

# Utilizing Esri Applications to Design a Joint Use Workflow

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Horry Electric Cooperative

Conway, South Carolina

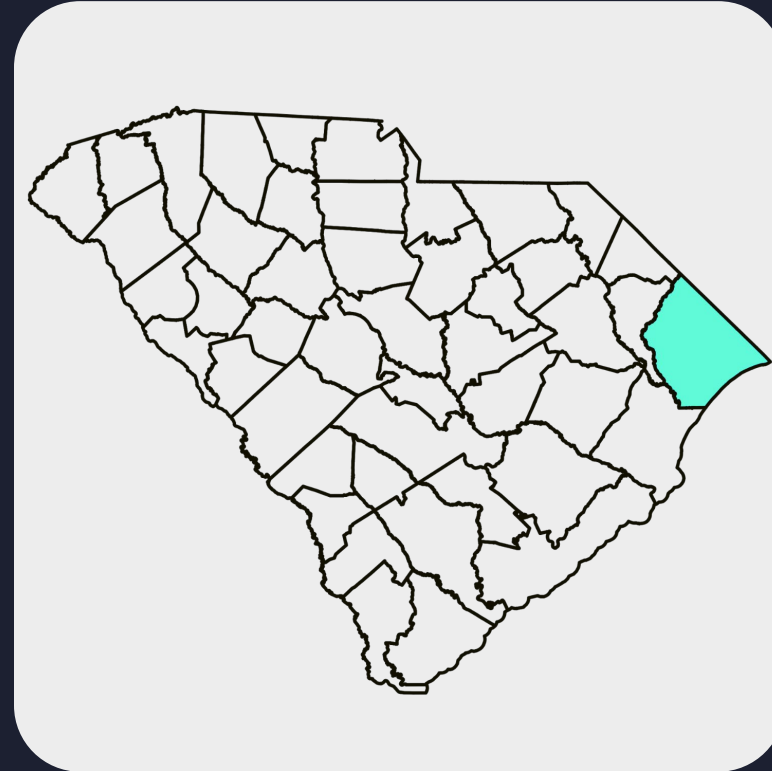


# Introduction

- GIS Administrator at Horry Electric Cooperative
  - Towson University
    - Bachelor of Science in Geography & Environmental Planning, Minor in GIS
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# Horry Electric Cooperative

- Over 70,000 Members
- 84,507 Meters
- 25 Substations
- 5,476.73 Miles of Line
- 878 sq miles of territory



# The Challenge

- Broadband initiatives
  - Rapid growth in county
    - + 31.6% April 2010 – July 2019 (U.S. Census Bureau)
  - Paper process
    - Applications
    - Spreadsheet tracking
    - Communication via phone and email
    - Discrepancies between cooperatives
    - Billing per attachment
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**APPENDIX A-1  
ATTACHMENT REQUEST (APPLICATION)**

Licensee hereby requests permission pursuant to its Pole Attachment License Agreement to make new Attachment(s) to Poles, remove Attachment(s) to poles, or hereby notifies Cooperative that it intends to ~~Overlash~~ cables affixed to Poles, all as shown on the attached construction plans and drawings.

The attached plans and drawings show the Poles Licensee desires to Attach or ~~Overlash~~, the number and character of Attachments proposed, any Rearrangements requested with respect to existing wires, fixtures or apparatus, any relocations or replacements of existing Poles requested, the heights of all points of attachment, all mid-span clearances, and any new Pole placement requested. Should additional information be required by Cooperative for verification of compliance with NESC or other applicable standards, Licensee will provide such information.

Licensee certifies that all necessary rights-of-way, easements, permits, and consents have been obtained from the owner(s) on which the Poles being attached to are currently located or will be located. Payment for the Application Fee, if required, is included.

