CITY OF SPRINGFIELD

RECOVERY AND RESILIENCY PARTNERSHIP PROJECT

Appendix of Additional Information and Resources

Introduction

The Recovery and Resiliency Partnership Project (R2P2) is a technical assistance initiative provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination field operations and the U.S. Environmental Protection Agency (EPA), Region 4.

The R2P2 technical assistance supported the cities of Mexico Beach, Marianna, Parker, Springfield, Quincy, and Chattahoochee in their vision for long-term economic recovery by developing concept plans for each city to support downtown revitalization and connections to parks and trails. The concept plans outline strategies for stormwater resiliency and greenspace connections that support the local economy and long-term recovery of the region. Please click here to view the final design report: http://r2p2.skeo.com/

This appendix includes additional information and resources to supplement the illustrative design concepts and support implementation:

1) Project Implementation Framework
2) Potential Funding Sources for Implementation
3) Preliminary Design Concepts Shared for Community Input
4) Summary of Community Input
5) Sustainability Strategies
    - Sustainable Design Checklist
    - Opportunities to Support Recreation and Connectivity (FL OGT)
    - Community Benefits of Green Infrastructure
    - Water Reuse
    - Green Buildings and Disaster Resilience
    - District Stormwater Approach
    - Mass Timber
    - U.S. Army Corps Silver Jackets Project – Lake Martin
6) Design Concept Development
7) Environmental Review Considerations
8) Community Profile
9) R2P2 State and Federal Partners Contact List

For more information about R2P2, please contact Rick Durbrow, U.S. EPA Sustainability Advisor, Integrated Recovery Coordination at Durbrow.Rick@epa.gov or call 404-562-8286.

Section 1
Project Implementation Framework

Implementation Framework

Overview

As part of the Recovery and Resiliency Partnership Project (R2P2), the technical assistance team convened calls with the city and federal, state and regional partners to discuss implementation strategies associated with each of the proposed design concepts. The team used the framework template below as a discussion tool to identify potential actions, leads, partners, and timing considerations for each of the design concepts. A working draft of the implementation framework was provided to the city as a living or active document that could be refined as new opportunities and information become available and to track progress.

Project Name			
Actions	**Potential Lead / Partners**	**Timing**	**Considerations**
What are key next steps to advance implementation?	*Who are key leads or partners to collaborate with on implementation?*	*Is this a near- or long-term opportunity?*	*What are key considerations for moving forward, such as, funding opportunities, partnership building, coordination with related projects or initiatives, opportunity for community engagement?*

Section 2
Potential Funding Sources for Implementation

Potential Funding Sources for Implementation

A funding resources spreadsheet was developed as part of the R2P2 process. The active (digital) tracking tool identifies a range of funding opportunities to support the city with implementation of the projects. The tool allows multiple users to view, contribute and update information in real time. Over 100 potential funding and technical assistance opportunities have been identified during the process. In addition to providing basic information about the funding opportunity, the tracking tool identifies the suitability of the funding source to support specific project types, the level of match required, and whether local government resolution or letters of support are needed. The funding tracking tool uses the following categories to help identify suitable funding options for specific projects:

- Recreation
- Transportation
- Infrastructure
- Economic Development
- Environmental
- Disaster Recovery

A snapshot of the tracking tool is provided below and is available to download here.

PROGRAM	FUNDER	DUE DATE	RECREATION	TRANSPORTATION	INFRASTRUCTURE	ECONOMIC DEVELOPMENT	ENVIRONMENTAL	DISASTER RECOVERY	BRIEF DESCRIPTION	GRANT CONTACT (name/phone/email)	COMPETITIVE	MATCH	IN-KIND MATCH ALLOWED?	AWARD NOTES	APPLICANT ELIGIBILITY	REQUIREMENTS
Community Development Block Grant (CDBG) - Disaster Recovery	DEO/HUD	TBD (in process of finalizing grant agreement with HUD)			X	X	X	X	Projects related to disaster relief, long-term recovery, restoration of housing, infrastructure and economic revitalization resulting from Hurricane Michael.	Trip Farmer, DEO Communications Manager John.Farmer@deo.myflorida.com	Yes	No	N/A		Counties (and municipalities within those counties) that received FEMA Individual Assistance (IA) declarations and Public Assistance (PA)	Located in state and HUD designated Most Impacted and Distressed (MID) areas.
Water Infrastructure Finance	EPA	10/15/2020			X	X	X		Long-term, low-cost supplemental loans for water c	WIFIAprogramwifia@epa.gov 202-564-2992	Yes	Some	N/A	Eligible project activities includ	- Local, state, tribal, and feder	- Project's eligible costs are at least $20 mill
Advertising Matching Grant	Visit Florida	TBD	X			X			Funds are for marketing purposes to promote the tourism advantages of Florida	grants@visitflorida.org	Yes	1:1	Yes	Maximum $2,500	Local government or non-profit in municipalities having a population of 50,000 persons or less or in counties with an unincorporated area having a population of 200,000 persons	
Silver Jackets	USACE, FEMA, USGC, et al	TBD					X	X	State-led interagency team that brings resources, funding, and programs together to help meet the	U.S. Army Corps of Engineers (USACE), Jacksonville District SilverJackets@usace.army.mil		N/A	N/A			
Surface Water Improvement and Management (SWIM) - Watershed Resource Restoration and Protection	Northwest Florida Water Management District	TBD					X		Supports coordination of state and federal grants and implementation of cooperative projects with local governments in SWIM priority waterbodies including Apalachicola River and Bay Watershed.	grants@nwfwater.com	No					
Florida Job Growth Grant Fund	Enterprise Florida, Inc. (EFI) and Department of Economic Opportunity (DEO)	Rolling until all the funding is committed				X			Infrastructure and workforce training project proposals.	FloridaJobGrowthGrantFund@enterpriseflorida.com						Infrastructure grants must promote economic recovery in specific regions, economic diversification or economic enhancement in a targeted industry. Workforce training grants must support programs at state colleges and technical
Clean Water State Revolving Fund (SRF)	FDEP	Rolling					X		Low-interest loans to plan, design, and build or upgrade wastewater, stormwater, and nonpoint source pollution prevention projects. Principal forgiveness available for disadvantaged communities.	Tim Banks, Program Administrator 850-245-2969 timothy.banks@dep.state.fl.us	Yes	Up to 75% grant, 25% loan		Priority consideration given to use of reclaimed water systems, Restoration and Protection of Special Water Bodies (A water body classified as Outstanding Florida Waters	Local governments and special districts.	Application requires Environmental Review, Public Participation, Site Certification, Facilities Plan or Planning Document
Nonpoint Source Funds - Federal Clean Water Act Grants (319 Grants) / State	FDEP	Rolling					X		Water quality restoration, ground water protection, septic to sewer. Green Infrastructure/Low Impact Development for stormwater.	Emily Forinash, Grant Coordinator emily.forinash@dep.state.fl.us 850-245-2944	No	0.4 (Federal 319 Grant) No match required (SWAG)	yes	Rolling application; no need to resubmit projects; auto rollover to next cycle	Local governments, including county and municipal governments, special districts,	
Disaster Supplemental Assistance	EDA	Rolling			X	X		X	Funds to help communities and regions devise and im	Greg Vaday gvaday@eda.gov 404-730-3009	Yes	Up to 20% (with discretion to not requi	Yes		District Organization; Tribe; Sta	Must incorporate resilience principles and support long-term, regionally-coordinated plan for economic growth and resilience. If using in-kind match, recommend coordination with EDA regional point of contact to confirm whether contributions
Emergency Community Water Assistance Grants	USDA-RURAL DEVELOPMENT	Rolling			X				Grants to construct waterline extensions, repair breaks in existing distribution lines and address related maintenance (up to $150,000) Grants to construct a water intake or treatment	Loria Phillips, Area Director, USDA Marianna Area Office loria.phillips@usda.gov	No	No match	n/a		Rural areas and towns with populations 10,000 or less, tribal lands in rural areas, non-profits	Max $500K for 2 yr significant decline or $150K for emergency repairs
Fruit Tree Orchard Grant	Fruit Tree Planting Foundation (FTPF)	Rolling					X		Orchard donations, including fruit trees and shrubs, equipment, on-site orchard design expertise and oversight, horticultural workshops, and aftercare	831-621-8096 info@ftpf.org	No	No match	N/A	https://www.ftpf.org/apply	Nonprofits, NGOs, public schools, or government entities.	Must serve a charitable purpose. Must own the planting site or have a long-term lease in place.
Natural Resources Conservation Service - Emergency Watershed Protection	USDA-RURAL DEVELOPMENT	Rolling			X		X	X	financial and technical assistance to mitigate flooding caused by a disaster, erosion control, culverts, debris removal, etc.	Jason Strenth 352-338-9559 jason.strenth@usda.gov	No	25% (10% for Ec. Disadvantaged Areas)	Yes	Debris removal; reshape and protect eroded streambanks; establish vegetative cover on critically eroding lands; correct damaged drainage facilities	Public and private landowners can apply through a local sponsor (cities, counties, towns, conservation districts, flood and water control districts), or a legal subdivision	Damage must be caused by a disaster (but federal emergency declaration is NOT req'd)
Partners for Fish and Wildlife Program	Fish and Wildlife Service	Rolling					X		Technical and financial assistance to landowners interested in restoring and enhancing wildlife habitat on their land.	Joseph Prenger, Partners for Fish and Wildlife State Coordinators 904-731-3096 Joseph_Prenger@fws.gov		0.5	Yes	Example projects include streambank stabilization, longleaf or shortleaf pine plantin restoration of in-stream aquatic habitats, wetland	Private landowners, local governments, universities, federal agencies, state agencies and non-governmental organizations	Minimum project duration of 10 years.
Public Works and Economic Adjustment Assistance Programs including CARES Act Funding	EDA	Rolling			X	X		X	Funds for construction, non-construction, planning,	Greg Vaday gvaday@eda.gov 404-730-3009	Yes		Yes		Institutions of higher education	Must meet criteria for distressed region based on unemployment rate and per capita income or meet criteria for Special Need (natural disaster declaration, location in Opportunity Zone, loss of major employer essential to regional economy,
Regional Rural Development Grant	DEO	Rolling				X			Program to build capacity of a rural economic and tourism development organizations to attract new businesses and grow existing businesses.	Sean Lewis (850) 717-8428 Sean.Lewis@DEO.MyFlorida.com	Yes	1:1	Yes	Maximum grant will be $50,000 a year, or $150,000 for organizations that serves Rural Area of Opportunity	Organizations made up of two or more contiguous rural counties, which cooperatively agree to establish an economic	

Snapshot of a portion of the funding resources spreadsheet

Section 3
Preliminary Design Concepts Shared for Community Input

City of Springfield Preliminary Design Concepts for Community Input

The posters and video presentations of the preliminary design concepts shared for community input are available at the following website: http://r2p2.skeo.com/springfield/

The posters and community survey are also provided on the following pages for reference.

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS
CITY OF SPRINGFIELD OVERVIEW

Please visit www.R2P2.skeo.com to comment on these preliminary concepts!

Recovery and Resiliency Partnership Projects (R2P2)

R2P2 is technical assistance provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination field operations.

R2P2 supports the City's vision for long-term economic recovery by developing design concepts and strategies that improve resiliency to future stormwater impacts and integrates strategies for sustainable redevelopment.

Additional R2P2 technical assistance include Mexico Beach, Springfield, Marianna, Chattahoochee and Quincy.

R2P2 is also working at a broader scale to identify recreation-oriented economic development opportunites across the region.

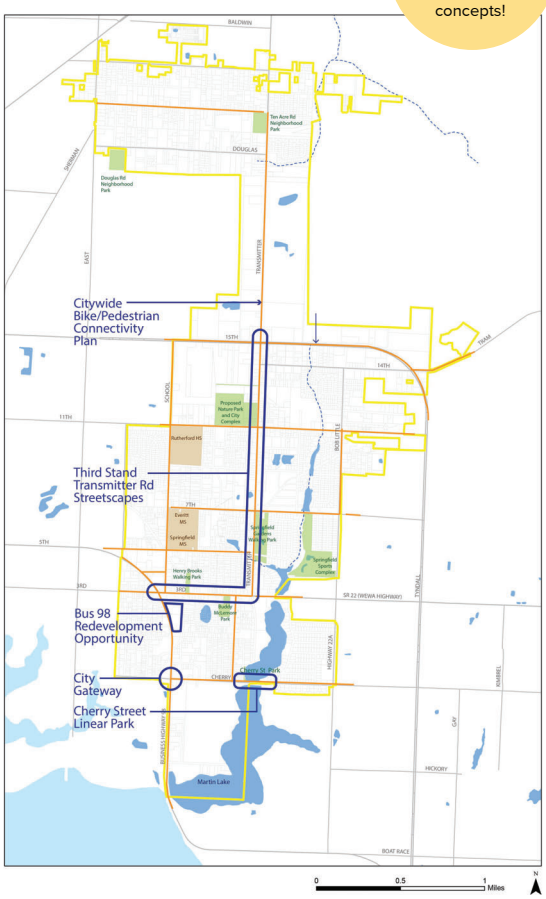
Project Overview

The City of Springfield identified four areas within the city that have potential to support revitalization and long-term economic and ecological resilience to bolster the community's ability to withstand and recover from potential storm events like Hurricane Michael.

The technical assistance team worked with the city to develop designs for each of the project sites, as well as a citywide connectivity plan that proposes safe pedestrian and bicycle infrastructure like sidewalks and bike lanes to link city assets and destinations.

Springfield Design Projects include:

- City Gateway
- Bus. 98 Redevelopment Opportunity
- Streetscape Improvements (Transmitter Rd and Third Street)
- Cherry Street Linear Park
- Citywide Connectivity



Sustainability and Resiliency Strategies

The design options address specific challenges by integrating best practices to address stormwater while providing amenities to improve public spaces and biking and walking safety.

Each design option integrates one or more of the tools described on this page to help manage the volume, flow and/or treatment of stormwater.

The icons are included on the concept design plans to indicate the tools used.

VEGETATED SWALES (BIOSWALES)

Vegetated swales, sometimes referred to as bioswales, are broad, shallow channels designed to convey and infiltrate stormwater runoff. Swales reduce stormwater volume and improve water quality through infiltration and vegetative filtering. Swales can be planted with grasses, perennials, shrubs and trees to increase aesthetic and habitat value.

RAINWATER STORAGE

Capture systems collect and store stormwater for specific purposes, such as irrigation, and often can hold water for a significant period of time.

PERVIOUS PAVEMENT

Pervious concrete and asphalt have proven viable alternatives to reduce stormwater runoff volume, rate, and pollutants.

WETLAND RETENTION

Enhancing existing wetlands can provide stormwater detention, improved water quality, increased habitat and new recreational amenities.

WATERWAY RESTORATION

Vegetated buffers on either side of a waterway enhance watershed health by moderating water runoff quantities and improving water quality. The vegetation can intercept, absorb, and infiltrate surface runoff to help moderate the peak runoff rates during rain events, which reduces erosion and sedimentation of the channel.

POLLINATOR GARDENS

Many types of plants, including fruit and vegetable crops, depend on animals (such as butterflies, bees and birds) for pollination. Using pollinator-friendly plants can also help support these important species.

NATIVE PLANTINGS

Incorporating vegetation into the landscape is a stormwater management technique that mimics natural drainage. Vegetated areas intercept and infiltrate rainfall to decrease stormwater volumes and can also remove pollutants.

HEALTH & WELLNESS

Increasing opportunities for health and wellness can strengthen a community's resilience by increasing wellbeing and community ties through exercise and social interactions. In addition, recreation amenities can bolster economic recovery as recreational tourism grows in popularity.

ALTERNATIVE TRANSPORTATION

Providing infrastructure for safe travel by foot, bicycle and paddle boat can reduce vehicular traffic and encourage healthier lifestyles.

RESILIENCY

Many sustainability features are part of larger design strategies to increase resilience in storm events, such as slowing stormwater runoff by collecting and detaining water temporarily to reduce damage. Designs also include strategies to increase resilience by creating places and spaces that support economic development, such as greenways and commercial opportunities to attract visitors and boost employment. Design tools and strategies to support economic recovery and build resilience for future storm events are highlighted within each design concept.

Streetscape with separated sidewalk and bike path and native plantings.

Bioretention basins use native plants and materials to slow and infiltrate stormwater runoff.

