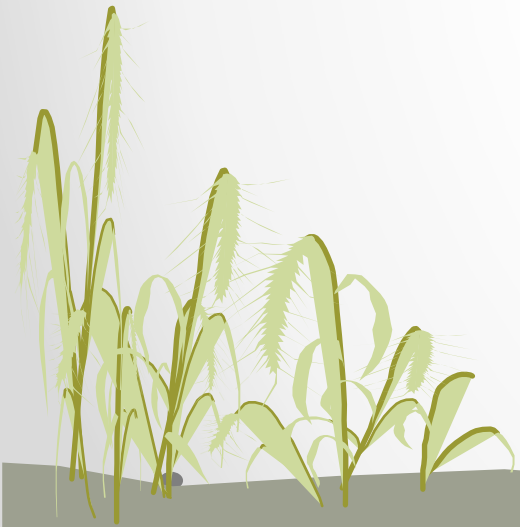


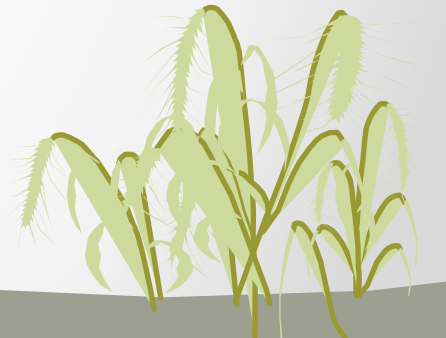
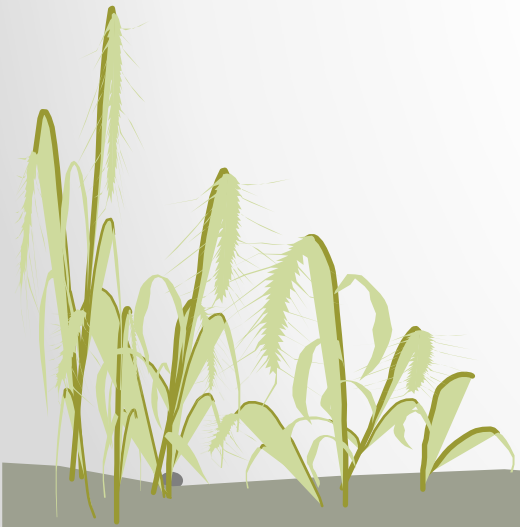
# Defense Resilience

Climate Adaptation in the 21<sup>st</sup> Century



# Topics

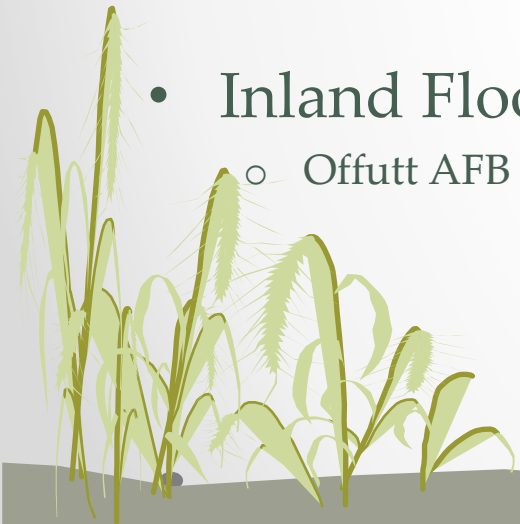
- Why the DOD cares
- New DOD Policy and Tools
- Work to Date in New Jersey
- The Future?



# Defense Resilience

## Why the DOD Cares

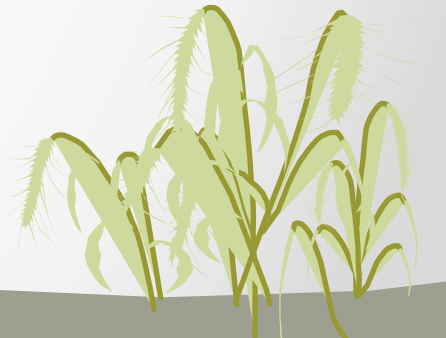
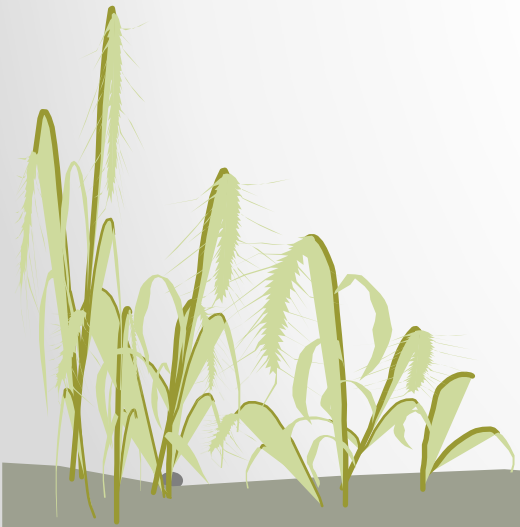
- Multiple Major Military Installations Damaged by Coastal Storms
  - Homestead AFB
  - Tyndall AFB
- Western Bases Under Drought Threat and Wildfires
  - Camp Pendleton
  - Fort Huachuca
- Inland Flooding
  - Offutt AFB