**LICENSEE**

Company			Name		
Project			Address		
Request #			Phone		
Request Date			Fax/Email		
See attached maps	Attachment Summary				
Total	New		<del>Overlash</del>	Remove	
	<input type="checkbox"/> Application Fee	\$50.00	<input type="checkbox"/> Attachment Details/Engineering Plans		

**COOPERATIVE RESPONSE**

Approved		Denied		Name	
Denial Reason				Signature	
Job/Tracking #				Phone	
Review Date				Fax/Email	

**MAKE READY WORK REQUIRED**

- No. The referenced request for Permitting Attachment is approved as shown in Licensee's Engineering Plans, subject to the terms of this Agreement. Consent to Attach, Appendix A-2, is approved.
- Yes. Please approve the estimated Make Ready Engineering Fee on Appendix A-3 so the Make Ready Estimate schedule can be prepared. The field engineering should be completed within \_\_\_ days (not to exceed fifteen (15) days for most applications). Make Ready Engineering must be completed before receiving the Consent to Attach, Appendix A-2. Please return signed approval form.

<b>NAME</b>		<b>SIGNATURE</b>	
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By signing the above, Licensee Indicates that it desires to proceed with Make Ready Work, pending its approval of the Make Ready Estimate to be provided by Cooperative on Appendix A-3. If not approved, please notify Cooperative.

**APPENDIX A-2  
CONSENT TO ATTACH AND  
CERTIFICATE OF COMPLIANCE**

**CONSENT TO ATTACH**

<b>LICENSEE</b>		<b>APPLICATION DATE</b>	
<b>JOB/TRACKING</b>		<b>PAYMENT DATE</b>	

- Application approved with no Make Ready Work Required.
- The Make Ready Work for the approved Poles was completed on \_\_\_\_\_.

Attachments in connection with Job/Tracking Number \_\_\_\_\_ may be made within 120 days of the date above, unless an extension is reasonably agreed to. Attachment changes (Add/Remove) will be reflected in the annual Attachment Fee Statement.

**A Permit for these Attachments will be issued upon receipt of the Certification below.**

Name: \_\_\_\_\_ Signed: \_\_\_\_\_  
Date: \_\_\_\_\_ Phone: \_\_\_\_\_

**CERTIFICATE OF COMPLIANCE**

I HEREBY CERTIFY that the Attachments made under the above Job/Tracking Number are of sound engineering design and comply with the National Electrical Safety Code (NESC), latest edition, Specifications of the Agreement, and the Rules (Appendix R) and were constructed substantially as provided in the Make Ready Engineering Plans. If no Make Ready Work was required, Licensee's Application Fee is included with this Certificate of Compliance.

If this Certifies only a portion of the Poles under this Request Number, please include a list of the Poles to which this Certificate applies.

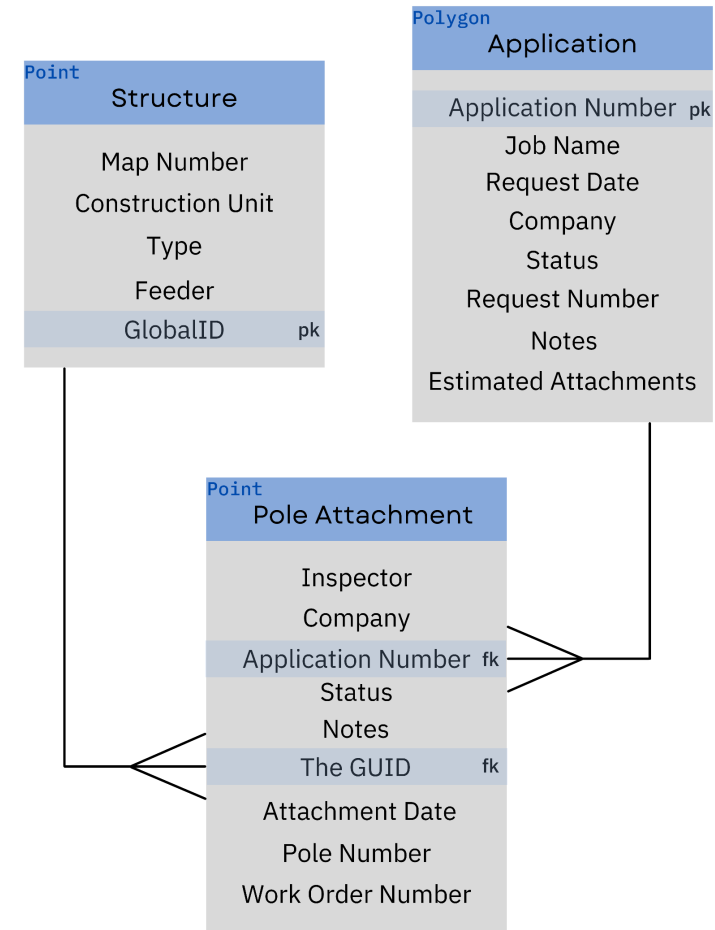
Name: \_\_\_\_\_ Signed: \_\_\_\_\_  
Date: \_\_\_\_\_