The Recovery and Resiliency Partnership Projects (R2P2) technical assistance is provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination (IRC) field operations in partnership with regional, state, and federal agencies to support communities as they recover from Hurricane Michael.

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS
CITY OF SPRINGFIELD STREETSCAPE IMPROVEMENTS

Please visit www.R2P2.skeo.com to comment on these preliminary concepts!

Transmitter Road and Third Street connect many of the city's most important recreation and civic assets, and serve as key routes for traffic moving through Springfield. Both roads lack safe multi-modal infrastructure.

Issues / Background

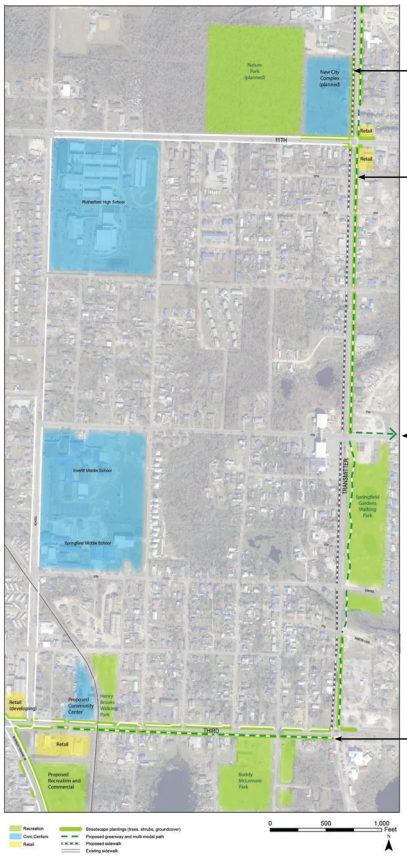
Transmitter Road

The new city complex and nature park planned for the intersection of 11th Street and Transmitter Road will create a new northeast gateway into the city. It will be important to provide safe pedestrian and bicycle connectivity along this major north-south thoroughfare, which adjoins residential neighborhoods and the popular Springfield Gardens Walking Park. Plans to widen Transmitter Road north of 15th Street are in progress. While the road shoulders have been extended for bike lanes, the road lacks sidewalks and safe crossings.

View looking south on Transmitter Road near 7th Street intersection (top); view looking north on Transmitter Road toward intersection with 11th Street (top)

Design Concepts

Transmitter Road Greenway - Proposed improvements include a shared multi-modal path on the east side of the road from Third Street to Orlando Road (north boundary of city), and continuous sidewalks on the west side of the road.



Proposed sidewalks on the west side of Transmitter Road can provide safe connections for pedestrians along the busy vehicular route.

A greenway is proposed for the east side of Transmitter Road, extending north from Third Street to Orlando Street at the north end of Springfield. The greenway can provide safe access to many neighborhoods and existing and planned community assets including:

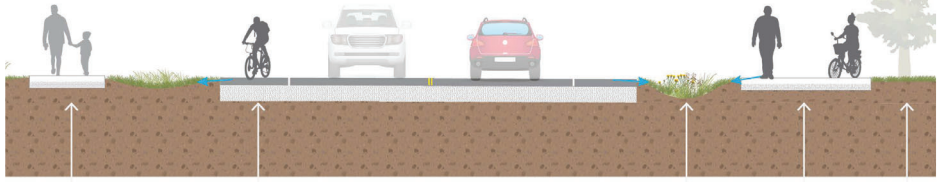
- Third Street Corridor/Buddy McLemore Park
- Springfield Gardens Walking Park
- Proposed 11-mile Greenway Loop
- Planned City Complex and Nature Park
- 10-Acre Road Park*
- 15th Street/Tyndall Parkway*

*not included in map, north of map extent

Proposed 11-Mile Greenway Loop (NPS). A greenway along Transmitter Road can provide a significant north-south link for the proposed greenway, which continues under powerlines (likely unpaved trails) east of Transmitter Road.

Transmitter Road improvements planned north of 15th Street can potentially integrate the multi-modal path during construction.

Streetscape improvements including trees and a multi-modal path along Third Street connect key city assets such as parks, retail and civic centers.



Transmitter Road Greenway

Proposed improvements for Transmitter Road include a shared multi-modal path on the east side of the road from Third Street to Orlando Road (north boundary of city), and continuous sidewalks on the west side of the road.

Issues / Background

Third Street

Third Street extends through the city center and provides connections to schools, city hall, the library and two parks. Although plans have been developed to widen Third Street to four lanes, the city prefers two lanes or consideration of three lanes which would include alternating turn lane and median. A sidewalk has been constructed on the north side of the street. A multi-modal path on the south side of the street and street plantings along both sides will improve safety and provide a more welcoming corridor through the city center for drivers, pedestrians and bicyclists, as well as those using motorized wheelchairs, scooters and other increasing forms of alternative transportation.

Design Concept

Proposed improvements include shade trees, crape myrtles, a separated multi-modal path on the south side of the street, on-street bike lanes, separated sidewalks on the north side of the street, and marked crosswalks.

New development is planned for the intersection of Third Street and Business 98 including a Goodwill Store and Burger King, as well as a proposed community center and new recreation and commercial development.

View looking west on Third Street toward the intersection of Business 98 (existing)

Third Street Multi-modal Streetscape

This view looking west on Third Street toward the intersection of Business 98 illustrates proposed streetscape improvements. Streetscape improvements for Third Street include shade trees, crape myrtles, a separated multi-modal path on the south side of the street, on-street bike lanes, separated sidewalks on the north side of the street, and marked crosswalks.

The Recovery and Resiliency Partnership Projects (R2P2) technical assistance is provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination (IRC) field operations in partnership with regional, state, and federal agencies to support communities as they recover from Hurricane Michael.

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS
CITY OF SPRINGFIELD BUSINESS 98 REVITALIZATION

Please visit www.R2P2.skeo.com to comment on these preliminary concepts!

Issues / Background

Business 98, the key entry into Springfield from Panama City (from the west) and Tyndall (from the east). A large paper plant, vacant properties and heavy truck traffic along the roadway are unwelcoming. The city and project team identified two design projects along Business 98 that can revitalize the corridor and enhance the experience along this key route for drivers, pedestrians and bicyclists.

Design Concepts

1 - City Gateway and Business 98 Streetscape
2 - Recreation and Commercial

1 - City Gateway and Business 98 Streetscape

A vacant parcel at the corner of Cherry Street and Business 98 offers an ideal gateway location to provide a signage and plantings to identify Springfield and welcome visitors traveling north into the city. Street plantings that continue from the gateway north along the street can make the experience along the roadway feel more pleasant and cohesive. Signage and plantings of crape myrtle, which Springfield has adopted as the city tree, will help reinforce the city's identity along Business 98.

City gateway location

View of the proposed city gateway from Business 98 northbound (intersection with Cherry Steet)

2 - Recreation and Commercial Redevelopment (U.S. Army Corps storage lot)

The U.S. Army Corps owns a large underutilized storage that is adjacent to active commercial properties fronting Business 98 and Third Street. Redeveloping the site using a phased approach to integrate new recreation uses and commercial development can activate and this key parcel and enhance the visual appeal of the corridor.

The concepts below illustrate a phased approach to redevelopment of the site.

Property location

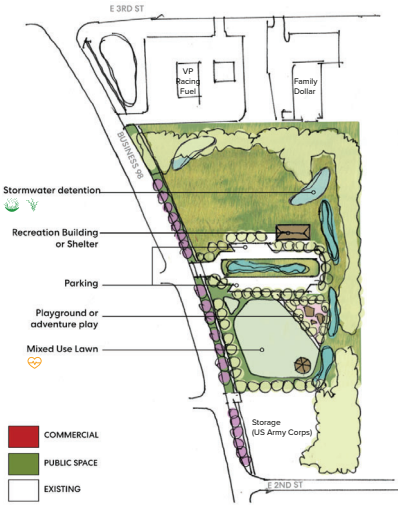
Phase 1
This scheme includes a large public park in the middle portion of the parcel with a multi-use lawn, play and recreation structures. There is a dedicated parking lot with an entry from Business 98.

Site stormwater is spread through a series of ponds on the permineter of the parcel. Dense canopy acts as a buffer against the active rail lines to the east. Existing access and storage is located at the south portion of the site.

Phase 2
The commercial development is focused on the north portion of the parcel with opportunities for small outdoor areas adjacent to each business. Access is off Business 98 from the stormwater feature entry drive.

The central drive loop adjacent to the Phase 01 recreational area could allow for programming such as food trucks or markets to set up adjacent to these park facilities.

Phase 3
The commercial development is expanded to the south portion of the parcel with opportunities for shared outdoor areas. Access is off Business 98 into to shared parking area.



The Recovery and Resiliency Partnership Projects (R2P2) technical assistance is provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination (IRC) field operations in partnership with regional, state, and federal agencies to support communities as they recover from Hurricane Michael.

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS
CITY OF SPRINGFIELD CIVIC GREEN INFRASTRUCTURE

Background and Opportunities

Springfield's proximity to the bay and Lake Martin increases its vulnerability to major storm events which cause inland flooding from sea storm surge. Traditional stormwater infrastructure (drains and pipes) can be overwhelmed by large water volume. Integrating nature-based stormwater features can bolster the city's resiliency in typical and major storm events.

Design Recommendations

Ideal locations for large scale natural drainage strategies include parks, vacant lands, and new developments that are located close to flood zones and wetlands.

1 - Proposed City Complex

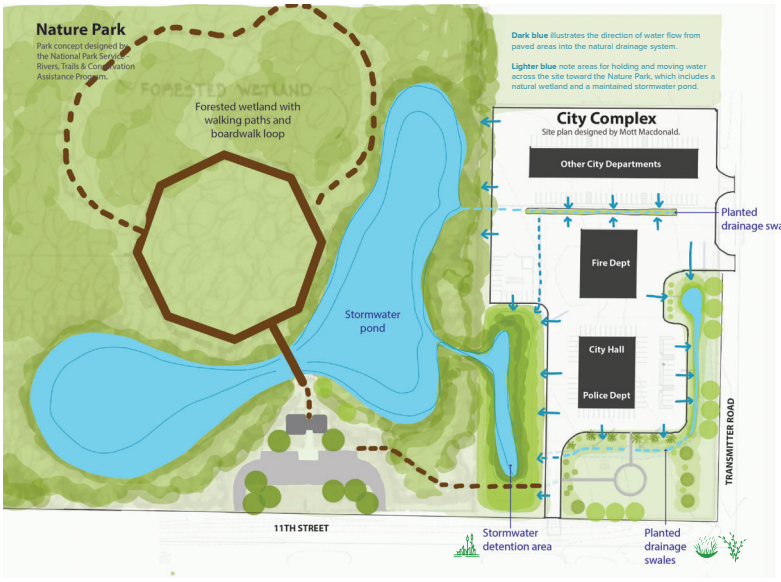
A stormwater management concept for the proposed City Complex planned for 11th Street and Transmitter Road illustrates how nature-based features can be integrated into new development.

2 - Parks and Vacant Lands

Several of Springfield's valuable parks and recreation areas are particularly prone to flooding from storm surge. Nature-based stormwater features such as those included as examples can increase resilience for the parks and surrounding residential areas.

1- City Complex Sustainable Stormwater Management Approach

This diagram illustrates how stormwater can be captured from the city complex parking and drive areas in planted swales and retention basins, which slow the flow and direct overflow to the adjacent stormwater pond in the Nature Park for temporary storage and infiltration. This approach reduces water entering the city's stormwater treatment system, decreases flooding, and provides recreation opportunities.



Additional opportunities to enhance on-site stormwater management include:

- Extending swales along Transmitter Road and 11th Street to capture stormwater runoff from roadways.

  Use of pervious material such as crush mill or pervious pavement.
- Water reuse system for city vehicle wash stations.
- Capture roofwater for reuse such as irrigation.

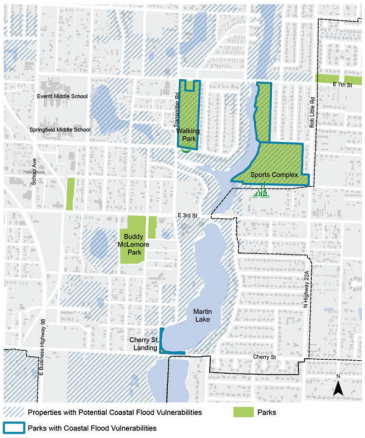
Parking lot with curb cut into planted drainage swale.

2 - Parks and Vacant Lands Stormwater Management approach

Natural drainage systems limit the negative impacts of stormwater runoff by utilizing plants, trees, and soils to clean runoff and manage stormwater flow. Vegetated swales, stormwater cascades, and small wetland ponds allow soils to absorb water, slowing flows and filtering out many contaminants.

Community opportunities and benefits:

- Potential to increase community spaces.
- Passive recreation such as trails.
- Reuse water for watering landscaping.
- Habitat for pollinators and other wildlife.
- Beautification using drought tolerant native plants, rocks and other low maintenance natural features.



NOAA's Coastal Flood Exposure Mapper is an online visualization tool to support communities in assessing their coastal hazard risks and vulnerabilities. Properties that may be exposed to some level of coastal flood vulnerability are shown in a hatch in this image. The parks shown in a blue outline may have the capacity to help mitigate storm surge and flooding if natural drainage features were added or enhanced.

Opportunities to integrate natural drainage in park designs and features to increase flood resilience and recharge underground aquifers.

Examples of constructed natural drainage features

Please visit www.R2P2.skeo.com to comment on these preliminary concepts!

The Recovery and Resiliency Partnership Projects (R2P2) technical assistance is provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination (IRC) field operations in partnership with regional, state, and federal agencies to support communities as they recover from Hurricane Michael.

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS
CITY OF SPRINGFIELD CHERRY STREET LINEAR PARK

Please visit www.R2P2.skeo.com to comment on these preliminary concepts!

Issues / Background

Cherry Street Park currently includes a small boat launch area for Martin Lake. A narrow linear green space between Cherry Street and Martin Lake provides open lake views. The city would like to use the green space for recreation such as gathering and picnicking, but flooding at Martin Lake continues to erode the land on the north side of the Cherry Street crossing.

Design Concepts

Two design concepts propose bolstering the eroding lake edge to provide safe access and gathering spaces along the waterfront. These concepts can be implemented to provide near-term recreation while long-term planning is underway to address flooding and potential sediment contamination at Martin Lake. The proposed linear park is ADA accessible, and could include features such as lighting, seating, new trees and planting or other structures can be temporarily installed for events.

A - Bank expansion and naturalized edge
B - Deck extension and overlook

Erosion on north side of Cherry Street at Martin Lake

Boat ramp area at Cherry Street Park

A - Bank expansion and naturalized edge

The width of the linear space is extended into the lake 20' to expand the usable recreation space. The expanded edge would include a sloped planted edge into the water, trees are added to provide shade and protection between the designated parking areas and the park space. Sidewalks along Cherry Street provide safe pedestrian access to the park.

B - Deck extension and overlook

This option includes a dock extending 20' from the current park edge that would include a railing and built in seating. The existing shoreline is reinforced with riprap along its extent to control erosion. A boardwalk extends along the waters edge as well. New trees are planted between the designated parking and the park to provide protection. Sidewalks along Cherry Street provide a safe pedestrian access to the park.

The Recovery and Resiliency Partnership Projects (R2P2) technical assistance is provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination (IRC) field operations in partnership with regional, state, and federal agencies to support communities as they recover from Hurricane Michael.

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS
CITY OF SPRINGFIELD CONNECTIVITY

Please visit www.R2P2.skeo.com to comment on these preliminary concepts!

Issues, Background and Opportunities

Within the city, Springfield lacks sidewalks and bike infrastructure linking key destinations and assets. Extending road, bike and pedestrian improvements across Springfield are important for safe connections within the city and into Parker.

Regionally, Springfield is situated within reach of many land and paddle trails. Connecting to these trails can create opportunities for Springfield to tap into economic development tied to growing regional recreation.

