

To: Public Service Commission

Date: December 14, 2017

Re: Docket No. 20170215-EU - Review of electric utility hurricane preparedness and restoration efforts.

To Whom It May Concern:

Enclosed is Glades Electric Cooperative's responses to the Commission's data requests.

Thank you,



Tracy Vaughn
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Public Service Commission

November 14, 2017

STAFF'S FIRST DATA REQUEST *via email*

To:

Duke Energy Florida, LLC (Matthew.Bernier@duke-energy.com, dianne.triplett@duke-energy.com)
Florida Power & Light Company (ken.hoffman@fpl.com)
Gulf Power Company (jastone@southernco.com, rab@beggslane.com)
Tampa Electric Company (jbeasley@ausley.com)
Municipal Group (AZubaly@publicpower.com)
Lee County (dennie.hamilton@lcec.net)
Cooperative Group (mhershel@feca.com)

Re: Docket No. 20170215-EU - Review of electric utility hurricane preparedness and restoration actions.

To Whom It May Concern:

By this letter, the Commission staff requests that each utility provide responses to the following data requests.

Staging for Utility Personnel and Mutual Aid

1. Please describe the pre-storm coordination process for Hurricanes Hermine, Matthew, Irma, Maria, and Nate. The description should include:
 - a. Dates and topics of internal meetings held after each storm was named.
Glades Electric was not impacted for Hurricanes, Hermine, Mathew, Maria or Nate.
The first pre-storm meeting for Hurricane Irma was held September 5, 2017. Topics included: weather, projection of storm, and 96hr pre-disaster checklist. Internal meetings were held every 24 hours prior to landfall.
 - b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.
Early discussions were held concerning availability of mutual aid and how soon it may be needed. This topic was discussed during our 96hr pre-disaster meeting.
 - c. Date mutual aid was requested and nature of request.
Our earliest mutual aid request was made September 5, 2017 after our first pre-storm meeting. We requested crews to be on stand-by until further notice.

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2. Please provide a detailed description of the utility's allocation of storm duties for all personnel. This should include a description of each function and the number of utility personnel assigned.

Please see attached emergency related job positions organizational chart.

3. When did the costs for Hurricanes Hermine, Matthew, Irma, Maria, and Nate begin to accrue for receiving mutual aid?

September 5, 2017

Damage Assessment Process

4. Please provide a detailed overview of the initial damage assessment process for Hurricanes Hermine, Matthew, Irma, Maria, and Nate, including the number of utility employees or contractors involved, their duties, and how initial damage assessment is disseminated within the utility to assist in restoration activities. Additionally, please provide photographs or other visual media that memorializes storm damage, which was documented during the initial damage assessment process.

We started our initial assessments with 32 utility employees and 11 mutual aid. Transmission lines were first aerial inspected. Substations were assessed and distribution lines as well.

5. Please provide a description of how damage assessment data is updated and communicated internally.

Damage assessment forms were utilized during the assessment and then assignments were determined.

Restoration Workload

6. Please provide a detailed description of how the utility determines when and where to start restoration efforts.

After the initial assessments were made, restoration efforts began immediately on transmission lines to energize substations.

7. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please complete the following table on workload priority:

Personnel Responsible for Restoration Workload Assignments		
Title	Years of experience	Number of crews managed
<i>Director of Operations</i>	<i>37</i>	<i>362 employees and mutual aid</i>

8. Please provide a description of how restoration workload adjusts based on work completed and updates to damage assessments.

Crews were released based upon completed damage assessments forms.

9. If applicable, please describe how mutual aid was determined to be no longer needed following Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

See No.8

Staffing Considerations

10. Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please respond to the following, please provide the following:

- a. Days of lodging provided for Utility personnel (Person-Days)

N/A

- b. Days of lodging provided for mutual aid partners (Person-Days) **3564**
- c. Number of meals provided for Utility personnel **2520**
- d. Number of meals provided for mutual aid partners **10,404**
- e. Number of Utility personnel injuries **0**
- f. Number of mutual aid partner injuries **2**
- g. Number of Utility personnel fatalities **0**
- h. Number of mutual aid partner fatalities **0**

Please note any delays in restoration associated with items e-h above.

