of the HighWaterLine, co-led by Miami residents Marta Viciedo and Irvans Augustin, the people of Miami then demarcated 26 miles of potential future level rise throughout the diverse neighborhoods of Miami over the course of three days. (See more at HighWaterLine | Miami).

This new implementation of the HighWaterLine then traveled to the United Kingdom, where U.K. Coordinator Isobel Tarr (assisted by Anna Wilson) actively engaged the people of Bristol via workshops – to discuss how climate change would impact their beloved community. Then with support from Arts Council England and the LUSH Foundation, the people of Bristol realized their own HighWaterLine by demarcating 32 miles of potential flooding in the streets of Bristol over a period of 12 days. (See more at HighWaterLine | Bristol).

Additionally, HighWaterLine | Delray Beach was created with a local team of organizers and artists in consultation with Heidi and Eve.

Since then, communities have used this guide to create HighWaterLine on their own - from Honolulu to Stockholm and in-between.

Why art?

It can connect on a visceral and emotional level.

Art has the capacity to communicate in ways that scientific reports or media coverage cannot.When art is produced in public, by people living in the community, it becomes personal and relatable. When scientific data is translated into art that reveals how a community will be impacted by climate change, the art provides the community a way to visualize the tangible impacts.
Art has the capacity to provide entry for everyone – regardless of language, socio-economic background, cultural identity – we all understand the act of making a mark. Drawing a line in the urban environment, while simple in nature, is a powerful act. It delineates, demarcates and defines. It provides a visceral sense of place and can bring concepts about the future into the present with great force.

Attribution/licensing

HighWaterLine is licensed as a Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) project. This means that you are welcome to use the guide to create your own HighWaterLine or, use it as inspiration for a similar project (others have included marking gerrymandered districts or areas under a particular threat). We ask that in that case, you include this in your publications and promotions (choose either “informed” or “inspired” and please retain the links):
“This work was informed or inspired by the HighWaterLine project. You can learn more about the process through the Guide to Creative Community Engagement.”
If you are interested in having your project as part of the HighWaterLine website as a project undertaken in partnership with Eve and Heidi, please contact us for more information.

02 The science

Climate change 101

Natural greenhouse effect

The term greenhouse is derived from the glass houses people build to trap heat inside to create a warm environment in which to grow food. The Earth's atmosphere, much like a greenhouse, traps heat, but in a different way. Gases high in the atmosphere, such as carbon dioxide (CO2) behave like a giant piece of curved glass wrapped around the planet. The Sun's rays pass straight through the carbon dioxide, a greenhouse gas, and warm up the Earth. The warming planet gives off heat energy which radiates out toward space. Some of this outgoing radiation does not pass through the atmosphere, but is reflected back down to Earth, effectively trapping heat and keeping the planet warm enough for life to exist. This is called the natural greenhouse effect, and it's a good thing.

Enhanced greenhouse effect

The greenhouse effect would be nothing to worry about were it not for one important thing. Since the industrial revolution started in the 1800s, humans have been burning large quantities of coal, oil, and other fossil fuels primarily to generate energy and later fuel transportation. When burned, fossil fuels release carbon dioxide (CO2) into the atmosphere. As humans burn large quantities of fossil fuels we are increasingly heating up the atmosphere via a phenomena called "the greenhouse effect". The carbon dioxide (CO2) drifts up into the atmosphere and makes Earth's greenhouse gas just a little thicker. This is called the enhanced greenhouse effect. As a result, more of the Sun's heat gets trapped inside the atmosphere and the planet warms up more than it should.

Because of all the fossil fuels humans are burning, there is now more carbon dioxide (CO2) in the atmosphere (as of April 2017 we reached 410 parts per million). Carbon dioxide hasn't reached this height in millions of years. It's a new atmosphere that humanity will have to contend with, one that's trapping more heat and causing the climate to change at a quickening rate.

This burning of fossil fuels and subsequent releasing of CO2 into the atmosphere is fueling climate change.

Currently, 80% of the world's energy comes from fossil fuels. There are other man-made sources of greenhouse gases – CO2 from burning fossil fuels is simply the largest source. The amount of energy people use is increasing too. Unless humans change things, the amount of carbon dioxide (CO2) in the atmosphere will continue to increase—and the Earth will continue to heat up and global warming will get worse.

More information on the greenhouse effect from the Intergovernmental Panel on Climate Change.

Climate change impacts

What is sea level rise?

As the Earth warms up, the oceans warm up too—very slowly but significantly. Water expands as it warms. As the oceans are heated, the water they contain takes up more volume, causing the level of the seas to rise. The seas also rise when ice sheets and land based glaciers melt due to warmer temperatures, feeding more water into the oceans. As of early 2017, the National Oceanic and Atmospheric Administration projects sea levels will rise another one to eight feet by 2100.

Sea-level rise is one of the major impacts of global warming. Entire low lying countries like Bangladesh, or low-lying islands are also vulnerable to sea level rise. Sea level rise means the ocean will gradually inundate low-lying areas and storms like hurricanes, bolstered by even higher seas, will extend their reach inland.

Since the industrial revolution, global sea levels have already risen by about 8 inches, in some regions, due to a series of local factors the rise is even higher. Scientists agree that sea level will continue to rise. What that means for a particular area depends largely on local factors. Since over half of the world's people live in regions vulnerable to sea level rise, preparing for this global change is something we all can do simultaneously.

Can we stop sea level rise?

In the short term, no. Because people have been burning fossil fuels since the industrial revolution, CO2 is already in our atmosphere. These gases can remain in the atmosphere for hundreds of years before being removed by natural processes. The warming influence of CO2s will go into the next century. Unfortunately we can't halt the sea level rise that will occur in the next 50-100 years. However we can reduce our carbon emissions to help future generations. The choices we make today will determine how rapidly sea level rise accelerates, as well as whether communities are sufficiently prepared to adapt.

The view from aerial tour of Hurricane Sandy damage of New Jersey's barrier beaches, Nov. 18, 2012.