Design Concepts

1 - Citywide Connectivity *(right)*

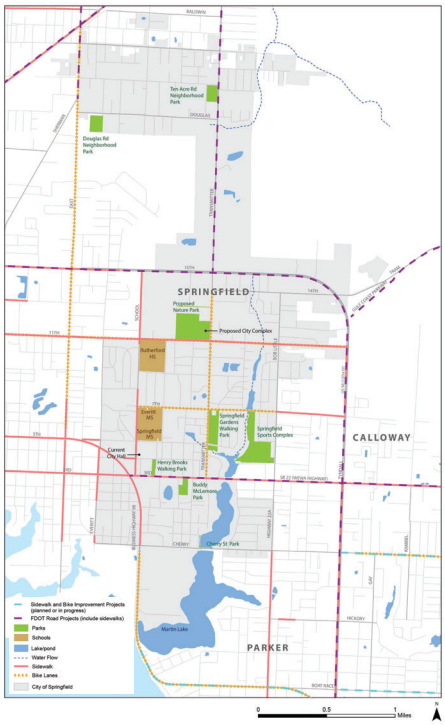
Connecting Springfield's business and residential areas and community assets, particularly the many parks and schools across the city, using safe pedestrian and bicycle paths can support economic development, quality of life and property value. Streetscape concepts with designs for improved bike and pedestrian safety and landscape improvements for Business 98, Third Street and Transmitter Road were developed.

2 - Regional Connections and Assets *(below)*

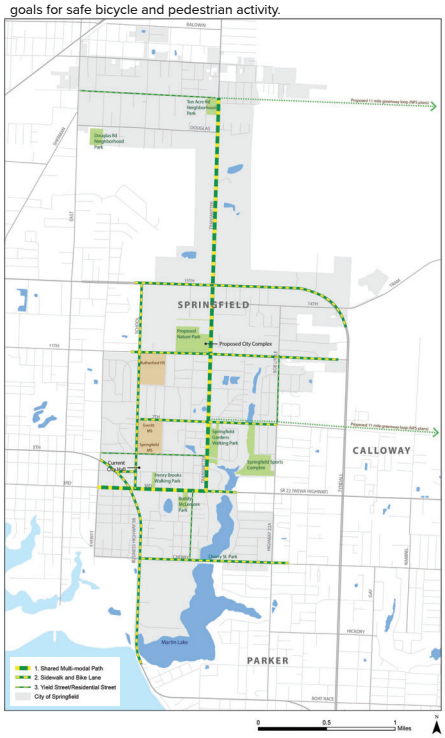
Regional mapping is underway to identify recreation assets and connections between Springfield and five other cities in the Florida Panhandle area. This work will help identify recreation opportunities that can support economic and ecological resilience.

1 - Citywide Connectivity Plan

Existing sidewalks, bike lanes and planned road improvement projects reveal a shortage of multi-modal connections in Springfield.



Suggested citywide bicycle and pedestrian network showing recommended path types based on existing street conditions and city goals for safe bicycle and pedestrian activity.



Bike and Pedestrian Connectivity Types

Different types of safe bike and pedestrian connections can be selected based on street conditions, available right of way, vehicular traffic volume and speed, and other considerations.

1. Shared Multi-modal Paths

These wide paved paths accommodate pedestrians, bicyclists and other non-vehicular users. Some adjacent roads include marked bike lanes on the roadway in addition to the path for fast-paced bicyclists.

2. Sidewalks and Bike Lanes

Sidewalks and on-street bike lanes can safely accommodate pedestrians and bicyclists when right of way is limited, and/or to retrofit existing roadways for safe pedestrian and bicycle connectivity.

Designated bike lanes with pavement markings on the street or shoulder

Shared bike lanes are designated by pavement markings called *sharrows* and vehicles and bicycles share the travel lane

3. Yield Street (Residential Street)

On local residential streets, vehicles, bicyclists and pedestrians share the road. To increase driver awareness, pavement markings and signs may be used as reminders.

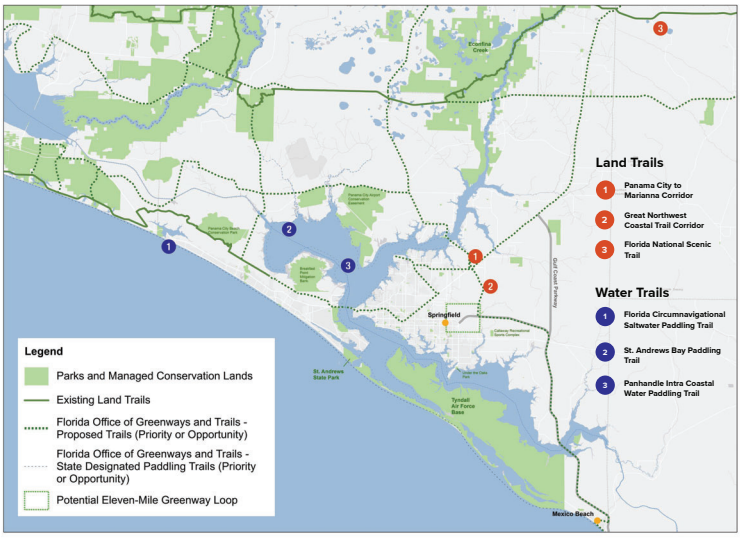
Typical conditions for yield street

Dashed lines on pavement provide visual clues to drivers

2 - Regional Connections and Assets

A network of regional trails links Springfield to many natural and recreational assets. Regional paddling trails, such as the St. Andrews Bay Paddling Trail and Panhandle Intra Coastal Water Paddling Trail, pass along Springfield's southern edge.

A potential land trail connection starting at Tram Road on Springfield's northeast side can provide an important recreation connection to Mexico Beach and beyond.



The Recovery and Resiliency Partnership Projects (R2P2) technical assistance is provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination (IRC) field operations in partnership with regional, state, and federal agencies to support communities as they recover from Hurricane Michael.

CITY OF SPRINGFIELD

RECOVERY AND RESILIENCY PARTNERSHIP PROJECTS

After reviewing the project posters, please share your preferences by completing this form. Turn in completed surveys in the box provided. If you'd prefer to complete an online version of the survey, please visit: www.r2p2.skeo.com/springfield.

Business 98 Revitalization

Q. How do you feel about a gateway at the corner of Cherry Street and Business 98 with signage and plantings to welcome people as they enter the city? *(please mark your preference on bar below)*

Supportive	Neutral	Have Concerns

Q. Any specific questions or comments about the Cherry Street Gateway?

Q. Which of the following features do you think are most important to supporting businesses and visitor experience along Business 98? *(please select top two)*

- ○ Reduced speed of traffic
- ○ Reduced volume of traffic
- ○ Safer crossings for pedestrians/bicyclists
- ○ Street trees and plantings
- ○ Attractive lighting
- ○ Signage (such as banners)
- ○ Public art (such as murals)
- ○ Parking
- ○ Improved accessibility (such as wheelchair ramps)
- ○ Other (please specify)

_____

_____

Business 98 Revitalization

Q. How do you feel about transitioning this vacant property along Business 98 between 2nd and 3rd Streets into new recreational uses and commercial development over time? *(please mark your preference on bar below)*

Supportive	Neutral	Have Concerns

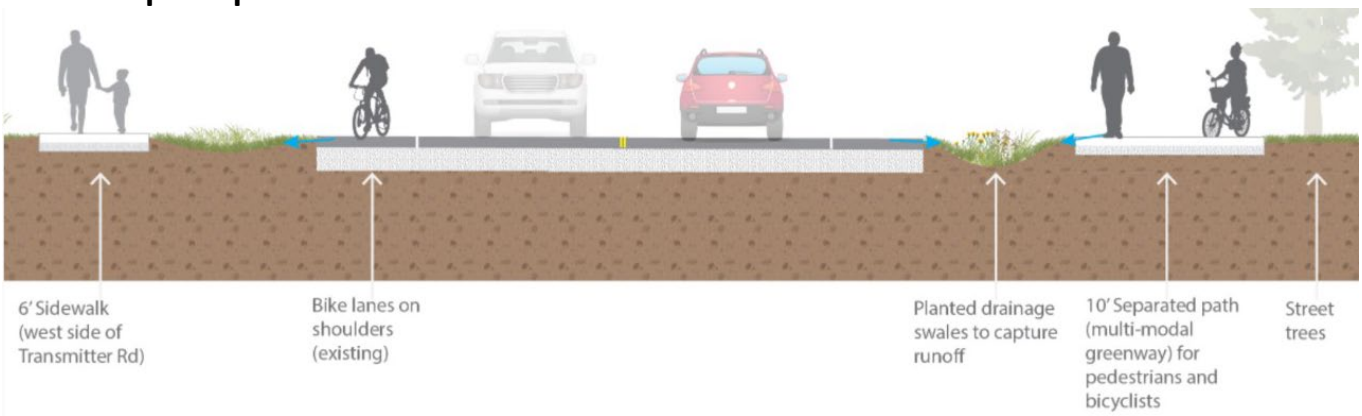
Q. Any specific questions or comments?

Q. How do you feel about streetscape improvements at **Third Street and Business 98** that include street tree plantings, wider sidewalks, a bike lane, a sheltered bus stop and safe crossings? *(please mark your preference on bar below)*

Supportive	Neutral	Have Concerns

Q. Any specific questions or comments about improvements along Third Street?

Streetscape Improvements

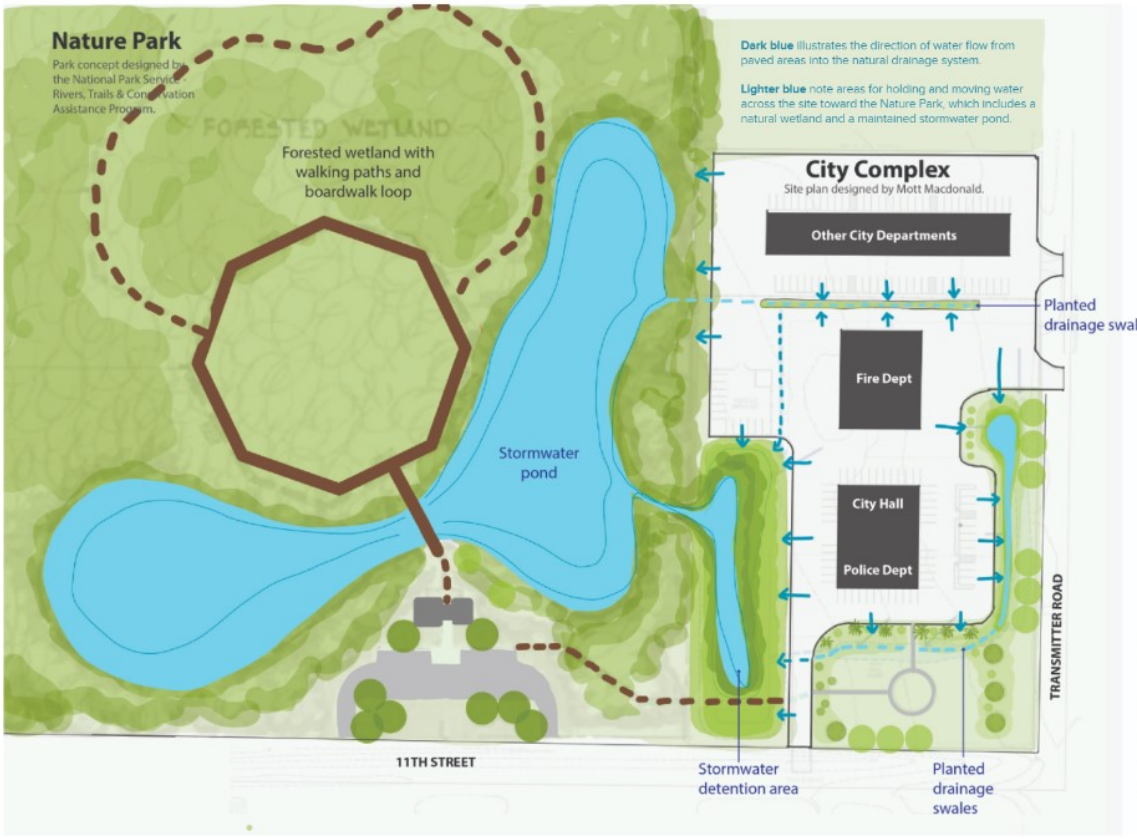


Q. Transmitter Road - How do you feel about street plantings, sidewalk and multi-modal greenway along Transmitter Road to help create a more walkable/bikeable street for this major thoroughfare in Springfield? *(please mark your preference on bar below)*

Supportive	Neutral	Have Concerns

Q. Any specific questions or comments about improvements along Transmitter Road?

Civic Green Infrastructure



Additional opportunities to enhance on-site stormwater management include:

> Extending swales along Transmitter Road and 11th Street to capture stormwater runoff from roadways.

> Use of pervious material such as crush mill or pervious pavement.

> Reuse water system for city vehicle wash stations.

> Capture roofwater for reuse such as landscaping.

Parking lot with curb cut into planted drainage swale.

Q. Incorporating natural drainage or green infrastructure in parks and civic spaces can help manage stormwater while providing other community benefits. In general, what benefits are you most interested in related to natural drainage and public spaces? *(select top 3*)

- ○ Improved stormwater management
- ○ Reduced flooding during rain events
- ○ Wildlife habitat (including birds and pollinators)
- ○ Bird watching
- ○ Native plantings
- ○ Walking or fitness trails
- ○ Outdoor gathering spaces
- ○ Other _____
  _____

Cherry Street Linear Park

A - Bank expansion and naturalized edge

The width of the linear space is extended into the lake 20' to expand the usable recreation space. The expanded edge would include a sloped planted edge into the water, trees are added to provide shade and protection between the designated parking areas and the park space. Sidewalks along Cherry Street provide safe pedestrian access to the park.

B - Deck extension and overlook

This option includes a dock extending 20' from the current park edge that would include a railing and built in seating. The existing shoreline is reinforced with riprap along its extent to control erosion. A boardwalk extends along the waters edge as well. New trees are planted between the designated parking and the park to provide protection. Sidewalks along Cherry Street provide a safe pedestrian access to the park.

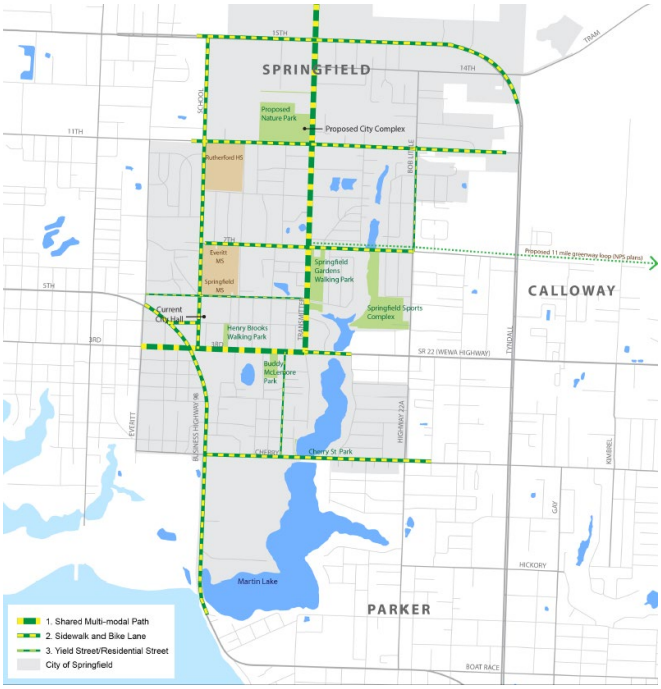
Q. Two design concepts propose bolstering the eroding lake edge to provide safe access and gathering spaces along the waterfront at Cherry Street bridge. Which option are you most interested in?

- ○ Option A - Bank expansion with naturalized edge
- ○ Option B - Deck extension and overlook

Q. Any specific questions or comments about the potential Cherry Street Linear Park?

Citywide Bike/Pedestrian Connectivity

Connecting the City of Springfield's business and residential areas and community assets using safe, marked pedestrian and bicycle paths can support economic development, quality of life and property value. This map shows suggested priority streets for implementing safe pedestrian and bike paths in Springfield. Please provide input on suggested priority streets and other areas in the city that present safety issues for pedestrian and bicyclists.



Q. Where are key places in the city where safe pedestrian and bicycle access is needed? *(your response could include a specific street name, neighborhood, area of city)*

Regional Assets

Bay County offers a range of natural resources and attractions.