# Defense Resilience

## Why the DOD Cares

- Climate Change and Sea Level Rise
  - Extreme Weather Events
- Challenges to the Military Mission
  - Wildfire
  - Stormwater Flooding
  - Storm Surge
  - Recurrent Flooding



# Defense Resilience

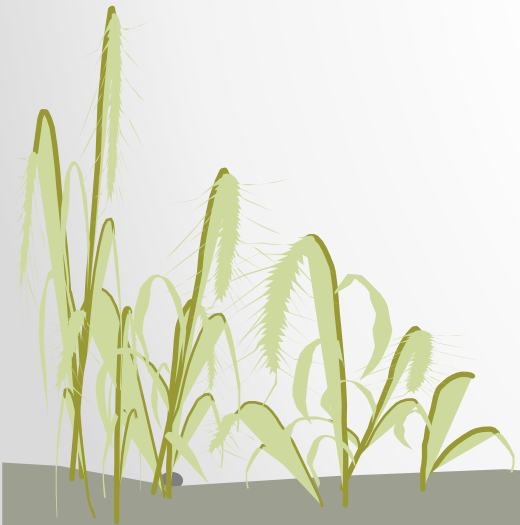
## Why the DOD Cares

- The Military Will Adapt on DOD land
- Critical Community Infrastructure
  - Without landscape scaled adaptation, the bases will become just islands in the stream



# Policy and Tools

- Readiness and Environmental Protection Integration (REPI) Program
- Office of Local Defense Community Cooperation (OLD CC)



# Policy and Tools

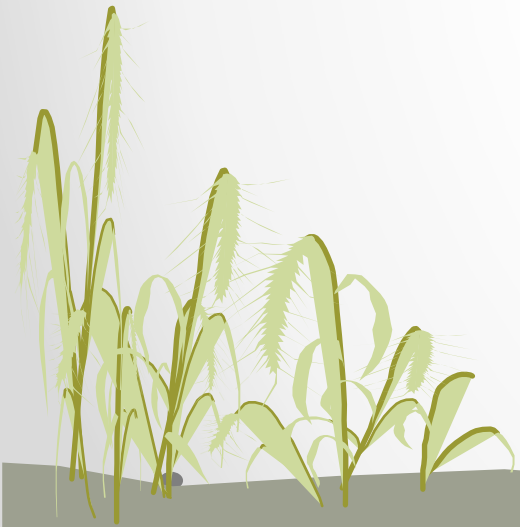
- REPI
  - 10 USC 2684a in 2003
  - Land Preservation Partnerships, Both Local and Regional
  - 757,297 Acres Protected
  - Total REPI Funding \$668M
  - Grand Total (REPI + Service + Partners) \$2,059M
  - \$50M to \$100M per year of DOD Funding
- Office of Local Defense Community Cooperation (OLD CC)
  - Compatible Use Plan (CUP), previously Joint Land Use Study (JLUS)
  - CUP Implementation Grants





# Policy and Tools

- New REPI Authorities
  - Military Installation Resilience
  - Intergovernmental Support Agreements (IGSAs)
    - Like a Local Government's Shared Service Agreement
  - Sikes Act Resilience Grants
    - Naval Weapons Station Yorktown Oyster Reef Living Shoreline

