



**Planning for the Future –
Jekyll Island Carrying Capacity &
Infrastructure Assessment**

OUR TEAM



James Sipes



Jim Remlin



Ryan Argentieri



HaydenTanner

HERITAGE *strategies*

PHILOSOPHY & APPROACH

Lead JIA through an inclusive and flexible assessment process linking the natural environment and economic opportunities with existing assets to preserve the character of the island, protect natural resources and environmental systems, reduce risk, and increasing resilience and sustainability.



YOUR NEEDS

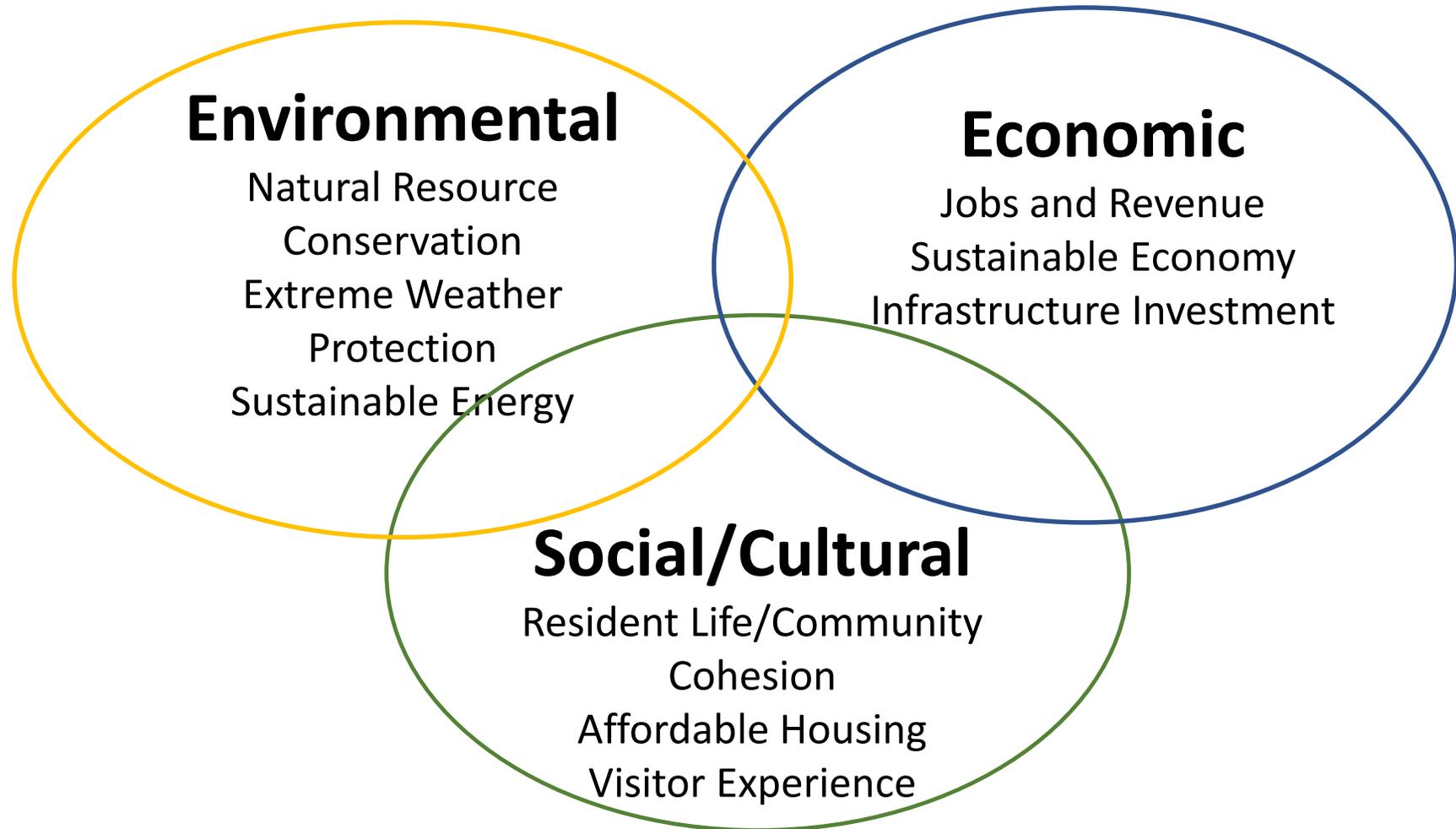
How can we **create and maintain a resilient and environmentally/economically vibrant community** where people want to live and visit?

What **resources and infrastructure are essential to supporting this economy** while maintaining the quality of life and sensitive ecosystems?

What resources do we have, **what do we need and what can the Island support?**

GETTING YOUR FUTURE RIGHT

Create and maintain a resilient and economically vibrant community



PROCESS

Strategic planning

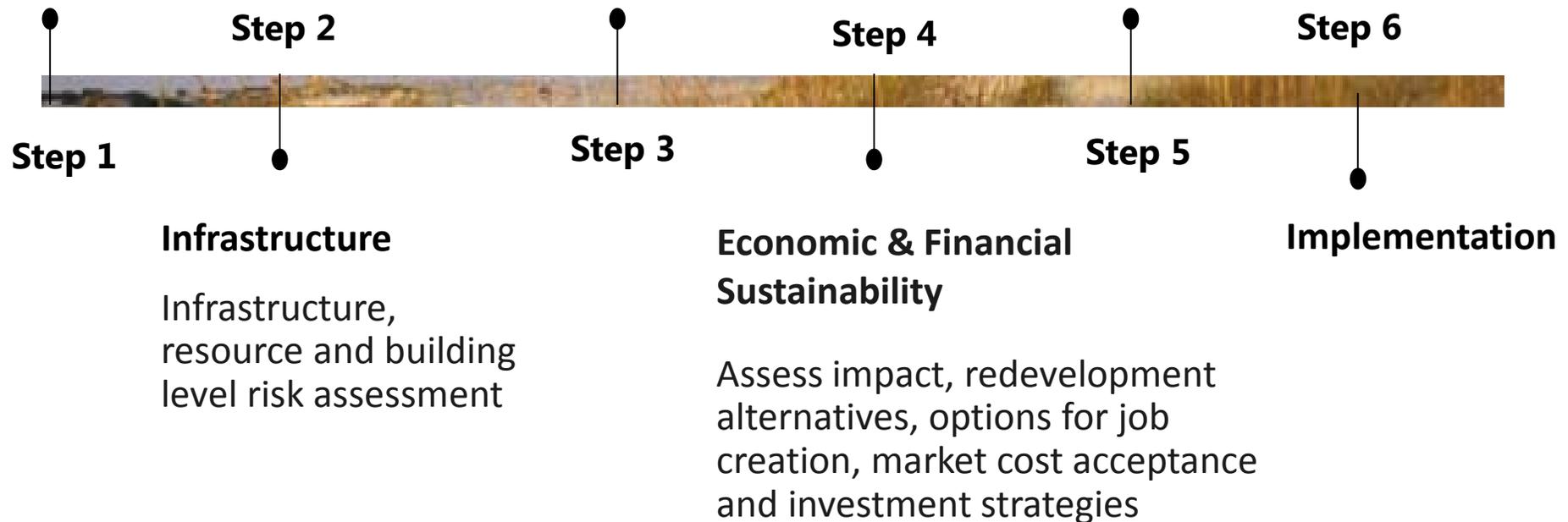
Identify and assess existing resources & overall plan, seek public input