# Database

- **Structure**  
our pole assets
- **Application**  
paper application
- **Pole Attachment**  
Attachment assets in field

Enterprise Geodatabase; published feature services from ArcMap to Portal, added to AGOL via URL.  
Portal version: 10.61  
ArcMap version: 10.6.1



# Esri Applications

- **Survey123**  
Allows companies to submit applications directly into our GIS
  - **Web App**  
Managing and creating applications and attachments (web app builder)
  - **Field Maps**  
Primarily used to update pole attachments while in the field
  - **Dashboards**  
Tracking and visualizing application and attachment data
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# Survey123

- We receive an application
  - Paper or through survey123\*
    - If submitted on paper, we draw application area using the web application.
    - If submitted via Survey123 by the company, the application polygon will automatically upload.

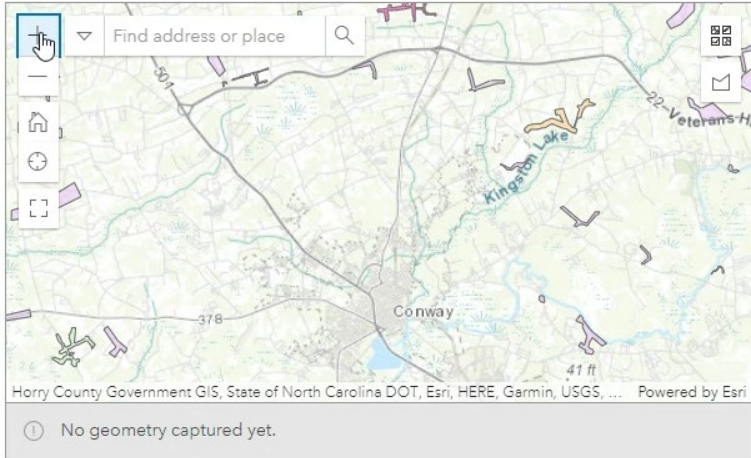
## Joint Use Application

### Upload Scanned Paper Application

1

#### Application Area\*

Please use the map below to draw a polygon around our poles you plan to attach to.