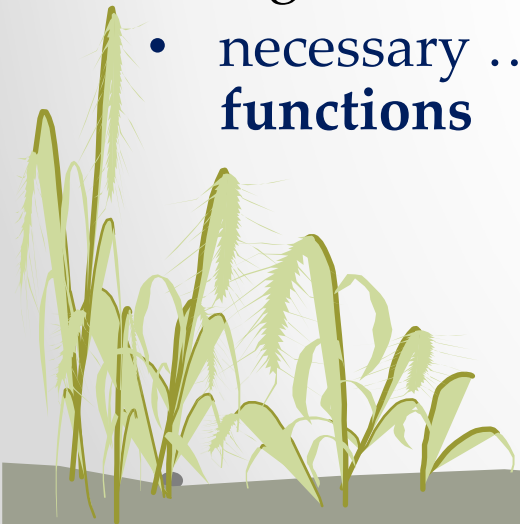




## Policy and Tools

# Definition of Resilience

- 10 USC 101(e)(8) MILITARY INSTALLATION RESILIENCE;
- The **capability** to avoid, prepare for, minimize the effect of, adapt to, and recover from
- **extreme weather or changes** in environmental conditions
- that [may] adversely affect the **military** installation or essential transportation, logistical, or other necessary **resources outside** of the military installation
- necessary ... to maintain, improve, or rapidly reestablish ... **mission-essential functions**



# Policy and Tools

## New REPI Authorities

- Military Installation Resilience
- Intergovernmental Support Agreements (IGSAs)
  - Like a Local Government's Shared Service Agreement
- Sikes Act Resilience Grants
  - Naval Weapons Station Yorktown Oyster Reef Living Shoreline



# Policy and Tools

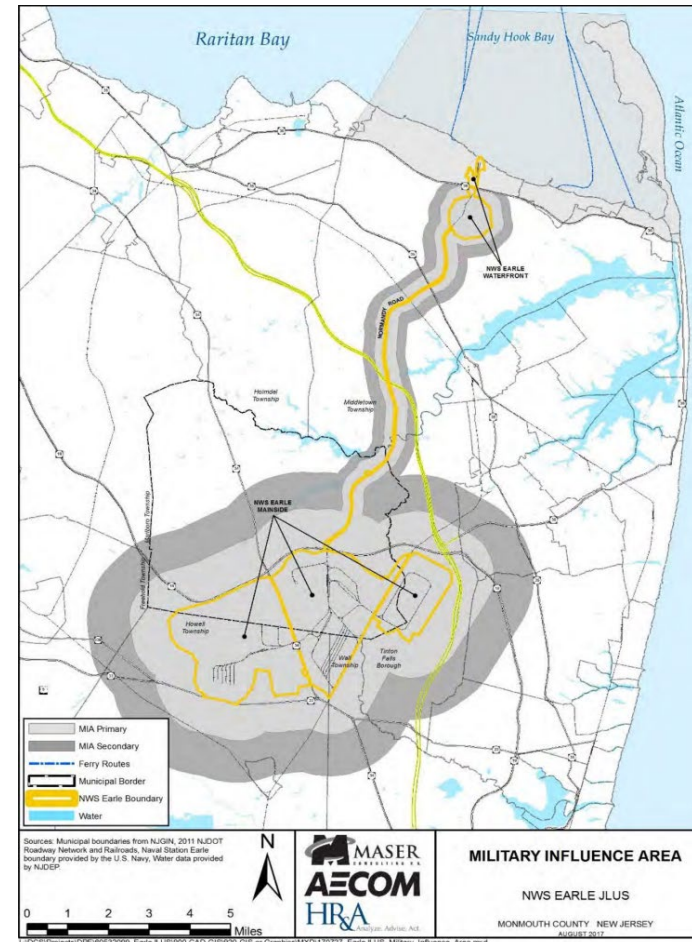
## REPI Program

- REPI 1.0 - Military Base Buffers
- REPI 2.0 – REPI Challenge
- REPI 3.0 - Sentinel Landscapes



