

# Florida Wildlife Corridor Planning and Development Data

## Statewide Summary



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Prepared by:



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# Florida Wildlife Corridor

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# Acknowledgements

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## **Central Florida Regional Planning Council**

# I: Statewide Summary Overview

Through an agreement with Archbold Biological Station, the Central Florida Regional Planning Council (CFRPC) conducted a pilot and statewide study to identify areas of existing and potential development activity within and near Opportunity Areas of the Florida Wildlife Corridor. The pilot study involved seven (7) Counties within the heartland of the state, while the statewide study, which was conducted in four separate phases (deliverables) reviewed the remaining Florida Counties. The following is a list of the Counties involved in the pilot and statewide studies.

**Pilot Study:** DeSoto, Glades, Hardee, Hendry, Highlands, Polk and Okeechobee Counties

**Statewide Study (Deliverable 1):** Alachua, Brevard, Collier, Hernando, Hillsborough, Indian River, Lee, Manatee, Nassau, Pasco and Volusia Counties

**Statewide Study (Deliverable 2):** Charlotte, Citrus, Lake, Marion, Martin, Orange, Osceola, Palm Beach, Sarasota, Seminole, St. Lucie and Sumter Counties

**Statewide Study (Deliverable 3):** Baker, Bradford, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Lafayette, Levy, Madison, Putnam, St. Johns, Suwanee, Taylor and Union Counties

**Statewide Study (Deliverable 4):** Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton and Washington Counties

**Not included in Studies:**

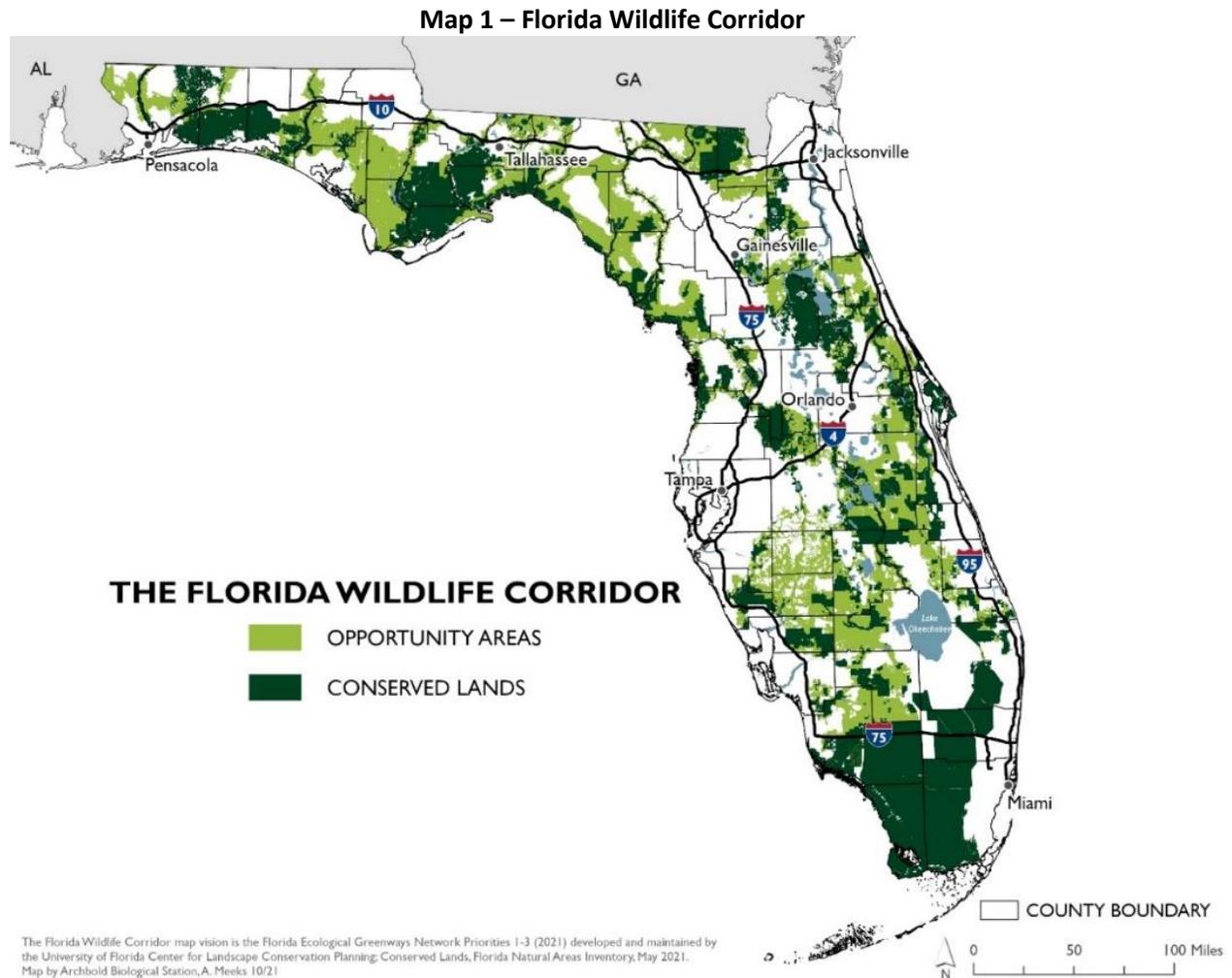
- Broward, Miami-Dade and Monroe Counties – Areas of the Florida Wildlife Corridor in these Counties are already in conservation.
- Pinellas County – There is currently no area of the Florida Wildlife Corridor within Pinellas County.