Q. What type of nature-based recreational amenities would you like to see more of in Bay County? *(select top 5)*

- ○ Trails for hiking or walking
- ○ Trails for mountain biking
- ○ Trails for motorized vehicles (such as 4x4s)
- ○ Additional boat launches
- ○ Day trip paddling options
- ○ Opportunities for camping
- ○ Public beach access
- ○ Fishing
- ○ Hunting
- ○ Bird watching
- ○ Picnicking or gathering areas
- ○ Environmental education
- ○ Improved or expanded waterfront access
- ○ Extended bike trails to regional destinations
- ○ Other (please specify)

Q. What type of cultural heritage amenities would you like to see more of in Bay County? *(select top 3)*

- ○ Museums
- ○ Historic sites
- ○ Community events
- ○ Public art
- ○ Performance Arts
- ○ Other (please specify)

Regional Connectivity

A network of existing and proposed regional trails link Springfield to the many natural and recreational assets. Citywide connections that tie into proposed regional greenways and paddle trails can support economic development by increasing recreation opportunities and tourism.

Q. Are there ***regional water or paddle trail*** connections that you would like to see improved or established? Please select trails that you are most interested in.

- **Florida Circumnavigational Saltwater Paddling Trail** is an existing sea kayaking trail that traces the coast around the state.
- **St. Andrews Bay Paddling Trail**, a proposed trail that traces the outline of the bay.
- **Panhandle Intra Coastal Water Paddling Trail** is a proposed trail that branches off from the Florida Circumnavigational Saltwater Paddling Trail to travel across St. Andrew Bay until it meets the Apalachicola River.
- **Other** (please specify)

_____

_____

_____

Q. Are there ***regional land trail*** connections that you would like to see improved or established? Please select trails that you are most interested in.

- ○ **Panama City to Marianna Corridor**, a proposed regional priority trail along State Route 231 that would connect coastal and inland communities.
- ○ **Great Northwest Coastal Trail Corridor** is a planned regional priority trail that traces US 98 from Pensacola and upon completion will travel through Springfield and connect to Mexico Beach.
- ○ **West Bay Parkway Trail Corridor**, a proposed regional opportunity trail that follows West Highway 388 (Don Johnson Memorial Highway).
- ○ **Other?** (please specify)

_____

_____

_____

Any additional questions or comments?

_____

_____

_____

_____

_____

Thank you for your comments! Please provide your name and email if you would like to share more information for clarification.

Name _____

Email _____

Section 4
Summary of Community Input

City of Springfield Summary of Community Input

The project team worked closely with city staff and the community to respond to specific community goals and challenges with a set of sustainable design options that foster a strong sense of place. The project team provided the following range of virtual and socially-distanced options for community input in context of Covid-19 safety concerns.

• City Commission Meeting on July 6, 2020, with call-in option.
• Posters on display at City Hall accompanied by a paper survey.
• Virtual open house via the project web page with video presentations and online survey.
• Stakeholder meetings via conference call.

Overall, feedback was very positive and supportive of each of the design concepts. Specific feedback includes:

- Support for redevelopment of US Army Corps property along Business 98, particularly improved stormwater management to address flooding issues that closes a traffic lane on Business 98 during rain events.
- Support for improved safety for bicyclists, pedestrians, and motorized wheelchairs/scooters along major roads.
- Interest in concepts that improve the aesthetics and sense of identity for the City of Springfield.
- Positive reactions to the Cherry Street Linear Park with a preference for the deck option.
- Online respondents indicated that they are most interested in the following benefits related to natural drainage and public spaces: reduced flooding during rain events and community gathering space.
- Online respondents also indicated picnicking and gathering areas as their top choice for nature-based recreation opportunities and community events as their top choice for cultural amenities.
- Strong interest from the U.S. Army Corps to explore a land swap with the City to relocate their storage area along Business 98 to another property within the City.

Section 5
Sustainability Strategies

Sustainability Strategy: Sustainable Design Checklist

Overview

The R2P2 technical assistance team developed design solutions to address some of the city's specific goals and challenges tied to economic and ecological resilience.

Because quality of life in this area is inextricably linked to water – which can be experienced both as a hazard (in storm events) and as a valuable recreation asset (considering the area's lakes, rivers, and bays) – the design team prioritized stormwater management and recreation when developing design solutions. The designs integrate five guiding principles – **sustainability, resilience, alternative transportation, health and wellness,** and **vibrant public spaces** – to ensure a comprehensive, long-term approach for enhancing stormwater management and recreation opportunities that can bolster the city's resilience.

The Sustainable Design Checklist on the following pages provides a tool for the city to evaluate potential projects and development applications based on guiding strategies identified throughout the R2P2 design process. Using the checklist to evaluate future projects can help the city build community resilience. The checklist focuses on the following key elements:

- Streetscape
- Shared Public Space
- Connectivity
- Commercial and Mixed-Use Development
- Residential Development
- Industrial Development

Resources

- SITES is a comprehensive rating system for creating sustainable and resilient land development projects. The system helps to align land development and management with innovative sustainable design practices to create ecologically resilient communities. The SITES scorecard provides a suite of options for measuring site sustainability: http://www.sustainablesites.org/resources.
- The following urban design planning documents were provided by the FEMA Community Recovery Assistance Recovery Support Function Lead as a reference for the communities:
    - Fundamentals of Urban Design: A Primer for City Planning Commissions
    - Fundamentals of Urban Design: Design Standards Checklist

SUSTAINABLE DESIGN CONSIDERATIONS

STREETSCAPE

____	Planting Areas	Incorporate stormwater storage when possible
____		Use canopy trees to provide shade
____		Reduce water use for landscape irrigation
____		Use appropriate plants (native or region specific)
____	Pedestrian Elements	Provide pedestrian scale lighting
____		Provide bicycle racks
____		Provide seating opportunities
____		For new sidewalk, provide 14' width to accommodate seating
____		For existing narrow sidewalks (8' or narrower), look at opportunities for planting and seating in curb extention areas or utilizing a strategic parking space
____		Provide optimum site accessibiltiy, safety, and wayfinding
____	Safety	Utilize curb extensions for narrowed pedestrain crossings when possible
____	Parking	Use permeable paving when possible
____		Reduce heat island effect by limiting paved areas
____		Use appropriate plants (native or region specific)
____		Incorporate stormwater storage when possible
____		Utilize parking spaces outside of business hours for shared parking after hours events or public access
____		Provide optimum site accessibiltiy, safety, and wayfinding

SHARED PUBLIC SPACE

____	Planting Areas	Incorporate stormwater storage when possible
____		Use canopy trees to provide shade
____		Reduce water use for landscape irrigation
____		Use appropriate plants (native or region specific)
____	Pedestrian Elements / Gathering Areas	Provide pedestrian scale lighting
____		Provide bicycle racks
____		Provide seating opportunities
____		Provide multimodal paths for bicycle / pedestrians
____		Locate power and water to support events
____	Safety	Provide optimum site accessibiltiy, safety, and wayfinding
____		Provide energy efficient or solar lighting

CONNECTIVITY

____		Connect to multi-modal transit networks
____		Keep line of site / views open
____		Enhance connections to neighborhood and regional amenities and services
____		Connect downtown to recreation assets
____		Look at shared road use options (such as striping) for pedestrians and cylists on streets with less traffic and narrower right of ways
____		Provide wayfinding signs and maps to promote use, include trail distance markers and location signs to nearby amenities

SUSTAINABLE DESIGN CONSIDERATIONS

COMMERICAL & MIXED USE DEVELOPMENT

SITE CONSIDERATIONS

Site location	Protect floodplain functions
	Locate projects within exisitng or previously developed areas
	Balance development potential with existing open space/natural amenities
	Anchor retail along business corridors
	Balance development potential with existing open space/natural amenities
	Provide visual vegetative buffers to adjacent residential areas
Shared Green Space	Capture site water and reuse for landscape irrigation
	Use native or region specific plant materials
	Create multi-function open spaces that provide recreational amenities and increase habitat
Parking / Streets	Utilize permeable paving and provide stormwater infiltration/storage
	Reduce heat island effect (utilize trees and "cool" pavement technologies)
	Use native or region specific plant materials
	Create pedestrian scaled streets and improve connections to natural areas/green spaces
Stormwater	Design multi-functional stormwater features as amenities
	Utilize a comprehensive district approach to stormwater management
Access to site	Connect to multi-modal transit networks
	Enhance connections to neighborhood and regional amenities and services

BUILDING CONSIDERATIONS

Scale and Access	Create appropriate scaled mixed-use developments
	Provide optimum site accessibiltiy, safety, and wayfinding
Materials	Use recycled content construction materials
	Use regionally sourced construction materials
Energy Saving Measures	Provide energy efficient mechanical systems
	Provide passive cooling/shade
	Provide access to natural light
	Define alternative energy oppportunities

SUSTAINABLE DESIGN CONSIDERATIONS

RESIDENTIAL DEVELOPMENT

SITE CONSIDERATIONS

Site location	Protect floodplain functions
	Locate projects within exisitng or previously developed areas
	Balance development potential with existing open space/natural amenities
	Provide vegatative buffers to adjacent landuse areas
Shared Green Space	Capture site water and reuse for landscape irrigation
	Use native or region specific plant materials
	Create multi-function open spaces that provide recreational amenities and increase habitat
Parking / Streets	Utilize permeable paving and provide stormwater infiltration/storage
	Reduce heat island effect (utilize trees and "cool" pavement technologies)
	Use native or region specific plant materials
	Create pedestrian scaled streets and improve connections to natural areas/green spaces
Stormwater	Design multi-functional stormwater features as amenities
	Utilize a comprehensive district approach to stormwater management
Access to site	Connect to multi-modal transit networks
	Enhance connections to neighborhood and regional amenities and services.

BUILDING CONSIDERATIONS

Scale and Access	Provide a mix of housing types and densities appropriate to the local context
	Provide optimum multi-modal site access
	Provide enhanced site wayfinding and pedestrian safety
Materials	Use recycled content construction materials
	Use regionally sourced construction materials
Energy Saving Measures	Provide energy efficient mechanical systems
	Provide passive cooling/shade
	Provide access to natural light
	Define alternative energy oppportunities

SUSTAINABLE DESIGN CONSIDERATIONS

INDUSTRIAL DEVELOPMENT

SITE CONSIDERATIONS

Site location	Protect floodplain functions
	Locate projects within exisitng or previously developed areas
	Balance development potential with existing open space/natural amenities
	Provide visual vegetative buffers to adjacent residential areas
Shared Green Space	Capture site water and reuse for landscape irrigation
	Use native or region specific plant materials
	Create multi-function open spaces that provide recreational amenities and increase habitat
Parking / Streets	Utilize permeable paving and provide stormwater infiltration/storage
	Reduce heat island effect (utilize trees and "cool" pavement technologies)
	Use native or region specific plant materials
	Create pedestrian scaled streets and improve connections to natural areas/green spaces
Stormwater	Design multi-functional stormwater features as amenities
	Utilize a comprehensive district approach to stormwater management
Access to site	Connect to multi-modal transit networks
	Enhance connections to neighborhood and regional amenities and services.

BUILDING CONSIDERATIONS

Scale and Access	Consider impact of traffic patterns on surrounding area
Materials	Use recycled content construction materials
	Use regionally sourced construction materials
Energy Saving Measures	Provide energy efficient mechanical systems
	Provide passive cooling/shade
	Provide access to natural light
	Define alternative energy oppportunities

Sustainability Strategy: Supporting Recreation and Connectivity

Overview

The Florida Department of Environmental Protection (FL DEP) Office of Greenways and Trails (OGT) programs provide exciting opportunities to support recreation and connectivity across Florida. In turn, the trails offer remarkable benefits and promote community sustainability and resilience. They strengthen public health, helping people of all ages to get outside and exercise. They serve as transportation corridors, linking neighborhoods and business districts. They help preserve important natural landscapes, connecting vital habitat areas and strengthening air and water quality. They foster positive economic impacts, supporting trailside businesses and attracting visitors and commerce to communities. Finally, they provide access to historic and cultural resources. Over time, the trails themselves become sources of community pride and identity.

The Florida Greenways and Trails Designation Program: The mission of the Florida Greenways and Trails System is to create a network of greenways and trails throughout Florida. The system has its roots in the Florida Canoe Trails System, the Florida Recreational Trails System, and Florida's public parks, forests, refuges, wildlife management areas and water management areas. The Florida Greenways and Trails Designation Program provides for the designation of public lands and waterways and private lands. The designation program can help private landowners by providing support for conservation and for waiving liability in areas where private land is accessed by the public for recreation use.

The application process can be started by any interested person, organization, government agency or coalition acting as the sponsor. Voluntary participation by the landowner is required for designation. A written form, included in the application packet, expressing a willingness to proceed with designation, is required from all landowners on whose land designation is proposed. Application materials are available here.

The Trail Town Program: Trail Towns are vibrant destinations where people come together. Trail users can venture off a hiking, biking, equestrian or paddling trail to enjoy community amenities and local heritage, benefiting towns economically and socially. Interested communities can contact the Office of Greenways and Trails and conduct a community self-assessment. Recognized towns receive free Trail Town signs, stickers and publicity.

Shared-Use Nonmotorized (SUN) Trail Program: The Florida Department of Transportation SUN Trail Program provides funding to help communities develop the statewide system of high-priority paved trail corridors for bicyclists and pedestrians. This trail network, which includes existing, planned and conceptual multi-use trails, is a refined version of the Florida Greenways and Trails System Plan's Land Trail Priority network. Implementing projects in the SUN Trail network increases the reliability of Florida's transportation system.

Projects are led by government entities – tribes, metropolitan planning organizations, counties and municipalities. Funding can be used for all phases of project development, from preliminary trail planning and design to property acquisition and trail construction and maintenance. Projects must be developed as paved multi-use trails within the Sun Trail network. Trails are defined as paved shared-use paths that are at least 10 feet wide. In areas of extreme constraints (such as at bridges or in environmentally sensitive lands), a trail may be as narrow as 8 feet wide.

Resources

- The Florida Greenways and Trails System Designation Program
- The Trail Town Program
- The Sun Trail Program

Utility Corridor Trails: Addressing Community Concerns

Utility corridors can provide regional trail opportunities and trails are often built in utility corridors, from underground pipelines to overhead power lines. Responses to common community concerns about the trails in utility corridors include:

- *Safety:* Power lines can be knocked down during storms and high-wind events. Avoiding downed power lines and notifying the utility are both important steps.

- *Electromagnetic Radiation:* Years of research have not found a link between the magnetic and electric fields generated by power lines and health impacts.

- *Induction:* Along rights of way for high-voltage transmission lines, touching a grounded metal object such as a sign can cause a person to experience a small shock, similar to walking across a carpet and touching a doorknob. Vehicles parked on the rights of way can also acquire a small electric charge. The shocks, while unpleasant, are below levels of concern.

Resources
https://www.railstotrails.org/build-trails/trail-building-toolbox/basics/utilities/
https://www.americantrails.org/photos/utility-corridors

Sustainability Strategy: Community Benefits of Green Infrastructure

Overview

Integrating green infrastructure or natural drainage techniques and improving public green space can provide a range of economic, environmental and social benefits. The degree to which the benefits of green infrastructure are realized is dependent on several factors, including the design, installation, and maintenance of the features. Using green infrastructure to address stormwater management and long-term resiliency is an underlying sustainability strategy for the design concepts developed as part of R2P2's technical assistance.

Environmental Benefits

Green infrastructure relies on soil, plants and natural processes such as infiltration, evaporation, and transpiration to mimic the natural water cycle and manage rainwater. Key benefits, outlined below, are tied to improved water and air quality, which support biodiversity and human health and safety.

- Green infrastructure increases stormwater infiltration and storage capacity, reducing stormwater runoff and discharges associated with pollutant loading, flooding, combined sewer overflow (CSO) events, and erosion. A Center for Neighborhood Technology study shows that pervious pavement, one tool used in a green infrastructure approach, can infiltrate as much as 80-100% of the rain that falls on a site.
- Increased vegetation, including trees, shrubs and groundcover, removes air pollutants and traps airborne particulates, reduces surface and air temperatures through shade and evapotranspiration, and provides a physical barrier to traffic and street noise pollution. A 2016 study in Tampa, Florida found that the city's urban trees sequestered a total of about 62,000 tons of carbon, which is the equivalent of annual carbon emissions produced from close to 43,900 automobiles.
- Bioswales, which are engineered to function as natural drainage, can reduce the concentration of total suspended solids between 76- 99%. For example, Gainesville, Florida, found that retrofitting an existing parking lot with a bioswale and pervious pavement could reduce nitrogen and phosphorous loads to levels below those of undeveloped areas. In another example, natural stormwater management features (stormwater infiltration basin and a bio-filter) installed in a residential area in north-central Florida reduced the concentrations of dissolved phosphorus by over 70% in soils above the water table. https://pubmed.ncbi.nlm.nih.gov/22742948/

Social Benefits

Access to greenways and trails have positive impacts on public health and wellness. Research shows that providing convenient access to places for physical activity, such as trails connecting to parks or other recreational facilities increases:

- Level of physical activity in a community, especially if the spaces are near their homes,
- Opportunities to interact with neighbors which is important to building social ties, strengthening neighborhoods and personal wellness, and;
- Physical and mental wellbeing through exercise and social interaction which can reduce overall health care costs.