# New Jersey Resilience

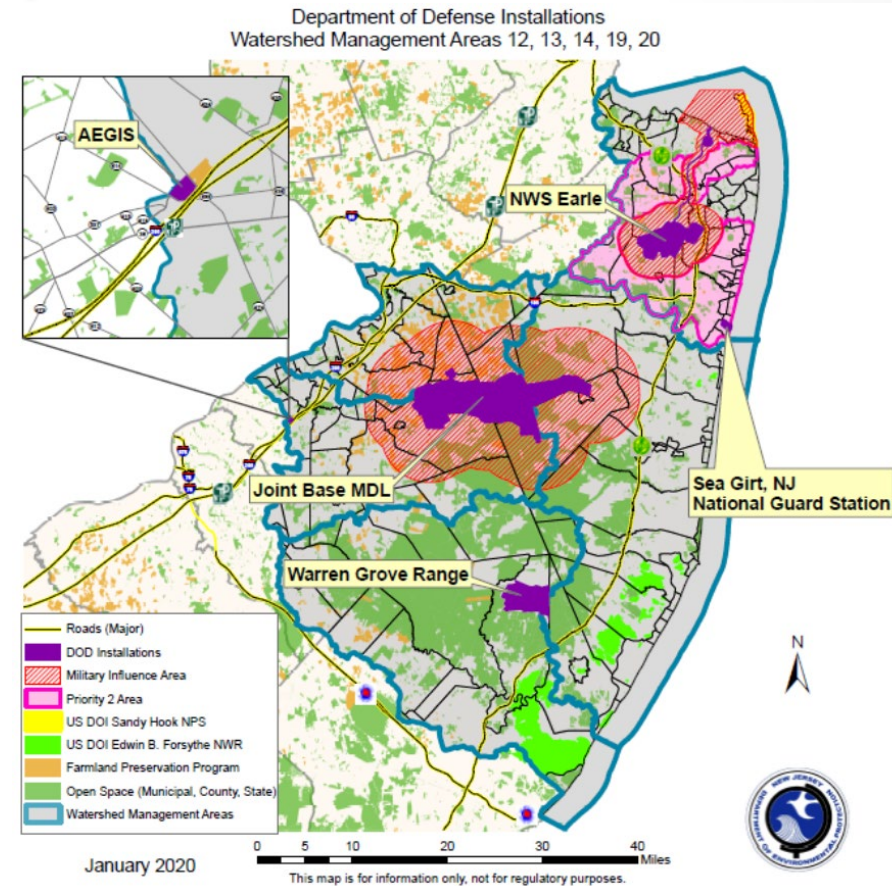
- Naval Weapons Station Earle
  - 11000 acres
  - Pier Complex on Lower New York Harbor
  - “Mainside” Headwaters for Five Streams – Atlantic Coastal Lakes and Northernmost Barnegat Bay
  - REPI “1.0” Military Influence Area Buffer 2018