Additional detailed information, including data collection, methodologies and exhibit maps (provided by County) for each of these studies can be found in the individual reports prepared for each.

The information provided in this statewide summary report is a generalized overview of the findings and figures from the individual studies, including summarized statewide acreage calculations, statewide-scale maps, documentation of lessons learned – specifically related to collection and processing of data for these studies, considerations for use of the data & findings from this effort, and a listing of suggested targeted audiences that may benefit from this work.

The **Florida Wildlife Corridor** (FLWC) is an identified ecological corridor which relies on and continues the decades of work by numerous scientists and conservation organizations that determined the need for landscape-scale conservation approaches, and specifically corridors. The Florida Wildlife Corridor Act was signed into law on June 30, 2021, and became effective on July 1, 2021. The Act creates “incentives for conservation and sustainable development while sustaining and conserving the green infrastructure that is the foundation of Florida’s economy and quality of life.”

The FLWC stretches from the Everglades north to Georgia and west across the Florida panhandle to Alabama.



The State of Florida is comprised of 67 Counties which encompass an area of approximately 36,361,764 acres. The FLWC impacts all Florida Counties (with the exception of Pinellas County) and encompasses nearly 17.7 million acres. Of this area, 9.6 million acres (54 percent) are currently in protection, recognized as conserved lands, while 8.1 million acres (46 percent) remain as opportunity areas which are areas\_not in conservation. Statewide, Florida contains approximately 12,893,526 acres of conserved lands. This figure is based on data reported by the Florida Natural Areas Inventory (FNAI) as of September 2022. Table 1 below reflects the general statewide acreages.

<b>Table 1: General Statewide Acreages</b>					
	<b>67 Counties (acres)</b>	<b>Florida Wildlife Corridor (acres)</b>	<b>Conserved Lands* (acres)</b>	<b>Conserved Lands* in Florida Wildlife Corridor (acres)</b>	<b>Opportunity Areas of the Florida Wildlife Corridor (acres)</b>
<b>State of Florida</b>	36,361,764	17,693,081	12,893,526	9,608,698	8,080,399

\*Conserved Lands reported by Florida Natural Areas Inventory as of September 2022.