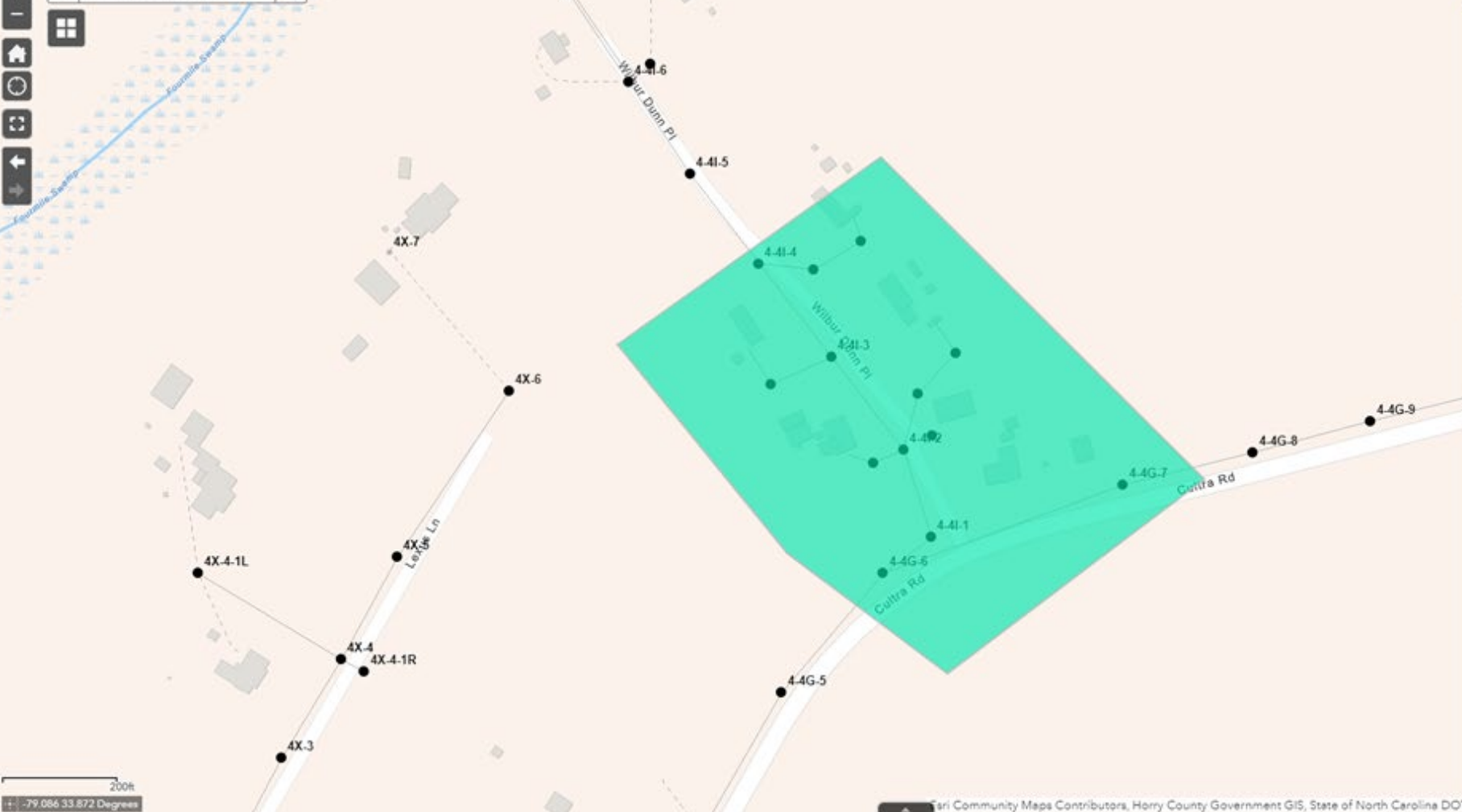
Horry County Government GIS, State of North Carolina DOT, Esri, HERE, Garmin, USGS, ... Powered by Esri

ⓘ No geometry captured yet.