Carrying capacity

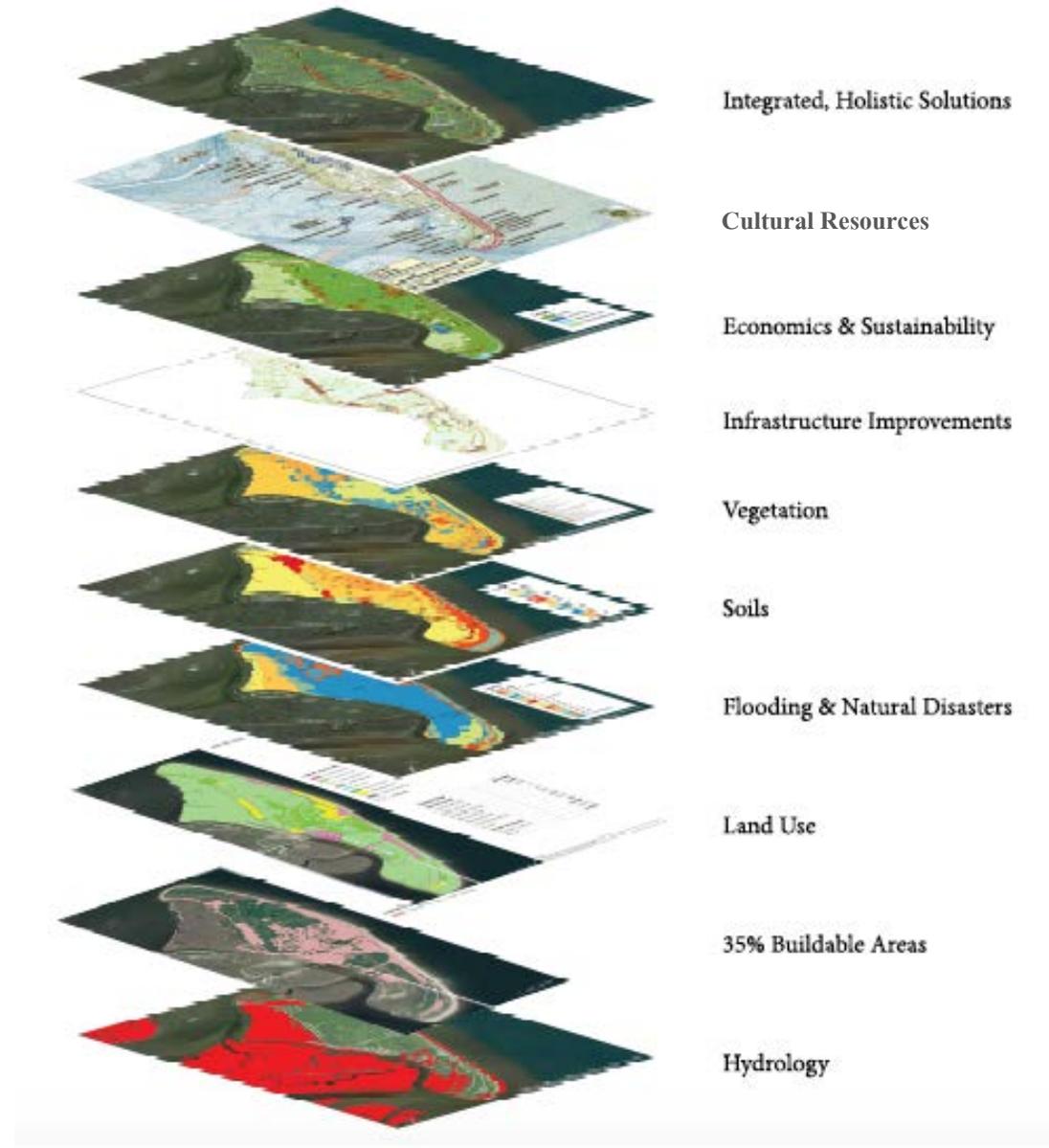
Help JIA create and maintain a resilient, **ecologically sustainable** and economically vibrant community