Climate change impacts

Hurricanes & extreme storms

While hurricanes are a natural part of our climate system, recent research suggests that their destructive power, or intensity, has been growing since the 1970s, particularly in the North Atlantic region. Since the mid-1970s, the number of hurricanes that reach Categories 4 and 5 in strength—the two strongest classifications—has roughly doubled.

Warm ocean temperatures are one of the key factors that strengthen hurricane development when conditions are conducive to their formation and growth. Therefore, as the climate continues to warm the frequency of intense hurricanes in the North Atlantic is projected to rise. An ever growing number of people and structures are at risk from the destructive potential of hurricanes.

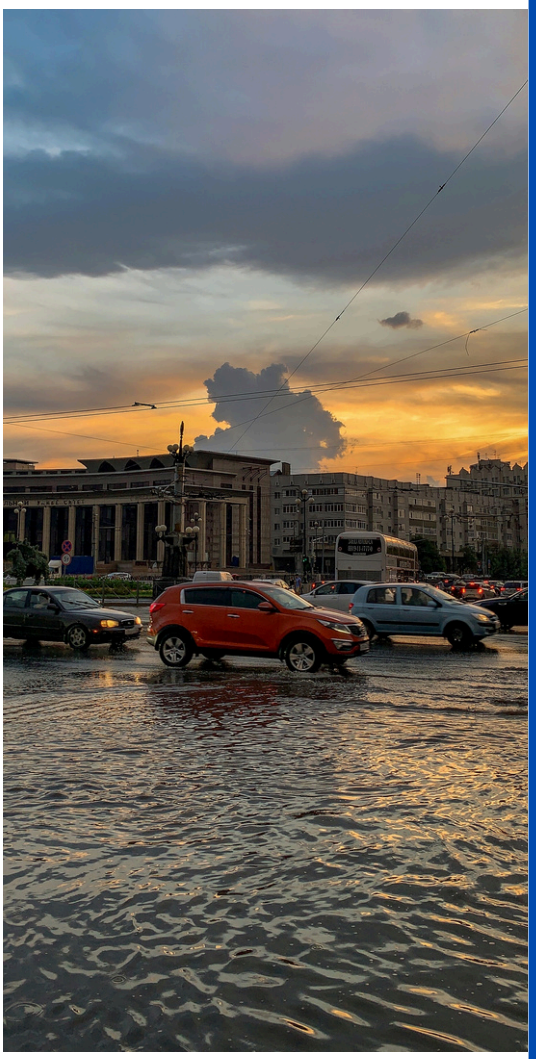
Storm surge

Storm surge created by hurricanes is the biggest risk to life and property during a storm. Storm surge happens along the coastline when hurricane winds or the winds from an extreme storm push water towards the coast. The surge intensity depends on many factors including storm strength, speed, angle of approach, the topography of the land and tides.

Higher sea levels give coastal storm surges a higher starting point when major storms approach, launching water up along the shore. The resulting storm surge reaches higher and penetrates further inland in low-lying areas. The risk is even greater if storms make landfall during high tides.

Climate change impacts

Extreme rainfall



Climate change creates warmer air which is capable of containing more water vapor than cooler air. When this air becomes a storm, it produces more precipitation. Extreme rainfall often leads to extreme flooding.
By U.S. Army photo by 1st Lt. Zachary West [Public domain], via Wikimedia Commons
The most extreme climate impacts predicted in Europe are an increased likelihood of extreme rainfall events and overall increased rainfall (Northern Europe) (IPCC 5th Assessment Report, Europe, p2175). The UK is set to see about a 10% rise in annual average rainfall by 2100 (IPPC 5th Assessment Report, Summary for Policymakers p20). This coupled with climate change's effect on the direction of jet streams, means that the UK is starting to get exposed to sequences of storms and heavy downpours which provide the conditions for ongoing increased instances of flooding (Met Office, Report: The Recent Storms and Floods in the UK, 2014). Learning if you live in a potential flood zone and preparing yourself, your friends, and family as well as your community for the next flood, will save lives as well as decrease damage to your home and greater community.

Frequent flooding

Climate change and it's subsequent sea level rise, stronger storms and more extreme storms all add up to more frequent flooding for many coastal cities. This inundation of water creates chronic problems for homes and a city's infrastructure.
So-called "nuisance flooding" has increased in coastal communities, flooding occurs now with most high tides, overwhelming stormwater infrastructure and leaving entire neighborhoods damaged, and city infrastructure crippled. The term "nuisance" belies the major disruption this causes on lives and livelihoods. Repeated and frequent floods also cause stress and health issues from recurrent problems like mold and encountering waters containing toxins.
Higher sea levels give coastal storm surges a higher starting point when major storms approach, launching water up along the shore. The resulting storm surge reaches higher and penetrates further inland in low-lying areas. The risk is even greater if storms make landfall during high tides.

Additional resources

Data resources

NASA Global Climate Change – "The mission of "Global Climate Change: Vital Signs of the Planet" is to provide the public with accurate and timely news and information about Earth's changing climate, along with current data and visualizations, presented from the unique perspective of NASA, one of the world's leading climate research agencies." http://climate.nasa.gov/

NOAA – "NOAA Climate.gov provides timely and authoritative information about climate. We promote public understanding of climate science and climate-related events through videos, stories, images, and data visualizations; we make common data products and services easy to access and use; and we provide tools and resources that help people make informed decisions about climate risks, vulnerability, and resilience." http://www.noaa.gov/climate

International Panel on Climate Change – "The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change. The IPCC was set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation." https://www.ipcc.ch/

Climate Central – "An independent organization of leading scientists and journalists researching and reporting the facts about our changing climate and its impact on the American public." http://www.climatecentral.org/

START – "START promotes research-driven capacity building to advance knowledge on global environmental change in Africa and Asia-Pacific." http://start.org/

Environment Agency – "We work to create better places for people and wildlife, and support sustainable development. EA is an executive non-departmental public body, sponsored by the Department for Environment, Food & Rural Affairs." https://www.gov.uk/government/organisations/environment-agency