Application Number\*

Job Name\*

Find address or place



Smart Editor

Joint Use Applications

Application Number

Job Name

RequestDate

Company

Status  
Pending

Request Number

Notes

Estimated\_Attachments

Attachments:  
 No file chosen

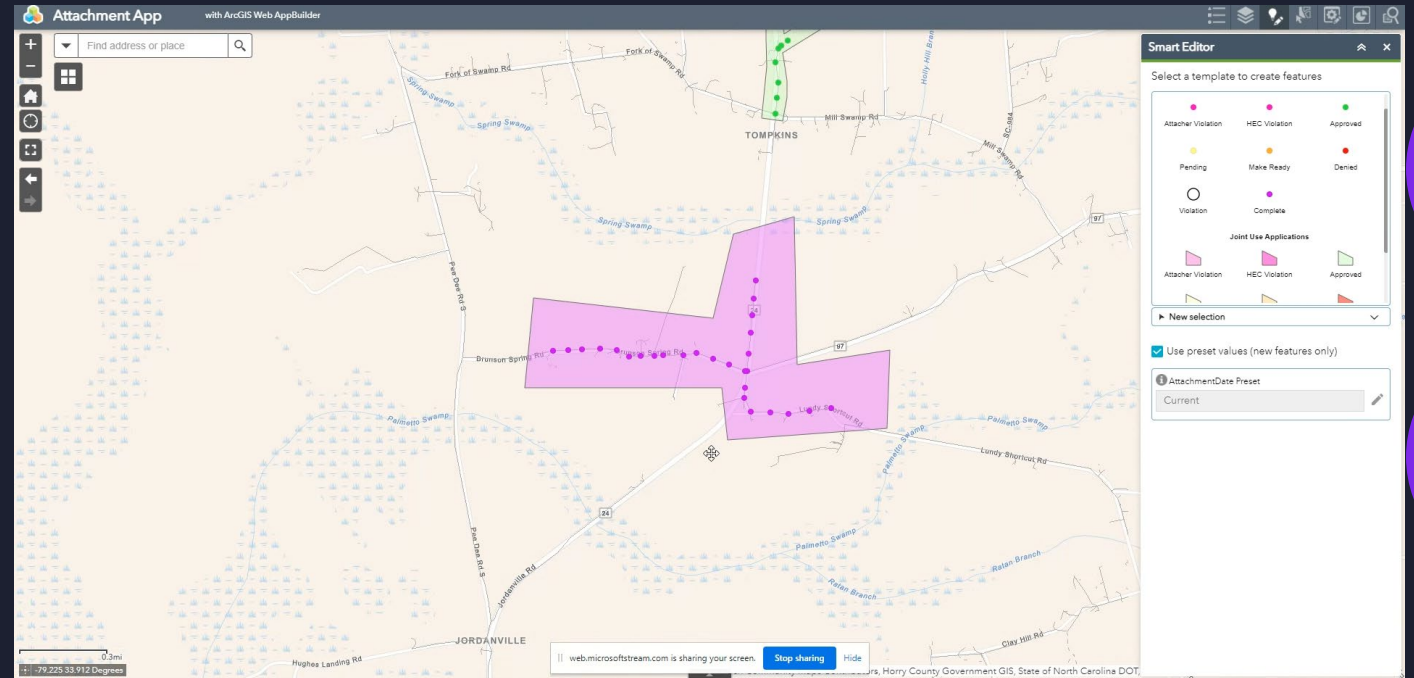
Edited seconds ago

Edit Geometry

Close Save