11. Please provide a detailed description of when your Utility was considered fully restored from each named storm event. *All meters were energized that did not include personal damages to property on September 22, 2017.*

Customer Communication

12. Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please respond to the following for each county in the Utility's service territory affected by the storms.
- a. Total number of customer accounts **16,310**
 - b. Peak number of outages **16,223**
13. Please provide how call center customer service representatives were utilized before, during and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
Matthew- schedules were handed out and understood prior to expected landfall. Hurricane did not end up impacting our area so nothing further was done.
Irma- prior to the storm MSR's were prepped and instructed on where and when to report after the storm passed. During the storm all MSR's working in our headquarters in Moore Haven for the first 7 days. The lobby and drive thru window in Moore Haven was opened and manned by two MSR's. All other MSR's were stationed at desks nearby the front desk to answer phone calls, enter outage tickets, assist with social media responses and document damage assessment forms. MSR's were also utilized to assist at the staging areas and deliver meals to field personnel when needed. Everyone worked extended hours and every day for the first 10 days.
14. Please provide the number of customer service representatives the Utility had during Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
- a. Were there additional personal deployed or 3rd party entities utilized to help address customer contacts during each named storm event? If so, how many?
Seven full time member services representatives, one member services manager, one media manager, and one director of business development assisted with customer service and communication responsibilities throughout Hurricane Irma recovery efforts.
During the impact of the storm and the first day of recovery one employee from the communications department at Seminole Electric Cooperative assisted with social media and website communication efforts as phone systems were not operational.
15. Please provide the number of customer contacts received by the customer call center(s) during Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
Our service territory was not impacted with Hurricanes Hermine, Matthew, Maria, or Nate so no contact logging was created.
For Hurricane Irma the following customer contacts were received:

- a. Approximately 600 private messages were received from members through social media channels. Posts updating outage information were engaged an average of 15,000 times through likes, shares, and comments from users.*
 - b. 1,786 contacts were received through our website (contact form and report an outage form).*
 - c. Because our phone system was initially out of service due to problems with the carrier many calls were routed in a way that could not be tracked throughout the restoration process. While phone calls were routed through another office and extension and transferred back into our member services extensions tracking functions were unavailable. Members were also able to call our phone system and receive a message outlining restoration efforts and projected restoration times without speaking to a member service representative. Tracking information for those calls was unavailable as well.*

16. Please provide all methods (call centers, email, Utility website, etc.) utilized to submit and collect customer contacts before, during, and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
Our service territory was not impacted with Hurricanes Hermine, Matthew, Maria, or Nate so no methods of contact were utilized outside of our normal methods.
Prior to Hurricane Irma we were concerned with maintaining phone operations during and after the storm. As a result new webforms were made available on our website with email notifications through our internal servers as well as an external server to ensure messages could be received regardless of the status of our internal servers. Social media links were also prepared for outage reporting. Additional personnel in the member services department were trained on responding to social media messaging. Our office in Moore Haven was also opened immediately and throughout our restoration efforts to allow members to report their information in an office. During the duration of Hurricane Irma, although our operations center and phone lines were closed, the Media Manager maintained communication through social media by responding to comments, posting local storm related information, and responding to private messages.

17. Please describe the step by step process(es) by which customer contacts are addressed before, during, and after a named storm event. If different during each timeframe, please describe the step by step process during each separately.
 - a. Did the Utility identify any delays in restoration as a result of addressing customer contacts related to Hurricanes Hermine, Matthew, Irma, Maria, and Nate? If so, please provide detail.
Prior to the storm customer contacts were addressed as normal. Information was provided to members by request on pre-storm preparations or safety information.
Private messages and post comments were also received through social media which were responded to in real time by the media manager. Communication between executive staff members and the media manager was maintained through email to relay necessary information to the members.

Following the storm all customer contacts were responded to as they were received regardless of the mode of communication.

18. Please provide whether or not customer contacts are categorized (by concern, complaint, information request, etc.) If so, how are they categorized? If not, why not?
Customer contacts throughout the restoration process were categorized into two categories, outage/safety contact and general member contact. Outage/safety contacts were regarded as needing immediate attention and the information was provided to our operations center to be prioritized and dispatched. All other contacts were categorized as general member contacts. If information could be provided quickly regarding the contact it was given. If not, the member was told a follow up will be conducted following completion of restoration efforts.

19. Please provide a detailed description of how customer service representatives are informed of restoration progress.
 - a. Is there a script provided to each customer service representative to relay restoration progress to customers? If so, what is the process by which the script is created?
The media manager was responsible for providing detailed information to member service representatives regarding restoration progress and expected timeframes. Each day the media manager met with representatives from the operations center, power supply managers, and the CEO to gather as much detailed information as possible. Each night the information was compiled into a daily report which was made available to each member service representative the next morning. The media manager also reviewed the information in person to ensure all questions were answered so accurate information could be relayed to the members. If new reports were received throughout the day that information was updated with the member services representative. This daily report was also published on our Facebook page and website for all members and employees to review. The office manager also reviewed the information daily with member service representatives to ensure understanding and posted the information on our automated phone messaging system so members calling the office could access it without having to speak to a member services representative.