Educational resources

The Alliance for Climate Education https://acespace.org/
NASA Climate Change Resources for Educators http://climate.nasa.gov/resources/education/
NOAA Teaching Climate https://www.climate.gov/teaching
Teach Climate from Climate UK http://www.teachclimatechange.org/

Flood maps

FEMA Flood Maps for the United States https://msc.fema.gov/portal
Environment Agency Flood Maps for the UK http://apps.environment-agency.gov.uk/wiyby/37837.aspx
European Commission Flood Mapping
http://ec.europa.eu/environment/water/flood_risk/flood_atlas/

03 Timeline

Essential elements

Facilitating spaces to be human

This project helps people to localize and personalize climate change.
As a result it can have a powerful impact on people as they realize the places they love — their homes, places of cultural significance, greater community, places that in essence, make their community home — might be threatened or wiped out.

Safe spaces

Neither Eve nor Heidi, or local community leads received formal training on how to handle the grief that arises as a result of the findings the data the artwork reveals. We intuitively created a safe space for people to grieve – we honored that we are all humans and scientific data can make you sad and cry when you appreciate the magnitude of how this data will impact your life and what you love.
We held a safe space for people through informal one on one or small group grief sessions over coffee, walks or dinners, where we just talked about feelings: shock, sadness, a sense of helplessness and more. There were no "to do's" in these meetings, no agendas.

Pausing

We want to impart that holding space for people to be human is critical in realizing this artwork. It's ok if being human means that someone decides to take a break from the project for several days or weeks as they grapple with the emotional impact of the data. It's ok if "to do's" get delayed because people need space and time. You will find that if you hold a genuine and safe space for people to be human they will engage at a far deeper level.

Solutions inspire action

People can tackle a challenge if there is a roadmap to a solution(s), something positive they can talk to their neighbors about and strive to achieve. This is also why holding community workshops on solutions is key to the success of this project. While working towards these solutions we need to honor the path people often take and help facilitate their journey to arrive at a place of hope.

Making it personal & approachable

Connection
to the line.

Those who draw the line should have a real connection to the section they are demarcating. It may be the place where they live, work or play. This connection can be loosely interpreted e.g. “I used to play here,” or “This place is of cultural, historical or personal significance to me.”

Knowledgeable
about the science.

All those who demarcate the line should have a basic understanding of the data they are bringing to life, as well as ability to discuss solutions.

Be
Yourself

Your Connection is Enough – This isn’t intended to be a protest, it is an art project – a performance in which you are asked to have conversations with strangers. Your value in the project is that you are a community stakeholder, connected to the line or are (or will be) impacted by climate change.

Be
Honest

It’s perfectly ok to say “I don’t know” in regards to questions people ask. Ideally you will be collaborating with scientists and other experts that you can refer people to.

Interacting
with the public.

A key vision is to use art to share scientific information via one on one conversations. Those creating the line should be comfortable engaging with strangers and open to sharing their stories and the story of the project. The nature of the project is not to win an argument. If someone has a different opinion than you, be willing to accept that and try to find common ground.

Making time for
Curiosity

As the project is based on curiosity-driven learning, the act of marking the line should engender curiosity in the public. Make time and space to respond to questions and engage in conversation. Move at a slow enough pace for people to be able to approach you. If a group of people are marking the line, allow a few people to follow at a distance because a group can be difficult for obxervers to feel comfortable approaching.

Solutions focused

Because HighWaterLine can deliver some devastating news – your family home or business may be underwater, your community's coast will be forever altered – not only is it important to facilitate space for people's feelings and processes, it is also important to keep the project focused on solutions.
Those solutions may be, as was the case for Miami, building community awareness and engaging in the work to prepare for the coming storm ahead of time. This builds the kind of "presilience" that helps get everyone out of harms way and protects that which can be protected. It also helps a community stay together and rebuild when and where it is appropriate.
Some solutions may be more specific to greening infrastructure and storm protection, in which case your community has an opportunity to learn and promote individual actions as well as pushing for city, state and national action.
Every iteration will need to respond to its own local needs and the community's interests.

Challenges and overcoming them

Like life, unexpected opportunities and challenges will probably arise over the course of creating your *HighWaterLine*. Here are some challenges various *HighWaterLine* projects have faced and how they overcame them. Please contact Eve and Heidi if you decide to pursue your own *HighWaterLine* so that we can help you navigate these and other challenges that might arise.

Data sources

For HighWaterLine | Miami the public universities had the best detailed data for extreme flooding and sea level rise projections for their region. They decided, however, to not share their findings for how sea level rise will impact Miami at the street level for fear of causing panic in the general public. We therefore opted to use data from Climate Central which, although far more conservative in terms of projections, was given to us freely. They shared with us their Surging Seas data that allowed us to determine a line for marking the pathway, and also generously fielded inquiries as they arose.

Sensitive zones

You might find that sections of land you wish demarcate are highly sensitive for political or other reasons. The decision to mark or not mark around or through these regions is ultimately up to you. Things to consider include: will demarcating this area amplify or distract from your greater message? In New York City, Eve was faced with the difficult decision of either having official city support for the project, or draw the line up to the World Trade Center construction site. She decided that adhering to the science and truth of the project was important enough to lose city backing. She drew the line right up to the construction fencing.

6 months before the line

Identifying scientific data

Creating a team

When to mark the line

Plan your workshops

Permits & permissions

Walk the line(s)

Identifying scientific data

We highly recommend beginning your research as soon as possible. The data will provide the information needed to determine the line that will be marked. You will also then be able to share what you learn, including maps, while you are out meeting people in the early stages of community engagement.

