

EARTH, WATER, AND FIRE: THE FUTURE OF THE GDSNWR IN A CHANGING CLIMATE

A REPORT BASED ON FIRE MITIGATION AND ADAPTATION IN A CHANGING CLIMATE

OBJECTIVES

- Adaptation and mitigation research
- Fuel load estimates
- Public perceptions survey

Want to learn more?

Contact me:

Michala Hendrick

mhend011@odu.edu



Steve Bingham/USFWS

CASE STUDY DESCRIPTION

- Due to centuries of drainage, logging, human encroachment, wildfire suppression, and the impacts of climate change, Great Dismal Swamp National Wildlife Refuge (GDSNWR) is experiencing drier, non-optimal conditions.
- This has shifted fire dynamics and exposed organic peat soils, increasing the risk of a catastrophic wildfire. The GDSNWR faces a wicked problem in reducing the risk of wildfire under changed and future conditions.
- Our research: adds to the growing exploration of prescribed fire management at GDSNWR.
- Increasing the application of prescribed burns benefits the surrounding community in the form of reduced risk of catastrophic wildfire, the preservation of healthy forest habitats, improved hydrologic conditions and avoidance of economic and health impacts.

PRIMARY RECOMMENDATIONS INCLUDE:

1. Organize a team of annual researchers, fire staff, and interns to conduct appropriate annual fuel load estimates in preparation for winter burns.
 2. Expand partnerships
 3. Support policy for prescribed fire programs on private land
 4. Utilize surrounding stakeholders, (i.e. NCDSSP, GDSSC) to consider collaborative planning.
- Adaptive management strategies and emergency planning will be needed in the future, which can be aided by increasing those involved in decision making spaces.