20. Please describe the process the Utility uses to notify customers of approximate restoration times. The response should include at a minimum:
 - a. How restoration time estimates were determined.
 - b. How customers are notified.
 - c. How restoration time estimates are updated.
 - d. How restoration time estimates are disseminated internally, to the county and state Emergency Operations Centers, and to the public.
Each day the CEO and Director of Operations reviewed the status of the restoration process, available workforce, environmental factors, and more to determine system wide restoration times. This information was provided at least once a day to the media manager who distributed to the member services representatives as well as on our website and Facebook page. The CEO also posted a daily summary of progress on social media explaining restoration times and updated information. For specific locations the media manager met with representatives from the operations center as well as power supply managers each day to determine progress and

receive rough estimates on restoration expectations. When available this information was provided on our website, Facebook page, and automated phone system.

Material Considerations

21. Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide a description of how vehicle fuel was procured for Utility personnel and mutual aid partners. As part of the response, please answer the following:
 - a. Whether or not the Utility has fuel stored for these types of events
On-site fuel tanks are topped off with fuel prior to an event. GEC utilized a local vendor for fuel procurement.
 - b. Whether or not fuel shortage was an issue during these events
Fuel shortage was not an issue
 - c. Whether or not there were any delays due to fuel shortage
No delays
 - d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews
No vehicle shortages
22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
No material delays

Restoration Process

23. Please provide a summary timeline of the utility's restoration process for each hurricane: Hermine, Matthew, Irma, Maria, and Nate. The timeline should include, but not limited to, staging, stand-down, deployment, re-deployment, allocation, mutual aid, release of mutual aid, and date last outage was restored.
*Day 1, September 11, 2017-
Arrangements were made for staging, deployment of mutual aid and additional materials. Initial damage assessments were made. The need for additional mutual aid was determined. Availability for additional mutual aid was limited.*
*Day 11, September 22, 2017-
First release of mutual aid. All possible meters were energized.*
24. Please explain how the Utility validates adherences and departures from its storm preparation plan.
 - a. If the Utility does not assess departures from its storm plan, explain why not.
Adjustments were made based on damages accordingly.
 - b. If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not.
GEC does memorialize and makes changes to storm plan accordingly.
 - c. Have departures from the Utility's storm preparation plan resulted in modification of the storm preparation plan during 2015 through 2017? If so, please explain how with examples.

Due to the extreme nature of Hurricane Irma, roles should be more clearly defined during a major event.

25. Please explain how the Utility validates adherences and departures from its storm restoration plan.
- a. If the Utility does not assess departures from its storm restoration plan, explain why not.
 - b. If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.
 - c. Have departures from the Utility's storm restoration plan resulted in modification of the storm restoration plan during 2015 through 2017? If so, please explain how with examples.

Same as question 24.

Outages

26. Please identify all counties, including reporting regions/division for each county if applicable, that were impacted (had outages or damage) due to Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

All four counties, Glades, Hendry, Highlands and Okeechobee were impacted due to Hurricane Irma.

27. Please complete the table below summarizing the wind speed and flooding impacts by county in the utility's service area. If the requested information is not available by county, please provide the information on a system basis. Please provide this information for Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

Weather Impact				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
<i>Hendry</i>	<i>69</i>	<i>90</i>	<i>10.31</i>	<i>n/a</i>
<i>Glades</i>	<i>55</i>	<i>78</i>	<i>8.38</i>	<i>n/a</i>
<i>Highlands</i>	<i>62</i>	<i>86</i>	<i>10.54</i>	<i>n/a</i>
<i>Okeechobee</i>	<i>46</i>	<i>71</i>	<i>n/a</i>	<i>n/a</i>

Hardened and Non-Hardened Structures

28. Please provide a county map or graphic indicating the geographic locations where the Utility's infrastructure was storm hardened after 2006. For purposes of this question, do not include vegetation management.

Please see attached maps indicating locations for infrastructure hardened after 2006. GEC has replaced thousands of poles from the results of ground line inspection program since 2006. These poles were replaced with a larger class pole.

29. Please complete the table below summarizing hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures		
Substations		
Total		
<i>Distribution</i>		
Poles		
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		
<i>Service</i>		
Service OH		
Service UG		
Service Combined		
Total		

No structural damage to hardened infrastructure other than leaning poles.