Within the pilot and statewide study areas, there are approximately 15.8 million acres of FLWC and 9.2 million acres of conserved lands. Of the conserved lands, approximately 7.8 million acres are located within the FLWC, while approximately 8 million acres remain as Opportunity Areas yet to be conserved. Table 2 provides a breakdown of these acreages for each of the study areas.

<b>Table 2: Study Area Acreages</b>					
	<b>County** (acres)</b>	<b>Florida Wildlife Corridor (acres)</b>	<b>Conserved Lands* (acres)</b>	<b>Conserved Lands* in Florida Wildlife Corridor (acres)</b>	<b>Opportunity Areas of the Florida Wildlife Corridor (acres)</b>
<b>Pilot Study</b>	4,776,368	2,700,979	1,060,596	883,182	1,830,548
<b>Deliverable 1</b>	6,655,361	2,544,845	2,195,362	1,737,364	806,215
<b>Deliverable2</b>	7,454,433	3,059,922	2,163,392	1,832,923	1,239,365
<b>Deliverable 3</b>	7,148,050	3,199,928	1,422,916	1,161,414	2,046,995
<b>Deliverable 4</b>	7,408,199	4,260,396	2,399,275	2,201,291	2,069,027
<b>TOTAL</b>	<b>33,442,411</b>	<b>15,766,070</b>	<b>9,241,541</b>	<b>7,816,174</b>	<b>7,992,150</b>

\*Conserved Lands reported by Florida Natural Areas Inventory as of September 2022.

\*\*Does not total 36,361,754, as Broward, Miami-Dade, Monroe and Pinellas Counties were not included in the studies.

## II: Summary of Data and Methodology

The following provides a summary of the data used and the methodology applied to conduct the pilot and statewide studies. Data collected and summarized included the following.

- County-level Parcel Data
- Building permits
- Generalized Future Land Use
- Land Use based Scenario Data
- Zoning Information
- Existing infrastructure relevant to future development
- Development entitlements

For this summary, the focus is on the Generalized Future Land Use, land suitability, parcel and building permit datasets. Additional information on the datasets and the methodology are provided in each of the study area reports.