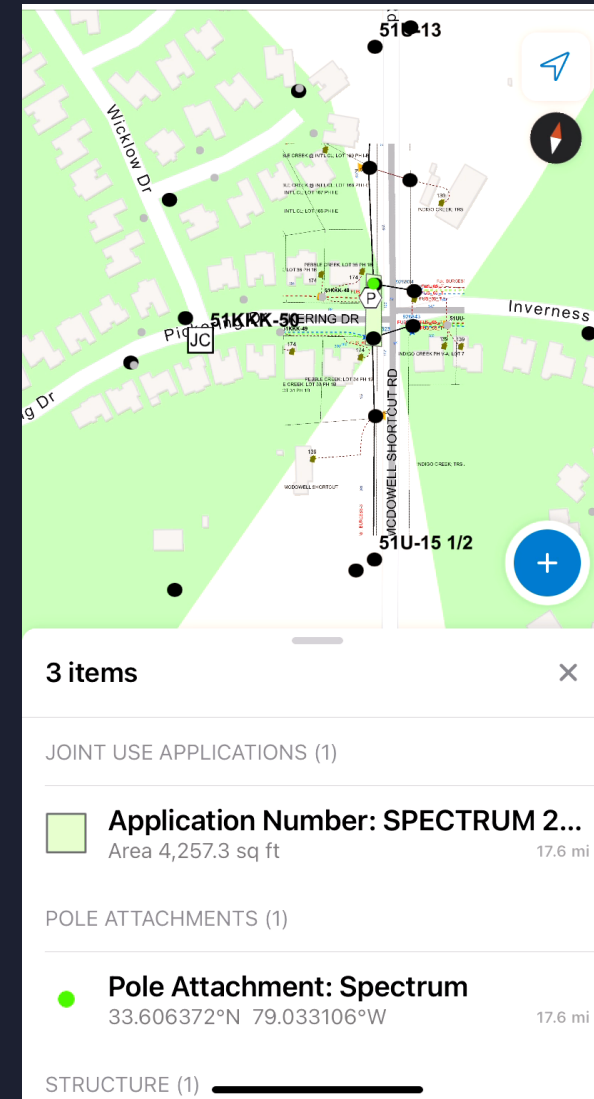
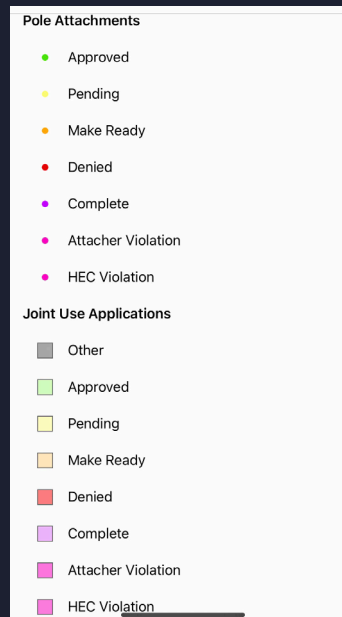
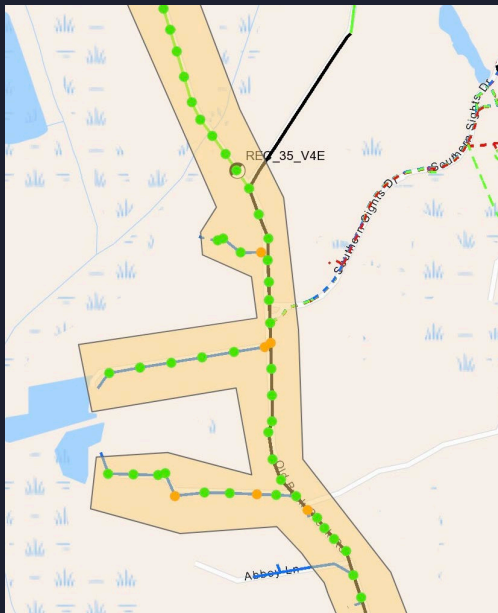
# Web App

- Pole attachments are added to all poles within an application polygon with a status of pending.
  - Using Web App; Smart Editor
  - Some fields are automatically populated from Application Polygon – Spatial relationship