Please complete the table below summarizing non-hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

Non-Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures		<i>31</i>
Substations		
Total		
<i>Distribution</i>		
Poles		<i>799</i>
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		
<i>Service</i>		
Service OH		
Service UG		
Service Combined		
Total		

30. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the five highest volume of outage causation that impacted the Utility's service area.
During Hurricane Irma excessive infrastructure damage included:
1. *Josephine*
 2. *Montura*
 3. *Big Cypress*
 4. *Highlands Park*
 5. *Clewiston*
31. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the top five drivers that protracted service restoration time.
1. *Extent of damage*
 2. *Mutual aid availability*
 3. *Infrastructure accessibility*
 4. *Transmission Provider*
 5. *Geographical territory*

32. If applicable, please describe any damage prevented by flood monitors during Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

N/A

33. How many outages were avoided by automated feeder switches during Hurricanes Matthew, Hermine, Irma, Maria, and Nate? Please explain how the data for each event was collected.

Infrastructure damages were impacted by our entire service territory.

Critical Infrastructure Restoration

34. Please complete the table below for all critical infrastructure facilities (CIFs), by location (city/county) and facility type, which lost power, the restoration time for the CIFs and the cause of the outage (such as wind, storm-surge, flooding, debris, etc.) and facilities structure type that required replacement and/or repair. Please provide this information for Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

Hurricane (Name) – CIF						
CIF Name/Type (i.e. Hospital)	County/ Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
<i>N/A</i>					Repair	Replace
				<i>Transmission</i>		
				Structures		
				Substations		
				Total		
				<i>Distribution</i>		
				Poles		
				Substation		
				Feeder OH		
				Feeder UG		
				Feeder Combined		
				Lateral OH		
				Lateral UG		
				Lateral Combined		
				Total		
				<i>Service</i>		
				Service OH		
				Service UG		
				Service Combined		
				Total		

Underground Facilities

35. Please provide an assessment of the performance of underground facilities during Hurricanes Matthew, Hermine, Irma, Maria, and Nate. As part of this assessment please summarize the number of underground facilities that required repair or replacement for each event.

N/A

36. Please provide a discussion what programs/tariffs the utility has in place to promote

- a. Undergrounding of new construction (e.g., subdivisions)
- b. Conversion of overhead to underground

N/A

Please file all responses electronically no later than December 15, 2017 from the Commission's website at www.floridapsc.com, by selecting the Clerk's Office tab and Electronic Filing Web Form. Please contact me at wtaylor@psc.state.fl.us or at 850.413.6175 if you have any legal questions, or contact Emily Knoblauch for technical questions at eknoblau@psc.state.fl.us or at 850.413.6632.

