

# A Guide to Climate Adaptation Resources for City Planning

## Outline

### **Environmental Justice**

- Climate and Economic Justice Screening Tool
- EJSCREEN Environmental Justice Screening and Mapping Tool
- Environmental Sensitivity Index

### **Coastal Resources**

- Coastal Flood Exposure Mapper
- Great Lakes Coastal Wetland Decision Support Tool
- Coastal County Snapshots
- Coastal Restoration Toolkit
- Great Lakes Coastal Resilience Planning Guide

### **Risk Resources**

- Substantial Damage Estimator
- Populations at Risk
- Environmental Resilience Institute Toolkit (ERIT)
- Environmental Resilience Tools Wizard
- Resilience Metrics
- Risk Mapping, Assessment, and Planning (Risk MAP) Program

### **Climate Change Resources**

- Template for Assessing Climate Change Impacts and Management Options (TACCIMO)
- Climate Adaptation Knowledge Exchange
- Climate Explorer
- G-WOW (Guiding for Tomorrow) Changing Climate, Changing Culture Initiative

### **Tribal Resources**

- Indigenous Health Indicators Tool
- Tribal Climate Change Adaptation Planning Toolkit
- Dibaginjigaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu

### **Community Planning**

- Green Infrastructure Benefits Handout
- Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning
- Federal Crowdsourcing and Citizen Science Toolkit
- Engaging Socially Vulnerable Communities and Communicating About Climate Change

## **Resource Categories**

Color coded and indicated on the resource description

**Interactive Map**

**Interactive Website**

**Guidebook**

**Software**

## Statement of Purpose

This document is intended to be used by municipalities and city planners to use when planning for climate change adaptation. These resources are taken from the Climate Tools Inventory spreadsheet and presented here in a more accessible format for concerned parties to use. I hope this document is used in collaboration with Ottawa Biosphere Region.

Environmental Justice	Coastal Resources	Risk Resources	Climate Change Resources	Tribal Resources	Community Resources
Climate and Economic Justice Screening Tool EJSCREEN Environmental Justice Screening and Mapping Tool Environmental Sensitivity Index	Coastal Flood Exposure Mapper Great Lakes Coastal Wetland Decision Support Tool Coastal County Snapshots Coastal Restoration Toolkit Great Lakes Coastal Resilience Planning Guide	Substantial Damage Estimator Populations at Risk Environmental Resilience Institute Toolkit (ERIT) Environmental Resilience Tools Wizard Resilience Metrics Risk Mapping, Assessment, and Planning (Risk MAP) Program	Template for Assessing Climate Change Impacts and Management Options (TACCIMO) Climate Adaptation Knowledge Exchange Climate Explorer G-WOW (Guiding for Tomorrow) Changing Climate, Changing Culture Initiative	Indigenous Health Indicators Tool Tribal Climate Change Adaptation Planning Toolkit Dibaginjigaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu	Green Infrastructure Benefits Handout Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning Federal Crowdsourcing and Citizen Science Toolkit Engaging Socially Vulnerable Communities and Communicating About Climate Change

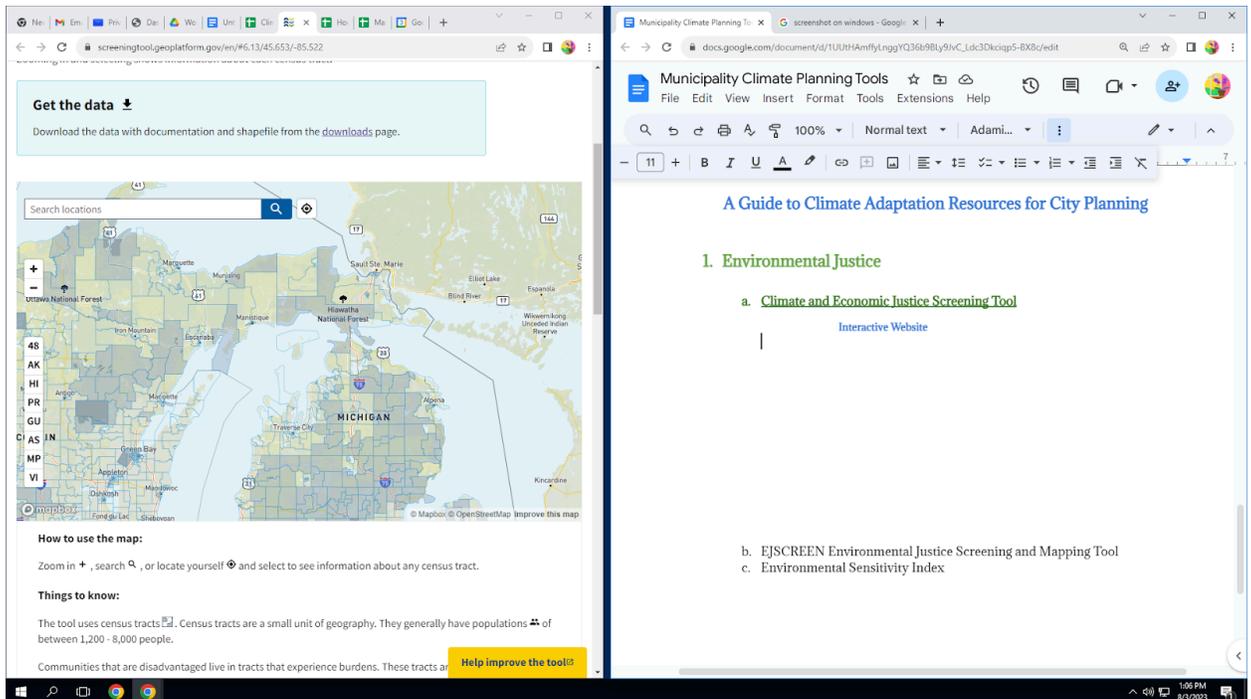
## Environmental Justice

### [Climate and Economic Justice Screening Tool](#)

Category: [Interactive Website](#)

Contact: Council on Environmental Quality, [Screeningtool-Support@omb.eop.gov](mailto:Screeningtool-Support@omb.eop.gov)

[Preview of site](#)



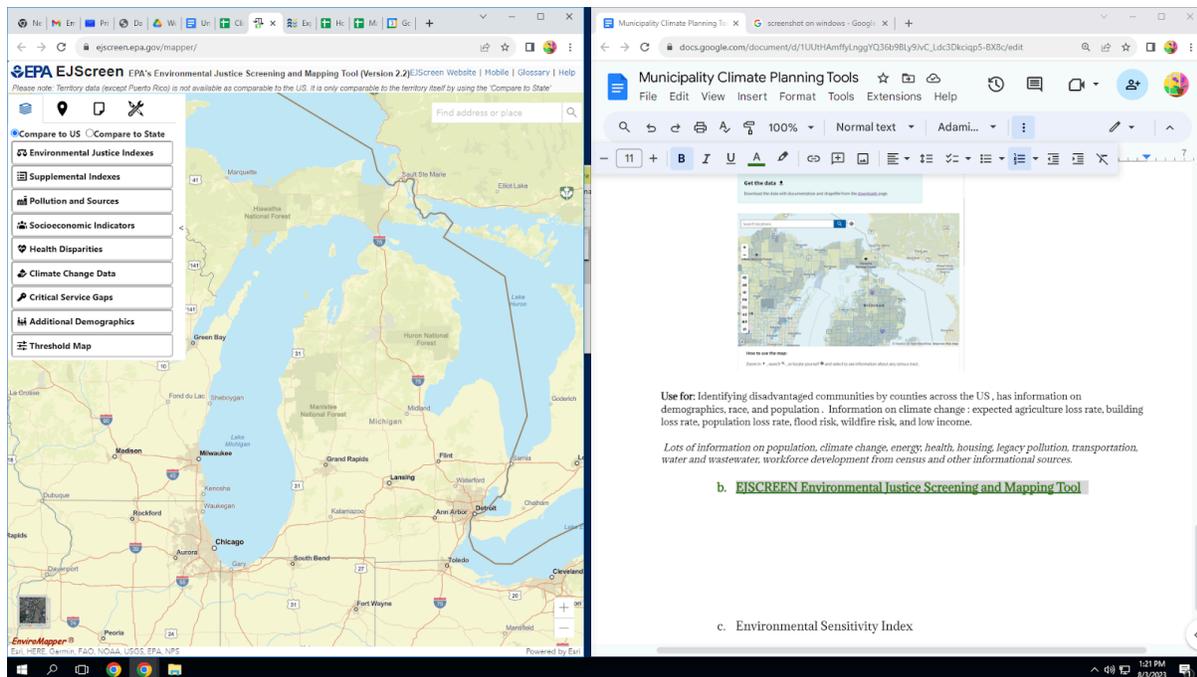
**Use for:** Identifying disadvantaged communities by counties across the US, has information on demographics, race, and population. Information on climate change: expected agriculture loss rate, building loss rate, population loss rate, flood risk, wildfire risk, and low income. Lots of information on population, climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, workforce development from census and other informational sources.