Using scientific data to determine the line

HighWaterLine illustrates how increased flooding, storm surge and sea level rise caused by climate change, will impact communities. Your data should always come from a reliable and reputable scientific source. The data you choose may differ from other HighWaterLine projects. Things to consider when choosing your data include:

- Find data around sea level rise/flooding/storm surge for your community. You will need to identify data focused on various levels the water will rise from these impacts. This measurement will be a starting point in choosing where to demarcate your line.
- In our experience people can best relate to data that reflects what will happen within their lifetimes or in their children's lifetime. The data you choose should ideally reflect this.
- Also consider how the measurements you decide to use might resonate with the community in which you are working.

Sources of data

Every location and country will have different sources for reliable data. It will be up to you to determine which respected scientific agency to use for your data. Some places to begin include:

Universities

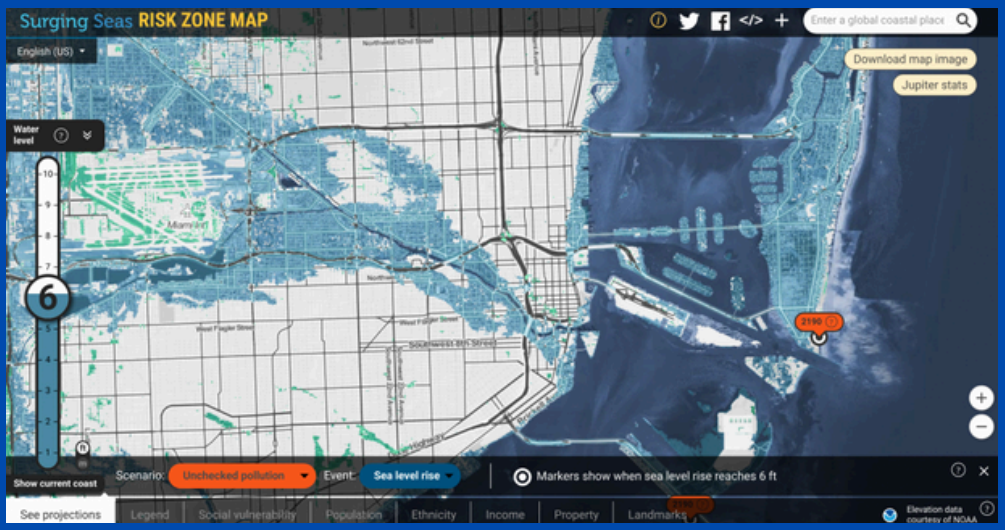
Many universities now have scientists creating maps projecting how sea level rise or increased flooding will impact the regions where the University is located. Sometimes students helping to create these maps can receive University credit for helping with the HighWaterLine project.

Government Agencies

In the United States, flood and sea level rise maps are available through The National Oceanic and Atmospheric Association (NOAA), and NASA's Climate Center. In the United Kingdom, The Environment Agency & Local Authorities or similar governmental agencies might also be helpful. In other regions you may have to find agencies working on flood and coastal risks.

Non-Governmental Agencies

There are many non-governmental groups, like Climate Central, who translate scientific data into information more readily accessible and digestible to the public.



Climate Central Surging Seas Risk Zone Map

Creating a team

While it is possible to do a HighWaterLine as an individual, collaborating with other people, starting with the creation of a core team, will result in a stronger and more robust project. Creating a team early on will help you conquer the diverse tasks needed to realize the project.

There are many roles that are needed in order to realize a HighWaterLine. If people don't want to participate in the actual marking of the line, discuss the diverse roles they might play if they're interested in the project overall. Below is a list of some of the key roles we've identified to date. Please feel free to add additional roles based on your specific community needs. Know that these roles aren't required for every iteration of HighWaterLine, and you may have people who can fulfill multiple roles.

Researchers	A role for local academics or scientists, or someone who is good at reaching out to individuals or institutions, to collect the data that reveals the current and future climate change impacts for your region.
Translators – science & language	After the key scientific data has been identified, it's helpful to translate it into language everyone can easily understand by using graphs, diagrams and most importantly, maps. If there are people on your team who are good writers or graphic designers this might be a perfect way to engage them. If there are diverse languages spoken in the neighborhoods where the HighWaterLine will be realized, it's important that the educational and outreach materials you create are also translated by someone fluent in the languages.
Community outreach coordinators	It is likely that your *HighWaterLine* will traverse many neighborhoods. Each will most likely have their own community leaders. Engaging these leaders early on will help expand both the scope and breadth of your artwork. This is also a way to invite a wide array of people to participate.
Permits coordinator	As the HighWaterLine takes place in public spaces, it's essential to secure the necessary permits from your city or county. Depending on your location, this can be a task onto itself. Please refer to the section titled securing permits.

Workshop coordinators & instructors	Holding informational workshops in which people in the community share knowledge with one another is helpful to build community through education before marking the line. You can invite scientists to come and explain the data, first responders (e.g. firefighters) to share emergency response plans, organizations working on solutions for their ideas, media experts to lead media trainings and more.
Media & social media	We've found that *HighWaterLine* has the most impact when participants have concise messages about: why they're marking the line, the scientific data behind the line, and viable solutions for building local climate resiliency. As those creating the actual line are busy talking with public, someone who is dedicated to sharing the message via social media and directly with media outlets can greatly help amplify your message.
Volunteers coordinator	Someone devoted to coordinating all the people who will be marking the line will help immensely. Ideally this person has experience coordinating volunteers or is comfortable talking to people, supporting volunteers by keeping them up to date on how the project is unfolding, fielding their questions and more.
Logistics coordinator	If you chose to create a long HighWaterLine it will require a lot of supplies (chalk, other marking materials and transportation for the materials) to create the line. Having a logistics coordinator will help immensely. For example, the coordinator might choose to place all the materials required for the day(s) of marking at specific intervals along the route resulting in a smooth line creation. The coordinator and can also support people when they experience technical difficulties, need more art materials and more.
Photographers & videographers	Having people dedicated to documenting the making of the actual line creation is wonderful. Make sure that the photographer and videographer are comfortable with obtaining verbal permissions as they take photographs and or videos, or assign someone to support the photographer/videographer with this task.

When to mark the line?