Sincerely,

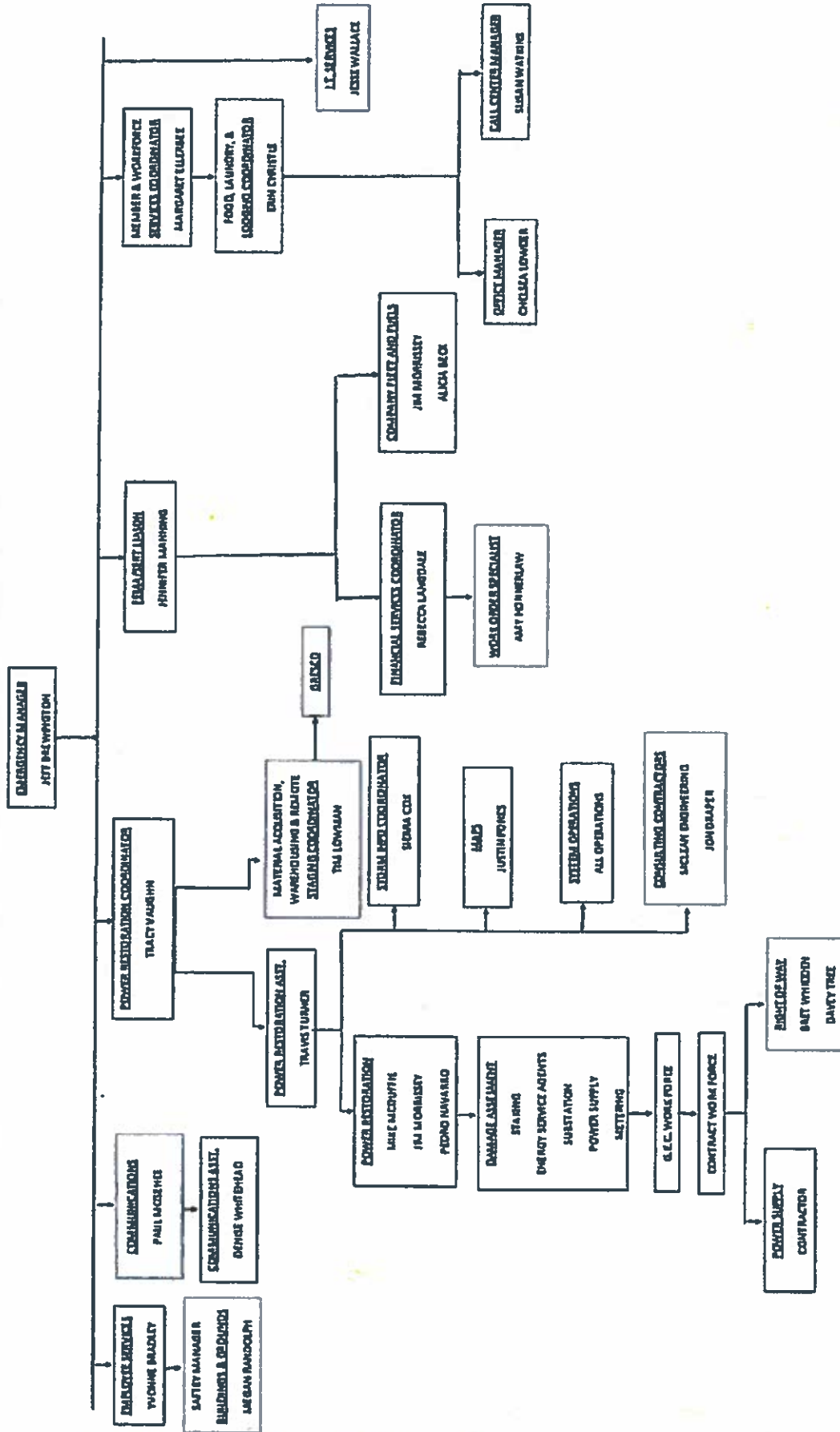
/s/Wesley Taylor

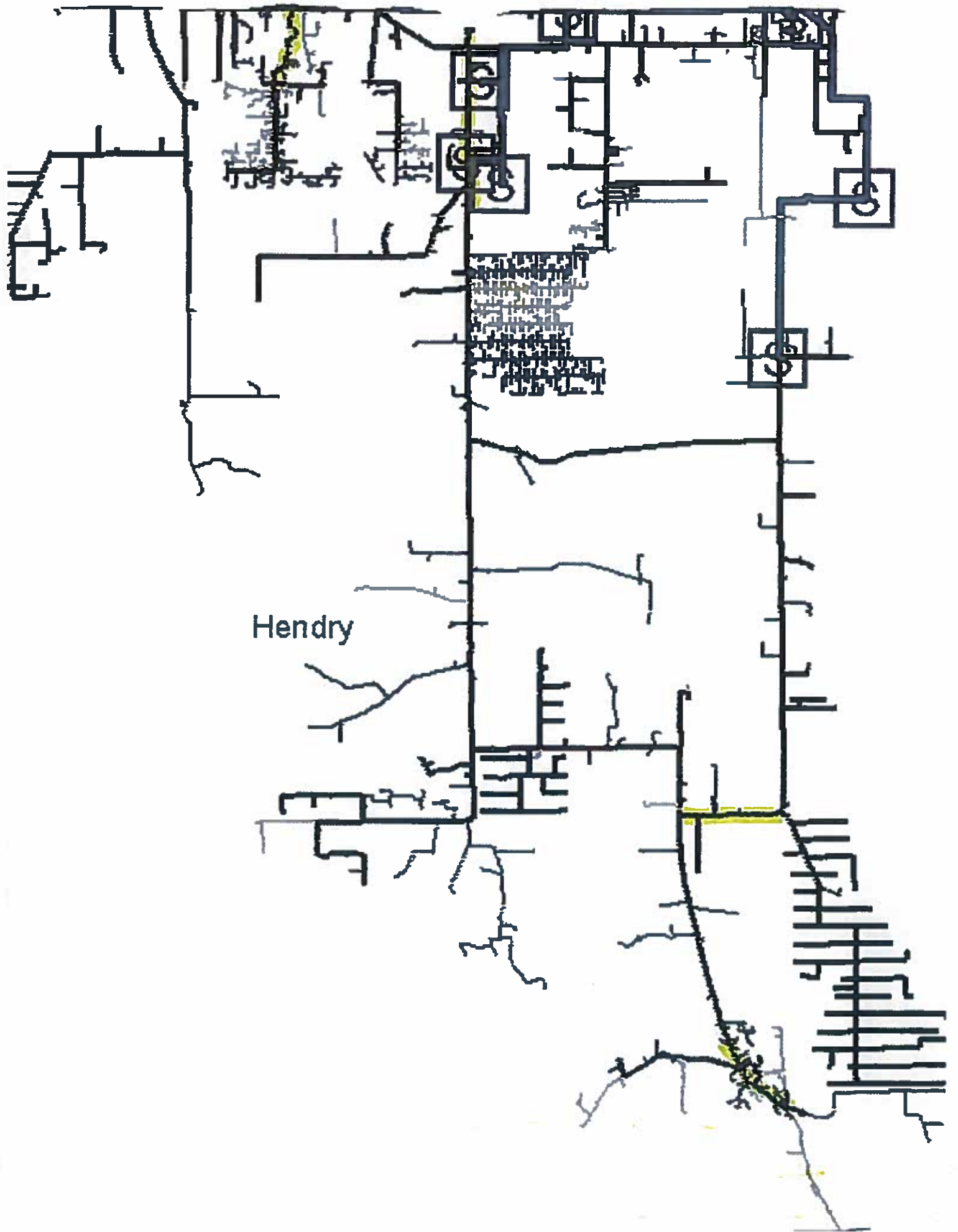
Wesley Taylor
Attorney

