Project Atlas Overview

NCDOT Project ATLAS
Advancing Transportation through Linkages, Automation, and Screening

- GIS based regional modeling effort that aligns with the Secretary’s Priorities under Improve Program Delivery and Reduce Cash Balance
- Goal is to streamline project development through GIS-based data on a regional level
Project Atlas Team

Western Regional Manager:
Adam Spiller – adam.spiller@kci.com

Central Regional Manager:
John Jamison – john.jamison@hdrinc.com

Eastern Regional Manager:
Susan Westberry – swestberry@sepiengineering.com

Extra-Regional Manager:
Anna Reusche – anna.reushe@timmons.com

NCDOT Project Managers
Morgan Weatherford - mdweatherford@ncdot.gov
Leilani Paugh – lpaugh@ncdot.gov

Statewide Coordinator
Wendee Smith – w.smith@nserv.com

GIS Services
Ryan Arthur - rarthur@ncdot.gov
Eric Wilson - Eric.Wilson@kci.com

2018-2027 STIP Projects
Division Boundary
County Boundary
Regions
- Asheville
- Charlotte
- Fayetteville
- Goldsboro
Project ATLAS

• Reaches across many disciplines
  – Wetlands and Streams
  – Protected Species
  – Sweeping Environmental
  – Historic Resources
  – Traffic Forecasting
  – Community Studies
  – Bicycle and Pedestrian
  – Right-of-Way
  – Utilities
Project Atlas Objectives

• GIS Data Layers
  – Identify all data used to evaluate projects
  – Improve data layers and create new layers where none exist
  – Work with agencies to improve confidence in data
  – Connect data so it is accessible to everyone
Project Atlas Objectives

• Streamline Project Development
  – Evaluate projects on a regional scale using GIS based tools
  – Early screening of projects to identify issues that may affect scope, schedule and budget
  – Automated reporting to reduce repetitive manual tasks (Scoping report, Prelim Hydro Report, etc.)
  – Provide one-stop-shop for a project in a geospatial format to improve efficiency and communication
Project ATLAS Status

• ATLAS Team continues to work across Units to connect all Units and Systems (SAP, SharePoint, SMO, ECM).

• Discipline Leads engaging Agencies in proposed streamlining processes and vetting of data and models.

• GIS Business Analysts and Developers working on search, screening, and management tools.
Overall Transportation Project Process

• Step 1: Planning
  – Comprehensive Transportation Planning (20-25 years)

• Step 2: Programming
  – State Transportation Improvement Program (10 years)

• Step 3: Project Development and Env. Analysis
  – Project is funded and proposed project is evaluated

• Step 4: Design
• Step 5: Property Acquisition
• Step 6: Construction
Starting Out

What does expediting project delivery really mean?

Isn't "everything" we do related to project delivery?

Where is the data to support this?

Who is involved in project delivery?

What have other DOT's done?
Whiteboardin’ and...
Drawings to Diagrams
What is project scoping?

SCOPING Process

Transportation Personnel

Internal Scoping Activities

Transportation & Agencies

External/Interagency Scoping Activities

Scoping Objectives:
- Understand the **Problem** - history and context
- Understand **resources** within the area
- Identify **issues**, constraints
- Discuss **potential ideas** for Solutions
- Plan project **approach & next steps**
Advancing Transportation through Linkages Automation and Screening

Data Gateway
August 2018
A gateway to search and retrieve verifiable, current and accurate project related data.
Addresses NCDOT’s need to have consistent data available to Project Managers and Consultants.

Screening Tool
August 2018
A powerful web-based tool to evaluate potential impacts to NCDOT projects using GIS data and predictive modeling.
Allows Project Managers and NCDOT Consultants to understand and coordinate earlier about challenges projects will encounter.

Project Management Platform
October 2018
A unified toolset for Project Managers to assess and monitor their projects via the web.
Allows Project Managers and Consultants a common platform to access current project data, historic project data, current deliverable status, and visualize project progress.

And Supporting Automation...
Data Facts

• 498 Total Layers
• 327 Used in Decision making
• 226 Used in Screening a project

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ATLAS Data Search Tool
ATLAS Screening Tool

Area of Interest (AOI) Information
Area: 233,203.244.01 ft²
Aug 2 2019 0:14:50 Eastern Daylight Time

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NCDOT_STIP - STIP Line Features

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Project Management Platform

- Login
- PM/IDOT User Consultant
- MGMT
- Select Project
- Map
- Problem Children
  Simple Search
- KPI Metrics
- SAP
  SharePoint Metrics
  Project Health Rating
  Deliverables
- Advanced Map Viewer
  - NCDOT Web Services
  - External Web Services
  - SharePoint
  - SAP Milestone?
  - Spatial Data Repository
- NCDOT ATLAS Web Services
- ATLAS SDE

- Feasibility Design/Costing
- Community Char.. Report (CCR)
- Indirect & Cumulative Effects Report (ICE)
- Archaeology Screening Report
- Historic Survey & Elig. Report
- Community Impact Assessment Report (CIA)
- Traffic Noise Analysis Report
- Air Quality Analysis Report
- ICE Land Use Scenario Assessment (LUSA) Report
- Comprehensive Arch. Survey Report
- Capacity Analysis Report
- Traffic Forecast
- GeoEnvironmental Report
- Project Management (Survey Limit/Photogrammetry)
- NITR-General
- NITR-Plants
- NITR-Aquatics
- NITR-Communities
- NITR/ID-Wetlands delineation
- NITR/ID-Streams delineation
# Project Management Platform

## CATEX Process Forms

<table>
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<tr>
<td>2. PURPOSE &amp; NEED</td>
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<tr>
<td>3. PROPOSED ACTION</td>
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<td>4. PUBLIC INVOLVEMENT</td>
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<td>5. CULTURAL RESOURCES</td>
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<td>7. SECTION 4(f)</td>
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<td>8. SPECIAL STATUS SPECIES</td>
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<td>9. WETLANDS AND WATER RESOURCES</td>
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### Show Navigation

- 1. General Information
- 2. Purpose & Need
- 3. Proposed Action
- 4. Public Involvement
- 5. Cultural Resources
- 6. Paleontological
- 7. Section 4(f)
- 8. Special Status Species
- 9. Wetlands & Water Resources
- 10. Stormwater & Floodplain
- 11. Noise
- 12. Air
- 13. Hazardous Waste
- 14. ROW and Relocations
- 15. Other Environmental Factors
- 16. Conclusion
Project Management Platform

**CATEX PROCESS FORMS**

1. **General Information**
   - Project Name:
     - Enter a name for this project
   - Project Number:
     - Enter Project #
   - Enter Pin:
     - Enter Project
   - Region:
     - Select Region
   - County:
     - Select County
   - Project Preparer:
     - Carissa Watanabe
   - Estimated Completion Date:
     - Select Duration
     - Select Date
   - Document Type:
     - Select Type

*denotes required field*
Questions