## [EJSCREEN Environmental Justice Screening and Mapping Tool](#)

Category: [Interactive Website](#)

Contact: Dominique Joseph: [joseph.dominique@epa.gov](mailto:joseph.dominique@epa.gov)

Preview of site

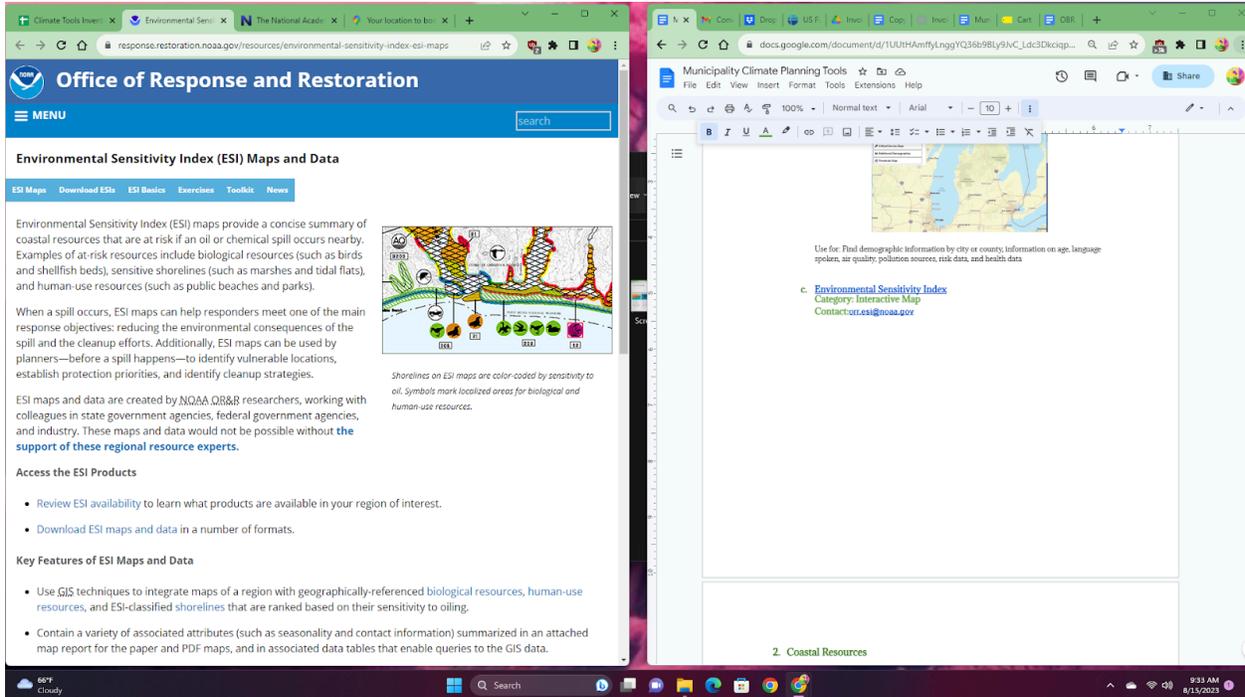


Use for: Find demographic information by city or county, information on age, language spoken, air quality, pollution sources, risk data, and health data

## [Environmental Sensitivity Index](#)

Category: Interactive Map

Contact: [orr.esi@noaa.gov](mailto:orr.esi@noaa.gov)



Use for: Coastal city planning to assess hazards and risk of disaster and highlights at risk resources.

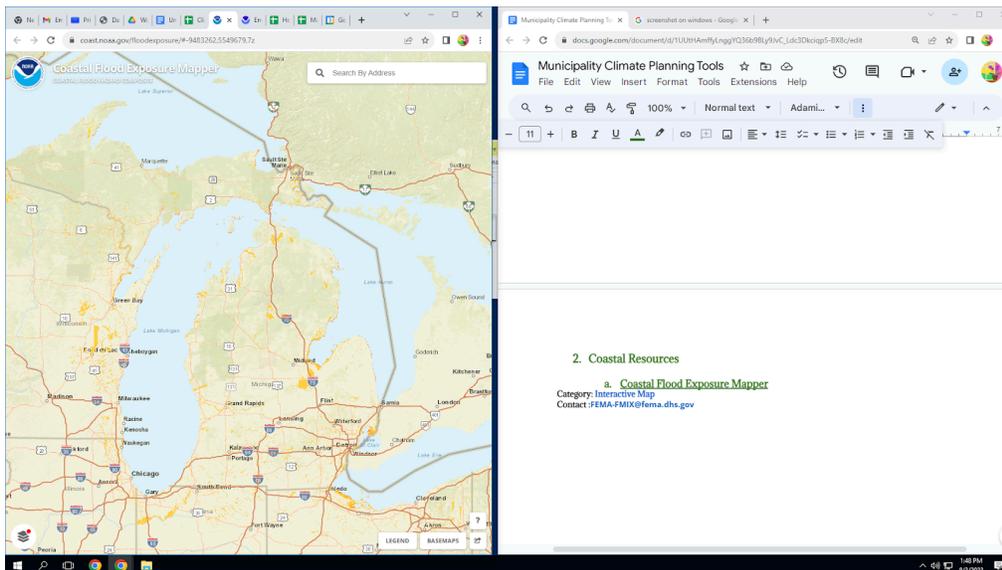
## [Coastal Resources](#)

### [Coastal Flood Exposure Mapper](#)

Category: Interactive Map

Contact : [FEMA-FMIX@fema.dhs.gov](mailto:FEMA-FMIX@fema.dhs.gov)

Preview of site



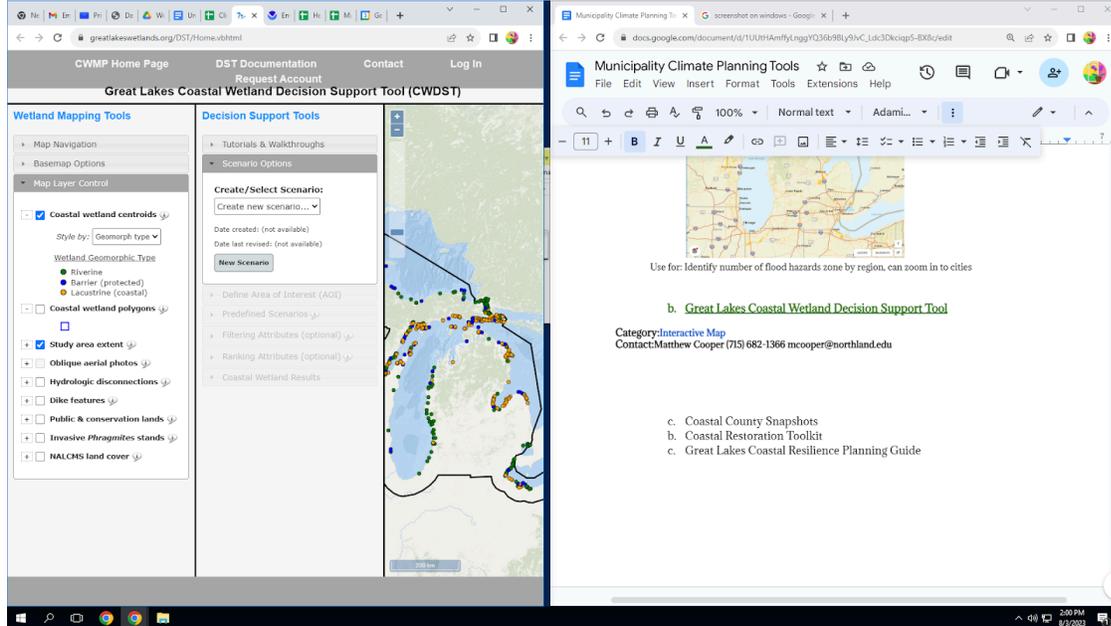
Use for: Identify number of flood hazards zone by region, can zoom in to cities

## [Great Lakes Coastal Wetland Decision Support Tool](#)

Category: [Interactive Map](#)

Contact: [Matthew Cooper \(715\) 682-1366 mcooper@northland.edu](mailto:Matthew.Cooper@northland.edu)

[Preview of site](#)