Economic Benefits

Parks and natural areas have great economic value as they support regional economies through tourism, agriculture and other activities. Economic impacts of recreational activities can include outdoor recreation spending and reduced public costs related to healthcare and infrastructure. In 2012, outdoor recreation contributed $646 billion to the U.S. economy. According to the Outdoor Industry Association, it supported 6.1 million jobs and generated $39.9 billion in national tax revenue and $39.7 billion in state and local tax revenue. Furthermore:

- Wetlands provide a wealth of ecosystem services and can help reduce the frequency and intensity of flooding events, thereby reducing damage to property and infrastructure during storm events.
- Landscaping with native plants contributes to biodiversity and can minimize maintenance costs.
- Rainwater harvesting can provide economic and environmental benefits by reducing stormwater runoff and conserving drinking water.
- Protected green space can increase the property values of nearby homes by 8% to 20% by providing amenities that draw people to live and work in the community. A relevant article published by the National Association of Realtors is available at https://www.houselogic.com/remodel/windows-doors-and-floors/9-surprising-things-add-value-your-house/

Resources

- EPA's *Green Infrastructure in Parks: A Guide to Collaboration, Funding, and Community Engagement* provides information on how to build beneficial partnerships between stormwater managers and parks managers in order to involve the community and leverage funding opportunities towards new green infrastructure opportunities.
- EPA's *Operation and Maintenance of Green Infrastructure Receiving Runoff from Roads and Parking Lots* addresses common operation and maintenance questions and provides recommendations for evaluating the need and providing maintenance for green infrastructure, specifically bioretention and bioswales, that serves highly impervious roadways and parking lots.
- EPA's *Saving the Rain Green Stormwater Solutions for Congregations Study* help congregations work through the process of enhancing their grounds by implementing green stormwater management practices.
- EPA's National Stormwater Calculator (SWC) estimates the annual amount of rainwater and frequency of runoff from a specific site. Users supply information about a site's land cover and then selects the low impact development (LID) controls they would like to use. The SWC is designed to be used by anyone interested in reducing runoff from a property, including site developers, landscape architects, urban planners, and homeowners.
- Additional information on green infrastructure benefits is available at: https://www.epa.gov/green-infrastructure/benefits-green-infrastructure

Sustainability Strategy: Water Reuse

Overview

> FLORIDA LEADS THE NATION IN WATER REUSE, WITH 820 MILLION GALLONS OF RECLAIMED WATER REUSED EVERY DAY. (SOURCE: South Florida WMD)

Growth and increasing constraints on the development of new water sources have spurred measures to conserve and reuse water. Localities now reuse municipal wastewater for non-drinking water needs, such as irrigation of parks and golf courses, with the water transported in purple pipes to distinguish it from pipes carrying drinking (potable) water. Water reuse increases communities' sustainability and resiliency in several ways. It reduces demands on valuable surface and ground waters used for drinking water sources, eliminates discharges that may pollute valuable surface waters, recharges groundwater, and mitigates the need for high-cost investments in development of new water sources and supplies. Water reuse involves taking wastewater, applying a high degree of treatment, and using the resulting high-quality reclaimed water for a renewed, beneficial purpose. Extensive treatment and disinfection ensure that public health and environmental quality are protected.

The Clean Waterways Act passed the 2020 Florida Legislature with bipartisan support and carries a wide range of water quality protection provisions aimed at minimizing the impact of known sources of nutrient pollution, realigning the State's resources to enhance the protection of Florida's environment, and strengthening regulatory requirements.

Some of Clean Waterways Act's primary components include:

- Contingency plans for power outages to minimize discharges of untreated wastewater for all sewage disposal facilities.
- Provision of financial records from all sanitary sewage disposal facilities so that the State can ensure funds are being allocated to infrastructure upgrades, repairs, and maintenance that prevent systems from falling into states of disrepair.
- Updated stormwater rules and design criteria to improve the performance of stormwater systems statewide to specifically address nutrients.

Florida maintains the largest and most comprehensive inventories of permitted water reuse systems in the country. Water conservation and the promotion of reuse of reclaimed water are state objectives established in sections 403.064 and 373.250 of the Florida Statutes. In response to these objectives, the Florida Department of Environmental Protection (DEP) developed a comprehensive reuse program. DEP has created extensive rules for water reuse. They are outlined in in Chapter 62-610 of the Florida Administrative Code.

In support of this, the Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) established the WIFIA program, a federal credit program administered by EPA for eligible water and wastewater infrastructure projects. WIFIA and the WIFIA implementation rule outline the eligibility and other requirements for prospective borrowers. https://www.epa.gov/wifia

There is $5 billion available for FY 2020 loans. Letters of interest are due by October 15, 2020.

Resources

- EPA supports water reuse as part of an integrated water resources management approach developed at the state and local level to meet the water needs of multiple sectors including agriculture, industry, drinking water, and ecosystem protection. EPA's 2020, National Water Reuse Action Plan (WRAP) is a coordinated and collaborative effort across the water user community to advance consideration of water reuse to ensure the security, sustainability, and resilience of our nation's water resources. https://www.epa.gov/waterreuse/water-reuse-action-plan

> "EVERY DROP OF THE WATER WE DRINK, EVERY DROP WE FLUSH DOWN OUR TOILETS, EVERY DROP WE USE TO SHOWER, WASH OUR CLOTHES, IRRIGATE OUR LAWNS, AND GROW OUR FOOD—ALL WATER ON THE PLANET—HAS BEEN USED AND TREATED AND RECYCLED, COUNTLESS TIMES."
>
> (SOURCE: 2018 Water Reuse Guide, WJW FOUNDATION

- Florida's Northwest Water Management district applies the state's reuse program consistent with the statewide policy and program. These programs help projects and localities create and fund more sustainable water resources, enhance water conservation efforts, provide flood protection, develop alternative water supplies and water reuse master plans, and improve and maintain water quality. https://floridadep.gov/water/domestic-wastewater/content/water-reuse-program
- The purpose of the Florida Potable Reuse Commission (PRC) is to create a consensus-driven partnership to develop the framework for implementation of potable reuse in Florida. There are four primary outcomes of the potable reuse framework:
    - Facilitate the expansion of potable reuse to supplement withdrawals from the natural system while protecting the investment of public dollars.
    - Develop recommendations for legislation, rule development, and incentives for potable reuse.
    - Identify benefits of potable reuse to environmental restoration and economic development.
    - Establish potable reuse fact sheet for statewide consistency in public education.

Note: THE PRC's 2020 report titled Framework for the Implementation of Potable Reuse in Florida provided substantial background for the Clean Waterways Act, SB 712.

- The Alliance for Water Efficiency (AWI) promotes the efficient and sustainable use of water. Its website includes an extensive resource library focused on water conservation and efficiency.
- The US Water Alliance provides water reuse resources as well as a water equity clearinghouse for people seeking to learn more about the world of equitable water management.

CASE STUDY

In 2007, Miami-Dade County Water and Sewer Department (WASD) and the Village of Key Biscayne partnered in the first alternative water supply project in Miami-Dade County.

Additional information is available here:
https://keybiscayne.fl.gov/index.php?src=gendocs&ref=PurplePipes_HIstory_Mar2007NewsArticle&category=PublicWorksDiv&link=PurplePipes_HIstory_Mar2007NewsArticle

Sustainability Strategy: Green Buildings and Disaster Resilience

Overview

Designing and retrofitting public buildings such as government offices, city halls, libraries, schools, utilities, storage areas and other facilities using green building practices provides a wide range of benefits. Green building approaches conserve resources, reduce carbon, prioritize safer materials and improve indoor environmental quality.

Green building approaches help protect our health and natural environment and make our communities more attractive, economically stronger and more socially diverse.

Key considerations for green building design include:

- **Location -** Placing buildings considering sun orientation and climate maximizes daylighting and natural ventilation. In turn, these passive strategies lower facilities' energy requirements and costs.

- **System optimization -** Green buildings use high-efficiency electrical, heating, ventilation and air conditioning, plumbing and other systems with components such as low-flow toilets, energy-efficient lighting and water reuse that maximize outputs and lower environmental impacts.

- **Renewable energy systems -**Solar, wind energy, geothermal and other renewable energy systems can provide most of the power needed by public facilities. Surplus power can be sold on to local utilities in many communities.

- **Interior materials -** Lumber, steel, concrete and finishing materials such as carpet and furnishings can come from companies using environmentally responsible manufacturing approaches and recycled materials.

- **Exterior management -** Landscaping using native trees, plants and grasses can reduce irrigation needs. Innovative stormwater management strategies help mitigate flooding and erosion, allowing rainfall to soak slowly back into the ground.

SUSTAINABILTY

SUSTAINABILITY IS ABOUT MEETING TODAY'S NEEDS WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR NEEDS. IT IS ABOUT TAKING ACTION TO PROTECT OUR SHARED ENVIRONMENT – AIR, WATER, LAND AND ECOSYSTEMS – IN WAYS THAT ARE ECONOMICALLY VIABLE, BENEFICIAL TO HUMAN HEALTH AND WELL-BEING, AND SOCIALLY JUST OVER THE LONG TERM.

Localities can also encourage the construction of green, disaster-resilient buildings in new private-sector development projects and retrofits, through zoning, policies and incentives. EPA's *Sustainable Design and Green Building Toolkit* is a great resource for local governments seeking to optimize opportunities for sustainable design and green building in their permitting processes. The toolkit addresses local codes and ordinances that affect the design, construction, renovation, and operation and maintenance of buildings and their immediate surroundings. It includes an assessment tool, a resource guide and a guide to developing action plans for implementing changes to the permitting process.

More recently, localities have expanded the focus of green building efforts to include planning for disaster resiliency. Natural disasters – earthquakes, high winds, floods, wildfire – can strike at any time, and have devastating impacts. As of mid-2020, for example, according to the National Oceanic and Atmospheric Association (NOAA), there had been 10 weather/climate disaster events with losses exceeding $1 billion each in the United States. These events included 10 severe storm events. The events resulted in the deaths of 80 people and had significant economic effects on the affected areas. In total, 2020 is the sixth consecutive year (2015-2020) in which 10 or more billion-dollar weather and climate disaster events have impacted the United States.

Disaster resiliency provides strategies for mitigating these impacts. Resilience-enhancing strategies for green buildings include the use of durable materials, thoughtful site selection, rainwater collection, demand response, grid islanding and energy efficiency. As FEMA's *Natural Hazards and Sustainability for Residential Buildings Report* notes, "designing buildings so that they both resist natural hazards and provide environmental benefits has distinct advantages to homeowners, their neighbors and society in general."

For example, every home that survives a hurricane:

- Provides post-disaster shelter for the home's occupants.
- Minimizes windborne debris.
- Removes the need for an additional temporary housing structure.
- Provides post-disaster sustainability benefits (less material to landfill, less new material needed for reconstruction).

The Florida Department of Environmental Protection's (FDEP's) Florida Resilient Coastline Communities Program offers technical assistance and funding to communities dealing with flooding, erosion and other natural hazards. The program's resources page provides a host of resiliency-related resources.

> FDEP'S VISION IS THAT FLORIDA'S COASTAL COMMUNITIES ARE RESILIENT AND PREPARED FOR THE EFFECTS OF RISING SEA LEVELS, INCLUDING COASTAL FLOODING, EROSION AND ECOSYSTEM CHANGES. OUR HISTORY OF PROTECTING, PRESERVING AND RESTORING HABITATS HAS SET THE STAGE FOR THIS CONTINUING EFFORT.
>
> SOURCE: Florida Resilient Communities Program

Resources

- The U.S. Green Building Council provides green building and disaster resiliency tools and resources, including articles and its Living Standard Action Toolkit. Sustainability certifications such as the U.S. Green Building Council's LEED rating system and RELi provide recognition and credits for socially and environmentally resilient design and construction.

- FEMA's Natural Hazards and Sustainability for Residential Buildings Report discusses ways to incorporate resiliency considerations as part of green building practices.

- EPA's Office of Community Revitalization fosters outcomes in the built environment that protect environmental quality and public health, support economic growth and disaster resilience, and avoid disproportionate harm to disadvantaged communities. Its Smart Growth Program helps communities improve their development practices. Building Blocks for Sustainable Communities

provides a range of tools and technical assistance to give communities ways to implement innovative development approaches and build local capacities and resiliency.

- EPA's Sustainable Materials Management (SMM) Program protects human health and the environment by advancing the sustainable use of materials throughout their life cycle to minimize waste and environmental impacts and reduce costs.

- ENERGY STAR® is the government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions. EPA's ENERGY STAR Portfolio Manager is an online tool to measure and track energy and water consumption, as well as greenhouse gas emissions. Use it to benchmark the performance of one or more buildings. Many local governments and several states rely on the tool as the foundation for their energy benchmarking and transparency policies.

- The Southface Energy Institute promotes sustainable homes, workplaces and communities through education, research, advocacy and technical assistance. Based in Atlanta, it works in Florida and across the Southeast, offering a wide range of resources to communities.

- FDEP's Green School Resources assist schools seeking Florida Green School designation. Sample projects supported by these resources including building retrofits with new green technologies, starting recycling programs and implementing green cleaning. These resources also facilitate and encourage continuous environmental improvement for designated Green Schools.

- The Florida Green Building Coalition is a nonprofit Florida corporation dedicated to improving the built environment. Its mission is "to provide a statewide green building program that defines, promotes, and encourages sustainable efforts with environmental and economic benefits." It offers green certification programs that apply to construction projects and local government operations, green building trainings for industry professionals and the general public, and scholarships for students interested in pursuing careers in sustainability.

Sustainability Strategy: Stormwater District Approach

Overview

Stormwater run-off is the biggest and fastest-growing source of water pollution in our communities. A District stormwater management is a widespread approach focused on intercepting, slowing, detaining, and infiltrating rainfall rather than allowing the runoff to enter underground pipes and waterways. A District approach to stormwater management can allow communities to leverage resources, common goals, project efficiencies, community benefits and funding opportunities to finance the development of joint green infrastructure projects within communities to measurably reduce stormwater run-off through distributed nature-based solutions. By utilizing green infrastructure best management practices (BMP's), projects can increase flood protection, erosion control, recreational opportunity, and stormwater quality.

Benefits of District Stormwater Systems

- District systems integrate green infrastructure to increase site and community sustainability and resilience.
- Appropriately scaled district systems can meet fluctuating community stormwater management needs.
- Green infrastructure (ponds, bioswales, retention ponds) can serve as an attractive amenity, create habitat, and recreation space.
- Overall capital costs of improvements are an average 10% to 20% lower than traditional stormwater systems.
- District systems reduce overall encumbrances on a site, such as site-specific requirements or infrastructure on the land.
- District systems create opportunities for water reuse through irrigation and other grey water uses.
- District systems can reduce stormwater fees if present within communities.
- District systems improve stormwater quality through removal of sediment using green strategies.
- District stormwater systems allow for larger areas of development because stormwater is on common open space or out parcel lots.
- District systems can serve as a catalyst for development by offering a plug and play approach for new development to easily connect to the system.
- District systems can manage stormwater at the site or individual property level and then scale up to the watershed level.

Resources

The Capital Regional Watershed District worked with the City of St. Paul to develop a district approach to stormwater management on a 122-acre property available for redevelopment. The approach creates a stormwater-based amenity that reconnects the community to parks and the Mississippi River. More information about the project is available here: https://www.capitolregionwd.org/projects/ford-site-redevelopment/ and a detailed report on the project is available here.

Sustainability Strategy: Mass Timber Building Material

Overview

Wood, one of the world's oldest building materials, is now at the forefront of innovative building projects across the United States and globally. Advances in wood construction mean that wood products can offer the safety and stability of products such as concrete and steel, combining strength and scale with sustainability.