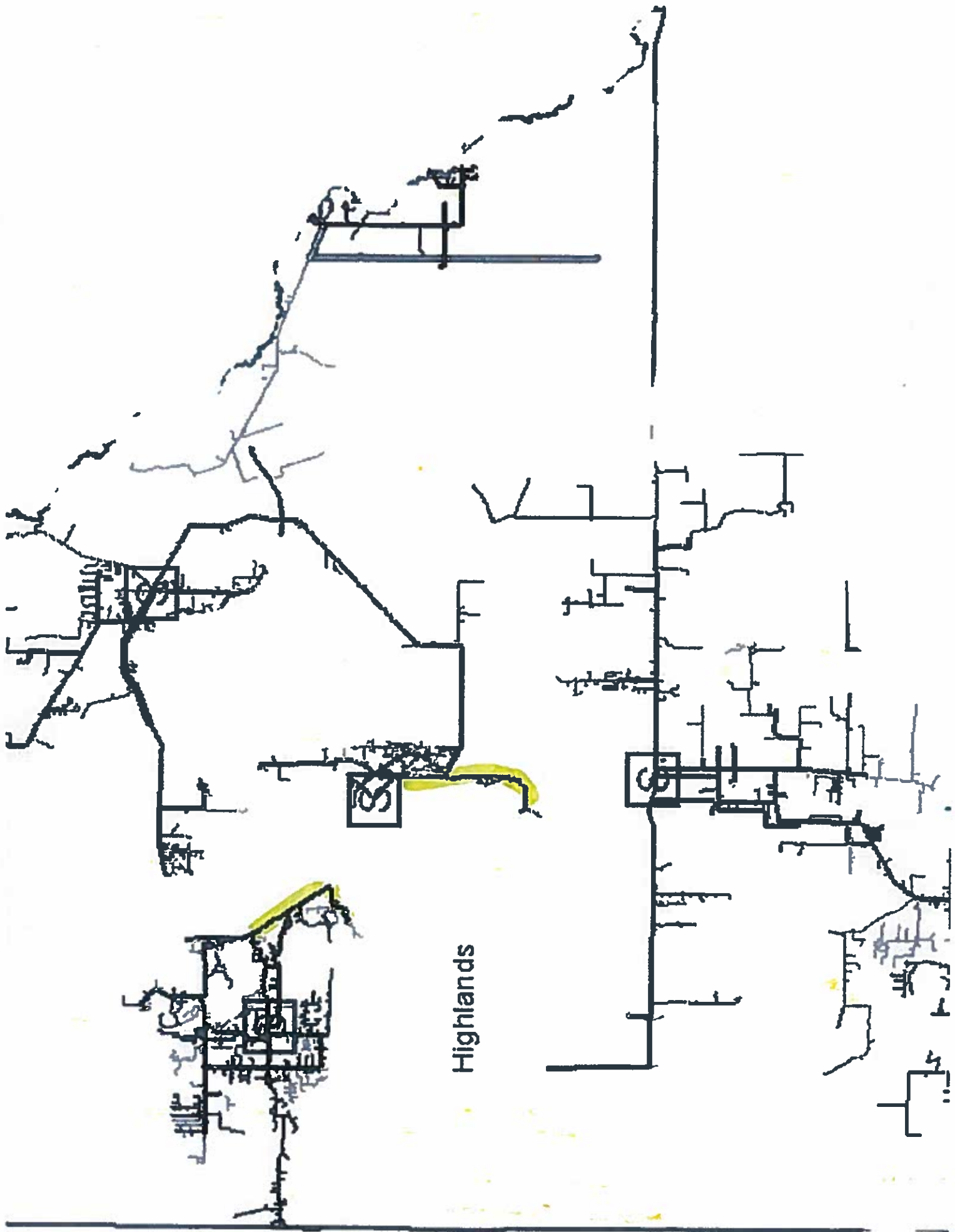
WDT/as

cc: Office of Commission Clerk
Office of Public Counsel (kelly.jr@leg.state.fl.us, sayler.erik@leg.state.fl.us)