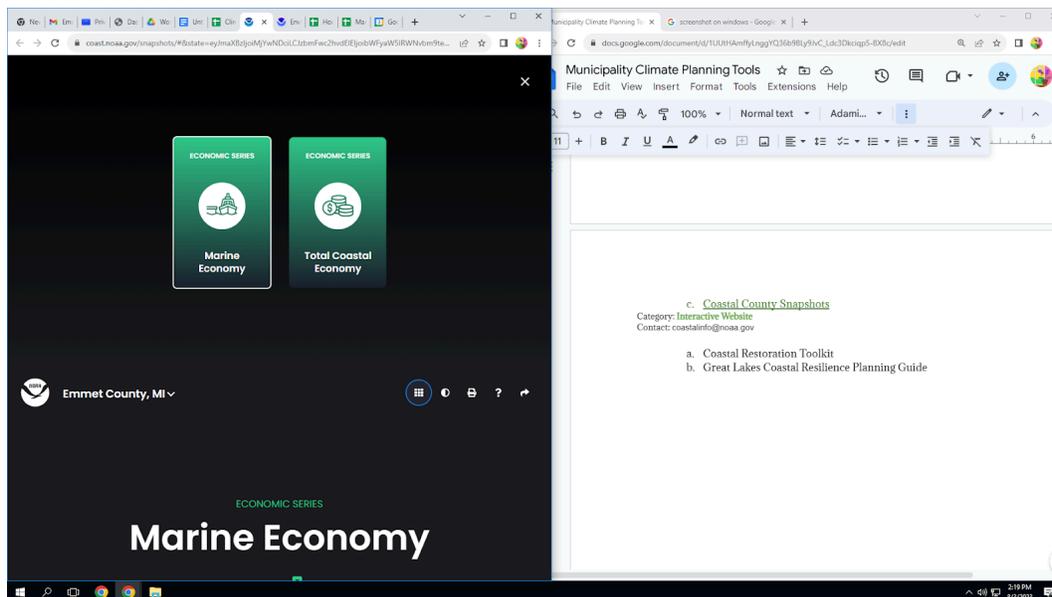
Use for: Identify wetlands for restoration by clicking on sites and create scenarios

## [Coastal County Snapshots](#)

Category: [Interactive Website](#)

Contact: [coastalinfo@noaa.gov](mailto:coastalinfo@noaa.gov)

[Preview of site](#)



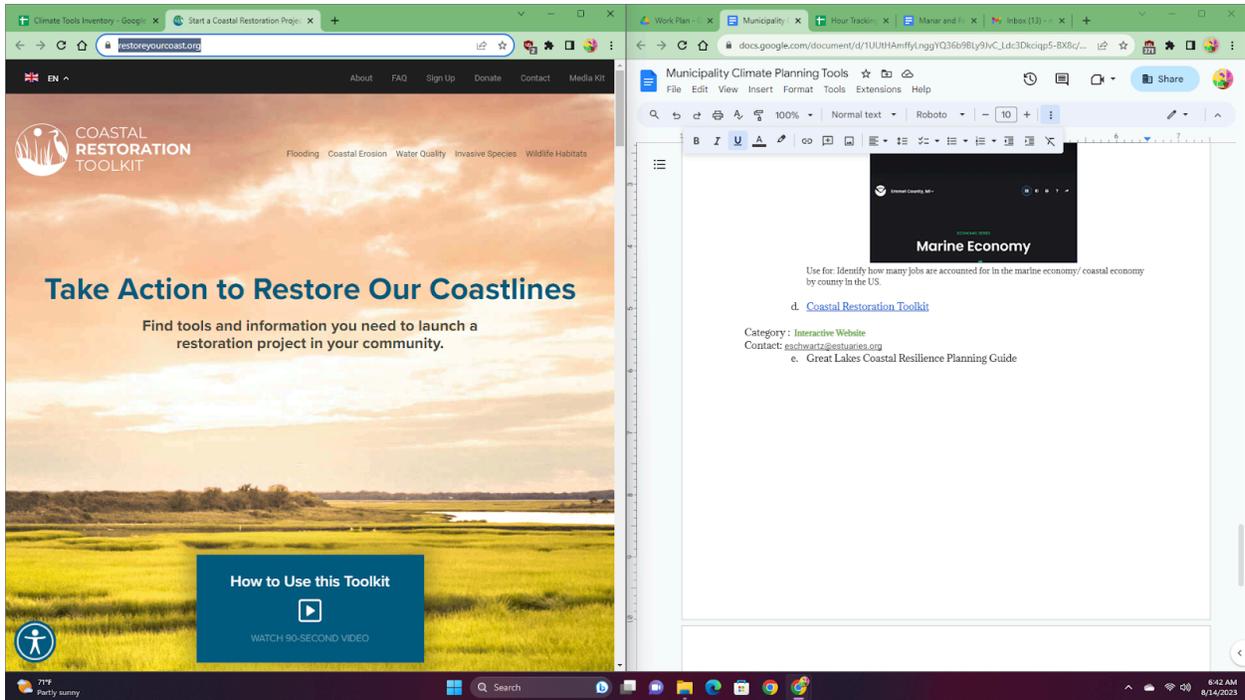
Use for: Identify how many jobs are accounted for in the marine economy/ coastal economy by county in the US.

## [Coastal Restoration Toolkit](#)

Category : **Interactive Website**

Contact: [eschwartz@estuaries.org](mailto:eschwartz@estuaries.org)

Preview of Site

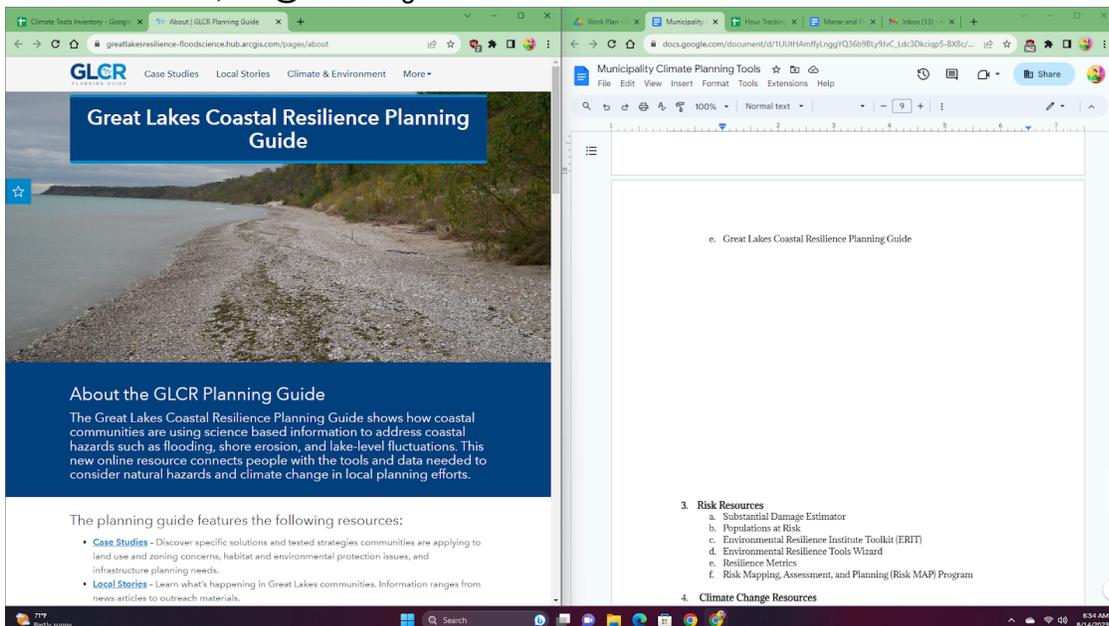


Use for: Guide project planning based on different categories (flooding, coastal erosion, flooding, water quality, invasive species, wildlife habitat restoration)

## [Great Lakes Coastal Resilience Planning Guide](#)

Category : **Interactive Website**

Contact: Jeff Stone, [Jeff@floods.org](mailto:Jeff@floods.org)