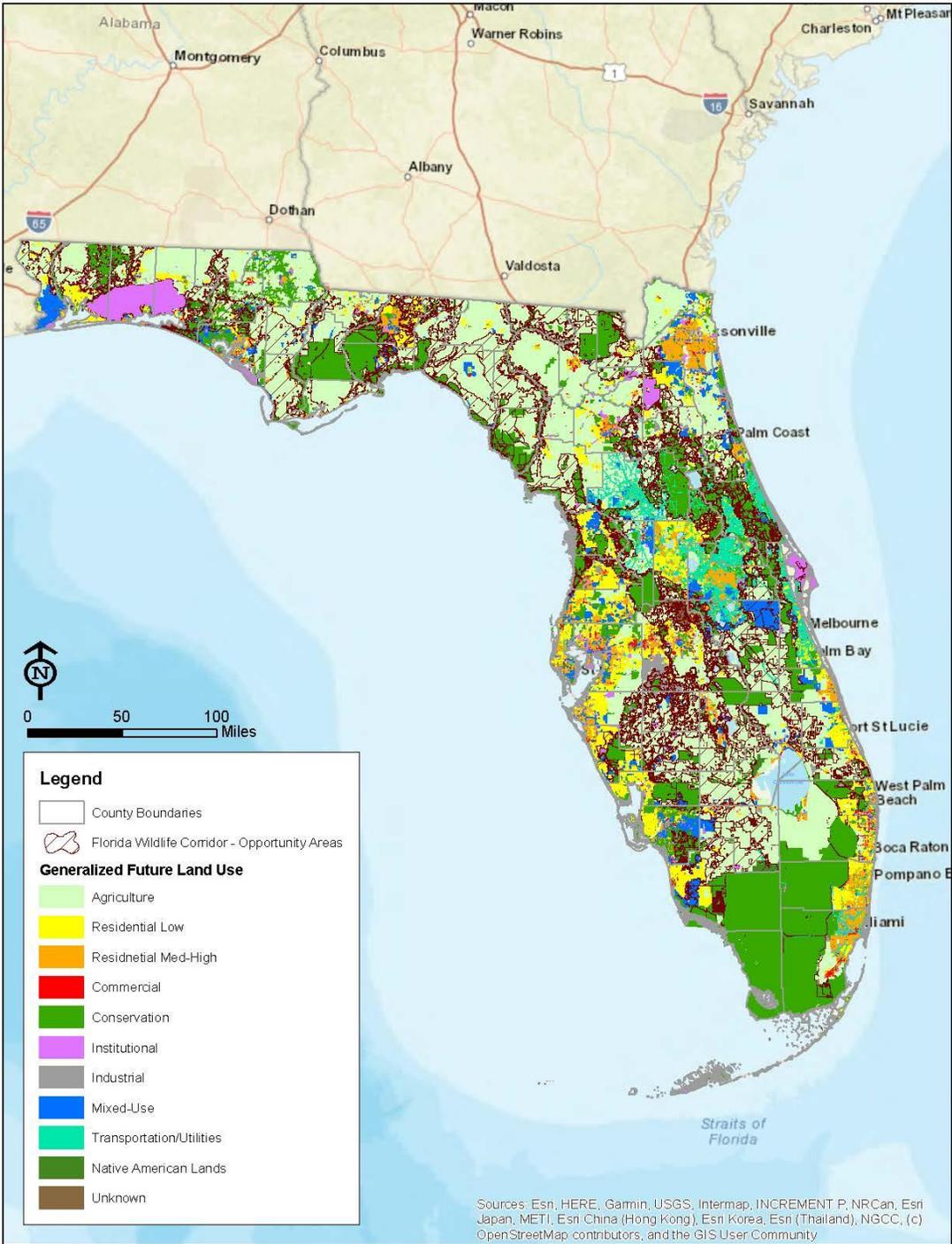
- 1) Identification of Potential Urban Development Areas:** To identify lands that may be candidates for development, three (3) primary datasets were used. These included:
  - a. Generalized Future Land Use (Used in Pilot and Statewide studies)
  - b. Urban Land Suitability – LUCIS Model (Used in the Pilot study)
  - c. Florida 2070 Trend Scenario (Used in the Statewide study)

This Generalized Future Land Use dataset contains generalized land use information for the State of Florida. This dataset was prepared by the University of Florida’s Geoplan Center. This data serves as a foundation in exploring lands (properties) having established Future Land Use designations supportive of future development. See the “Statewide – Generalized Future Land Use” map below illustrating this. The hatched area atop represents the Opportunity Areas of the Florida Wildlife Corridor.

The LUCIS Model, developed at the University of Florida, and the Florida 2070 Trend Scenario dataset developed as a joint effort between the Florida Department of Agriculture and Consumer Services, 1000 Friends of Florida and the University of Florida’s Geoplan Center were used to broadly identify lands that may be suitable for urban development.

The Generalized Future Land Use and land suitability datasets were merged into one generalized layer and clipped to reflect where they overlay with FLWC Opportunity Areas. This merged layer is shown in the “Statewide – Potential Urban Development Areas within Florida Wildlife Corridor Opportunity Areas” map represented by the brown polygons atop of the Opportunity Areas layer. Table 3 below provides the total acreage of lands within Opportunity Areas of the Florida Wildlife Corridor identified as having the potential to support future development.

**Map 2 – Statewide – Generalized Future Land Use**



**Map 3 – Statewide – Potential Urban Development Areas within Florida Wildlife Corridor**



**Table 3:  
Residential & Non-Residential Future Land Use and  
Land Suitability Areas within Opportunity Areas  
(in acres)**

**2,547,979\***

\*Acreage accounts for study area Counties (including municipalities within) only. Does not include Broward, Miami-Dade, Monroe or Pinellas Counties.

