Incorporating Climate Considerations into the 3 Rivers Watershed Based Plan

Jory Fleming
Background – Climate in the TRW Plan

Projected Change in Daily, 20-year Extreme Precipitation

Past & Present Sites for CISA Scenario Building

McCormick Taylor
Working with regional governments to incorporate climate into watershed-based plans

Congaree National Park

North Inlet Winyah Bay NERR

Orange Water and Sewer Authority

Charleston Resilience Network
Background – Climate in the TRW Plan

Climate Sub-Section

- Projections
- Planning
- Co-Benefits
- Equity

WTM Model

Watershed Demographics
Climate Sub-Section

Planning

Co-Benefits

Equity

Diringer et al. 2020
University of Richmond: Mapping Inequality  
Schell et al. 2020  
Chesapeake Bay Dashboard
Climate Sub-Section

Projections

Watershed

Number of Days with Maximum Temperature Over 95°F in Richland County, SC from 2021 to 2099 under a High Emissions Future Scenario (Model Data)

- Climate Model Range
- Climate Model Average

Year

Number of Days

Background Climate WTM Links
Around 2050, Columbia experiences an elevated annual precipitation total and several heavy rainfall events.
WTM Model

Annual Total Precipitation / 60 inches

Bacteria Runoff
Default / Increase 15%

Land Cover / GIS

Semenza, J. C. (2020)

USGS

Background ~ Climate ~ WTM ~ Links
Links – Watershed Demographics

Background

Climate

WTM

Links

USGS

LMI_PCT

- > 0.68
- 0.458
- < 0.24
Background Climate WTM

SC forests are protected for trapping carbon, with a little help from California

By Chloe Johnson chloejohnson@postandcourier.com
May 9, 2021 Updated Oct 28, 2020

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

July 20, 2021

M-21-28

MEMORANDUM FOR THE HEADS OF DEPARTMENTS AND AGENCIES

FROM: Shalanda D. Young, Acting Director, Office of Management and Budget
Brenda Mallory, Chair of the Council on Environmental Quality
Gina McCarthy, National Climate Advisor

SUBJECT: Interim Implementation Guidance for the Justice40 Initiative

President Biden is committed to securing environmental justice and spurring economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and health care. In Executive Order 14008, the President directed the Director of the Office of Management and Budget (OMB), the Chair of the Council on Environmental Quality (CEQ), and the National Climate Advisor, in consultation with the White House Environmental Justice Advisory Council (WHEJAC), to jointly publish guidance on how certain Federal investments might be made toward a goal that 40 percent of the overall benefits of such investments flow to disadvantaged communities—the Justice40 Initiative. The Justice40 Initiative is a critical part of the Administration’s whole-of-government approach to advancing environmental justice.

The following Interim Implementation Guidance for the Justice40 Initiative (“guidance” or “interim guidance”) provides the initial recommendations pursuant to section 223 of Executive Order 14008, and supports the Administration’s comprehensive approach to advancing equity for all in line with Executive Order 13985. The Executive branch should implement this guidance in accordance with existing authorities in order achieve the 40-percent goal.