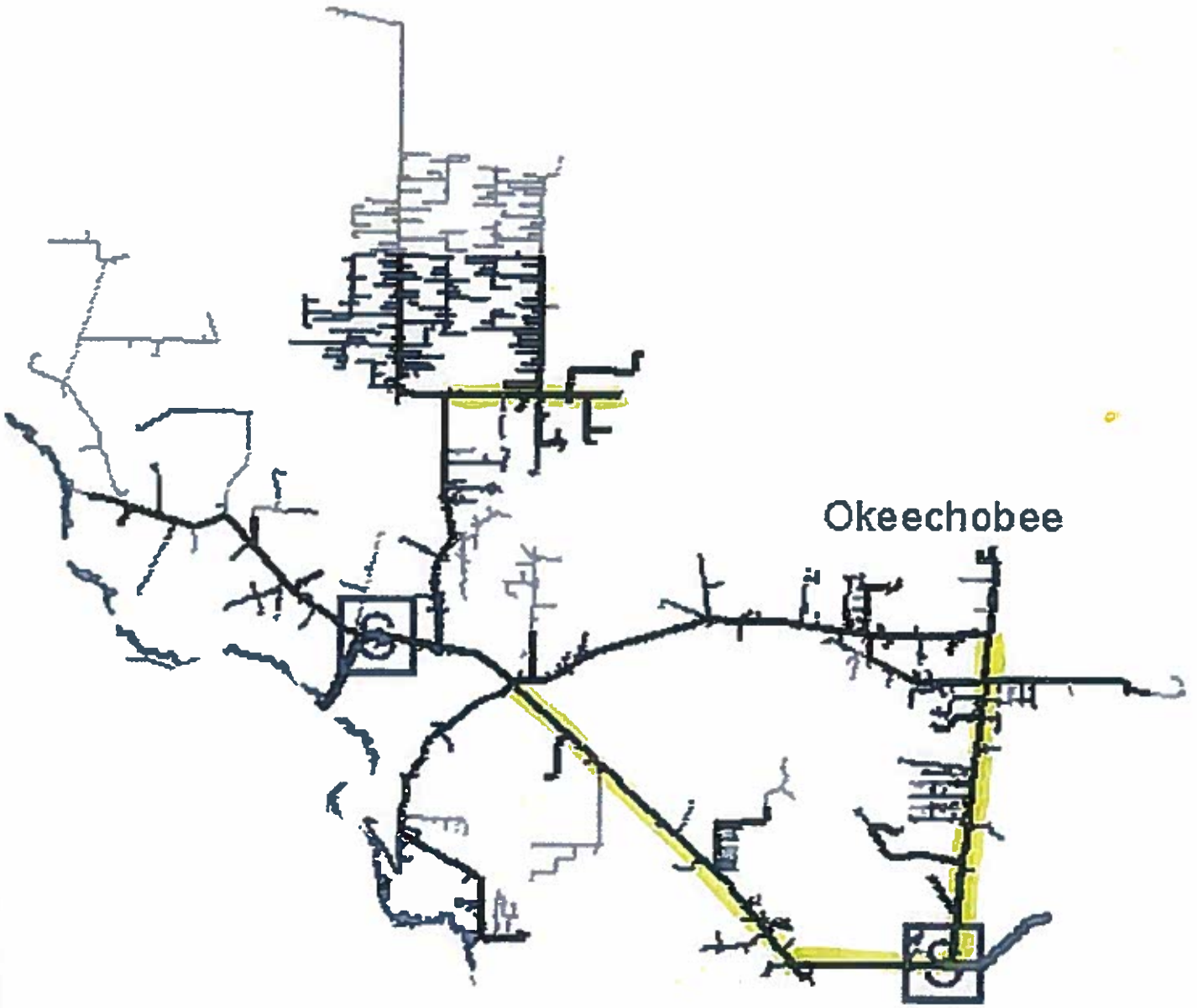
EMERGENCY RELATED JOB POSITIONS ORGANIZATIONAL