



MOSAICS IN SCIENCE Diversity Internship Program 2021 Project Descriptions

NPS UNIT: NATCHEZ TRACE PARKWAY		PD #: 2021511
Project Title: Natural Resource Intern for Night Skies Lighting Inventory, Natural Sounds Data, and GIS Position Type: Mosaics PLC Primary natural resource discipline: Biological Sciences Project keywords: Night Skies, Natural Sounds, GIS, Inventory, Natural Resources Location: Tupelo, Mississippi		
COVID-19 NOTICE		
As the COVID-19 pandemic continues to change and evolve, project timelines and structure remain flexible and it may be necessary to postpone start dates, begin work remotely, or reformulate the project's description. Should any development in the COVID-19 outbreak impair a project's timeline or results, the SIP Team will work with the park and project mentors to assess the situation and determine the best course of action at that time.		
PROJECT DESCRIPTION AND WORK PRODUCTS		

Position Description: The SIP intern will assist the Natchez Trace Parkway's Resource Management division conduct a lighting inventory for park facilities and use data to help plan projects to install energy efficient and night sky friendly lighting. This will require travel, field work, and the use of a GPS along the entire Parkway, which spans 444 miles. The data will need to be collected and managed per NPS GIS standards. The intern will also collect baseline natural sounds data using sound monitoring equipment in advance of an upcoming road project to install audible pavement markers along the Parkway motor road. This is to provide information for a pilot project to improve driving safety by installing audible pavement markers, however the park needs baseline data to compare changes in soundscapes after construction. The intern will need strong GIS knowledge and skills and will assist with other natural resource data projects including data collection of agricultural lease tracts pesticide use and a native meadow restoration project. The intern's time will be split between field and office work.

The Natchez Trace Parkway's Resource Management (RM) Division would like to continue gaining more information about Night Skies and Natural Sounds (NS/NS) for the park and use this data to help make improvements and mitigations for these natural resources. After analyzing several park projects, the RM division determined data needs for NS/NS information including a lighting inventory and baseline soundscape data. This information will help develop project mitigations as the park continues to work with NS/NS division for guidance on project impacts. This project will provide a meaningful experience for an intern as it encompasses both a variety of field work along the entire length of the Parkway that will support park decisions for current and future projects. The work will require a fair amount of office work including GIS data processing. The Natural Resource Program Manager will allow the intern to be involved in other RM projects and provide cross training opportunities with other divisions if desired. The intern will be expected to work independently a majority of the time, however they will also work closely with NPS staff for guidance and feedback.

This position is offered through the National Park Service's Mosaics in Science Internship Program in partnership with Environment for the Americas.

Work Products: The internship will result in a lighting inventory, maps, and suggested plans for upgrading light fixtures to more sustainable and night sky friendly fixtures. The internship will also develop baseline sound data for various locations in the park and provide a comparison to sound levels of other roads with audible pavement markers. The internship will also assist with other on-going mapping and natural resource documentation projects.

NATURAL & PHYSICAL WORK ENVIRONMENT

The office setting will include a desk for the intern to work and government furnished computer in the RM office house. Field work will occur mainly in developed areas of the Parkway around facilities to document the lighting inventory and to collect sound data. There will be some additional field work opportunities that will involve walking on uneven terrain during the summer months with hot, humid and buggy conditions. Temperatures include hot summer days and nights (average 87°F) with high humidity resulting from afternoon showers, and milder temperatures for autumn. Elevation is low and flat in the central and southern parts of the park, becoming hilly towards the foothills of the northern part of the park. Some overnight travel will be required to conduct all the field work along the park, which will include hotel accommodations. Although there are many rural areas of the Natchez Trace Parkway, most of the park is readily accessible from the Parkway motor road and surrounded by communities with basic amenities, including several large cities.

QUALIFICATIONS

Almost any science or resource management degree is acceptable, however the intern must have strong GIS training and skills. The intern should be familiar with ArcGIS Pro and ArcGIS Online, and collecting data on a GPS device. Intern will be expected to work independently on these programs, however some training and guidance will also be available.

The applicant must be a U.S. citizen or U.S. permanent legal resident (“green-card-holder”) between the ages of 18 and 30 years old, inclusive, or veterans up to age 35. Prior to starting this position, a government security background clearance will be required.

VEHICLE AND DRIVER LICENSE REQUIREMENTS

Applicant must have a valid drivers license and a good driving record.

A personal vehicle is REQUIRED for this position.

HOUSING

Park housing is NOT available. The intern will be responsible for finding housing in the nearby area. Park housing is not available, however there are both apartment complexes that offer 6 month leases for around 800\$ per month, and extended stay hotels that rate at 58\$ per day.

INTERNSHIP START/END DATES

Start Date: 5/17/2021

End Date: 7/30/2021

Eleven weeks of the internship will be in the park. A mandatory Career and Leadership Workshop will be held in Washington, D.C. from August 1 – 5, 2020.

PLEASE DIRECT ANY QUESTIONS TO ENVIRONMENT FOR THE AMERICAS

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