It's good to consider what might be happening around the date you want to realize your *HighWaterLine*. Having a timeline with space for planning and foresight allows you to place the demarcation of the line at an appropriate time. Some suggestions include:

- Choose a time of year which will support the production and maintenance of the line. For example, drawing the line during rainy season risks the washing away of the line too quickly.
- Make sure there are no conflicting festivals or Holidays on the day/s you draw the line.
- Take advantage of days when people will be out on the streets. Mark a business district during the week and residential areas on the weekend if possible.

Plan your workshops

Workshops are important for your core team and the community to collectively decide the path of the line, learn about solutions that can be shared with the greater community, and forging unity among the group drawing the line. Face to face meetings also create safe spaces for communicating difficult issues and establishing bonds of trust. Choose to meet in locations where people will feel most comfortable and ideally that is easily accessible to all. For example, HighWaterLine | Miami met on the beach for an all day picnic to discuss solutions. Workshops can include Storytelling, Translating Science into Art, Local Solutions, Educating Youth, Media Messaging and Performance.

Permits & permission

This artwork is created in a public space, therefore, it may be necessary to secure permits where and when required, from the town, city or municipality to create the line. Although not required, it's also helpful to inform key community leaders that you will be creating this art piece. In some places it can take up to six months to receive the necessary permits so the sooner you can begin the permitting process the better.
In the UK there is no 'permission' needed to put something non-permanent on public land. Though working with the local council is essential, as it will help in dealing with inquiries the day you are marking HighWaterLine, as well as with issues that might arise during the project.
And remember, never enter onto or mark on private land, unless you have express permission from the landowner.

Permits from governing agencies

Begin by researching who issues permits for temporary events or public art projects in public spaces. Be sure to specify the artwork will be primarily made on sidewalks and or streets. Your local Department of Cultural Affairs or Arts Council might be a place to start in U.S. cities. It's also helpful to conduct research into what is allowed in the streets and/or sidewalks in your region. For example in NYC if more than 50 people gather, it requires a parade permit.

Permission from community

Although not legally required, it's important to let community members who live on the line, but who might not be actually participating in the project, know what you'll be doing well before you actually create the project. You can notify people via community leaders and other key influencers. For example, in Miami, Reverend Grey, the priest of a church along the line, participated in meetings, notified his congregation beforehand, led a sermon on the topic of climate change the day of the actual artwork, and then he and parishioners marked the line outside of their place of workshop.

Walk the line(s)

Well before you mark your actual HighWaterLine, it's helpful to walk the potential route(s) you would like to demarcate. This will allow you to meet the people who live along the line as well as invite them to participate. It is also an opportunity to observe everything you will be demarcating and give you time to adjust your route based on what you observe and more. Below is a sample checklist you can bring with you on your walk. Feel free to make it your own and add sections you think are important to include based on your specific community.

Homes

Walking the line gives you a chance to meet the people who live along the line. If you know people on or near (within a few blocks) of the line, engage them in helping you to conduct outreach. Bring a map of the data you are considering as a way to engage people in conversations about the project. We do not recommend leaving maps or flyering neighborhoods with maps as the spirit of the project is to facilitate spaces for face to face conversations. Simply leaving maps with no conversation might have the opposite effect of what the project seeks to do.

Community meeting spots

Learn where people from the community regularly meet and hang out – popular cafes, community centers, playgrounds, parks, farmer's markets, places of worship. These are great places for meeting members of the community and informing them of your project. Some of these locations may also be spots to find thought leaders (well known shop owners, community groups, religious leaders) with whom you can engage, and then together, you can engage others.

Community leaders

There are people in every community who are respected and trusted by the rest of the community. They can help spread the word about the project and invite folks to participate. They might be a grandmother who knows all the families around her, or a community member who is engaged in many of the community's public events. Leaders in diverse places of worship are also also often respected by their congregations who reside in the community. Engaging with community leaders is essential.

Schools & universities

Many teachers are often open to participating in projects where there is a real world opportunity to bring science, art or other topics they teach to life. If there is a school on or nearby the line try approaching them about participating. If it's not feasible for them to participate, offer to do a presentation to their classes about the HighWaterLine project, sharing how the school will be demarcated and why. Schools tend to need a lot of notice for such projects. Asking them in advance is a great way to engage them.

Universities often have groups interested in communicating social justice, environmental, and other issues to their colleagues, these groups could be invited to mark their campuses.

Walk the line(s) – cont'd

Cultural institutions

Walking the line gives you a chance to meet the people who live along the line. If you know people on or near (within a few blocks) of the line, engage them in helping you to conduct outreach. Bring a map of the data you are considering as a way to engage people in conversations about the project. We do not recommend leaving maps or flyering neighborhoods with maps as the spirit of the project is to facilitate spaces for face to face conversations. Simply leaving maps with no conversation might have the opposite effect of what the project seeks to do.

Critical transportation: roads, bus lines, train routes

As you walk this route look to see if there are important roads, bus routes, train tracks or other transportation routes people rely on to move around. Using your imagination and the data you have attained: do you think having these sections under water due to flooding or sea level rise will impact other areas of the region that rely on these routes for frequent transportation? If yes, how might you engage people who will be impacted by having these critical transit routes flooded or under water?

Community infrastructure: power plants, water & sewage facilities, garbage infrastructure

Many people living in coastal communities know the powerful corrosive properties of salt water. Large volumes of fresh water can also overwhelm and debilitate infrastructure, especially anything electrical. Many of the large facilities that urban communities rely on to provide clean drinking water or electricity might be vulnerable to flooding or sea level rise. In addition, there may be hazardous waste disposal sites vulnerable to flooding.
As you walk your route take note of any power plants or power lines that connect these plants to communities, and/or facilities that provide the drinking water to your community. Also be aware of any sewage treatment plants and refuse transfer or storage hubs. Will these places be demarcated by your line? If they will, you might want to call them and ask what their emergency response plans are for extreme floods or sea level rise. This information can then be shared with other *HighWaterLine* participants.