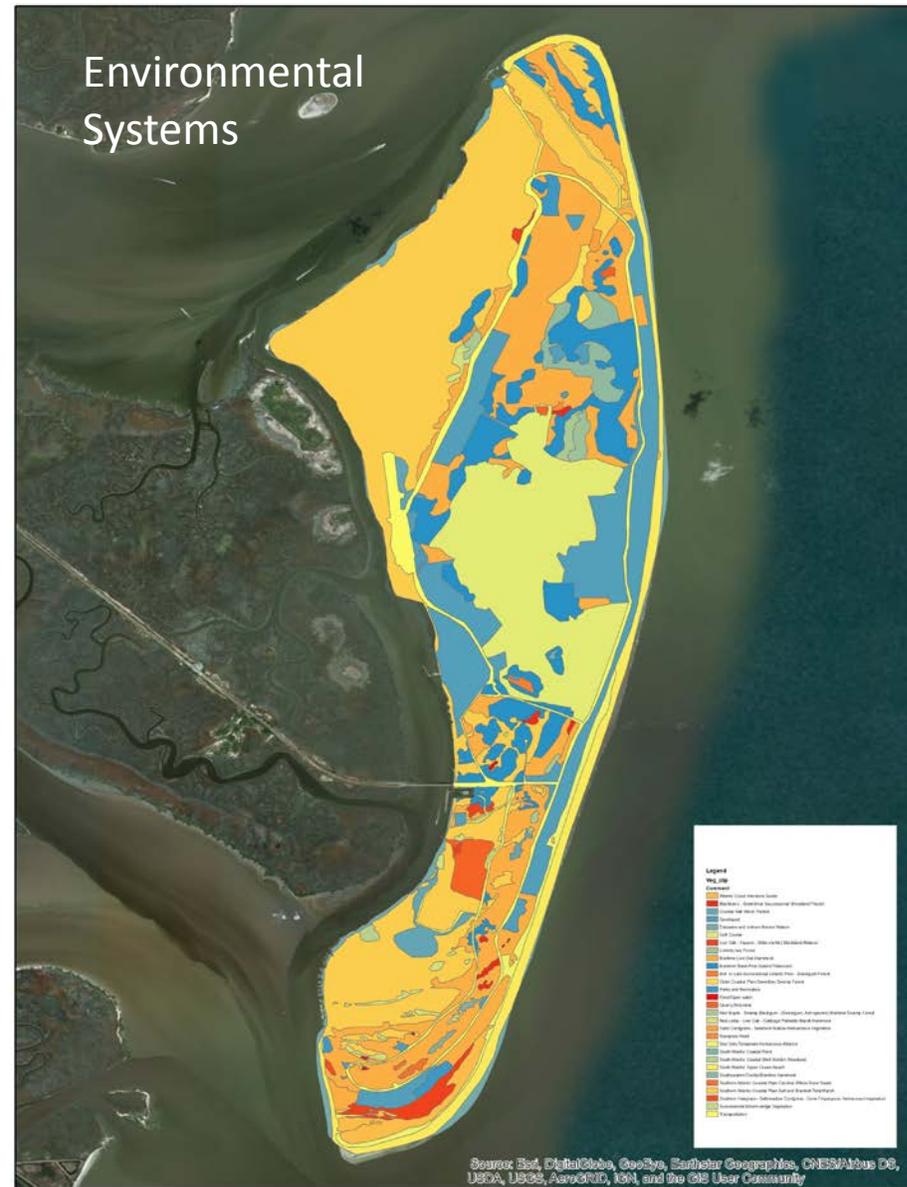
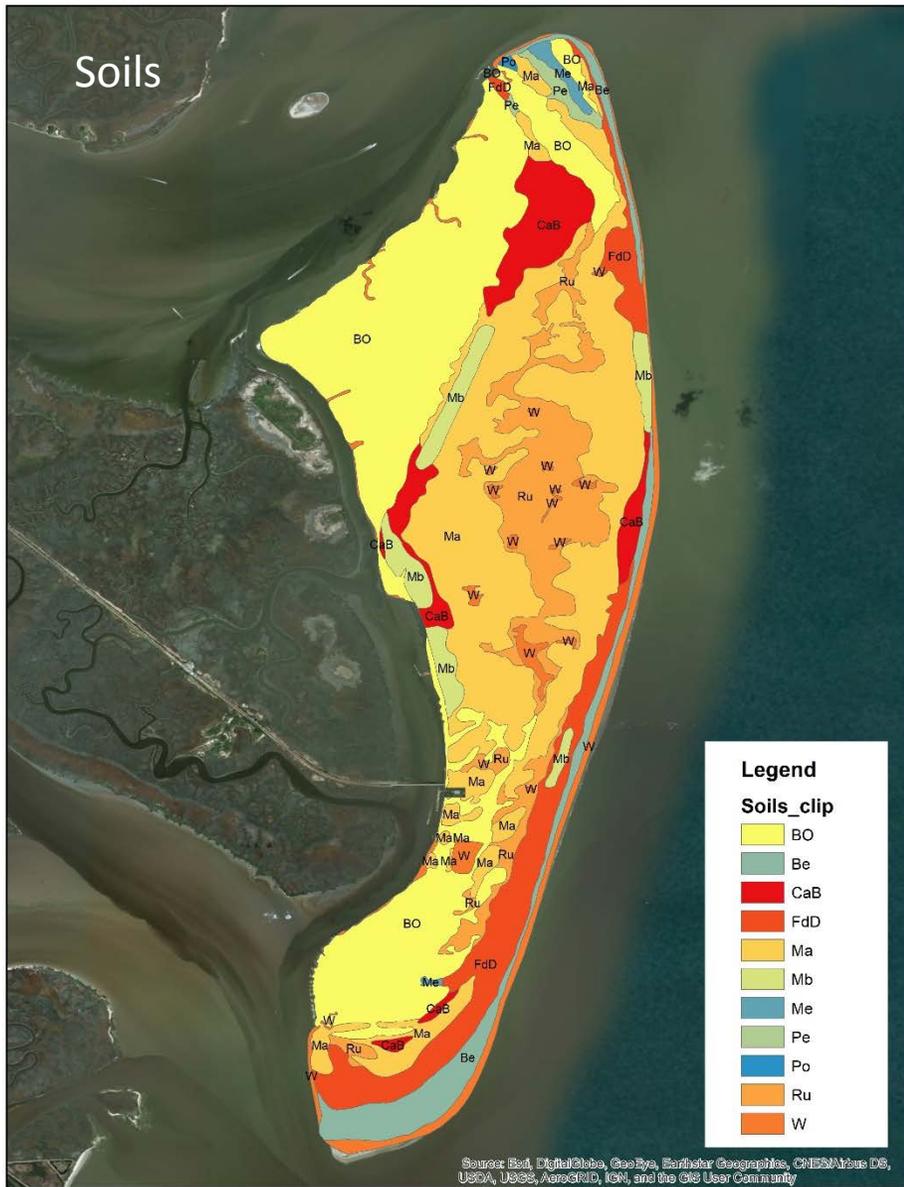
Metrics, assessments, & recommendations