- 2) **Vacant Parcels Identified for Potential Development:** To review potential lands (properties) that are in high growth areas and may be developed in the next 10 years or less, a vacant parcel inventory was conducted. This inventory used information collected from the Florida Department of Revenue (DOR). Vacant parcels were selected based on DOR Use Codes for all vacant land use types, including residential, commercial, industrial, institutional and governmental lands. Agricultural lands were also selected, including timber, pasture, farmland, cropland, citrus and dairy lands, as these lands, while operational for agricultural purposes, may serve opportunities for future development.

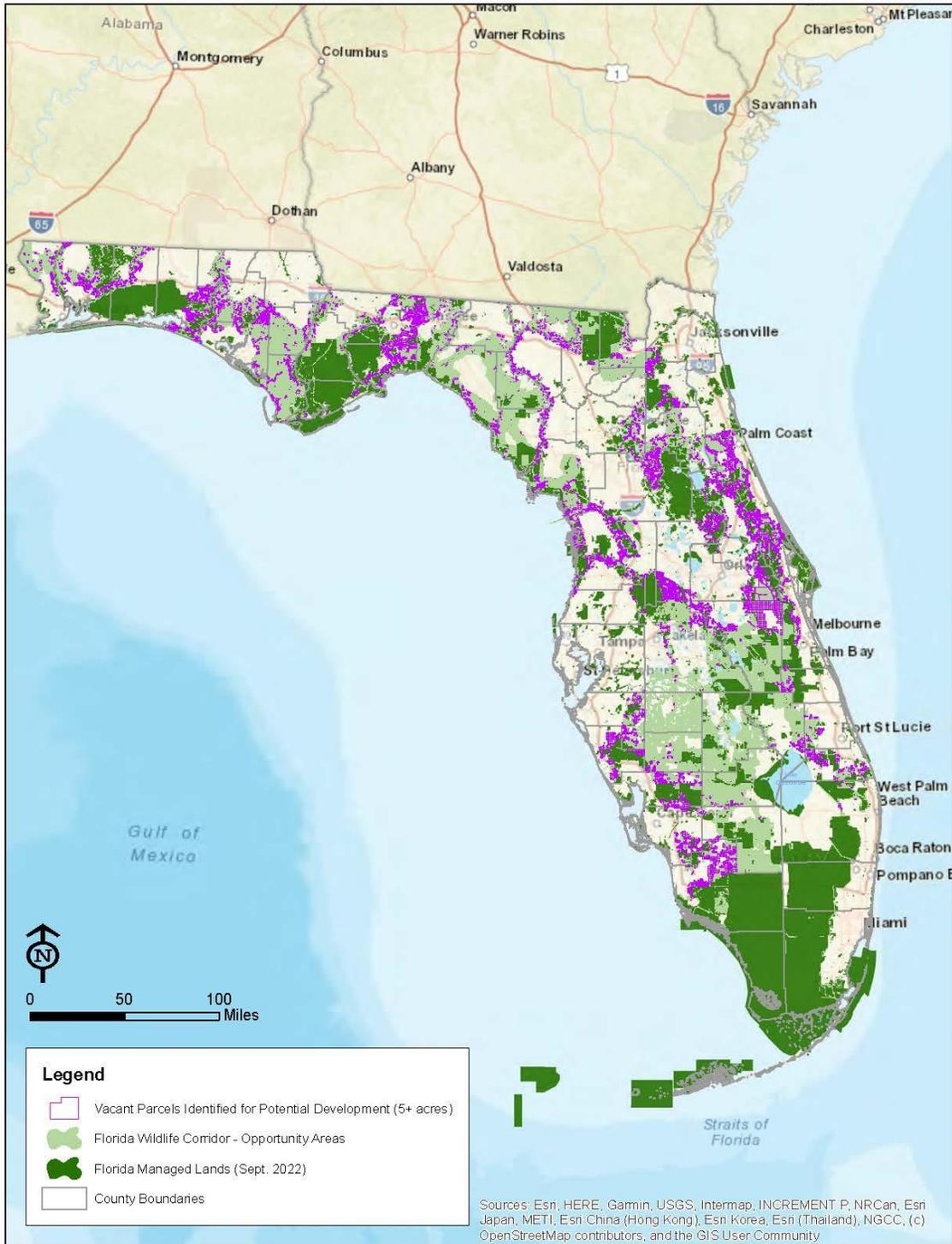
As a baseline, vacant parcels five (5) acres in size or larger that intersect FLWC Opportunity Areas were selected. This selection was then refined by isolating only those [vacant] parcels containing a significant portion of land area supportive of potential development. This was conducted manually by reviewing the spatial extents of the merged land suitability and Generalized Future Land Use areas within the selected [vacant] parcel inventory. The process involved a subjective selection to remove vacant parcels which contained minimal areas supportive of future development.