The Panhandle of Florida has been a source of wood products for centuries and the increase in wood products in the commercial building design brings new opportunities to the timber industry in the region. The use of mass timber products can extend the economic impact for the Panhandle of Florida and provides a unique opportunity to be on the front lines of new building technology, innovative product development, and opportunities for creating a new manufacturing sector in the region.

MASS TIMBER

"A CATEGORY OF FRAMING STYLES TYPICALLY CHARACTERIZED BY THE USE OF LARGE SOLID WOOD PANELS FOR WALL, FLOOR AND ROOF CONSTRUCTION. IT ALSO INCLUDES INNOVATIVE FORMS OF SCULPTURAL BUILDINGS, AND NON- BUILDING STRUCTURES FORMED FROM SOLID WOOD PANEL OR FRAMING SYSTEMS OF SIX FEET OR MORE IN WIDTH OR DEPTH."
SOURCE: American Wood Council

This new way of working with wood is often referred to as "mass timber" (short for "massive timber"). Mass timber refers to a variety of wood products, including glue-laminated beams, laminated veneer lumber (LVL), nail-laminated timber (NLT) and dowel-laminated timber (DLT). The most common form of mass timber is cross-laminated timber (CLT). Across each of these products, pieces of wood are put together to form large panels and framing systems.

These home and commercial building products offer a quick way to put communities back together. However, much relies on local and state ordinances to allow the use of these materials. Testing continues to be conducted at universities on the formed-structural pieces, e.g., beams, etc., for seismic stability, fire resilience, blast testing, wind resistance and energy usage such as heat/cold transference. The products are being used across many states, but the technology is growing rapidly and could provide a long-term opportunity for Florida timber farmers.

For Florida communities rebuilding after a natural disaster, mass timber may offer advantages. It is less expensive than other building materials. Installation is faster and results in less construction traffic, meaning that job sites are quieter and less disruptive in neighborhoods and business districts. Mass timber performs well during seismic events and can be easily repaired, reused and recycled after disasters. Wood buildings are also lighter, meaning they can be placed almost anywhere.

Mass timber also generates significant economic benefits. Timber can be sourced locally from rural areas across Florida, for example, with timber sector-related activities supporting and reviving businesses, providing jobs and generating tax revenue. A renewable resource, mass timber also provides broader environmental benefits, including lower levels of carbon emissions, without sacrificing strength or durability. CLT panels, for example, are as strong as steel and are more fire resistant than other materials because of the way wood burns. Finally, mass timber buildings look appealing and provide

public health benefits such as clean air. Wood is often left exposed in mass timber buildings, providing a connection to the natural world.

The Benefits of Building with Wood

- Wood is renewable and often outperforms other materials in terms of energy usage and air pollution.
- Wood provides design flexibility at lower costs than other major building materials.
- Wood structures can be safely built to comply with building codes.
- Wood is a resilient building material. It is slow to burn, performs well during seismic events and can be easily adapted with basic construction tools in the aftermath of disasters.

Source:
www.fs.usda.gov/sites/default/files/teachingwoodbuilding-design-shortreport-final-5-25-17.pdf

DID YOU KNOW?

AS OF JUNE 2020, 921 MASS TIMBER PROJECTS HAD BEEN CONSTRUCTED OR WERE IN DESIGN IN ALL 50 STATES. IN FLORIDA, 45 MASS TIMBER PROJECTS HAD BEEN CONSTRUCTED OR WERE IN DESIGN.

SOURCE:
www.woodworks.org/publications-media/building-trends-mass-timber

Resources

- WoodWorks, an initiative of the Wood Products Council, provides mass timber resources and project assistance related to the code-compliant design, engineering and construction of non-residential and multi-family wood buildings.

- The U.S. Forest Service works with communities exploring engineered wood technologies and new wood products. Its Wood Innovation website provides access to mass timber resources and Wood Innovations Grants funding, which supports traditional wood utilization projects, expands wood energy markets and promotes using wood as a building construction material.

- The American Wood Council (AWC) develops building codes and standards for wood design. It also provides online resources and trainings focused on wood design, green building and environmental regulations.

Sustainability Strategy: Florida Silver Jackets Project - Lake Martin

Overview

The U.S. Army Corps of Engineers (USACE) will provide a hydrologic and hydraulic study in the Parker and Springfield project areas to assess the water flow issues from Lake Martin. This will provide support for the Recovery and Resiliency Partnerships Project (R2P2) vision of helping communities recover from Hurricane Michael and the communities desire to one day develop a recreational asset for the community and reconnect the water body as a functioning part of the St. Andrews Estuary.

Florida Silver Jackets

Florida Silver Jackets is an intergovernmental team of federal, state, and local agencies that provide opportunities to work collectively on flood management issues, share information and resources related to flooding and mitigation, integrate mitigation and recovery efforts, and leverage available agency resources. The R2P2 Team approached the USACE to be a part of the project through the Florida Sliver Jacket Program to provide a hydrologic and hydraulic (H&H) analysis of Lake Martin. There are locally known flooding issues in and around the lake, and the USACE will be conducting H&H modeling to determine the cause of the problem and identifying solutions to address the flood risk associated with Lake Martin and surrounding communities.

As part of the R2P2 effort, the Florida Silver Jackets project will improve the management of flood risk by developing conceptual solutions on how to address the identified flood risk and increase the ability to anticipate and prepare for flooding. Since this information will be identified and shared with the local cities and counties, communities can better withstand and respond to the flooding by implementing new infrastructure identified through the conceptual solutions or evacuate residents in a more efficient manner due to the findings from the H&H analysis.

Lake Martin (locally know as Martin Lake)

This project will focus on rebuilding the area along Cherry Street, a main access point for the cities of Parker and Springfield. Currently, the street is prone to flooding from Lake Martin during high tides and heavy rainfalls. The project will seek to mitigate the risk of flooding to allow vehicles to pass through with greater ease and make the area more welcoming for recreational activities. The cities can use this information to support applying for grants to implement the identified solutions to address flood risk and improve safety in a vital transporting corridor.

The project hopes to be able to analyze the ability to re-establish a traditional estuary ecosystem, which improves aquatic passage for organisms and mitigating risk of invasive vegetation regrowth while increasing recreational opportunity for current and future citizens of both communities. This expands economic opportunities to capitalize on a natural asset that will draw adjacent populations to spend additional time and money within the two communities.

Letters of Support

As part of the USACE Silver Jacket project proposal package, the following local, state, and federal partners provided letters of support for the project: City of Parker, City of Springfield, Emerald Coast

Regional Council, Florida Office of Greenway and Trails, Florida Department of Emergency Management, National Park Service, U.S Environmental Protection Agency Region 4, and U.S. Army Corps of Engineers.

Section 6
Design Concept Development

City of Springfield Design Concept Development

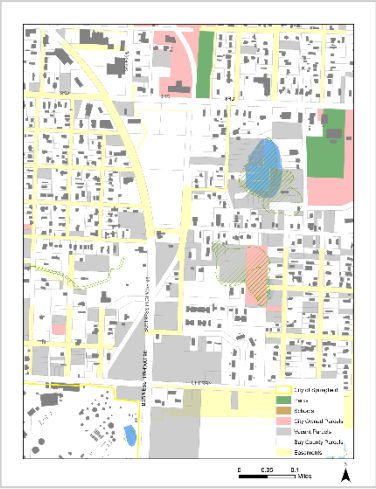
This section includes the site analysis and background information used to develop the concepts and can be referenced in future phases of implementation and site plan development.

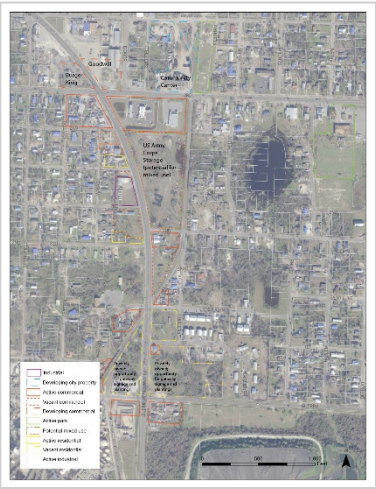
Business 98 Revitalization and Redevelopment

The concepts focus on design strategies to revitalize the corridor and enhance the experience for drivers, pedestrians and bicyclists along this key thoroughfare.

Existing Conditions

The project team reviewed current and planned land use along the corridor, property ownership and development status, right of way conditions, and pedestrian conditions at two key intersections (Cherry Street and Third Street). The team also reviewed Florida Department of Transportation (FDOT) plans for expanding Third Street to four lanes (project on hold without expected completion).





Existing conditions: land use, vacancy and planned redevelopment

Existing conditions: Business 98 and Third Street (top); Business 98 and Cherry Street (bottom)

Design Development

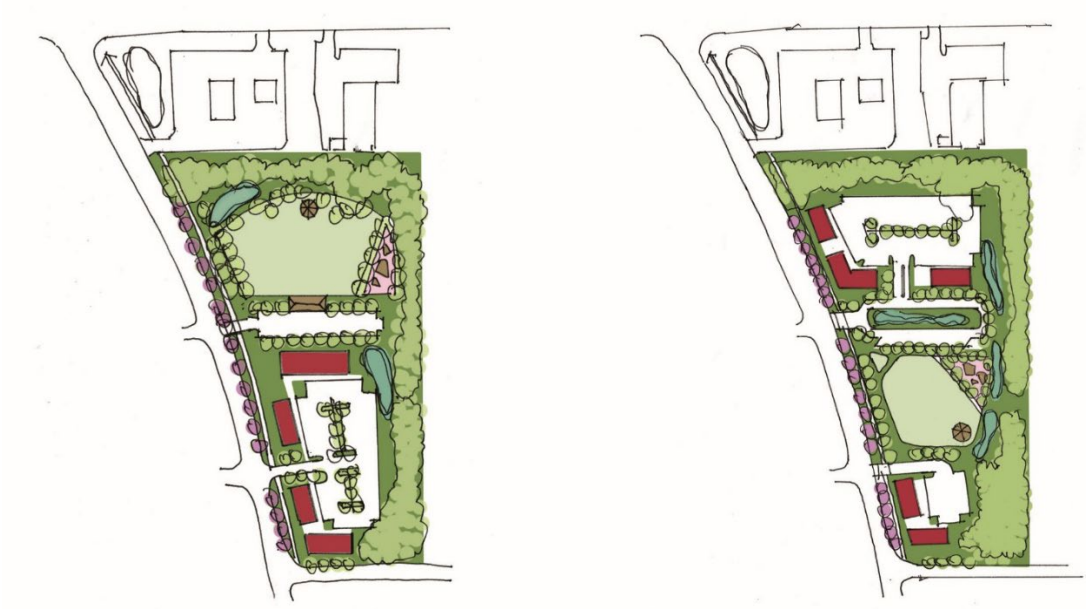
Early concepts explored potential streetscape features and modifications for vehicular lanes on Third Street, which the city prefers to remain two lanes or expanded to two lanes with a turn lane (as opposed to four lanes, which is proposed by FDOT).

Design development studies for Third Street streetscape improvements

Business 98 Revitalization concepts also included studies for improving the streetscape along Business 98 from Cherry Street to Third Street, and for a visible city gateway comprised of plantings and signage at the corner of Cherry Street and Business 98.

Design development studies for Business 98 city gateway at Cherry Street

The Business 98 Redevelopment concept proposes redeveloping an underutilized property owned by the U.S. Army Corps of Engineers (USACE). The property, which is located on Business 98 adjacent to active businesses, is well-positioned for commercial redevelopment, mixed use, or recreational use. The project team explored several options to illustrate different types of uses and natural drainage features to manage stormwater in the flood-prone area.



Design development studies for exploring potential redevelopment of the USACE property

Cherry Street Linear Park

This concept focuses on bolstering the eroding lake edge and providing spaces for gathering and waterfront access along Cherry Street at Martin Lake.

Existing Conditions

The team reviewed the site conditions including dimensions for the existing roadway, right-of-way and existing stable land area north of Cherry Street available for recreation use.

Design Development

The project team developed two concepts using different approaches to expand the usable recreation area over the water and stabilize the edge. One concept proposes stabilizing and extending a constructed land mass 20 feet north, and the other proposes constructing a deck over the water to increase waterfront access by 20 feet over the water. The deck concept offers a near-term solution, which might be preferable while studies and plans for potentially changing Martin Lake's connection to the bay are underway.

Design development early concepts for Cherry Street Linear Park

Civic Green Infrastructure

This concept focuses on the new City Complex development as an example for integrating nature-based stormwater features in civic infrastructure to create new recreation amenities, reduce flooding and improve water quality.

Existing Conditions

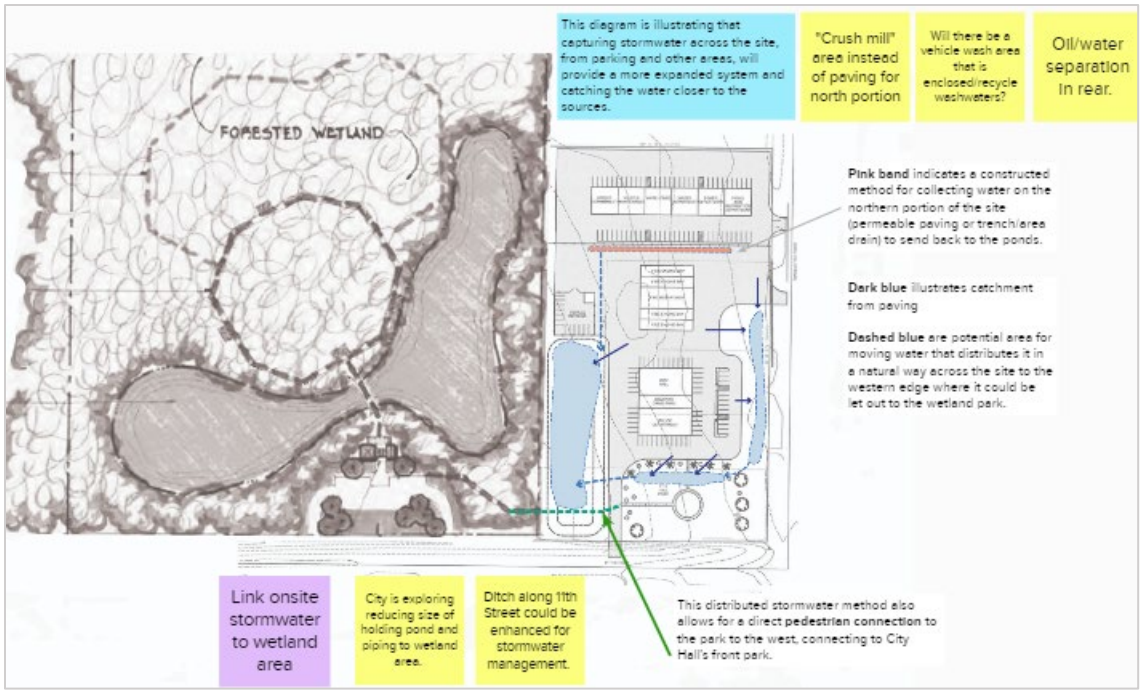
The project team reviewed site plans for the new city complex and concept plans for a proposed nature park located in a wetland area adjacent to the complex. Conditions along Transmitter Road, including plans provided by FDOT detailing construction of on-shoulder bike lanes, were also documented to use in design development for improving the connection from the city complex to other city recreation areas along Transmitter Road.