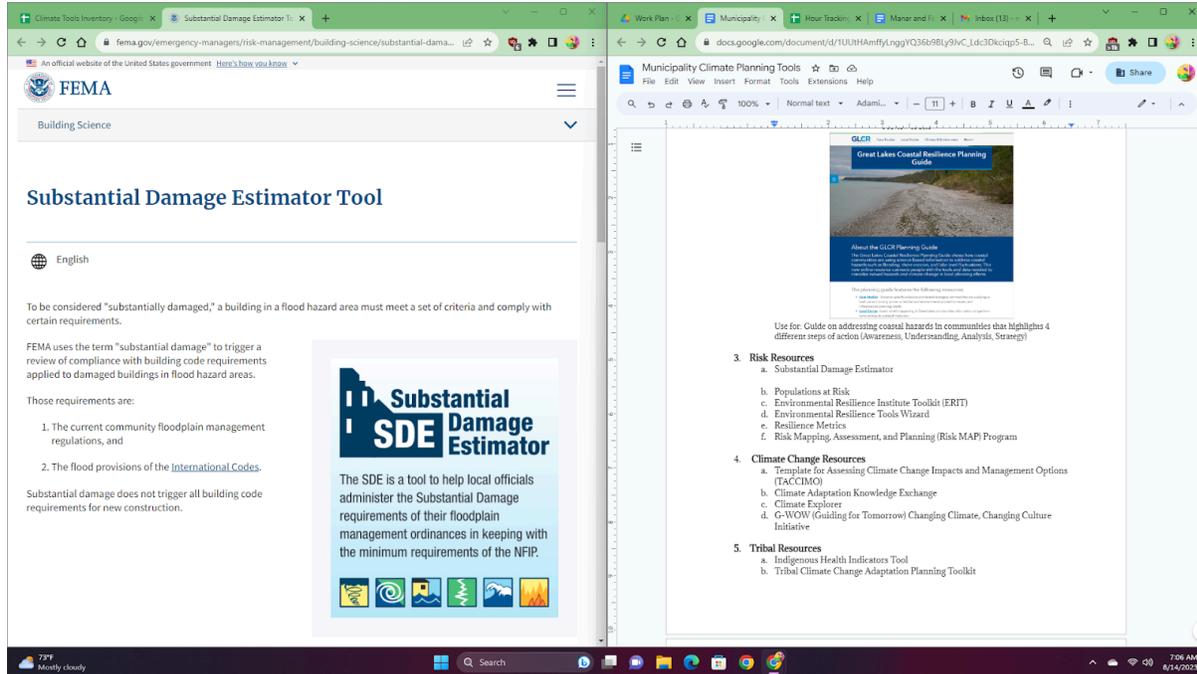
Use for: Guide on addressing coastal hazards in communities that highlights 4 different steps of action (Awareness, Understanding, Analysis, Strategy)

## Risk Resources

### [Substantial Damage Estimator](#)

Category: **Software**

Contact :FEMA-BuildingScienceHelp@fema.dhs.gov

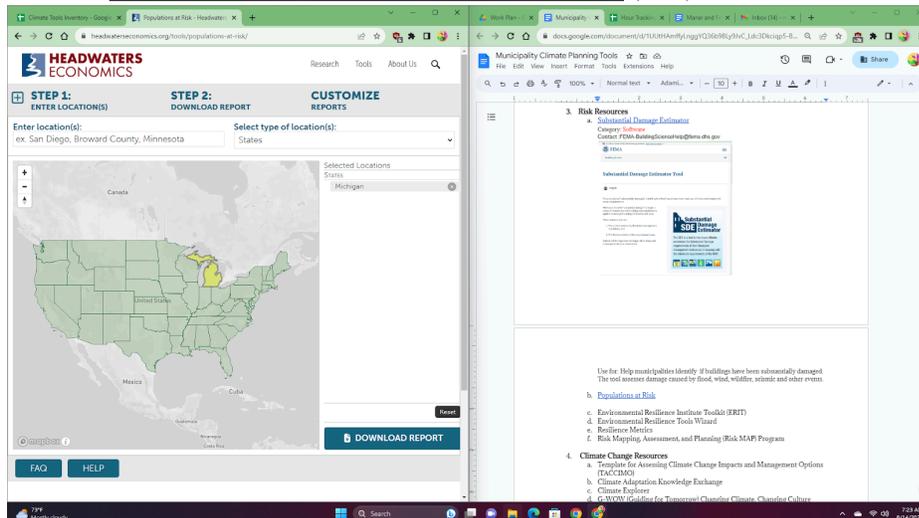


Use for: Help municipalities identify if buildings have been substantially damaged. The tool assesses damage caused by flood, wind, wildfire, seismic and other events.

### [Populations at Risk](#)

Category: **Interactive Map**

Contact: [Kelly Pohl kelly@headwaterseconomics.org](mailto:kelly@headwaterseconomics.org) (406) 599-7841

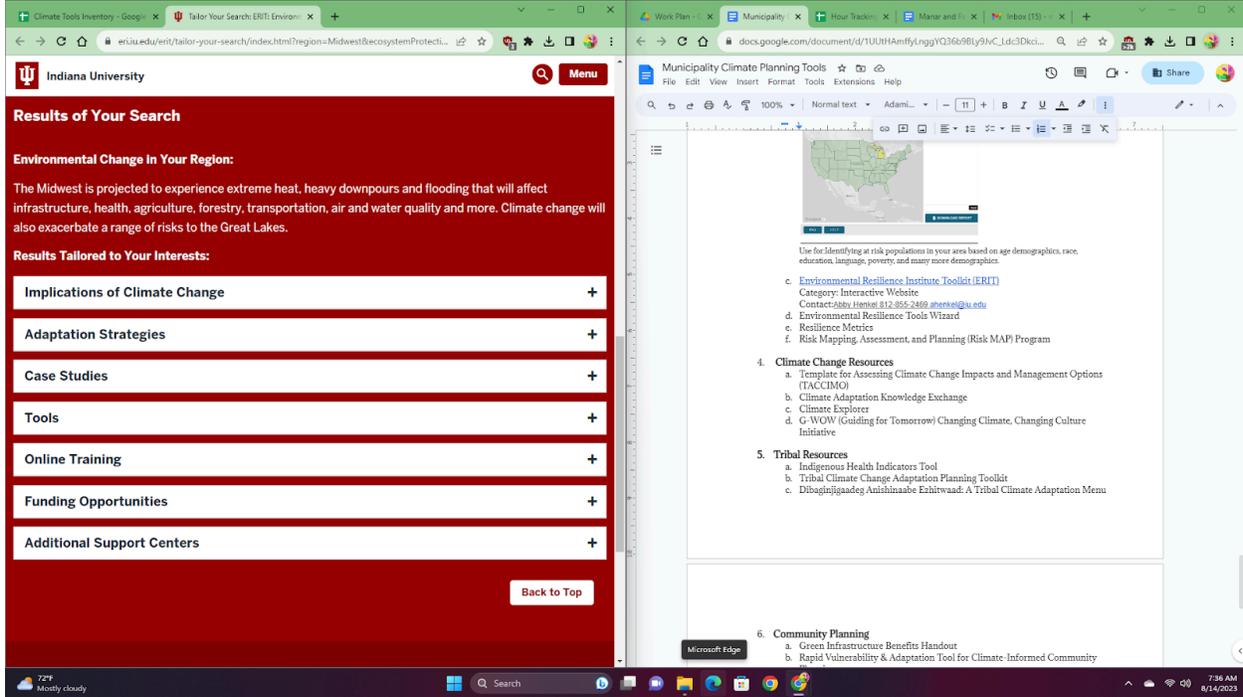


Use for: Identifying at risk populations in your area based on age demographics, race, education, language, poverty, and many more demographics.

## [Environmental Resilience Institute Toolkit \(ERIT\)](#)

Category: Interactive Website

Contact: [Abby Henkel 812-855-2469](mailto:Abby.Henkel@iu.edu) [ahenkel@iu.edu](mailto:ahenkel@iu.edu)

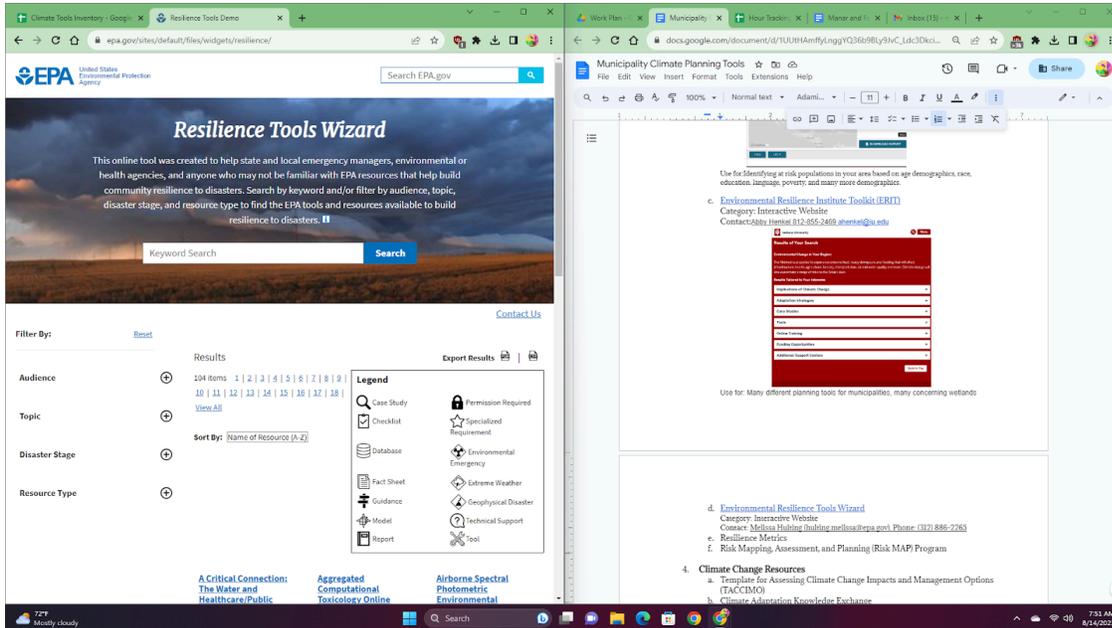


Use for: Many different planning tools for municipalities, many concerning wetlands