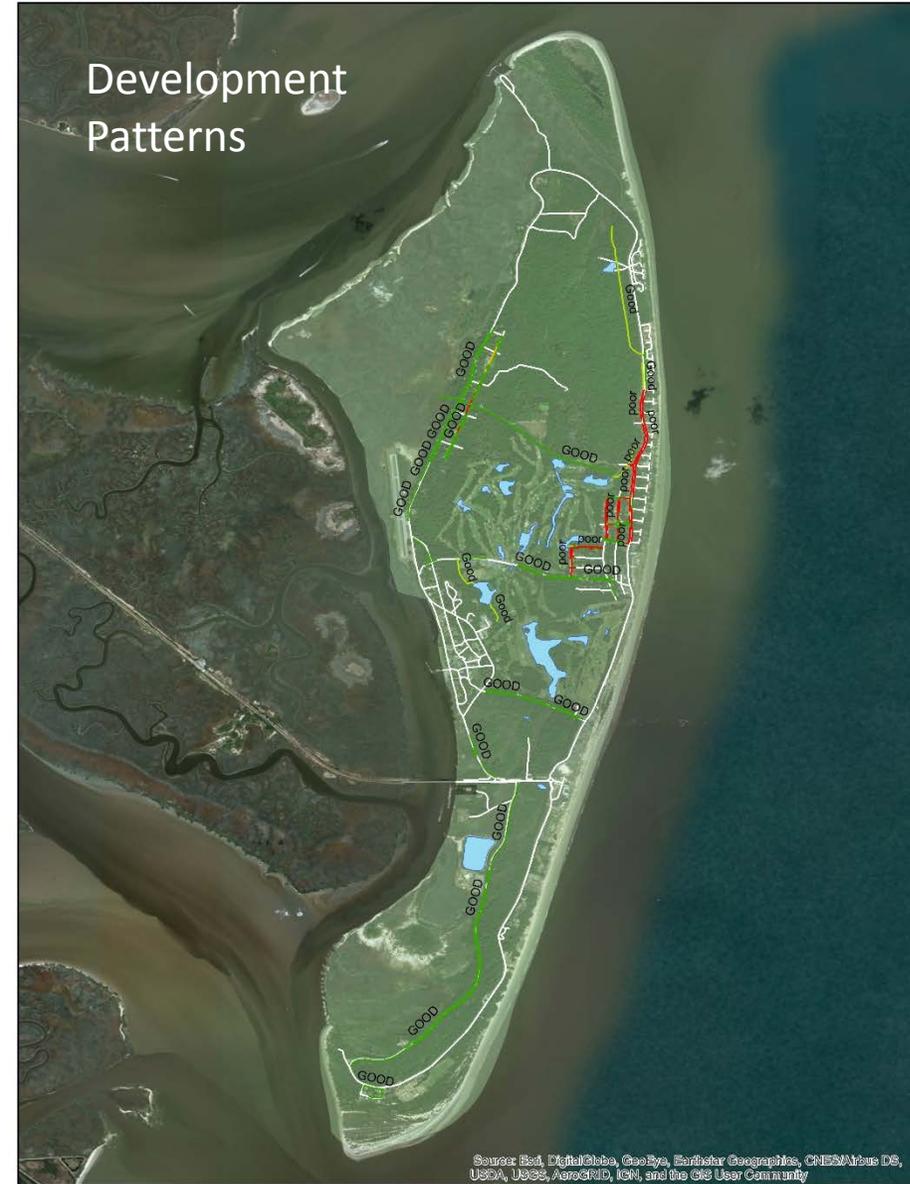
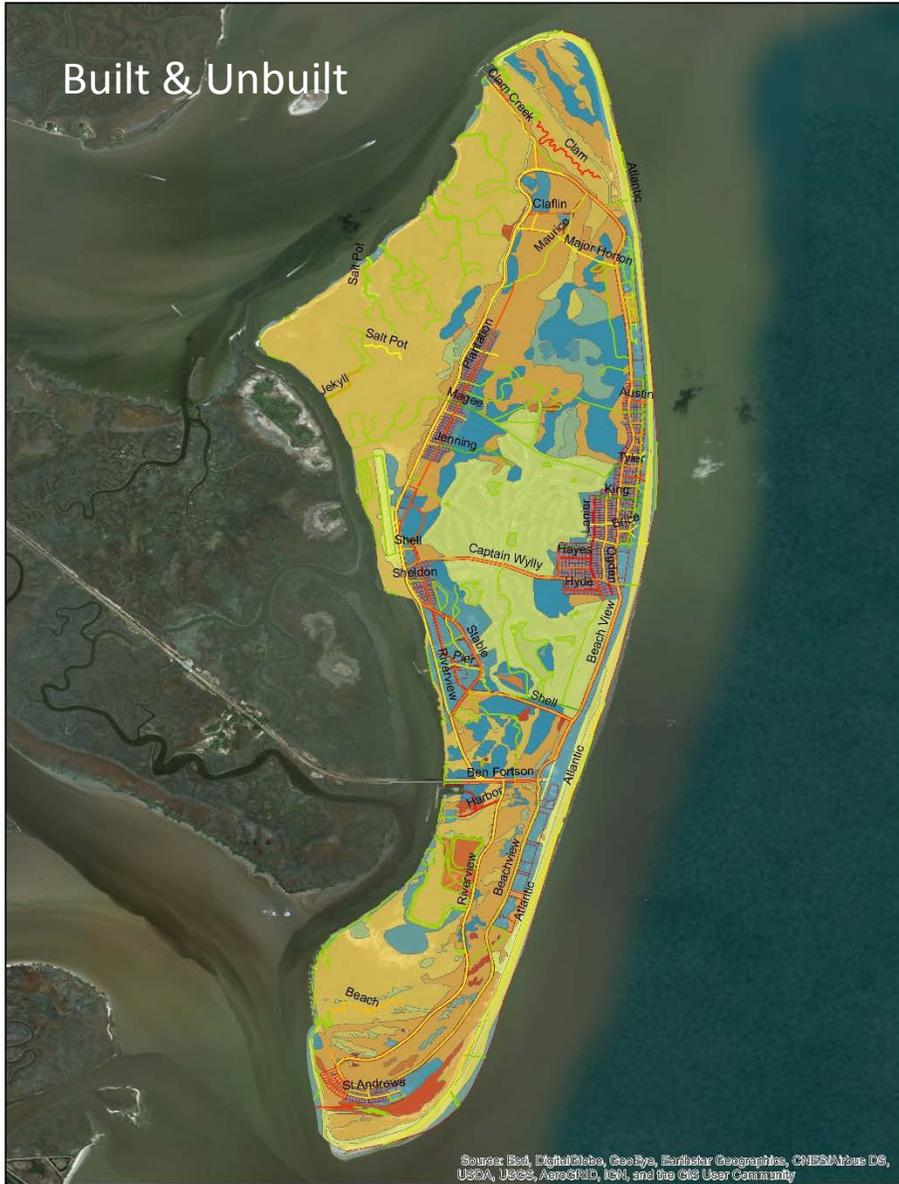
Ongoing M&E process, gauge performance and progress made towards goals



PROCESS







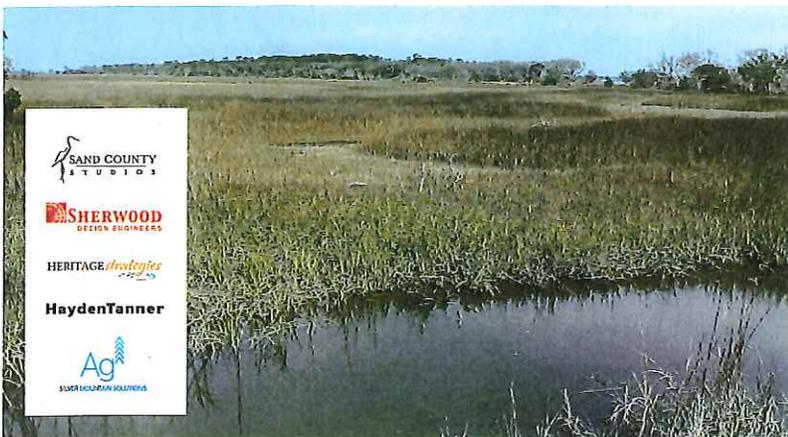




GOALS

The goals of the Jekyll Island Carrying Capacity and Infrastructure project are to:

- Allow the JIA Board to make informed decisions about land use, density, development projects, and amenity enhancements.
- Position the JIA Board to make data-driven decisions regarding capital investment, maintenance, marketing, preservation, and conservation.
- Inform future updates made to the Jekyll Island Master Plan.



Tasks

- 1 Analysis of existing infrastructure essential to supporting the economy and quality-of-life of Jekyll Island as outlined in the Jekyll Island Master Plan;
- 2 Establish the population and visitation parameters that can be supported within the limits of those resources;
- 3 Determine the maximum amount of resident, overnight and daytime populations that can be supported with existing infrastructure without degradation of the island's cultural and natural resources or user experience;
- 4 Understand and consider the seasonality of Jekyll Island visitation regarding service and infrastructure;
- 5 Recommend the additional infrastructure investments and funding strategies for upgrades that may be necessary to support future increases in the cumulative population of residents and visitors;
- 6 Evaluate capacity considerations as related to population (resident and transient), water supply, wastewater handling and treatment, household and commercial solid waste, energy resources, public safety, parking, and traffic;
- 7 Evaluate user fees for residents, businesses, developers, and guests in comparison to other similar entities and make appropriate recommendations;
- 8 Review services performed by the JIA and those conducted by private sector contractors and make any appropriate recommendations;
- 9 Consider and recommend strategies to manage and adapt to projected impacts on infrastructure, amenities, and development posed by rising sea levels;
- 10 Recommend strategies to manage future visitation and population growth to a level that the island's resources and infrastructure can accommodate; and
- 11 Recommend opportunities to increase renewable energy generation for island, commercial, and residential structures.