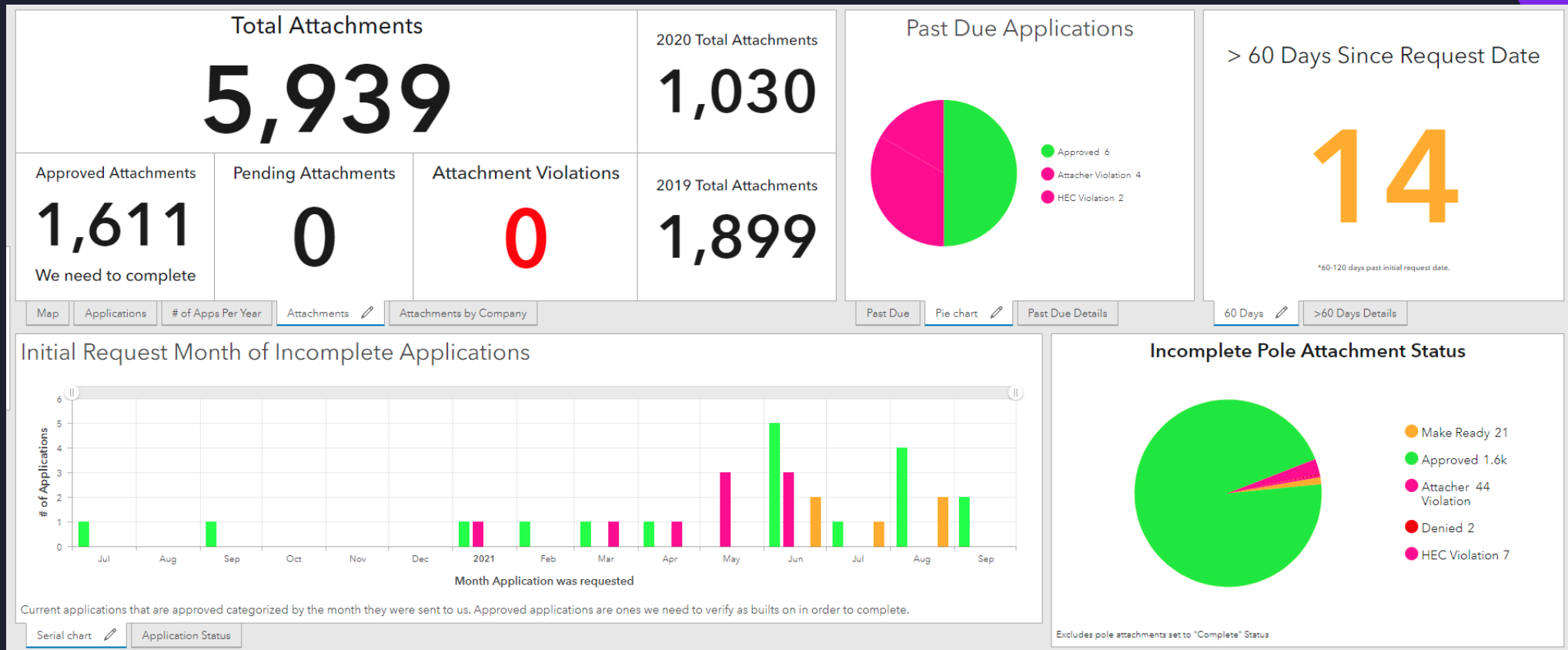


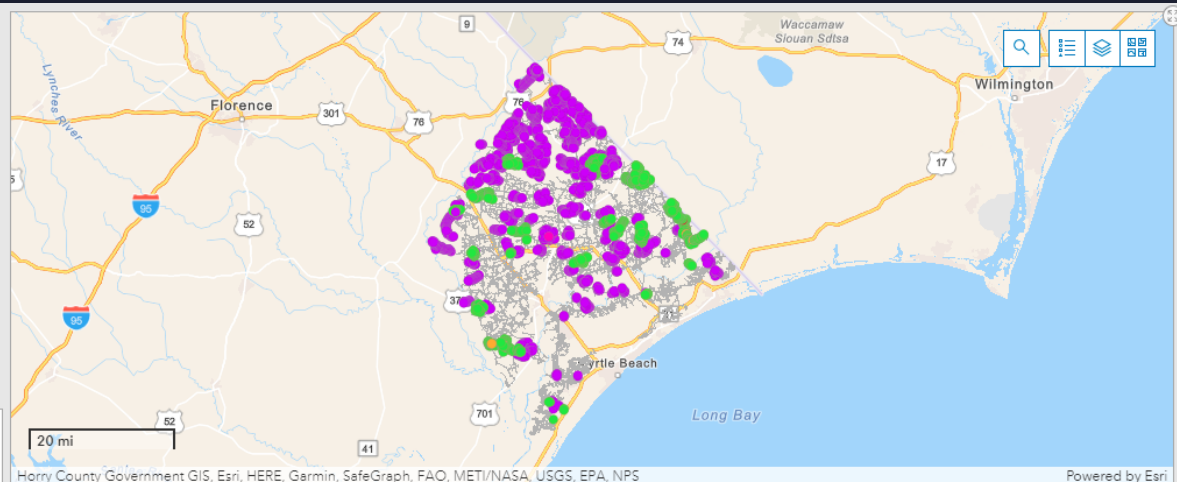
# Field Maps

- Editing pole attachments in the field
  - Updating status's (violation, make ready, denied)
  - Web App – Batch Attribute Editor