## [Environmental Resilience Tools Wizard](#)

Category: Interactive Website

Contact: [Melissa Hulting \(hulting.melissa@epa.gov\)](mailto:hulting.melissa@epa.gov), Phone: (312) 886-2265



Use for: help state and local emergency managers, environmental or health agencies, and anyone who may not be familiar with EPA resources that help build community resilience to disasters

## Resilience Metrics

Category: Interactive Website

Contact: Dr. Susanne Moser [promundi@susannemoser.com](mailto:promundi@susannemoser.com)

The image shows two browser windows side-by-side. The left window displays the 'Resilience Metrics' website, which features a header with the organization's logo, a search bar, and a large image of a landscape with trees. Below the image is the text 'Adaptation & Resilience' and a 'Welcome to Resilience Metrics!' section. The right window shows a Google Docs document titled 'Municipality Climate Planning Tools'. The document contains a list of resources, including 'Resilience Metrics', 'Climate Change Resources', 'Tribal Resources', and 'Community Planning'. A Google Chrome notification for AdBlock Plus is visible in the bottom right corner of the browser windows.

Use for: Help municipalities with planning for climate change based on metrics [Bounding and Assessing Context](#), [Visioning Success](#), [Exploring & Identifying Indicators](#), [Selecting Indicators & Identifying Metrics](#), [Tracking Indicators & Metrics](#), [Using Indicators & Metrics](#)

## Risk Mapping, Assessment, and Planning (Risk MAP) Program

Category: Interactive Website

Contact: Flood Mapping Questions 877-336-2627 [fema-fmix@fema.dhs.gov](mailto:fema-fmix@fema.dhs.gov)

The image shows two browser windows side-by-side. The left window displays the 'Risk Mapping, Assessment and Planning (Risk MAP)' website, which includes a header with the program name and language options (English, Español). Below the header is a paragraph explaining the program's purpose and a section titled 'What Is the Risk MAP Process?' with a diagram showing four steps: 1. Discovery, 2. Analysis & Mapping, 3. Preliminary Flood Map Release, and 4. Map Adoption. The right window shows a Google Docs document titled 'Municipality Climate Planning Tools'. The document contains a list of resources, including 'Risk Mapping, Assessment and Planning (Risk MAP) Program', 'Climate Change Resources', 'Tribal Resources', and 'Community Planning'. A Google Chrome notification for AdBlock Plus is visible in the bottom right corner of the browser windows.

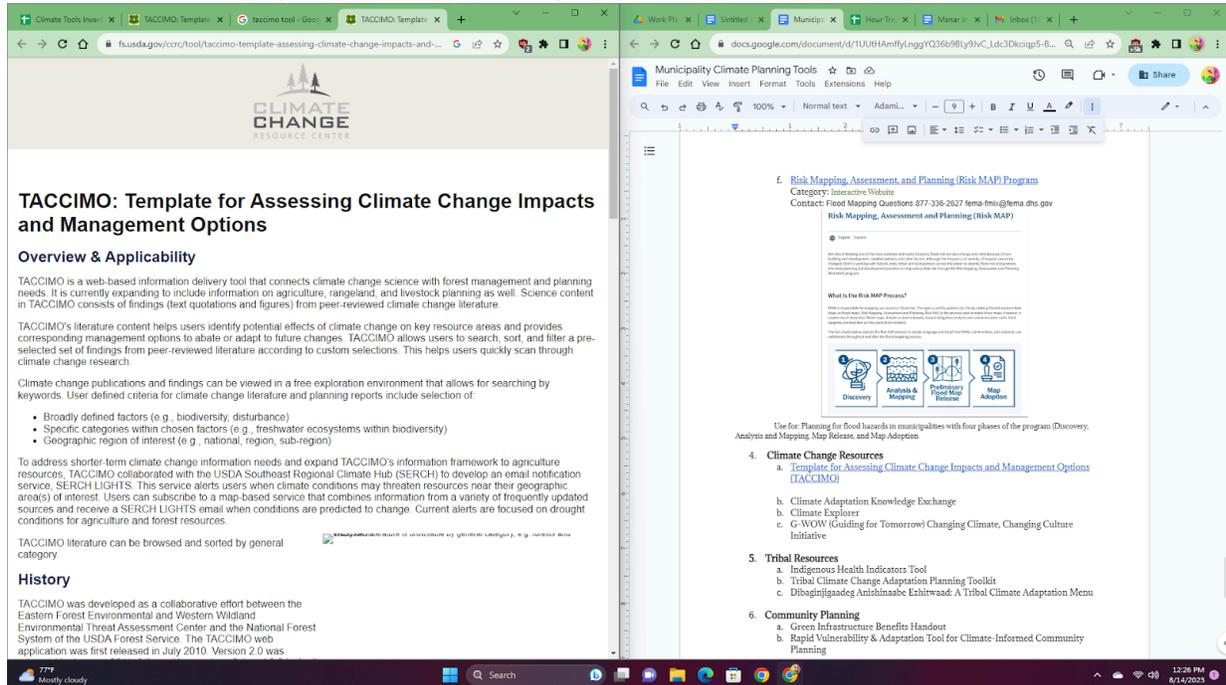
Use for: Planning for flood hazards in municipalities with four phases of the program (Discovery, Analysis and Mapping, Map Release, and Map Adoption)

## Climate Change Resources

[Template for Assessing Climate Change Impacts and Management Options \(TACCIMO\)](#)

Category: Interactive Website

Contact: Steve McNulty [steve.mcnulty@usda.gov](mailto:steve.mcnulty@usda.gov) 919-549-4068

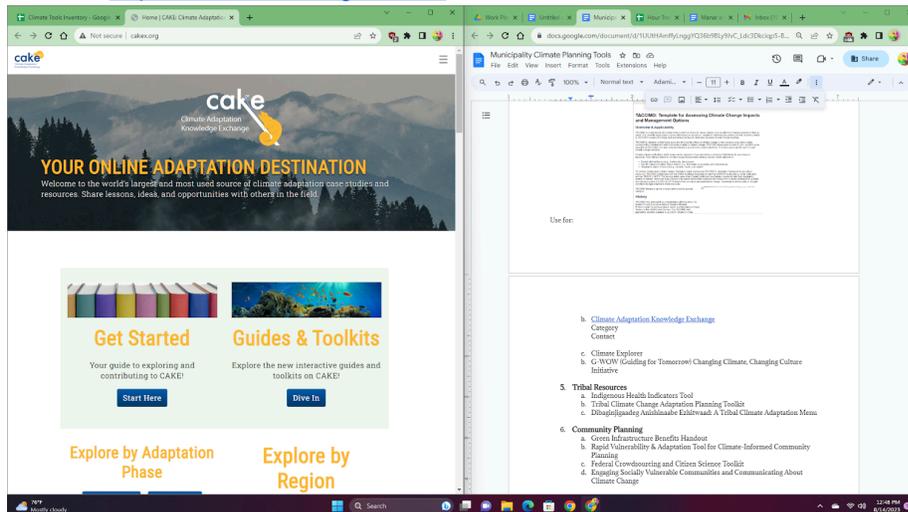


Use for: city planning to assess climate change impacts over cities

## Climate Adaptation Knowledge Exchange

Category: Interactive Website

Contact: <http://www.cakex.org/contact>

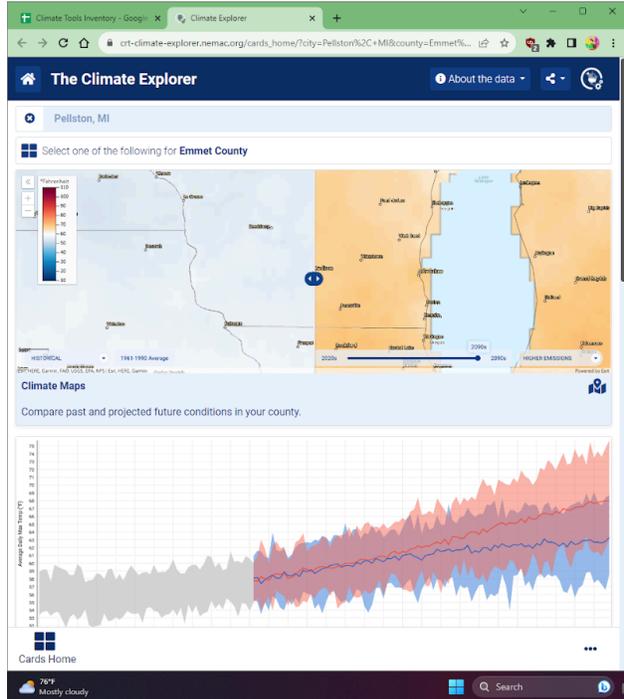


Use for: Explore planning by topic, adaptation phase, or region. There is also a guide, toolkits, etc