Carrying Capacity and Infrastructure Assessment

Sheet 1: Goals & Tasks

April, 2018

Prepared for Jekyll Island Authority

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Future Generations

The increasing popularity of Jekyll Island presents both an opportunity and a challenge. How do we ensure the enjoyment of visitors while still maintaining the natural environment and user experience? How do we keep from “loving Jekyll Island to death?”



Carrying Capacity

“Carrying capacity” is the number of individuals who can be supported within a given area without degrading the natural, social, cultural, and economic environment for present and future generations. A carrying capacity seeks to balance human needs and environmental systems.

Visitor Experience

The greater the number of people who visit Jekyll Island, the greater the potential impact on environmental resources of the area, and on the overall visitor experience. The quality of the visitor experience is dependent upon the quality of the island’s tidal marshes, maritime forest, loggerhead turtles, natural wildlife communities, dune systems, and natural beauty.



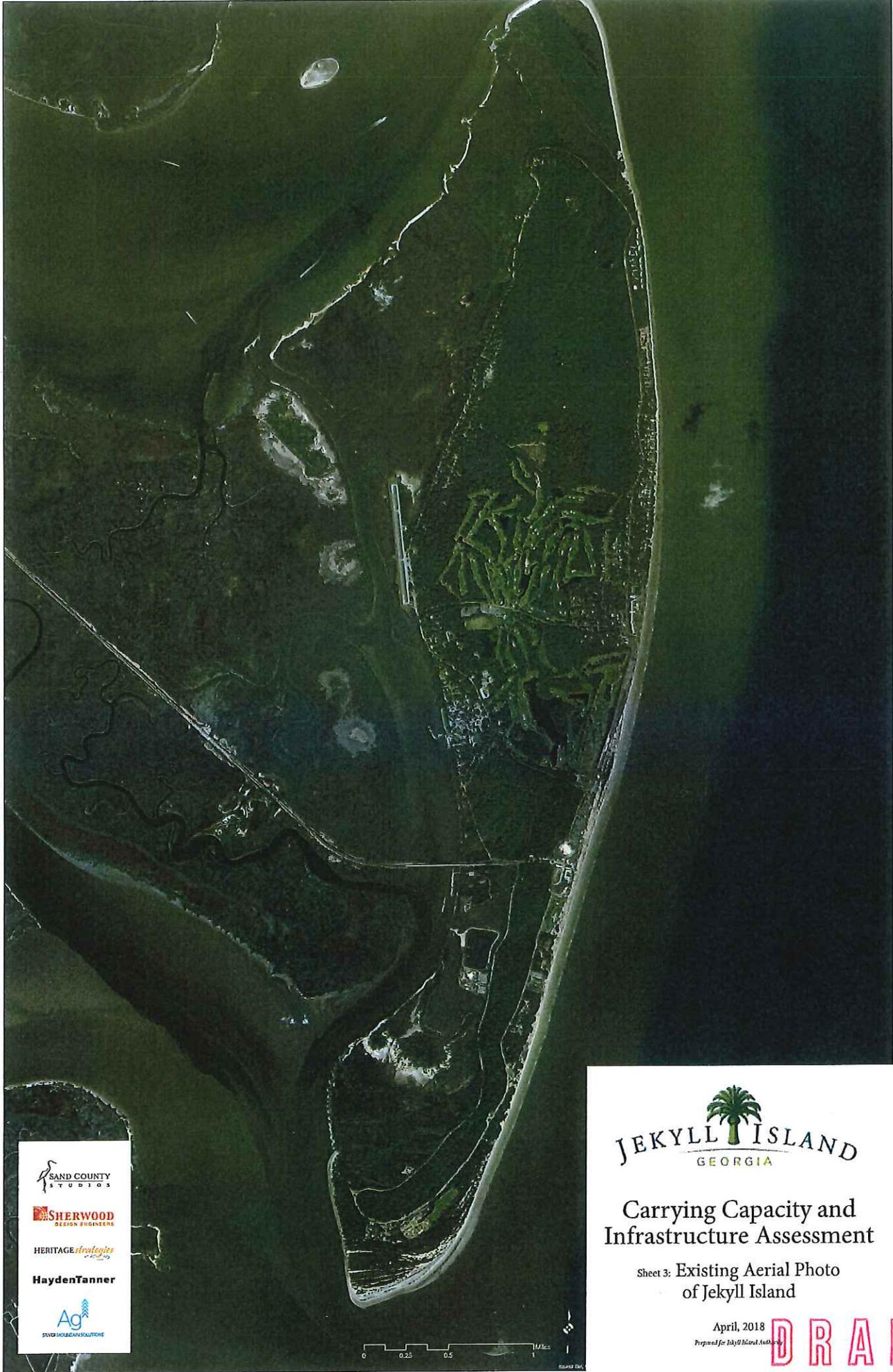
Carrying Capacity and Infrastructure Assessment

Sheet 2: Island Character

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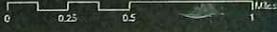
SAND COUNTY STUDIOS

SHERWOOD DESIGN ENGINEERS

HERITAGE *strategies*
of the south

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Ag
SILVER HOLEDAWN SOLUTIONS



Carrying Capacity and Infrastructure Assessment

Sheet 3: Existing Aerial Photo of Jekyll Island

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Prepared for Jekyll Island Authority

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Legend
Roads
Tax Parcel

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JEKYLL ISLAND
GEORGIA

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Sheet 4: Existing Aerial Photo of Jekyll Island - Southern Section