CHART

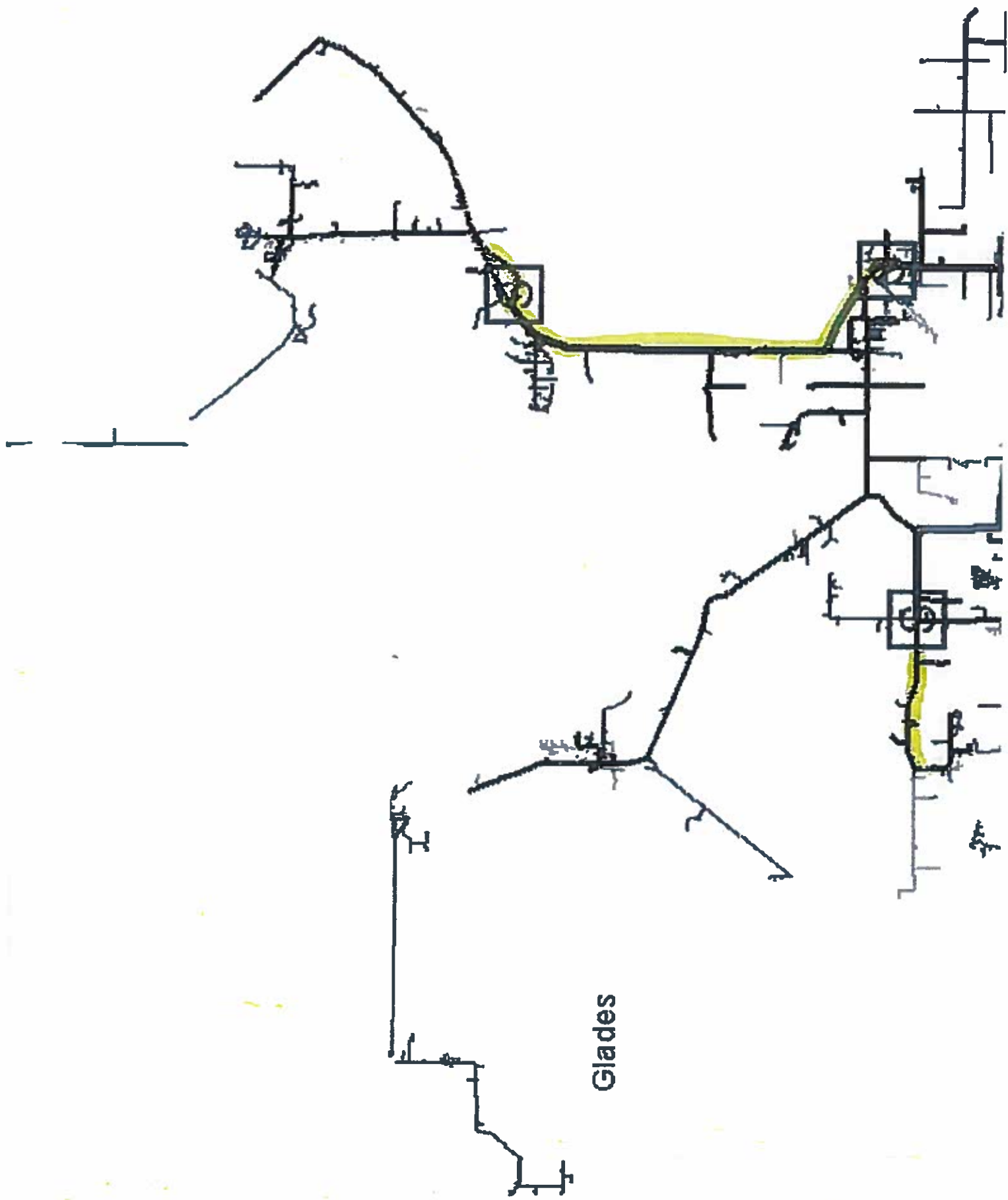






Highlands





Glades