## Climate Explorer

Category: Interactive Website

Contact: [noaa.toolkit@noaa.gov](mailto:noaa.toolkit@noaa.gov)



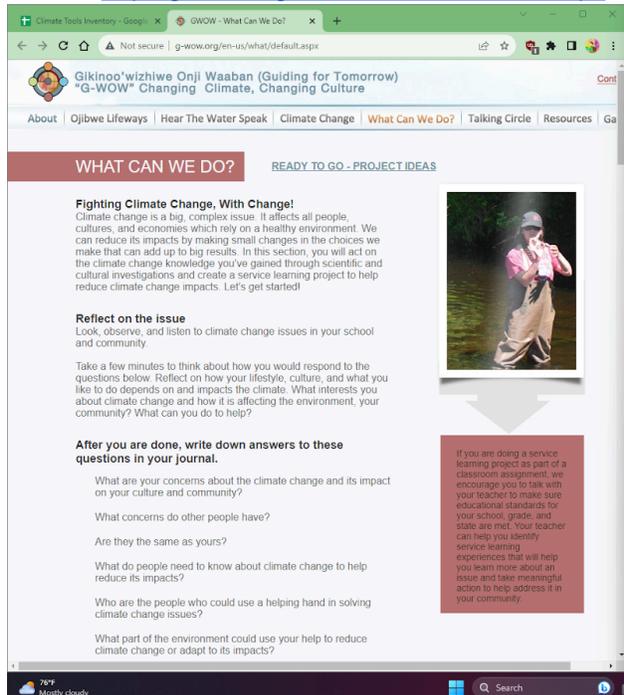
The screenshot shows the Climate Explorer website interface. At the top, it says "The Climate Explorer" and "About the data". Below that, it displays "Pellston, MI" and a map of the area. A legend indicates "Select one of the following for Emmet County" with a color scale from blue (cooler) to red (warmer). Below the map is a line graph titled "Climate Maps" showing "Compare past and projected future conditions in your county." The graph plots "Change in Precipitation (mm)" on the y-axis against years on the x-axis. The bottom of the browser shows a weather widget for 76°F and "Mostly cloudy".

Use for: Explore climate maps, graphs, flooding, weather data, historical data to help with assessing risk and planning

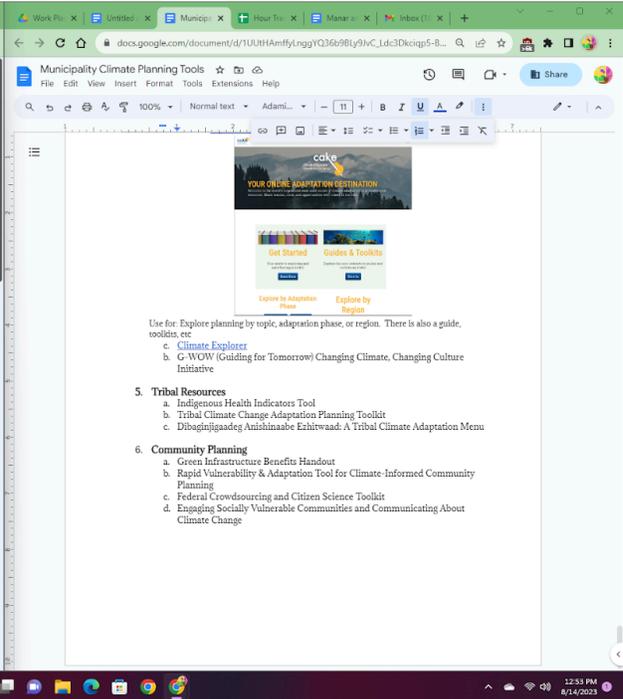
## G-WOW (Guiding for Tomorrow) Changing Climate, Changing Culture Initiative

Category: Guidebook

Contact: <http://g-wow.org/en-us/contact/default.aspx>

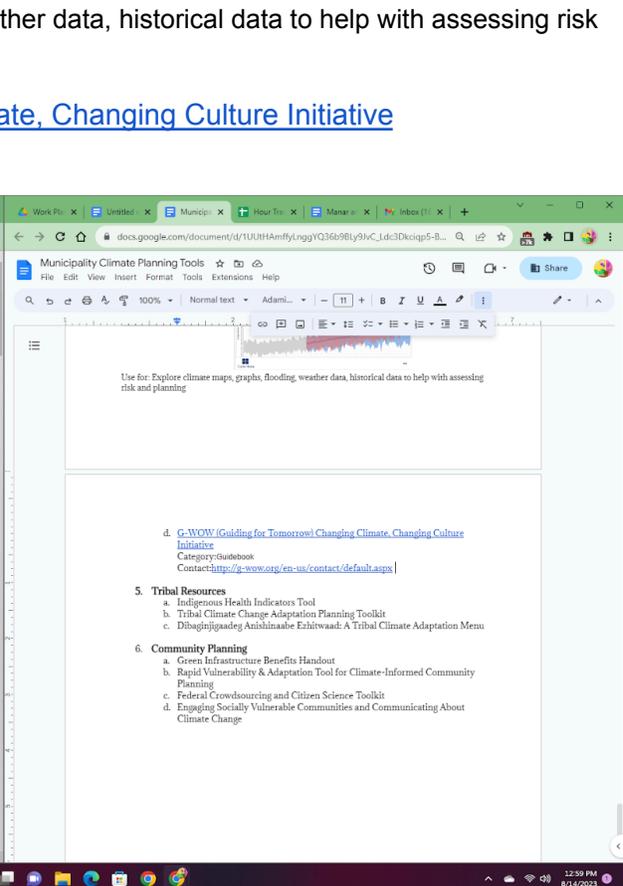


The screenshot shows the G-WOW website. The header includes "Gikinoo'wizhiwe Onji Waaban (Guiding for Tomorrow) 'G-WOW' Changing Climate, Changing Culture". Below the header is a navigation menu with "About", "Ojibwe Lifestyles", "Hear The Water Speak", "Climate Change", "What Can We Do?", "Talking Circle", and "Resources". The main content area is titled "WHAT CAN WE DO? READY TO GO - PROJECT IDEAS". It features a section "Fighting Climate Change, With Change!" with a photo of a person in traditional dress. Below this is a "Reflect on the issue" section with a list of questions. A text box on the right says: "If you are doing a service learning project as part of a classroom assignment, we encourage you to talk with your teacher to make sure educational standards for your school, grade, and state are met. Your teacher can help you identify service learning experiences that will help you learn more about an issue and take meaningful action to help address it in your community." The bottom of the browser shows a weather widget for 76°F and "Mostly cloudy".



The screenshot shows a Google Docs document titled "Municipality Climate Planning Tools". It lists various resources for climate planning, including "Climate Explorer" and "G-WOW (Guiding for Tomorrow) Changing Climate, Changing Culture Initiative". The document is organized into sections: "5. Tribal Resources" and "6. Community Planning".

- 5. Tribal Resources
  - a. Indigenous Health Indicators Tool
  - b. Tribal Climate Change Adaptation Planning Toolkit
  - c. Dibagijnigaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu
- 6. Community Planning
  - a. Green Infrastructure Benefits Handout
  - b. Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning
  - c. Federal Crowdsourcing and Citizen Science Toolkit
  - d. Engaging Socially Vulnerable Communities and Communicating About Climate Change



The screenshot shows a Google Docs document titled "Municipality Climate Planning Tools". It lists various resources for climate planning, including "Climate Explorer" and "G-WOW (Guiding for Tomorrow) Changing Climate, Changing Culture Initiative". The document is organized into sections: "5. Tribal Resources" and "6. Community Planning".