The results of these selections yielded a total of 27,772 parcels (5 acres in size or larger). Of the total 27,772 parcels, 4,223 are vacant parcels 50-acres in size or larger. Table 4 below outlines the resulting potentially developable, vacant parcel inventory and the total acreages of vacant parcels. These are illustrated by the purple polygons in the “Statewide – Vacant Parcel Inventory within Florida Wildlife Corridor Opportunity Areas” map below.

**Table 4:  
Vacant Parcel Inventory within Florida Wildlife Corridor Opportunity Areas**

	<b>Number of vacant parcels intersecting Potential Urban Development Areas (5-acres or larger)</b>	<b>Number of vacant parcels intersecting Potential Urban Development Areas (50-acres or larger)</b>	<b>Total acreages of vacant parcels</b>
<b>Pilot Study</b>	961	182	42,056
<b>Deliverable 1</b>	6,266	1,024	313,010
<b>Deliverable 2</b>	7,213	1,392	532,462
<b>Deliverable 3</b>	4,481	599	195,819
<b>Deliverable 4</b>	8,851	1,026	291,094
<b>TOTAL</b>	<b>27,772</b>	<b>4,223</b>	<b>1,374,441</b>

Map 4 – Statewide – Vacant Parcel Inventory within Florida Wildlife Corridor Opportunity Areas



- 3) **Geocoding of Local Building Permit Data:** To further examine areas that may develop in the near future, building permit information was collected and mapped to explore trending patterns of development. Both residential and non-residential permit information for the periods between January 2019 and December 2022 were collected from each County and/or local municipalities.

Permit information is reflective of new construction only, which includes single-family, two-family & multi-family residential development, and new commercial buildings and structures. These datasets do not include activities such as commercial building expansions, residential additions or other general permit activities (e.g., new roofs, installation of accessory structures, etc).

Table 5 below provides a list of the total number of residential and non-residential building permits issued between January 2019 and December 2022 in the state of Florida. Tables 6, 7 and 8, that follow, provide a summary and percentage of all building permit data collected for study area Counties, Cities/Towns, and overall summary of all local governments. See detailed information in study reports reflecting local governments for which data was not obtained.

See “Statewide – Building Permits” map below reflecting all building permit data as illustrated by the yellow points in the map.

<b>Table 5: Residential &amp; Non-Residential Building Permit Information* (2019 – 2022)</b>	
<b>Pilot Study</b>	17,669**
<b>Deliverable 1</b>	104,023
<b>Deliverable 2</b>	140,515
<b>Deliverable3</b>	165,329
<b>Deliverable 4</b>	26,864
<b>TOTAL</b>	<b>454,400</b>

See detailed information in study reports reflecting local governments for which data was not obtained.

\*Permits issued between January 2019 and December 2022.

\*\*Only reflects residential permit data.