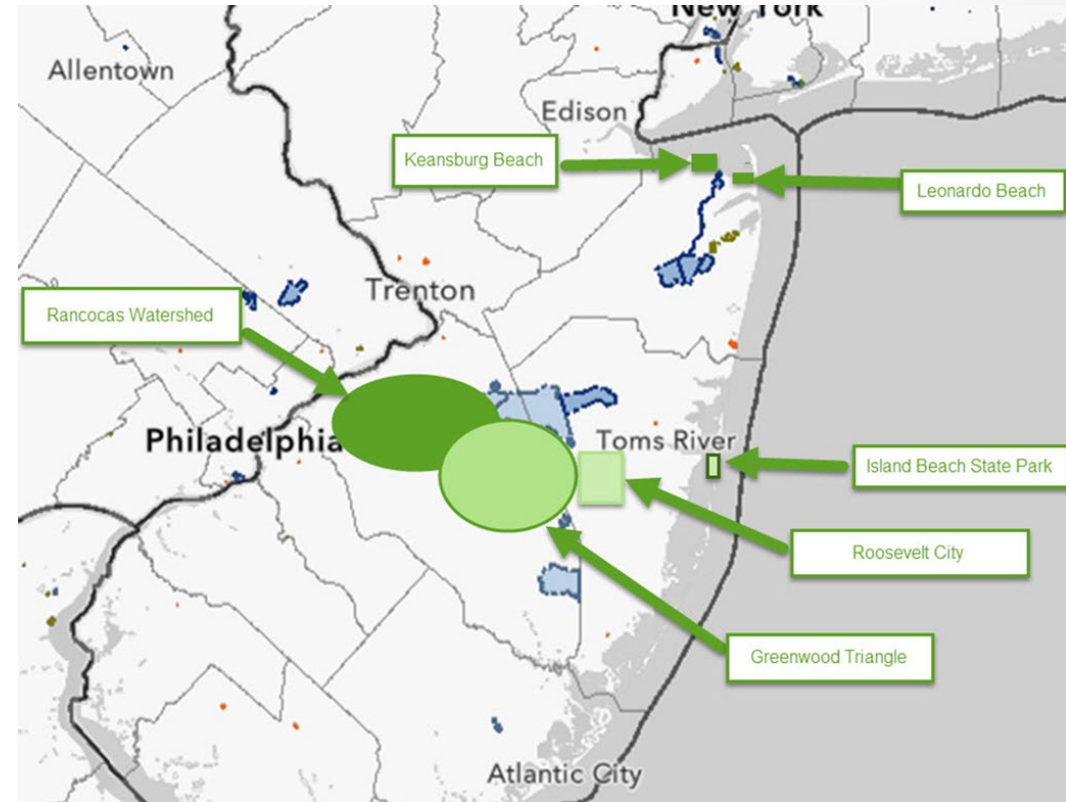
# New Jersey Resilience

- New Jersey REPI Challenge 2020
  - 1.7M Acres & 1.6M People, ¼ of the State
  - Protect 5 Bases and Their Communities
  - Five NJ Watersheds
    - Barnegat Bay
    - Lower New York Harbor
  - Actions
    - Stream and Coastal Lake Restoration
    - Salt Marsh Restoration
    - Back Bay Protection
    - Wildfire Hazard Reduction
  - REPI 2.0 – Protect Multiple Bases + ½ the Coast



# New Jersey Resilience

- First Year (2021) Tasks - \$1.9M
  1. Greenwood Triangle – Wildfire Risk Reduction between JB MDL and Warren Grove military ranges - \$300K
  2. Roosevelt City Fire Break –Wildfire Risk Reduction (highest in NJ, similar to Paradise CA) - \$380K
  3. Rancocas Watershed – Increase Stormwater Capacity for two DOD facilities and along I-95 corridor - \$150K
  4. Island Beach State Park – Living Shoreline to protect back bay and barrier island - \$500K
  5. Keansburg Beach – Living Shoreline to increase storm surge resistance - \$105K
  6. Leonardo Beach – Living Shoreline for storm surge - \$500K