- d. [G-WOW \(Guiding for Tomorrow\) Changing Climate, Changing Culture Initiative](http://g-wow.org/en-us/contact/default.aspx)  
Category: Guidebook  
Contact: <http://g-wow.org/en-us/contact/default.aspx>
- 5. Tribal Resources
  - a. Indigenous Health Indicators Tool
  - b. Tribal Climate Change Adaptation Planning Toolkit
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  - a. Green Infrastructure Benefits Handout
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  - c. Federal Crowdsourcing and Citizen Science Toolkit
  - d. Engaging Socially Vulnerable Communities and Communicating About Climate Change

Use for: Bring indigenous perspectives into climate change planning, interesting journaling practice

## Tribal Resources

### [Indigenous Health Indicators Tool](#)

Category: Interactive Website

Contact: Jamie Donatuto Environmental Health Analyst [jdonatuto@swinomish.nsn.us](mailto:jdonatuto@swinomish.nsn.us)

The image shows two browser windows side-by-side. The left window displays the 'Indigenous Health Indicators' website, which features a large circular graphic with photos of people and the text 'WELCOME! USE THE MENU BELOW TO SEE DETAILS ABOUT EACH INDIGENOUS HEALTH INDICATOR'. Below the graphic are buttons for 'COMMUNITY CONNECTION', 'NATURAL RESOURCES SECURITY', 'CULTURAL USE', 'EDUCATION', 'SELF-DETERMINATION', and 'RESILIENCE'. The right window shows a Google Docs document titled 'Municipality Climate Planning Tools'. The document contains the following text:

Use for: Bring indigenous perspectives into climate change planning, interesting journaling practice

5. Tribal Resources

- a. [Indigenous Health Indicators Tool](#)

Category

- b. Tribal Climate Change Adaptation Planning Toolkit
- c. Dłibaginjgaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu

6. Community Planning

- a. Green Infrastructure Benefits Handout
- b. Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning
- c. Federal Crowdsourcing and Citizen Science Toolkit
- d. Engaging Socially Vulnerable Communities and Communicating About Climate Change

Use for: Considering indigenous perspectives in city planning, particularly for health related metrics.

### [Tribal Climate Change Adaptation Planning Toolkit](#)

Category: Guidebook

Contact: [itep@nau.edu](mailto:itep@nau.edu) Institute for Tribal Environmental Professionals (ITEP)

The image shows two browser windows side-by-side. The left window displays the ITEP website, specifically the 'Climate Change Resources' page. It lists various resources such as 'Adaptation Planning Tool Kit', 'Template: Tribal Climate Change Adaptation Planning Guide (PCF)', and 'Template: Tribal Adaptation for a Climate Change Adaptation Initiative (PCF)'. The right window shows a Google Docs document titled 'Municipality Climate Planning Tools'. The document contains the following text:

Use for: Considering indigenous perspectives in city planning, particularly for health related metrics.

- b. [Tribal Climate Change Adaptation Planning Toolkit](#)

Category: Overview

Contact: [itep@nau.edu](mailto:itep@nau.edu) Institute for Tribal Environmental Professionals (ITEP)

- c. Dłibaginjgaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu

6. Community Planning

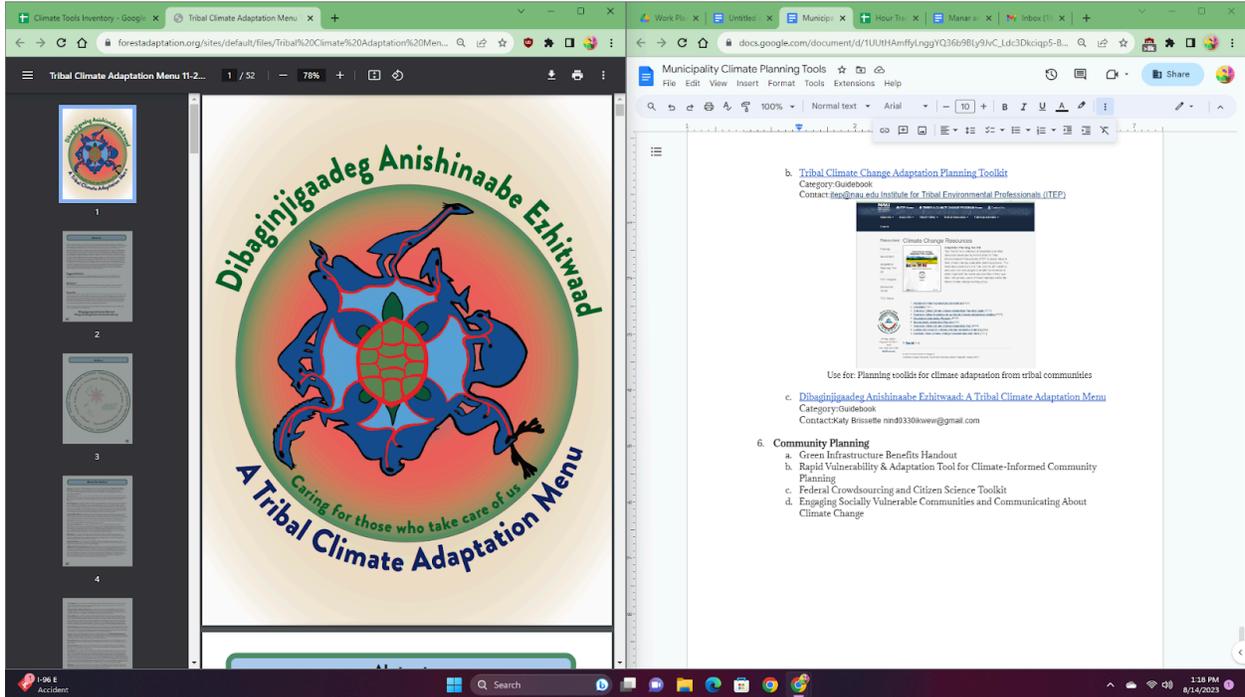
- a. Green Infrastructure Benefits Handout
- b. Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning
- c. Federal Crowdsourcing and Citizen Science Toolkit
- d. Engaging Socially Vulnerable Communities and Communicating About Climate Change

Use for: Planning toolkit for climate adaptation from tribal communities

## [Dibaginijigaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu](#)

Category: Guidebook

Contact: Katy Brissette [nind0330ikwew@gmail.com](mailto:nind0330ikwew@gmail.com)



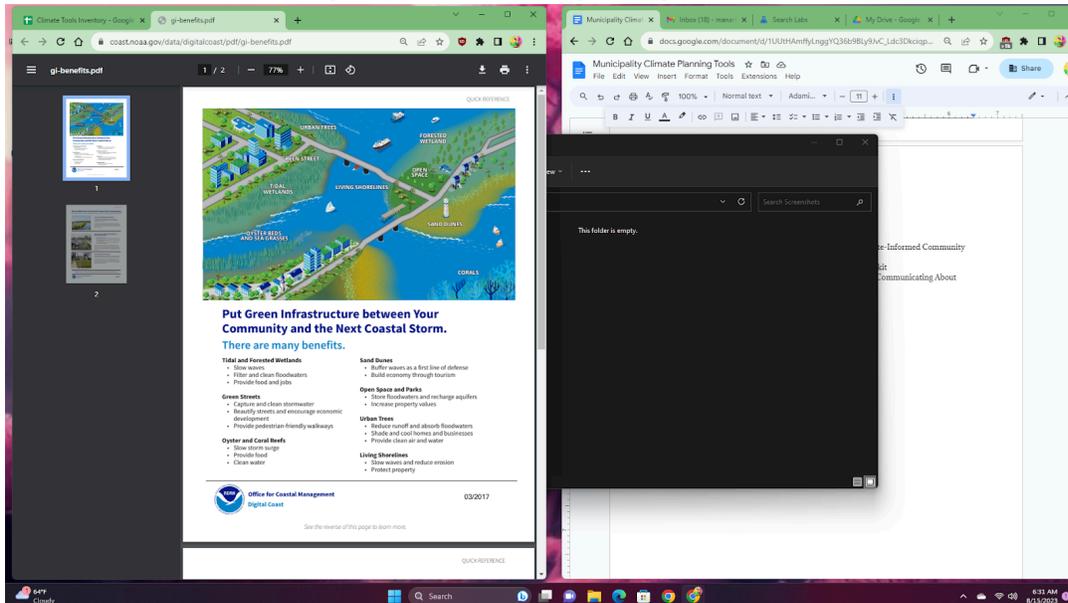
Use for: Climate adaptation planning from indigenous communities in the Obtawaing BR