# Dashboard





### Past Due Applications

12

\* Not completed within 120 days of request date

### > 60 Days Since Request Date

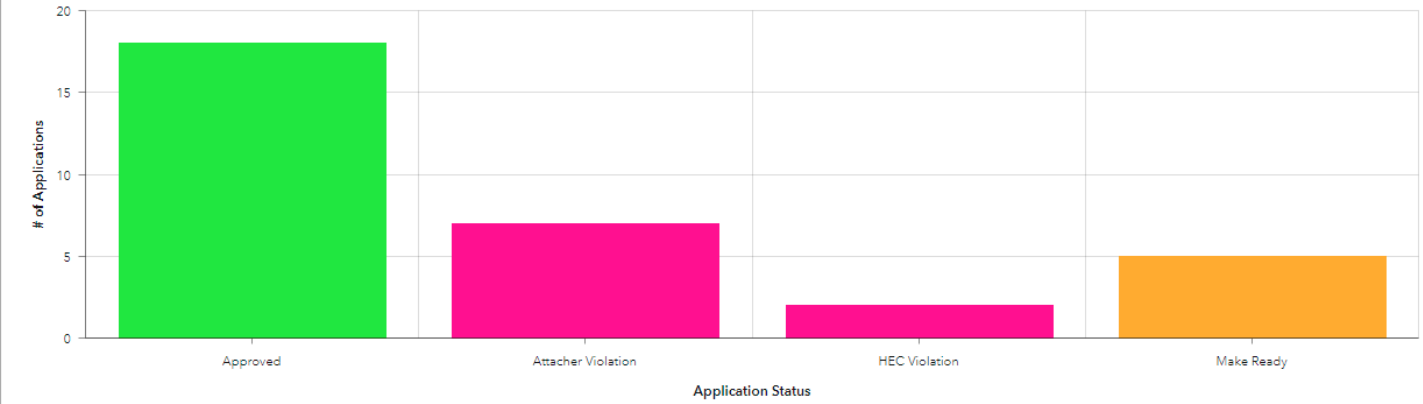
14

\*60-120 days past initial request date.

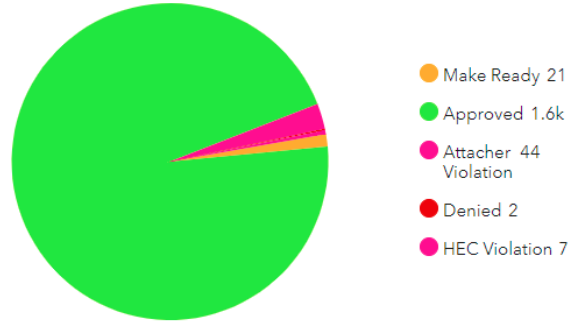
- Map
- Applications
- # of Apps Per Year
- Attachments
- Attachments by Company

- Past Due
- Pie chart
- Past Due Details
- 60 Days
- >60 Days Details

### Incomplete Application Status



### Incomplete Pole Attachment Status



Excludes pole attachments set to "Complete" Status

- Serial chart
- Application Status

# Results

- Streamlined Communication
  - Increased revenue
  - Improved turnaround time for application process
  - Asset accuracy
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# Moving Forward

- Expand process to all telephone and cable companies in our area
  - Use Survey123 to allow companies to put the application directly into our GIS
  - Workflow will be used to conduct a system wide audit
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# Questions?

## Contact Information

Email: [abby.harless@horryelectric.com](mailto:abby.harless@horryelectric.com)

Work Phone: 843-369-6288

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