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Legend
 Roads
 Tax Parcel

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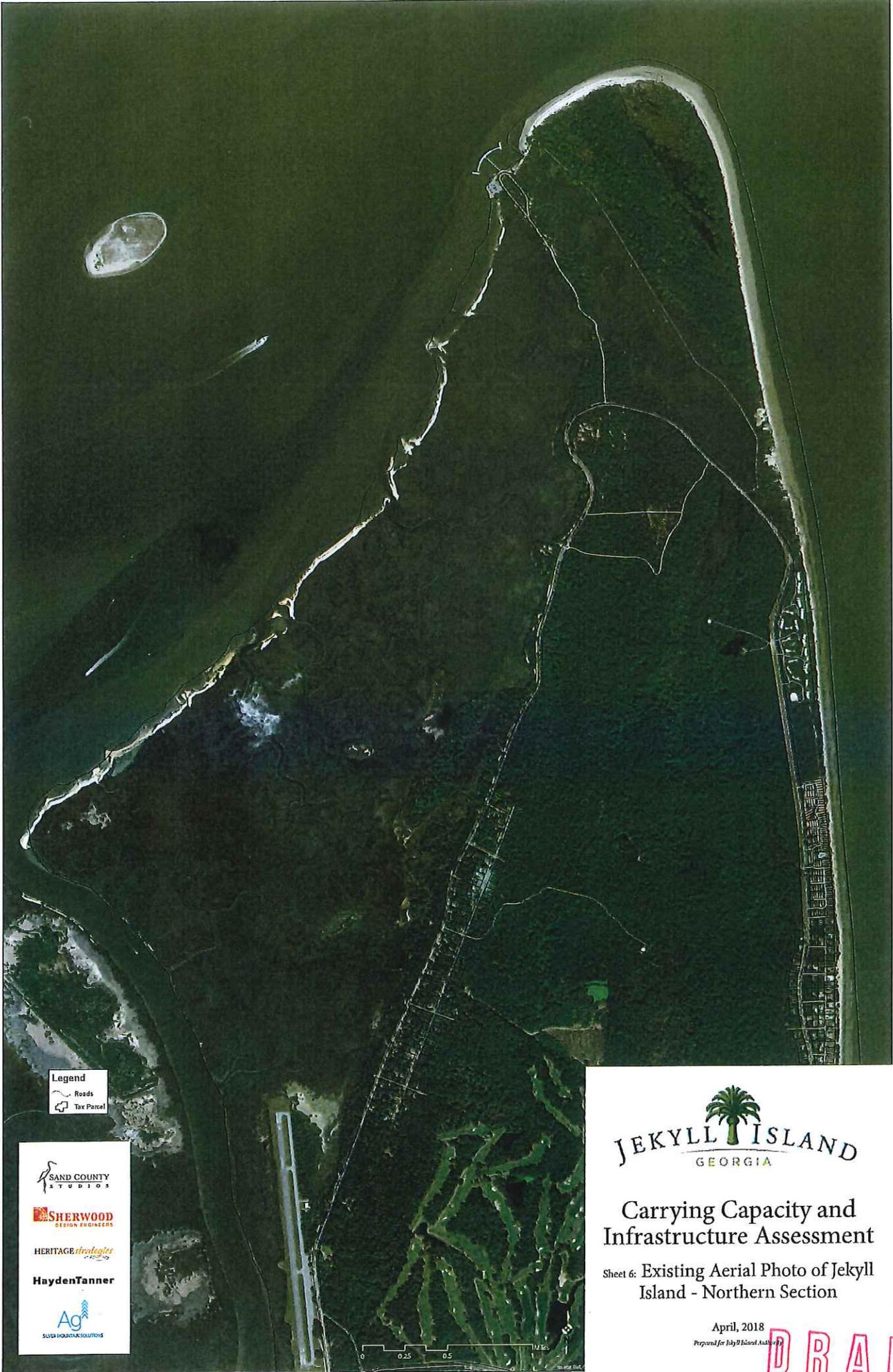
JEKYLL ISLAND
 GEORGIA

Carrying Capacity and Infrastructure Assessment

Sheet 5: Existing Aerial Photo of Jekyll Island - Middle Section

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Legend
Roads
Tax Parcel

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HERITAGE STRATEGISTS
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0 0.25 0.5 1.0 Miles

JEKYLL ISLAND
GEORGIA

Carrying Capacity and
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Sheet 6: Existing Aerial Photo of Jekyll
Island - Northern Section

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- LEGEND**
1. Convention Center
 2. Village
 3. Great Dunes Beach Park
 4. Mini-golf Complex
 5. Jekyll Club Hotel Beach Pavilion
 6. Driftwood Beach
 7. Clam Creek Picnic Area
 8. Fishing Pier
 9. Campground
 10. Horton House
 11. DuBignon Cemetery
 12. Oki Plantation Road
 13. Airport
 14. Tennis Center
 15. Pine Lakes Golf Course
 16. Indian Mounds Golf Course
 17. Golf Clubhouse
 18. Oleander Golf Course
 19. Great Dunes Golf Course
 20. Jekyll Island Museum
 21. Jekyll Island Club Hotel
 22. Georgia Sea Turtle Center
 23. Jekyll Island Historic Wharf
 24. Historic District
 25. Marina
 26. Tidlands Nature Center
 27. Summer Waves
 28. The Wanderer Exhibit
 29. St. Andrews Picnic Area
 30. Camp Jekyll
 31. Soccer Complex
 32. St. Andrews Beach
 33. South Dunes Picnic Area

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HERITAGE STRATEGIES

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JEKYLL ISLAND
GEORGIA

Carrying Capacity and Infrastructure Assessment

Sheet 7: Cultural Resources

April, 2018
Prepared for Jekyll Island Community

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Legend

- Jekyll Roads
- 2013 Land Use**
- Developed
- Undeveloped

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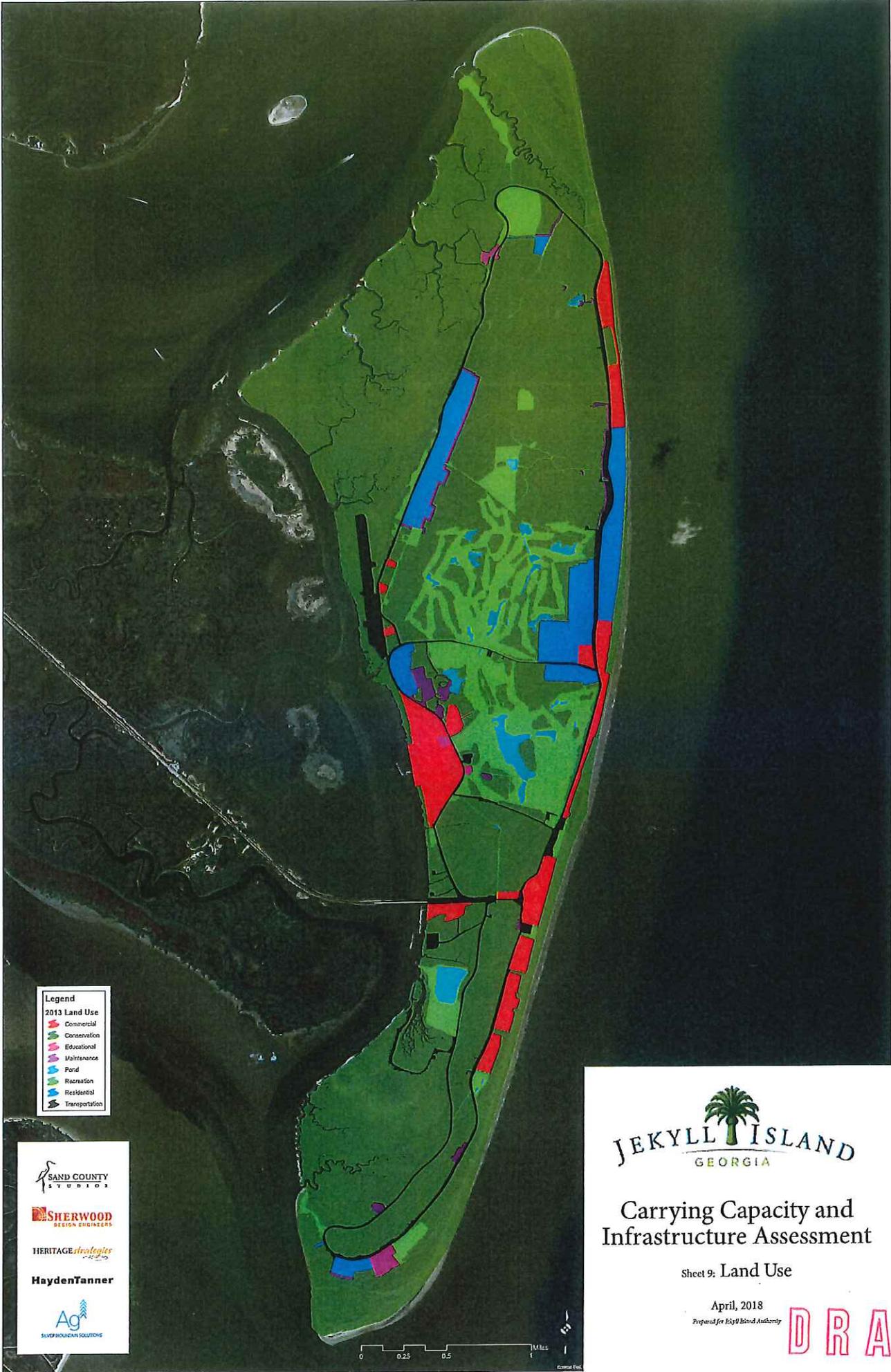
JEKYLL ISLAND
GEORGIA