## **Community Planning**

### [Green Infrastructure Benefits Handout](#)

Category: Guidebook

Contact: <https://coast.noaa.gov/contactform/?subject=digitalcoast>

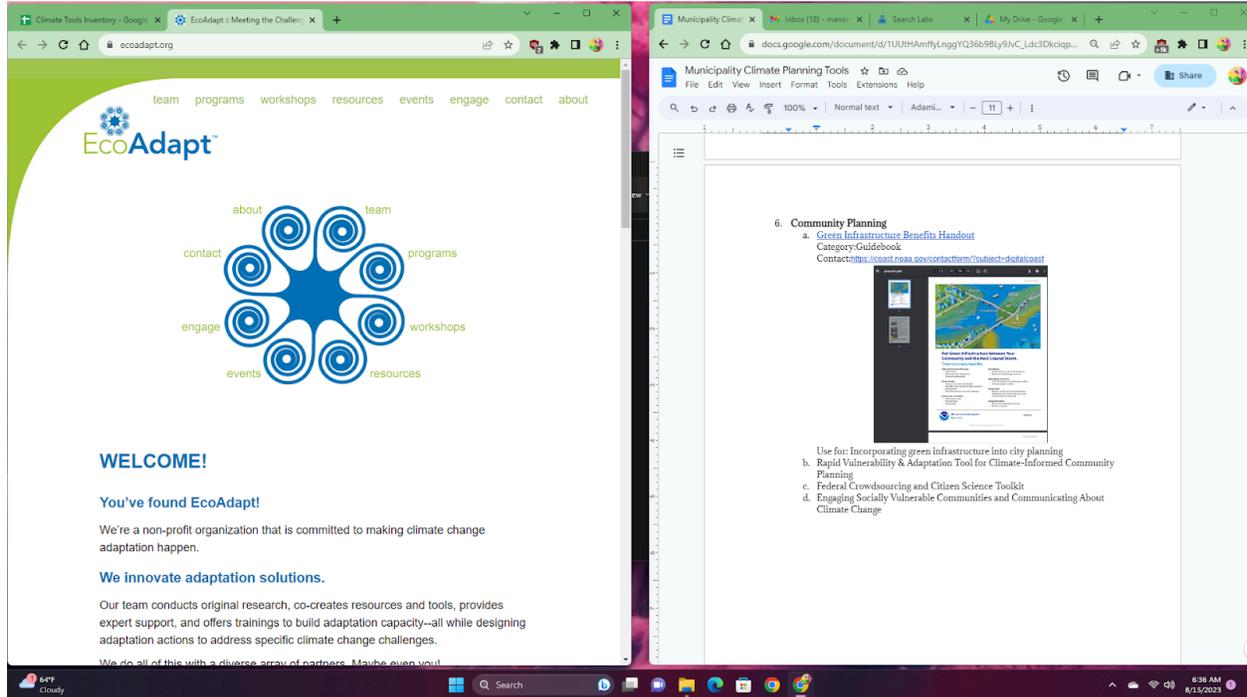


Use for: Incorporating green infrastructure into city planning

## [Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning](#)

Category: Guidebook

Contact: Lara J Hansen [Lara@EcoAdapt.org](mailto:Lara@EcoAdapt.org)

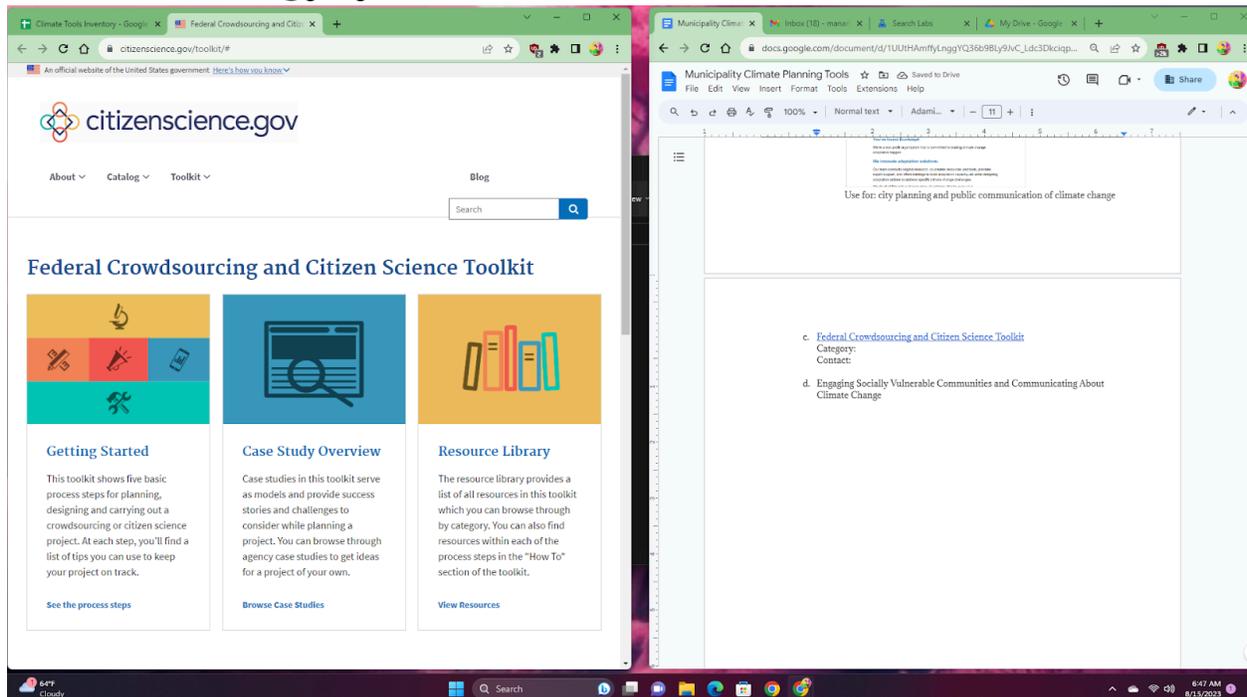


Use for: city planning and public communication of climate change

## [Federal Crowdsourcing and Citizen Science Toolkit](#)

Category: Interactive Website

Contact: [citizenscience@gsa.gov](mailto:citizenscience@gsa.gov)

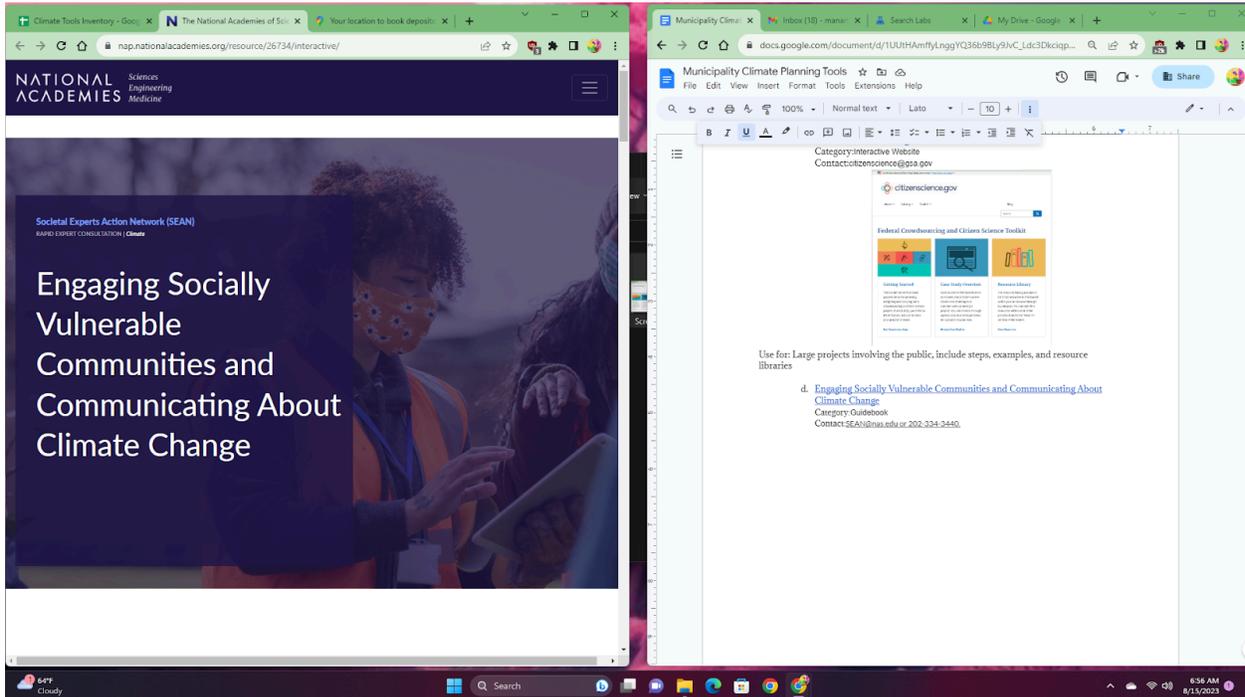


Use for: Large projects involving the public, include steps, examples, and resource libraries

# [Engaging Socially Vulnerable Communities and Communicating About Climate Change](#)

Category: Guidebook

Contact: [SEAN@nas.edu](mailto:SEAN@nas.edu) or 202-334-3440.



Use for: Communicating climate adaptation plan to communities, features 10 key steps and resources