**Table 6  
Summary of Building Permit Data Collected – Counties\***

	Number of Counties for which Data was Collected between 2019 and 2022				Total Number of Counties for which Data was Collected between 2019 and 2022	Percentage of Counties for which Data was Collected between 2019 and 2022
	2019	2020	2021	2022		
<b>Pilot Study</b> (7 Counties)	7	7	7	7	28	100%
<b>Deliverable 1</b> (11 Counties)	10	10	10	11	41	93%
<b>Deliverable 2</b> (12 Counties)	12	12	12	12	48	100%
<b>Deliverable 3</b> (17 Counties)	12	14	14	15	55	81%
<b>Deliverable 4</b> (16 Counties)	14	14	14	14	56	88%
<b>TOTAL</b>	<b>55</b>	<b>57</b>	<b>57</b>	<b>59</b>	<b>228</b>	<b>90%</b>

\*There was a total of 63 Counties included in the pilot and statewide study areas.

**Table 7  
Summary of Building Permit Data Collected - Cities & Towns\***

	Number of Cities/Towns for which Data was Collected between 2019 and 2022				Total Number of Cities/Towns for which Data was Collected between 2019 and 2022	Percentage of Cities/Towns for which Data was Collected between 2019 and 2022
	2019	2020	2021	2022		
<b>Pilot Study</b> (28 Cities/Towns)	28	28	28	28	112	100%
<b>Deliverable 1</b> (30 Cities/Towns)	23	23	23	24	93	78%
<b>Deliverable 2</b> (16 Cities/Towns)	11	11	11	11	44	69%
<b>Deliverable 3</b> (26 Cities/Towns)	20	20	20	19	79	76%
<b>Deliverable 4</b> (33 Cities/Towns)	24	24	24	24	96	73%
<b>TOTAL</b>	<b>106</b>	<b>106</b>	<b>106</b>	<b>106</b>	<b>424</b>	<b>80%</b>

\*There was a total of 133 Cities/Towns included in the pilot and statewide study areas.

**Table 8  
Summary of Building Permit Data Collected – All Local Governments\***

	Number of Local Govt's for which Data was Collected between 2019 and 2022				Total Number of Local Govt's for which Data was Collected between 2019 and 2022	Percentage of Local Govt's for which Data was Collected between 2019 and 2022
	2019	2020	2021	2022		
<b>Pilot Study</b> (35 local govt's)	35	35	35	35	140	100%
<b>Deliverable 1</b> (41 local govt's)	33	33	33	35	134	82%
<b>Deliverable 2</b> (28 local govt's)	23	23	23	23	92	82%
<b>Deliverable 3</b> (43 local govt's)	32	34	34	34	134	78%
<b>Deliverable 4</b> (49 local govt's)	38	38	38	38	152	78%
<b>TOTAL</b>	<b>161</b>	<b>163</b>	<b>163</b>	<b>165</b>	<b>652</b>	<b>83%</b>

\*There was a total of 196 local governments included in the pilot and statewide study areas.

**Map 5 – Statewide – Building Permits**



### III: Summary of Statewide Findings

The data reveals a number of areas with varying concentrations of potentially developable lands, based on land suitability, existing Future Land Use assignments and new building permit activity, all located within and near Opportunity Areas of the corridor. Of particular interest are the following areas which exhibit these characteristics within critical pinch points of the corridor:

1. Area at the northwest corner of Martin County, southwest corner of St. Lucie County and southeast corner of Okeechobee County.
2. The four corners area of northeast Polk County, southeast Lake County, southwest Orange County and northwest Osceola County.
3. Area between the County lines of Hernando and Sumter Counties.
4. The northeast corner of Osceola and southeast corner of Orange County.
5. The northeast Marion County and southwest Putnam County area.
6. Area between Dixie, Gilchrist, Lafayette and Suwannee Counties along the Suwannee River corridor.
7. Eastern region of Leon County and into portions of Wakulla County.
8. Northern Bay County, southeastern corner of Washington County and the eastern region of Walton County.
9. In the central region along the County lines of Santa Rosa and Okaloosa Counties.