Bringing together silo-ed communities

Your line might traverse through communities divided by social or physical infrastructure. HighWaterLine becomes an opportunity to unite neighborhoods to build community resilience to future floods or storms as the line reveals how all the communities are connected by flooding and sea level rise.

4-6 months before the line

Workshop - storytelling to build trust

Workshop – translating science into art

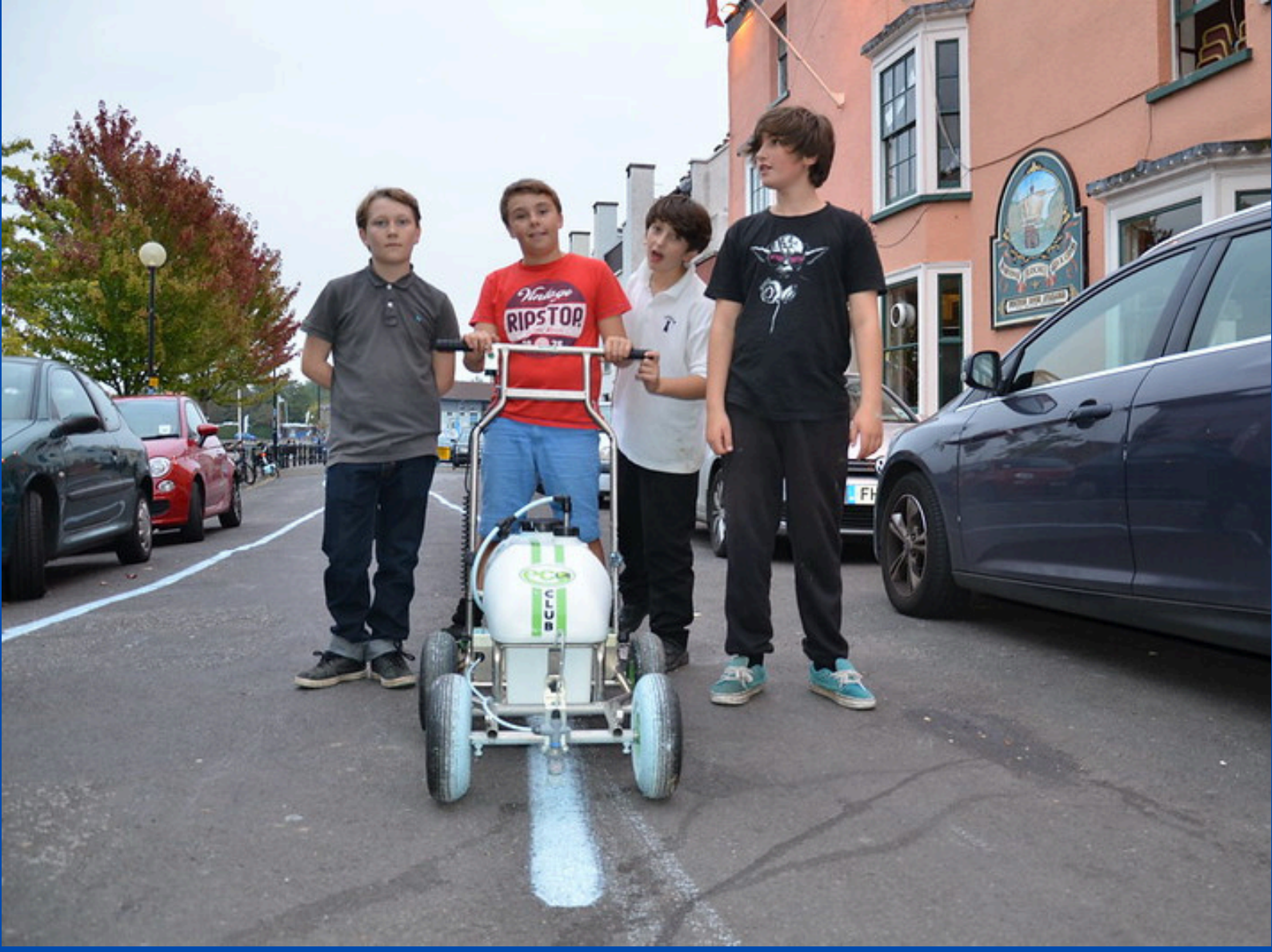
Storytelling to build trust

Beginning the workshop series with one in which people share their personal stories with one another forges connectivity amongst core participants. For both Miami and Bristol, the first workshop that was held amongst core participants was sharing their stories via the Marshall Ganz method. These storytelling workshops built trust and understanding amongst strangers in a way that other modalities simply cannot. We highly urge participants to not skip this core team building exercise Please contact us if you are interested in learning more about the diverse array of storytelling workshops you might hold with your group including the Marshall Ganz model that Heather Box and Julian McQueen (The Million Person Project) co led with us in Miami.

Translating science into art

In this workshop you will translate the scientific data into the actual route to be marked. Engaging community members in this workshop is critical in building consensus about the ultimate route you'll be marking. Having a scientist participate in this workshop is helpful but not essential.
At this workshop you will decide things like: Do we mark the line to reflect the exact scientific data or is the route more an approximation of the line? How do we take into consideration buildings or other infrastructure that might be in the way of the line? Do we opt to use more conservative future projections? and other questions that your team may come up with around the science and the route.

Photos courtesy of Jayme Gershen



3-4 months before the line

Workshop - solutions

Workshop - parents & children

Solutions

The HighWaterLine has the potential to create a spark of awareness as you demarcate the line. For some, seeing places they cherish, whether it be their homes, places of worship or community centers threatened by flooding, can be startling and potentially depressing and debilitating. Optimize this unique window of education to also share viable solutions for building a more climate resilient community. To ensure that you are sharing real solutions we highly recommend researching the diversity of real solutions for your area well in advance. If possible, invite the individuals and organizations working on these solutions to present to your team in a solutions workshop. Then decide as a group which solutions you want to share with the greater public as you demarcate the line. We've found having a range of solutions that allow people to engage at various levels is best.