Existing conditions: vehicular and pedestrian conditions at site of planned city complex on Transmitter Road

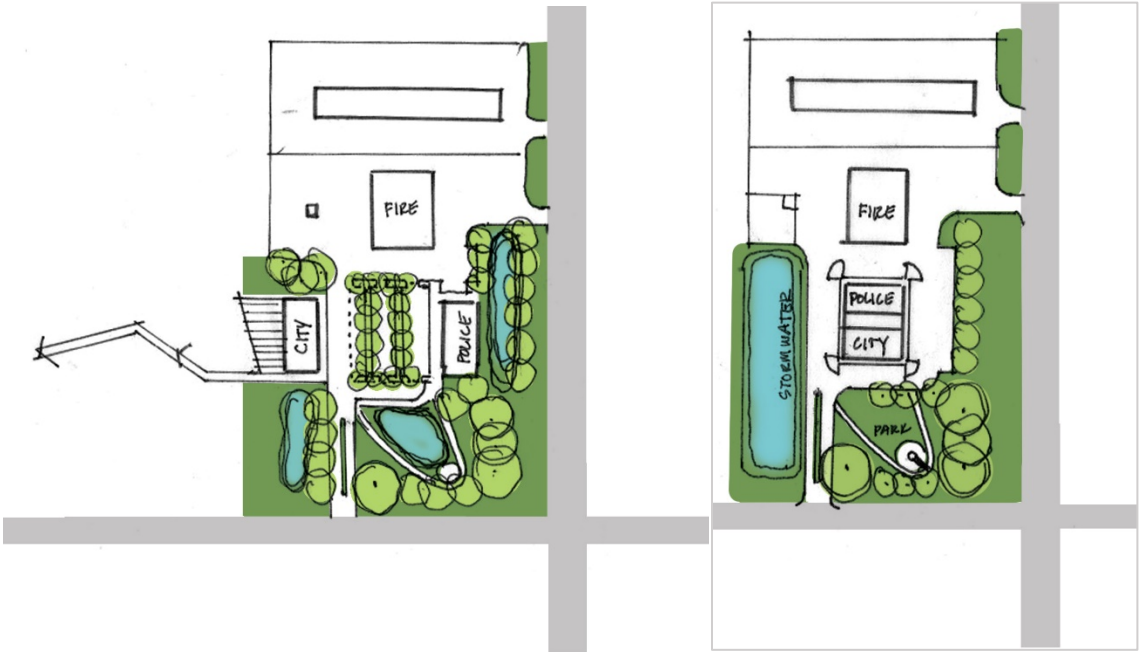
Existing conditions: concept plan for a proposed nature park designed by National Parks Service – Rivers, Trails and Conservation Service Assistance (NPS-RTCA) (right); site plan for new city complex (right)

Design Development

Concept designs focused on integrating nature-based stormwater features in the city complex site plan to capture water in specific areas to infiltrate and slow the water flow and convey water to the adjacent wetlands. Several layouts for the new city complex and its connection to the adjacent park were explored (prior to receiving site plans for the complex).



Design development: diagram of concept for capturing and conveying stormwater to detention and wetland areas.



Design development: alternative layouts for the city complex (provided prior to receiving site plan, which was in development)

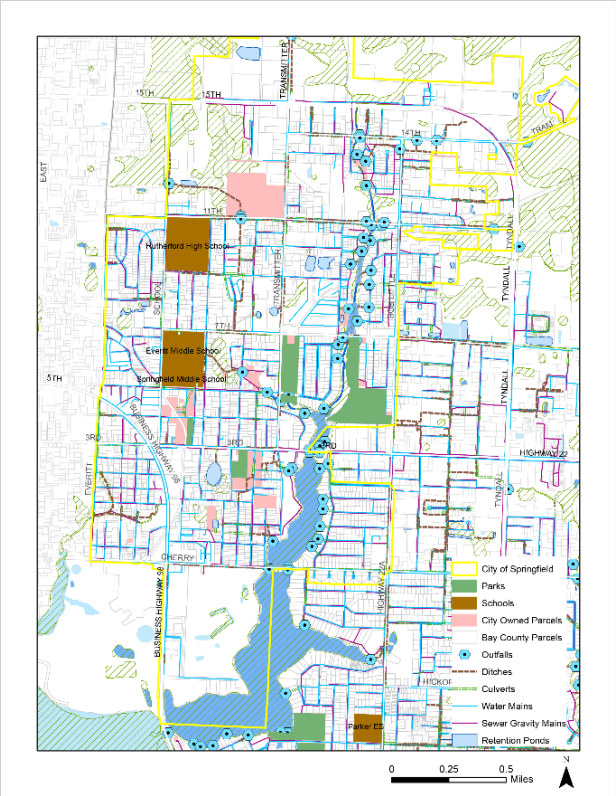
Citywide Connections

Citywide connections identify important bike and pedestrian links to improve alternative transportation options, improve safety and connect neighborhoods and recreation areas.

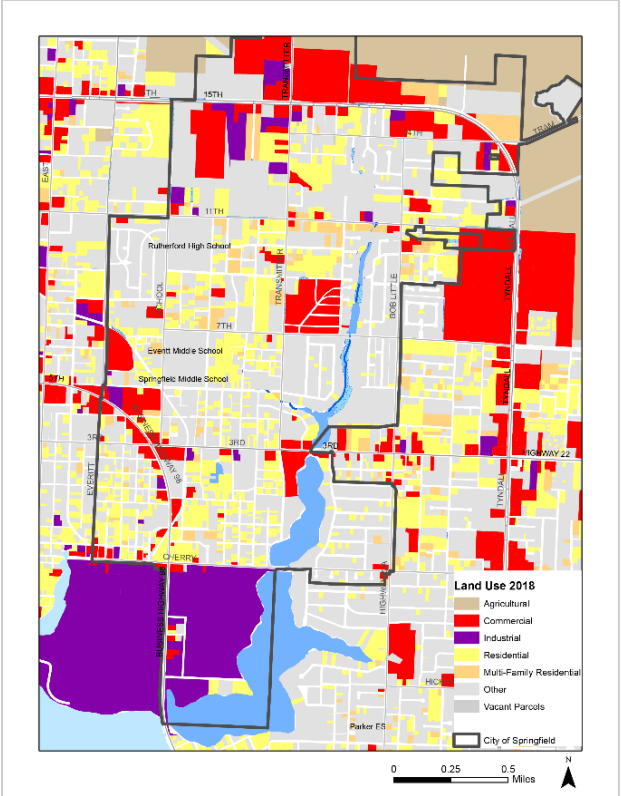
Existing Conditions

Existing conditions analysis included documenting land use, existing and planned bike/pedestrian infrastructure, community assets and redevelopment areas.

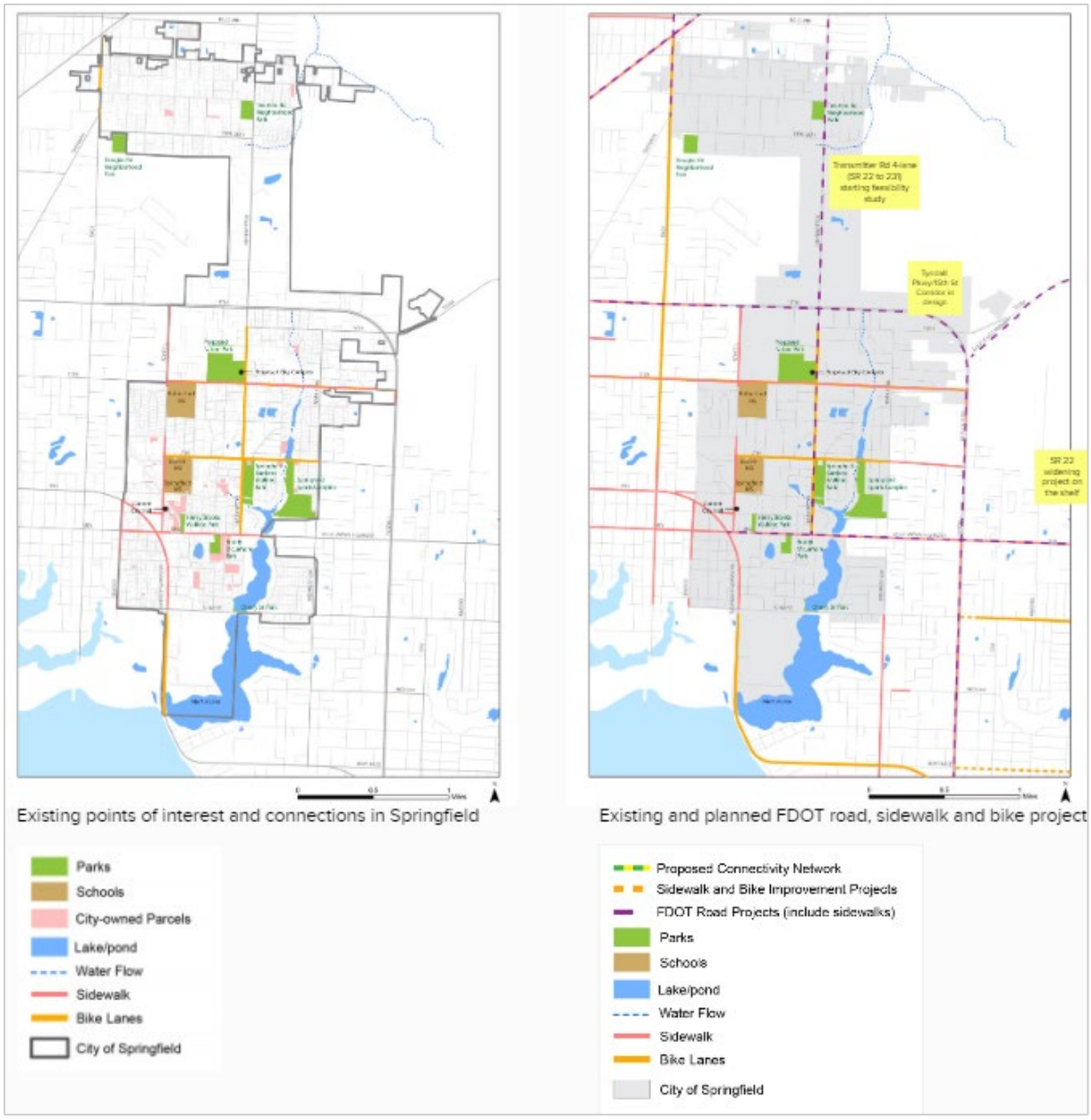
FDOT is constructing extensive roadway improvements that include bicycle and sidewalk infrastructure in the area. The team reviewed plans for restoration of recreation areas and potential new recreation areas developed by National Parks Service – Rivers, Trails and Conservation Assistance (NPS-RTCA).



Existing conditions: water, sewer, and stormwater network



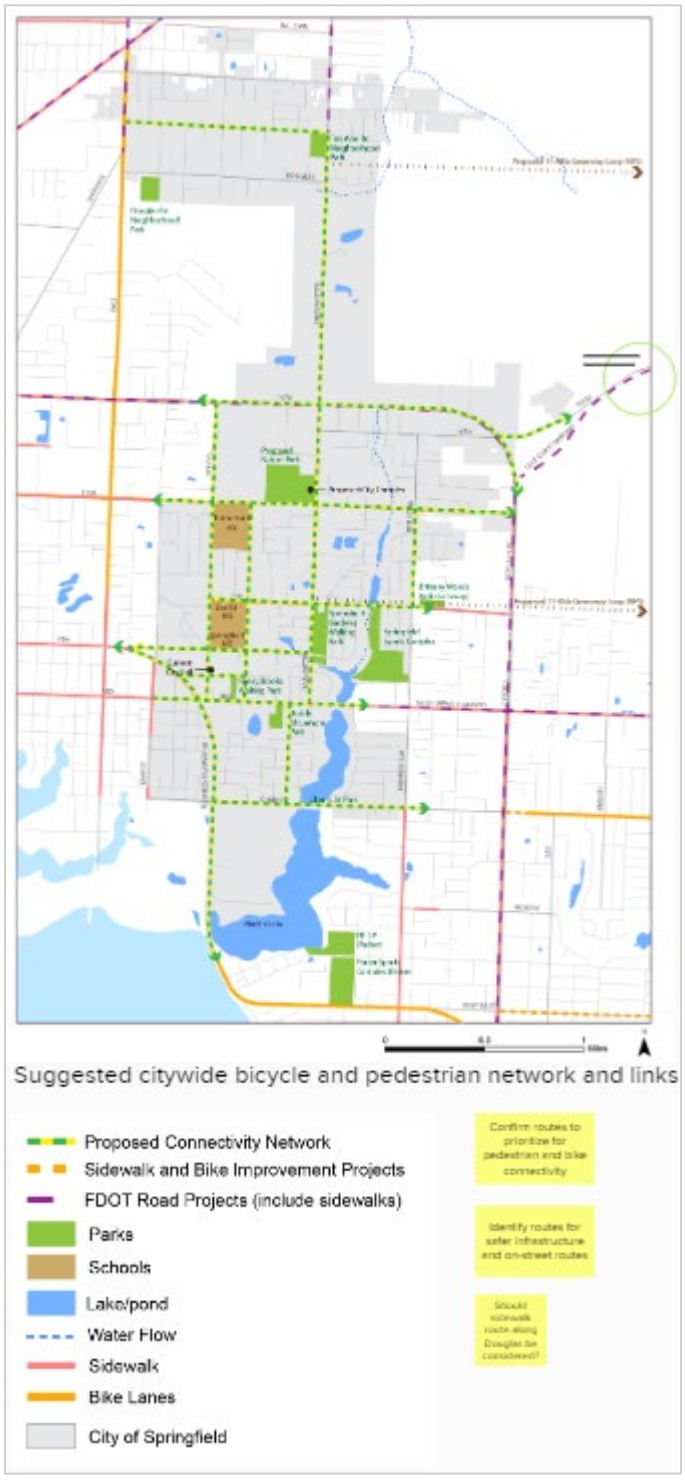
Existing conditions: Land use



Existing conditions: existing bike and pedestrian infrastructure (left); current and planned FDOT road projects (right)

Design Development

The citywide connections plan proposes priority bicycle and pedestrian routes to connect community destinations and assets across Springfield.

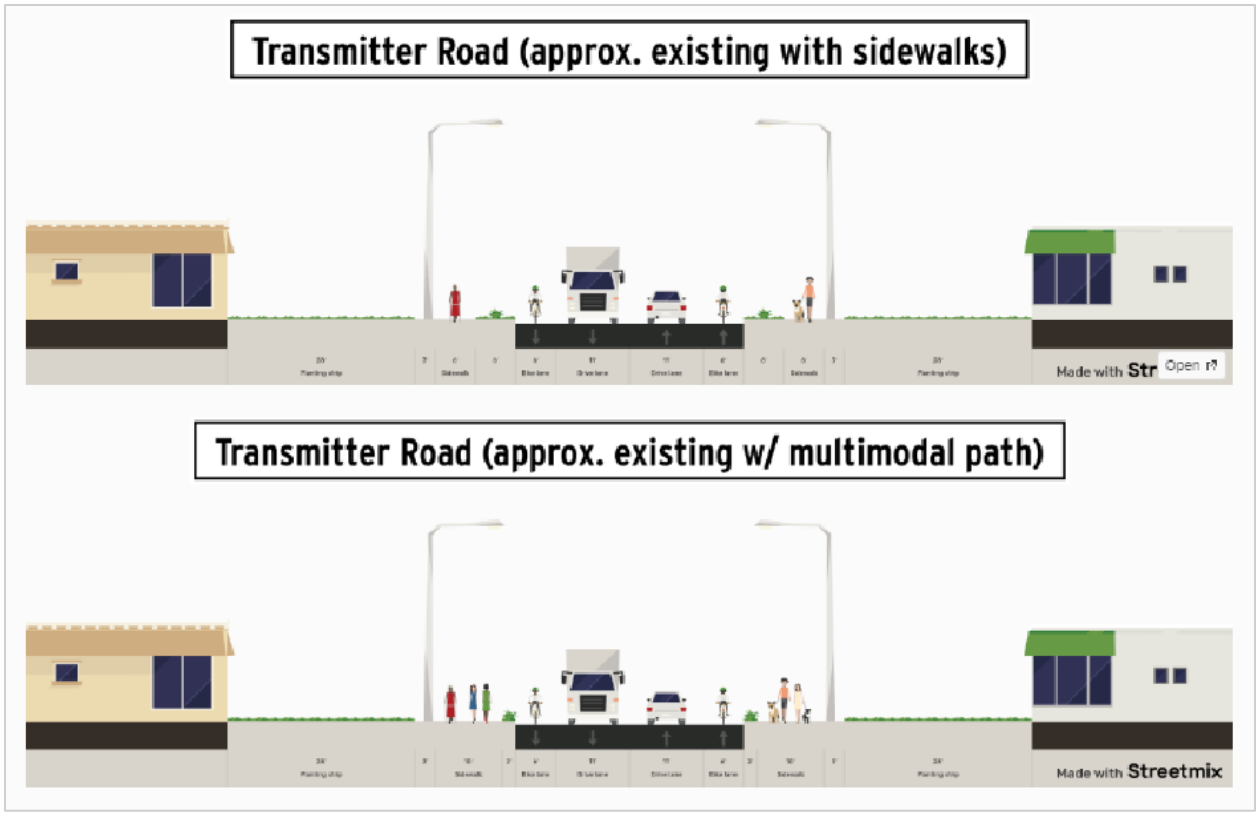


Design development: early study of proposed bike and pedestrian improvements in context of planned and proposed FDOT improvement project areas