# New Jersey Resilience

## Navy Pier Actions

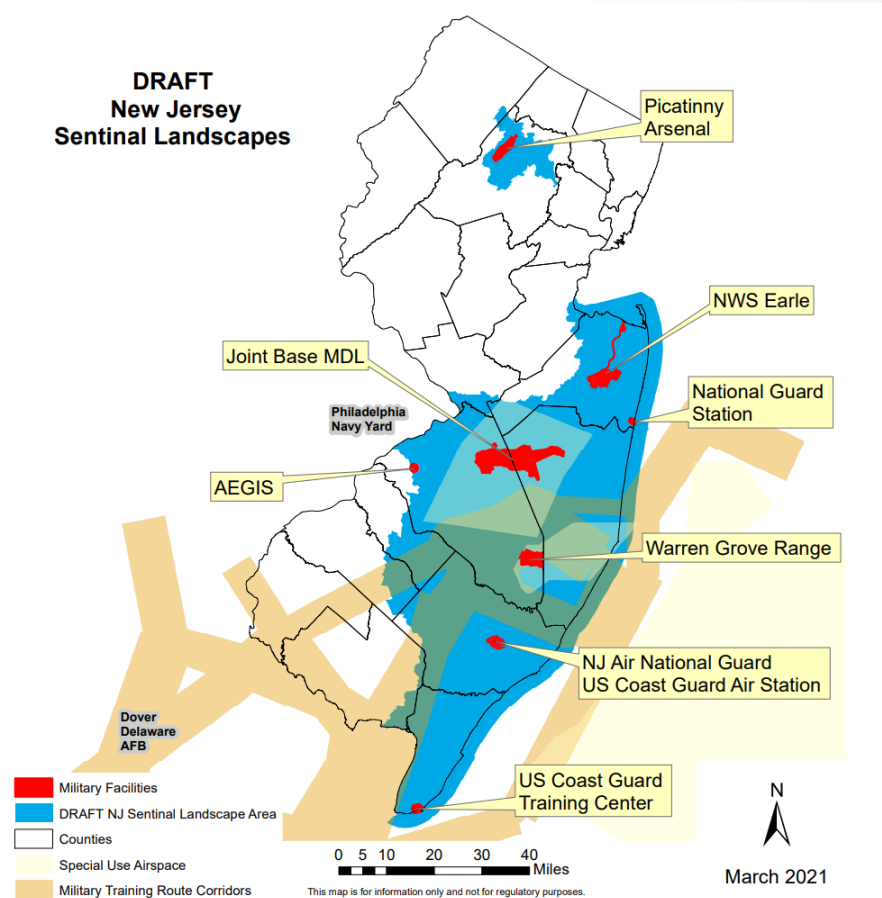




# New Jersey Resilience

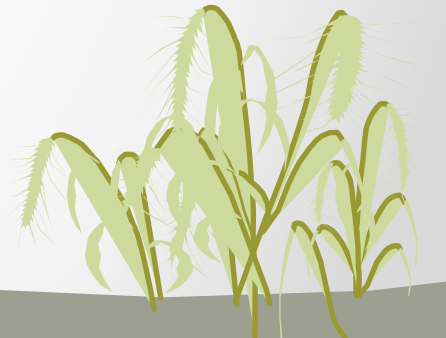
- Proposed Sentinel Landscape – REPI 3.0

- ½ the State & 1/3 its People
- Protect 8 Bases and Their Communities
  - Army, Navy, Air Force, Coast Guard and National Guard
- 12 of 21 Counties
- Estuaries
  - Lower New York Harbor
  - Barnegat Bay
  - Great Bay
  - Delaware Bay
- Actions
  - Stream Restoration and Upland Protection
  - Coastal Lake Restoration
  - Salt Marsh Restoration
  - Back Bay Protection
  - Wildfire Hazard Reduction
- Not Approved in 2021



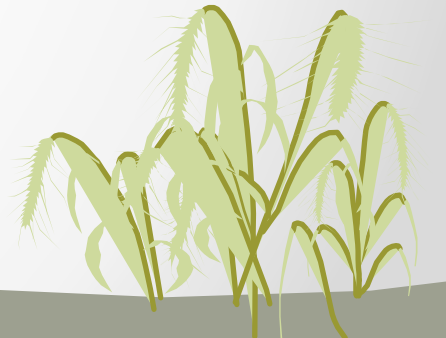
# The Shape of Things To Come

- Utilize the New Congressional Authorities - Green Infrastructure
- Build Broad Coalitions
  - Federal Departments, Military Installations, Local Governments, and NGOs
- Establish a New Jersey Sentinel Landscape Focused on Resilience through Protection of Interior Upland Areas, Restoration of Stream Corridors and Coastal Lakes, as well as Restoration of Estuaries and Associated Shorelines



# But WILL The Changes Come?

- Military Bases Isolated from their Communities
- NGOs Don't Speak the Military's Language
- Need "Shovel Ready" Projects that Enhance Resilience
- Lack Coordination Between Multiple Levels of Government



# Takeaway

Resilience actions this decade will set the pattern  
for the balance of the century

It's the difference between  
orderly adaptation and panicked retreat  
from the existential challenges of climate change



# Contact Information

Dennis Blazak

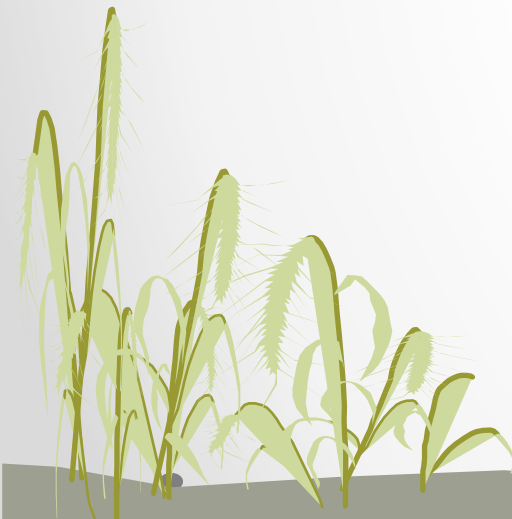
Former Community Plans and Liaison Officer  
(now happily retired)

for

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# References

- DOD REPI Program - [www.repi.mil](http://www.repi.mil)
- NAVFAC Climate Change Handbook - [www.wbdg.org/FFC/DOD/DODHDBK/NAVFAC\\_CC\\_Handbook\\_012017.pdf](http://www.wbdg.org/FFC/DOD/DODHDBK/NAVFAC_CC_Handbook_012017.pdf)
- Sentinel Landscapes - [sentinellandscapes.org](http://sentinellandscapes.org)
- Office of Local Defense Community Cooperation - [oldcc.gov](http://oldcc.gov)
- Monmouth County Planning – [www.visitmonmouth.com/page.aspx?ID=140](http://www.visitmonmouth.com/page.aspx?ID=140)