Parents & children

For Bristol, Isobel created an original workshop designed for children living in flood zones. Using very inexpensive materials, she constructed a fun interactive water artwork that allowed children to appreciate how water flows. This workshop also provided an opportunity to engage parents participating HighWaterLine who couldn't attend the evening meetings due to childcare challenges. The parents were then able come together on a weekend at a playground to learn more about the project while their children played. This is a friendly reminder that meetings can happen anywhere and everywhere that makes the most sense for participants.

2-3 months before the line

Workshop - media & messaging

Media plan

Photographers & videographers

Materials

Media & messaging

If the media decides to cover HighWaterLine you have the opportunity to amplify your message(s). It is important that your message is well thought out and agreed upon by the greater group before you have the media spread it far and wide. The best way to plan this is to hold a media messaging workshop. This will also help those who are marking the line hone what they share as they mark the line. If feasible, it's great to have someone knowledgeable on media messaging lead this workshop.

Some core things to do in this meeting include:

- Identify and refine your top 3 main messages
- Determine your designated media spokespeople – choose people who are confident and comfortable talking to the press
- Role play – if possible, practice sharing your 3 main messages via role playing. Practicing in a safe environment is helpful before sharing your message with the world.

Media plan

Media outreach will help you share your project with a wider audience. Your media outreach plan should ideally include:

Press list

A list of the top reporters (print, online, radio, tv, social media) who you will contact to cover the project.

Social media

Consider developing a hashtag prior to the actual day you demarcate the line. Miami used #WheresTheLine. During the marking of the line, encourage participants and onlookers to use a common tag, like #HighWaterLine to build awareness of the project.

Press packet

We found it useful to prepare online press packets before and after the project. The packets provided prior to marking the line had maps, links to scientific data and quotes from participants. The press packet available after the marking of the line included images from marking the line and quotes from participants, after they realized the artwork, as well as quotes from the public who experienced the artwork.

Media liaison

Ideally there is a key person acting as the media liaison. The liaison communicates with the press, manages all inquiries, connects the press to the right spokespeople, and provides them with additional background information when needed.

Spokespeople

Some people are far more comfortable talking to the press than others. Decide as a group who will serve as the designated spokespeople and collectively work on deciding the key talking points.

Photographers & videographers

Documentation of your HighWaterLine is very important! It is an ephemeral and performative project that doesn't last very long in the rush of life. Having good images that you can share after the fact can be invaluable for your own records but also for media that may come to the story late. (The majority of the coverage we have gotten has been after the fact).

Create a shortlist of the photo and video shots you want to capture as the artwork is being created. Some examples are iconic locations, the marking of the line, and busy neighborhoods. Consult with the people doing the documentation so that they understand what you are looking for, and the kind of shots you want to capture.
You will also want to make sure that you have photo releases signed from all of your participants, and either get on camera (video) or signed releases from people that you document interacting with your team. This way you can have full confidence in sharing your images with the media.

Ask your photographers to license their images under a Creative Commons license that allows reproduction of the images with proper attribution, such as a Creative Commons Attribution Share Alike license.

Materials

You will want to think about materials early in the project in order to research, acquire and test your chosen medium for creating the line.
Each HighWaterLine project will want to determine the materials most appropriate for their region. Here are some general guidelines for choosing your materials for creating the line:

Temporary

The intention is to create an action that sparks curiosity and conversation. In the U.S we used dry chalk (used to mark little league fields) mixed with blue pigment. In the U.K. temporary paint was used, which worked well in this very rainy region of the world.

Environmentally friendly

The chalk used was derived from limestone, which is non-toxic. Because the project is seeking to highlight an environmental issue, it was important that the material be environmentally friendly.

Portable

Materials will need to be relatively easy to transport in order to successfully mark the entire route. We mixed the chalk and pigments in buckets and used bike trailers to move the chalk and markers along the length of the route.

Blue

Blue makes the line stand out, even a pale blue makes it appear different from the many white lines that exist in our streetscape. Many people also associate the color blue with water.

Method of dispersion

A major point of the project is to spark conversations on the street. A marking system that encourages a slow pace and is rather curious looking will inspire more interactions with the public along the way.

Answers questions

It might be helpful to provide a url or social media hashtag next to the line so that passersby who encounter the line after the marking has occurred, can learn more about what the line represents. Remember, it's important to learn what is permissible in your town, city or district. For example, it was illegal to place a website address next to the line in NYC and Miami because these cities categorized this as illegal advertising.

Test

Sample the actual chalk, paint or pigment you'll be using on spaces you will mark in advance to discern how water soluble / temporary it really is.

Materials – cont'd

Amount

You will need to think/plan strategically about how long you want to spend marking the line and how you will transport the materials needed to support the actual creation of the line. Some tips for planning include:

- For the dry chalk, we have found that you need about 4 bags (50 lbs or 25kg) of chalk per mile.
- You can expect to cover about one mile per hour if you go at a slow pace and encounter a lot of people.

Storage

Depending on your materials, you may need to acquire storage prior to the marking of the line. Consider if the storage site needs to be weatherproof. If you need to mix materials, choose a site that can get messy.

Chalk & pigment for *HighWaterLine | Miami*

The month leading up to the line

Gameplan - leading up to the line

Workshop - what it means to perform & prep

Leading up to the line

If there are a lot of people marking the line, or multiple lines being marked over the course of several days or weeks, you will want to plan ahead to map out all the logistics. Things to consider include:

- The volunteers who will be marking the sections of the line – who will be marking what sections of the line and when?
- The best method(s) for transporting all the materials needed to realize the artwork to the actual route
- Who will be coordinating all the volunteers and logistics for the days of the art?
- Who will be the media liaison?
- Who are the photographers and or video people documenting the creation of the artwork and who will be coordinating them?

What it means to perform & prep

This final workshop should ideally be held one week prior to the marking of the line and can include experts available to answer last minute questions. This offers an opportunity for participants to familiarize themselves with the devices that will be used to demarcate the line, a chance to review media talking points and more. As everyone walking the line will be performing as part of the HighWaterLine artwork, we also ask that all who participate agree to the principles set forth in the Making it Personal & Approachable. The final workshop should also include a review and commitment to these principles.