## IV: Lessons Learned

The following is summary of lessons learned as they specifically relate to the general outreach and collection & processing of building permit datasets for the Pilot and Statewide studies. Collection and use of other datasets used in the studies did not present issues. Information regarding the use of these studies, the data and suggestions for targeted audiences that may benefit from this work is also provided below.

### General Outreach

- General knowledge and understanding of the Florida Wildlife Corridor (FLWC) was a challenge during the outreach process. Particularly, in smaller and more rural communities, there was a lack of familiarity with the corridor and the challenges it is facing.
  - Benefit: Many communities were educated on the FLWC.
- There were different levels of misunderstanding and apprehension that had to be addressed during outreach. Building a level of trust with staff members (at various jurisdictions) was essential to understanding the nature of the data request and helped facilitating the data gathering process.
  - Benefit: Staff developed a broad network of contacts at various jurisdictions around the State of Florida.
- For this project, communication with many jurisdictions required multiple avenues of communication (phone, email, public information requests) and persistent level of follow-up.
  - Lesson: The timeframe of the study was a challenge for some jurisdictions
  - Lesson: Some jurisdictions were completely unresponsive to all manner of outreach and additional tools/avenues may need to be utilized for future communication.
- Using an ongoing series of mass communication messaging helped to leverage peer group awareness and facilitate outreach responsiveness.
  - Lesson: For deliverable 2-4, CFRPC staff developed an ongoing (email) report card that highlighted the responsiveness of each jurisdiction as the project schedule progressed. This was updated and reissued every 5-7 days.
    - This improved responsiveness by 15-30%.
  - Lesson: Peer group communication was a critical piece of coordination and outreach.
  - Lesson: Innovative and persistent communication was key, as well.

## Permit Data

- The formatting and storage of building permit data varied greatly from county to county and community to community. For example:
  - Lesson: There no was statewide standard for building permit data formatting, storage, and public access (availability).
    - Some jurisdictions had fully developed permitting interface websites (portals) with advanced querying tools.
    - Some had building permit data geocoded and on a maintenance schedule
      - Typically, those jurisdictions with geocoded data had it accessible via an ArcGIS Online (AGOL) enabled website.
    - Some had data stored on web portals in tabular format
      - A small percentage were “read only”
      - The majority had data available for download.
    - Many jurisdictions required a staff member to provide the permit data
      - In these situations, very specific guidelines (prepared by CFRPC staff) were provided with the data request.
        - Despite the guidelines, many issues were encountered with incorrect data being provided.
          - Incorrect table format, permit types, and permit dates.
  - Lesson: Staff gained insight into different methods used to format, store, and share data across the State of Florida.
- Every piece of permit data was carefully reviewed, edited, and formatted which presented several challenges
  - Lesson: This was the most tedious and time-consuming portion of the study.
  - Benefit: Staff developed my tools and processes to help facilitate the preparation of permit data.
- Geocoding the permit data was a time-consuming process, as well
  - Lesson: Composite geolocators were mandatory to improve the overall rate of location
    - Staff used a 95% rate of location when processing data
  - Lesson: Meticulous review and preparation of permit data was the most important factor in improving geolocation.
  - Benefit: Staff developed many tools and processes to facilitate follow-up work, as needed.

## **Use of this Study and Data**

This study and the data collected and summarized may serve as a useful tool for decision making in prioritizing lands for conservation, protection of the corridor, and guiding development decisions. Of particular interest may be scientists, conservation practitioners and ecological organizations.

Local governments may use this information to further educate themselves on the importance of the Florida Wildlife Corridor and consider opportunities to pursue amendments to Comprehensive Plans, Land Development Code and other studies, plans and efforts.

## **Targeted Audiences**

- Local Governments (Staff, Boards and Elected Officials)
- Federal, State and local agencies (e.g., FDEP, Regional Water Authorities, etc.)
- Planning professionals
- Engineers
- Developers
- Realtors
- Other professional and technical practitioners
- Property (Land) Owners
- General public