Carrying Capacity and Infrastructure Assessment

Sheet 8: Developed & Undeveloped Land

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Legend

2013 Land Use

- Commercial
- Conservation
- Educational
- Maintenance
- Pond
- Recreation
- Residential
- Transportation

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GEORGIA

Carrying Capacity and Infrastructure Assessment

Sheet 9: Land Use

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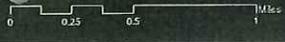
Legend	
[Red Box]	Great Dunes
[Yellow Box]	Indian Mound
[Green Box]	Oleander
[Blue Box]	Pine Lakes

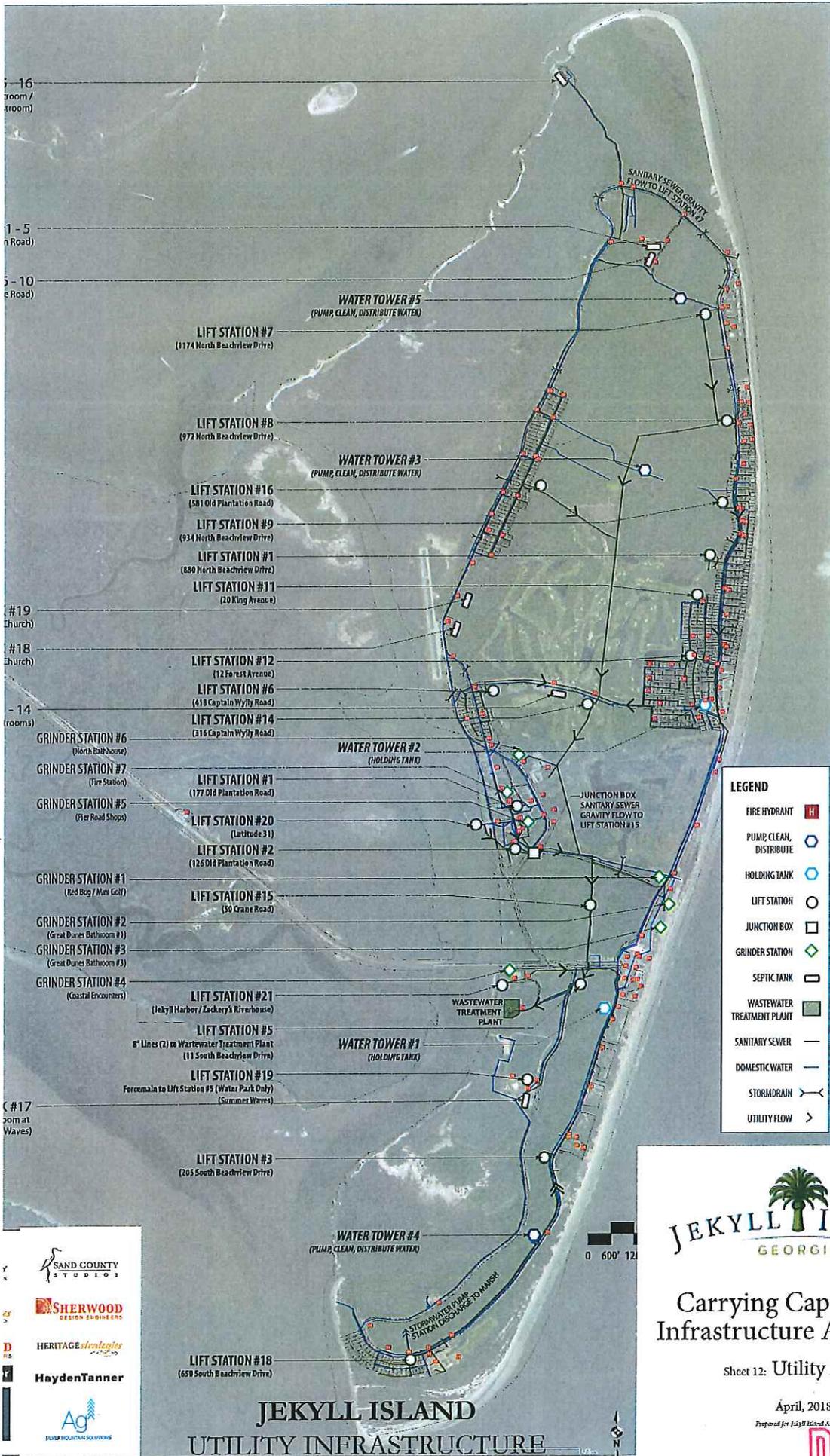
Carrying Capacity and Infrastructure Assessment

Sheet 11: Golf Courses

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LEGEND

- FIRE HYDRANT
- PUMP, CLEAN, DISTRIBUTE
- HOLDING TANK
- LIFT STATION
- JUNCTION BOX
- GRINDER STATION
- SEPTIC TANK
- WASTEWATER TREATMENT PLANT
- SANITARY SEWER
- DOMESTIC WATER
- STORM DRAIN
- UTILITY FLOW