Drawing the line

Marking the HighWaterLine

Marking the HighWaterLine

You made it! Your community has come together and you are ready to mark the line. As there will be a lot going on during the day(s) you mark the line, having a checklist will help immensely. Here are some items to bring:

Permits

Everyone who is marking the line should have a paper copy of the permit on their person.

Contact information

Each participant should have the cell number for the Line/Volunteer Coordinator and – when appropriate – the cell number for the Media Liaison.

Maps of the route

All people marking the line should have a map of the route on their person to share with the people they interact with.

Additionally

The **Volunteer Coordinator** should have a sheet with all participant's cell phone numbers, the Media Liaison's cell phone number and contact information for the Photographer/Videographer. In addition, if there is a team working to provide materials along the route, the Line/Volunteer Coordinator should have their contact info as well.

The **Media Liaison** should have a sheet with the contact information of all media spokespeople, as well some physical press packets on their person, as well as the contact information for the Line/Volunteer Coordinator and the Photographer/videographer.

Photo courtesy of Jayme Gershen

After the line

Community Celebration

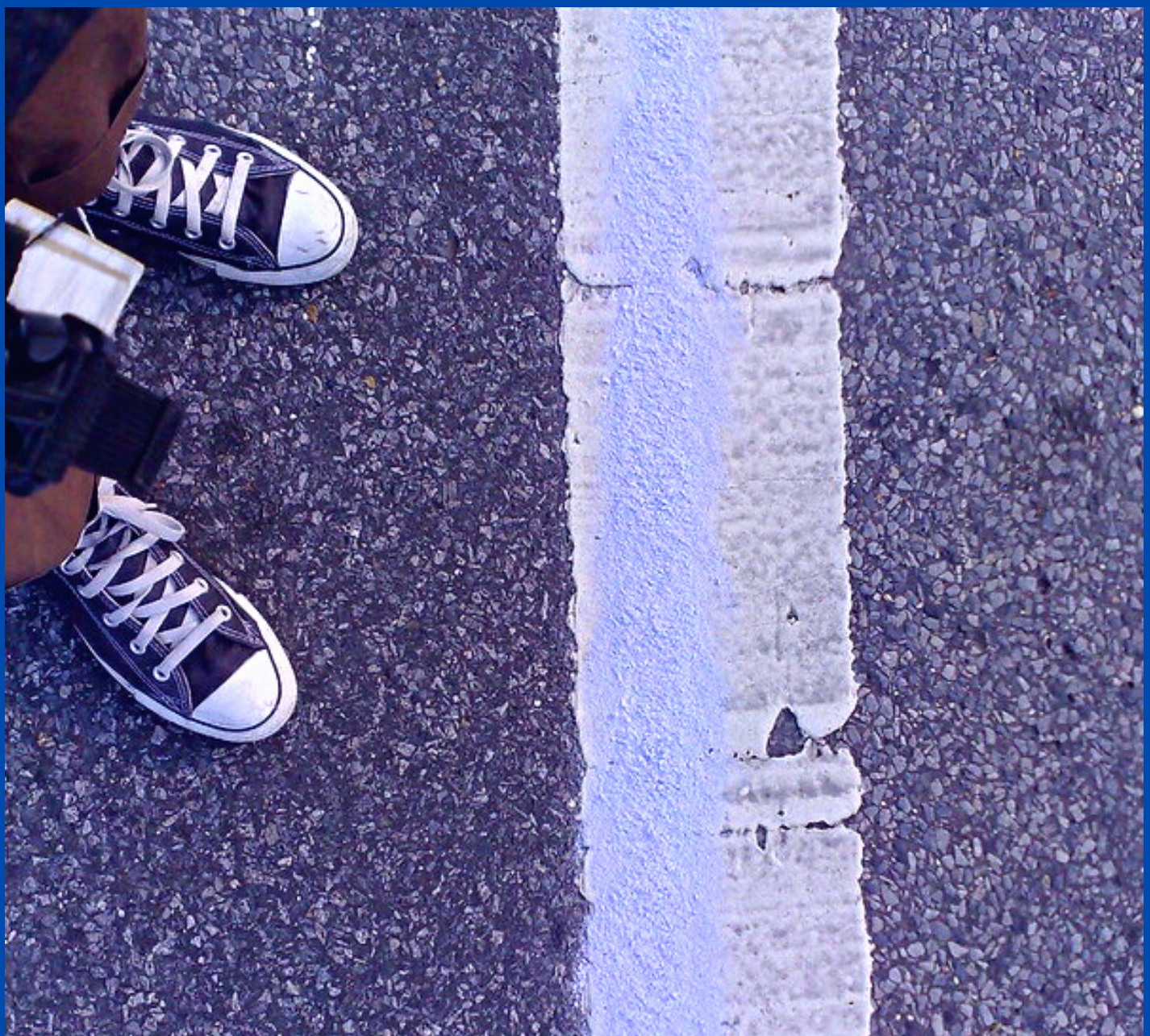
Workshop debrief

Community celebration

Coming together with everyone to celebrate with food is a beautiful way for people working on various aspects of creating the line to all be together. This is a great way to thank everyone in a group setting and to informally brainstorm potential future collaborations. If there are volunteers who love to nourish people with food, this is a wonderful opportunity for them to support the project with their special gifts.

Debrief

Bring everyone together after the HighWaterLine to share notes on what worked, what can be improved, ideas for moving forward and more. The debriefing can be weeks or a month after the HighWaterLine – whenever works for everyone. This should be a celebratory meeting since you've pulled it off and you're now holding a space for those who might want to continue to build resiliency in the community.



Amazing, well done and thank you.

Acknowledgements

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We are immensely grateful to the communities who have participated in, loved and grown HighWaterLine around the world. More about all of them can be found at evemosher.com/highwaterline.