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HERITAGE strategies

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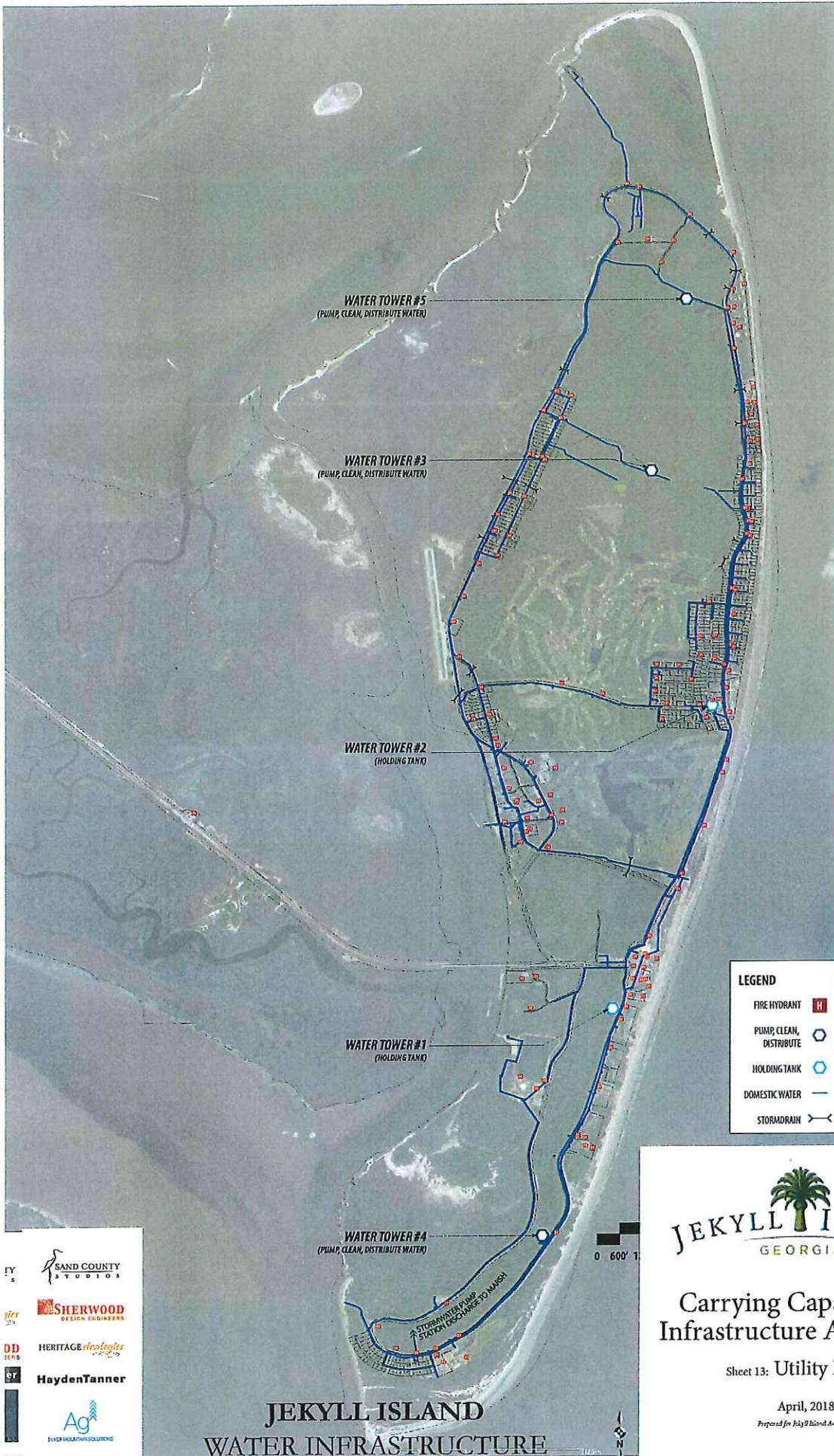
Carrying Capacity and Infrastructure Assessment

Sheet 12: Utility Map 1

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Prepared for Jekyll Island Authority

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JEKYLL ISLAND
UTILITY INFRASTRUCTURE



LEGEND

FIRE HYDRANT	
PUMP, CLEAN, DISTRIBUTE	
HOLDING TANK	
DOMESTIC WATER	
STORMDRAIN	

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JEKYLL ISLAND
WATER INFRASTRUCTURE

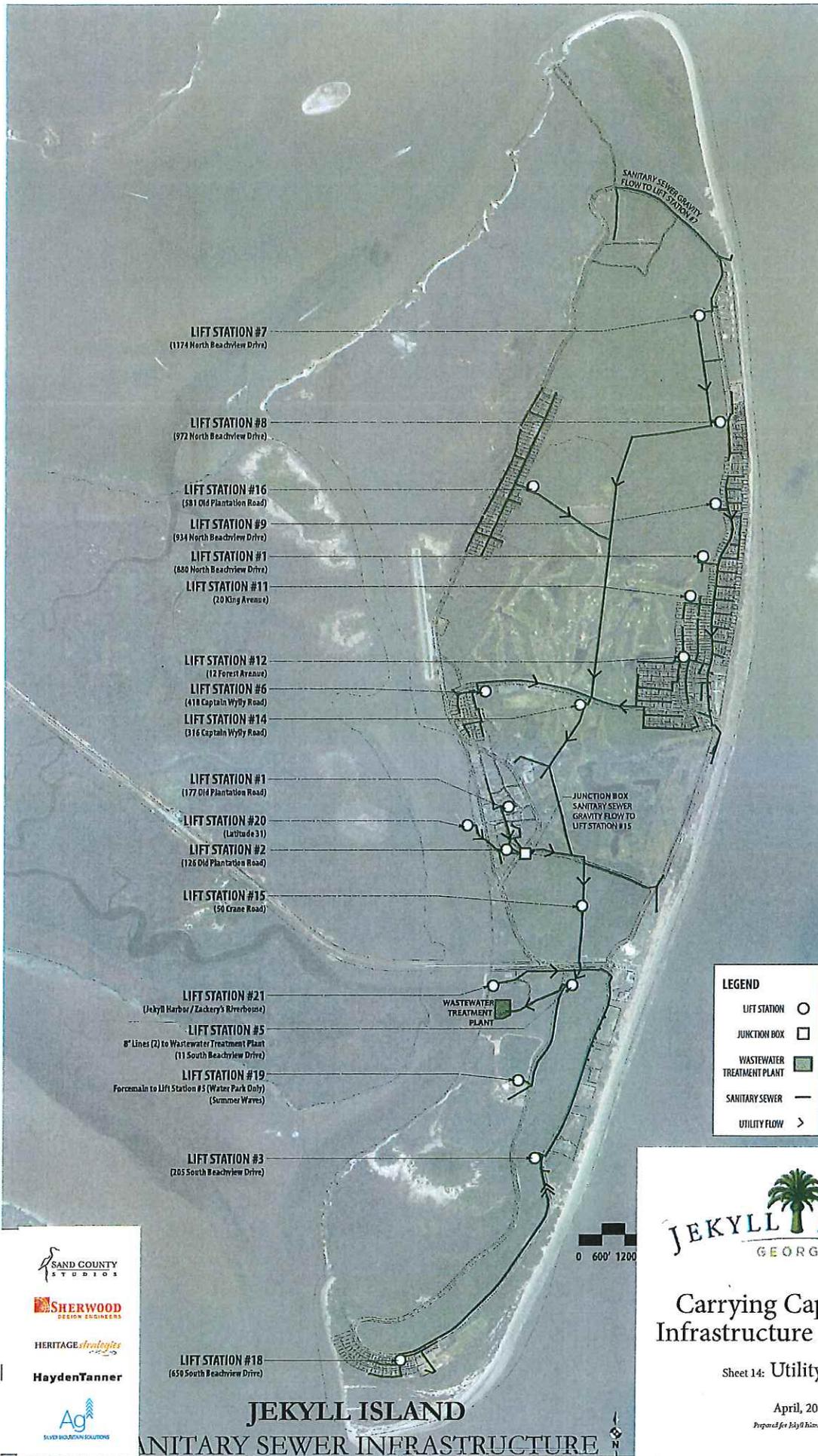


Carrying Capacity and Infrastructure Assessment

Sheet 13: Utility Map 2

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Legend

2018 Operating Income

Red	> \$650,000
Orange	\$450,000 - \$649,999
Yellow	\$250,000 - \$449,999
Light Green	\$50,000 - \$249,999
Dark Green	\$0 - \$49,999
Blue	No Revenue Generated

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GEORGIA

Carrying Capacity and Infrastructure Assessment

Sheet 16: Revenue Generation of Island Facilities

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