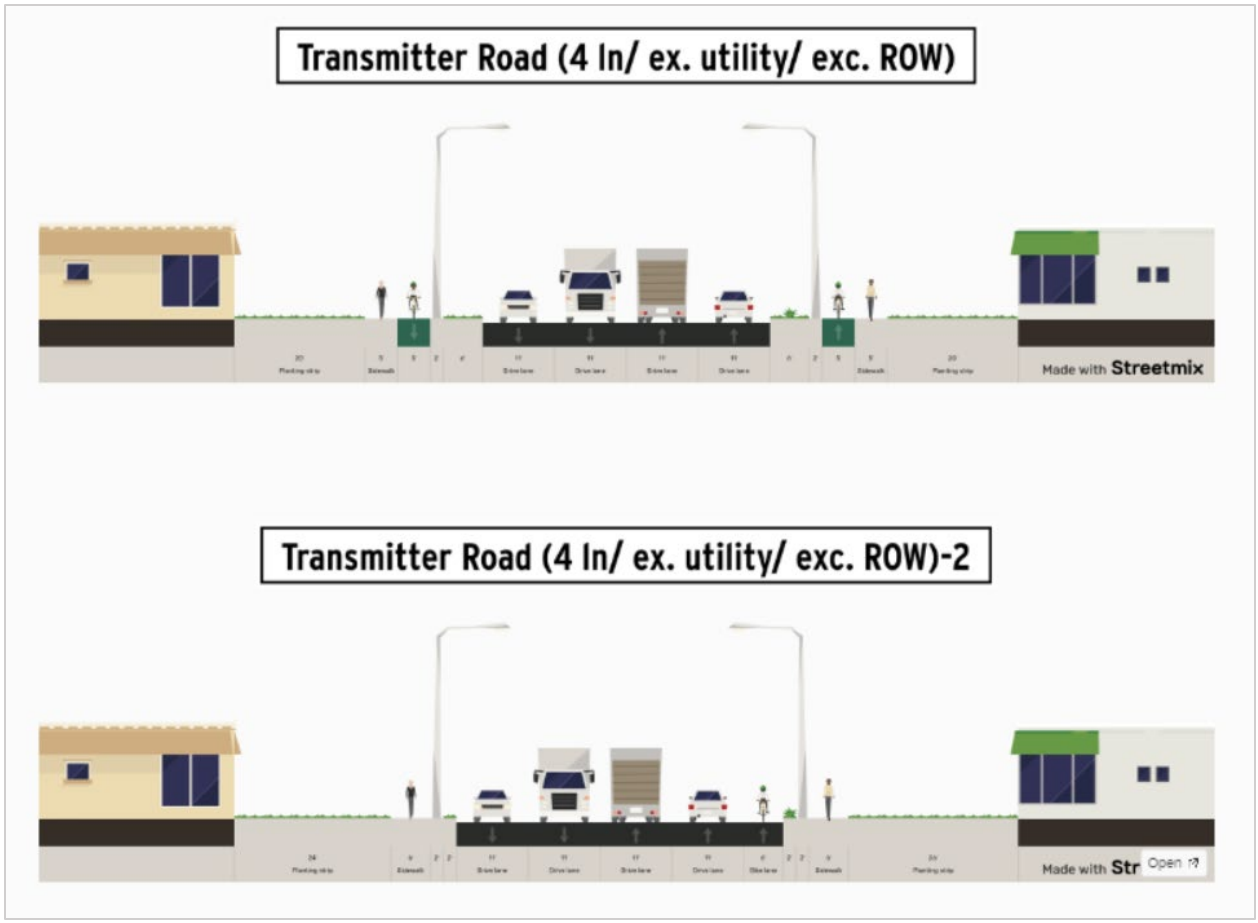
Existing Conditions

Transmitter Road is an important connection between neighborhoods and parks that extends north-south through Springfield. The connections plan includes concepts specifically for Transmitter Road, which will be expanded north of 15th Street to four traffic lanes.

Existing conditions: Transmitter Road right-of-way, utilities and adjacent conditions documented based on available data and visual mapping. FDOT shared that right-of-way varies along Transmitter Road based on findings during design development for constructing on-shoulder bikes lanes.



Design development: Transmitter Road options for improved connections south of 15th Street. The section diagrams illustrate an option for a standard 6-foot wide sidewalk (top) and a wider 10-foot multi-use path (bottom).



Design development: Transmitter Road options for improved connections north of 15th Street. The sections illustrate two options for improving bicycle and pedestrian connections when the road expands to four traffic lanes. The section on top illustrates an option with a 10-foot wide multi-use path with a traffic buffer to safely accommodate bicyclists and pedestrians. The section on bottom illustrates an on-shoulder bike lane and a buffered 6-foot wide sidewalk.

Section 7
Environmental Review Considerations

Environmental Considerations Report for Projects with Federal Actions

City of Springfield, Florida
September 3, 2020

The Unified Federal Review (UFR) process was as established by the Sandy Recovery Improvement Act of 2013, which added Section 429 to the Robert T. Stafford Act. The UFR process is a federal interagency approach for environmental and historic preservation compliance reviews associated with disaster recovery projects. The UFR process promotes the use of best practices and tools designed to address gaps in environmental compliance procedures, increases coordination and consistency among federal agencies, and leverages existing resources to create process efficiencies. The overall goal is to streamline the federal government environmental compliance assistance to communities, states, and tribes after a disaster.

The environmental considerations report is prepared for community, state or tribal sponsors as a means to frontload environmental compliance considerations for projects where federal assistance (funding, approval, or direct action) may be involved. This document is not inclusive; rather it serves as a tool for use during the design phase of the project development process to identify potential environmental compliance considerations or resources.

PROJECT + PROGRAM DEVELOPMENT STRATEGY (PDS)

Environmental Considerations Documentation

COMMUNITY	Springfield, FL
ISSUE/PROJECT/PROGRAM NAME	Recovery and Resilience Partnership Program
PROJECT TYPE	Stormwater Improvements, Infrastructure Construction, Recreational Opportunities, Streetscape improvement
DATE	September 3, 2020

PROJECT INFORMATION

☐ ***Location: Multiple***

- Springfield, Bay County, FL, GPS coordinates: 30.15311, -85.61171
- City Hall Complex, GPS coordinates: 30.16822, -85.60893
- Cherry St Linear Park, GPS coordinates:(30.14564, -85.60823
- Business 98 Gateway, GPS coordinates: 30.15297, -85.61715 - 30.14565, -85.61560

☐ ***Flood Zone:***

- Most projects are in Zone X.
- Cherry Street Linear Park is located in Zone A; Bay County Firm Panel.

☐ ***Scope of Work:***

Projects are still in design phase. Refer to project section for description.

- City Hall Complex- Infrastructure Construction
  - Construction of a new city complex with city hall, public works, and the police and fire stations with an adjacent wetland park to replace the original facilities damaged by Hurricane Michael.
- Cherry Street Linear Park - Recreation Opportunities
  - Redevelopment of a park, currently a small green space and aging boat ramp on upper Martin Lake. The City of Springfield looks update the boat ramp, improve parking, clear brush, and build an observation deck on the lake.
- Streetscape Improvements - Streetscape Improvements
  - Florida Department of Transportation (FDOT) has plans to improve major corridors throughout the city. The City of Springfield is looking to make improvements and development of sidewalks, bike trails and paths throughout the city to accommodate non-vehicular traffic connections to local and regional recreational assets.
- Business 98 Revitalization - Streetscape Improvements
  - Redevelopment of city's western gateway and main thoroughfare. There is a proposal of land acquisition of an U.S. Army Corps of Engineers property for redevelopment for commercial and residential interests. The city's plans include better signage, plantings, and increased pedestrian access within the community.
- Civic Green Infrastructure - Stormwater, Recreational Opportunities
  - Improvement and development of stormwater utilities in city parks to address flooding issues that have arose since the hurricane due lack of ground cover while updating the city recreational assets.

☐ ***1. Program Kickoff.***

Initial R2P2 meeting with City of Springfield- January 10, 2020
R2P2 Site Visit with City of Springfield - January 31, 2020

- City of Springfield
- Federal Emergency Management Agency (FEMA)
- U.S. Environmental Protection Agency (US EPA)
- U.S. Army Corps of Engineers (US ACE)
- National Park Service (NPS)
- Florida Department of Environmental Protection (FDEP)
- Emerald Coast regional Council (ECRC
- Bay County
- Skeo Solutions

*See participant list for agency contacts

☐ ***2. Recovery Objective***

The City of Springfield looks to increase capacity by improving connectivity and safety for non-vehicular traffic, improving stormwater infrastructure, and to redevelop impacted areas to foster economic development.

☐ ***3. Purpose and Need***

The City of Springfield sustained heavy damage during Hurricane Michael and has substantial opportunities for growth while recovery is taking place. The goal is that by improving utilities and infrastructure as well as redeveloping or rezoning existing properties, new business will be attracted to the community.

☐ ***4. Resources, Constraints and Gaps***

- Resources could potentially be FEMA Hazard Mitigation Grant Program funding (post-disaster), Hazard Mitigation Assistance funding, e.g., Building Resilient Infrastructure and Communities (BRIC), and grants from public entities as well as community stakeholders such as Bay County, Tyndale Air Force Base, Gulf Coast State College, City of Parker. Other federal agencies may be compatible partners depending on project details and agency program applicability or eligibility. Constraints include project cost and land availability.

Current Federal Support:

- National Park Service is developing a greenway to connect parks within the cities of Parker and Springfield.
- The Natural Resource Conservation Service (NRCS) is mapping drainage networks that feed into Martin Lake to improve flow which may limit consistent flooding.
- Under EPA's College Underserved/Community Partnership Program, students are developing a concept for a connector from U.S. 98 to the proposed Gulf Coast Parkway.

ALTERNATIVES ANALYSIS

5/6. Practicable Recovery Issue/Project

To be determined by the city once a final scope of work is defined for each project. These would identify the range of clearly defined "practicable" or "feasible" project alternatives for consideration based on the identified "need" and provide options and alternatives for the identified projects.

7. Analyze Impacts.

Impacts will need to be analyzed once the scope of work is defined. The topics included in the "Environmental Notes and Considerations" section of this form may be used to evaluate the potential impacts of alternative actions. Additionally, consider whether the impacts of the alternative may be permanent or limited to the duration of construction activity during project implementation

☐ ***8. Preferred Alternative***

To be determined by the city once each scope of work is complete and the projects are finalized. The basis for considering and selecting the practicable alternatives should clearly documented. A no action may be considered a practicable solution.

RESOURCES

☐ ***9. Partners, Resources, and Financing Packages***

See Number 4 above for potential federal, state and non-profit funding opportunities that the city may consider.

☐ ***10. Draft Action Plan.***

To be determined the city once the respective project scopes of work are finalized

COMMUNITY REVIEW AND ENGAGEMENT

☐ ***11. Public Review***

☐ ***A. PRIOR Community Engagement***

- The City of Springfield did not have prior recorded involvement for the projects.

☐ ***B. CURRENT Community Engagement Activities***

- City Commission meeting to introduce project plans to the public - June 2, 2020
- Stake holder workshops for key parties within the community - June 3-4, 2020
- Virtual online open house for community member to view project concept and designs - June 2-18, 2020
- Comment box at City Hall for community members to give opinions on the projects - June 2-8, 2020

☐ ***C. FUTURE Community Engagement Activities.***

- The City of Springfield has a consultant, Integrity Group, that was hired for Hurricane Michael recovery and is overseeing most of the documentation aspects.
- Any future public involvement will depend on the city's need and scheduling; adequate documentation of community engagement, including purpose, outcomes and attendees, will be useful as part of Nation Environmental Policy Act (NEPA) process and determination.

IMPLEMENTATION

☐ ***12. Final Action/Plan.***
To be determined by the city once the scope of work is defined and impacts have been studied.

☐ ***13. Implementation.***
To be determined by the city once the scope of work is defined and impacts have been studied.

ENVIRONMENTAL NOTES AND CONSIDERATIONS

☐ ***Physical Resources***
The City of Springfield has a humid, sup-tropical climate, situated on the coastal plain that gets approximately 60 inches of rain per year. The soil profile consists of differing sands according to the NRSC web soil survey. The city sits above the Florida aquifer, a freshwater aquifer beneath layers of limestone.

☐ ***Water Resources***
The City of Springfield sits on Martin Lake and is small, tributary. Lake Martin has been historically polluted, and efforts are being made to study its severity. The City of Springfield and the City of Parker has submitted a proposal to the US ACE Silver Jackets program for assistance with a hydrology and hydrologic study to assess the lake. There are several lakes and wetland systems located throughout the city. The city sits on the Floridan Aquifer with surficial ground water at approximately 40 ft. measured in Bay County. This may be less for the city given its proximity to St. Andrews Bay. Ground water pollutants are below EPA regulatory levels. The city should coordinate with the U.S. Army Corps of Engineers, Florida Department of Environmental Protection and Northwest Florida Water Management District for activities that may involve impacts or actions that affect water resources.

☐ ***Biological Resources***
The City of Springfield lies in a sub-tropical climate zone that is dominated by hardwood oak forest and pinelands. Threaten or endangered species may be present such as the Eastern Indigo Snake, Panama City Crawfish, and Wood Stork. Several species of birds use the area as flyway or breeding and nursery habitat such as the Least Tern and Bald Eagle. Project activities may affect species or habitat and should be considered before implementing any designs. The city should coordinate with U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission for full species lists and guidance before finalizing a scope of work and preparing project designs.

☐ ***Cultural / Historic / Resources***
Within the City of Springfield, there may be properties eligible for listing on the National Historic Register. Based on the information provided, these cultural and historic properties do not appear to be affected by the projects at this time. The city should coordinate with the Florida State and Tribal Historic Preservation Offices when a scope of work is defined to confirm whether project actions may affect or disturb to properties eligible for historic status.

☐ ***Socioeconomic Resources***
According to the US EPA Environmental Justice Mapper, the City of Springfield has high minority and low-income populations, around 50%, distributed throughout the city. While improvements to sidewalks and paths may benefit populations, temporary closures may affect these populations. Steps should be taken to communicate project activities with affected ensure that these populations and ensure they have continued input during project the implementation of an projects. The city can refer to the US EPA Environmental Justice Mapper for support in this area.

☐ ***Coastal Zones***
The City of Springfield is not located within a Coastal Barrier Resource Unit or Otherwise Protected Area. For compliance with the Coastal Zone Management Act (CZMA), the project may require review by the FDEP Office of Resilience and Coastal Planning for consistency with Florida's Coastal Management Plan (FCMP).

☐ ***Farmland/Agriculture***
Projects are in suburban areas. No significant impacts to prime or unique farmland are anticipated.

☐ ***Pollutants***
Possible pollutants could come from construction activities depending on the scope of work. Effects should be limited by use of best management practices to avoid common sources such as sediment runoff and debris monitoring.

☐ ***Air Quality***
Possible threats to air quality from construction activities; including transportation to and from the project sites; threats should be limited by use of best management practices. The city should coordinate with FDEP Division of Air Resource Management for guidance.

☐ ***Noise***
Temporary impacts may include increased noise associated with construction activities; permanent impacts to noise levels are not anticipated.

☐ ***Transportation/Access***
Temporary impacts associated with construction activities; increase in traffic due to road closures and detours and potential dust/debris from hauling materials to/from the project sites. Permanent impacts to be identified when final Scope of Work is defined. The city should ensure transportation routes and inadvertent dust/debris from

construction do not adversely affect minority and low-income populations. The city should contact Florida Department of Transportation when scope of work for permitting requirement involving state right of ways.

☐ ***Safety***

Temporary impacts associated with construction activities; should be limited by use of best management practices. Permanent effects should improve safety for pedestrian and bicyclists throughout the community. Additional impacts to be identified when final scope of work is defined.

☐ ***Additional Documentation:***

If the project involves federal funding or action, the county should coordinate with the lead federal agency funding or involved with the project as early in the planning process as possible. Early communication will help avoid duplication of effort, and ensure the project aligns with agency-specific NEPA compliance review procedures.

☐ ***Additional Resources***

- Florida Department of Emergency Management Greenbook for EHP Compliance
  - http://archive.floridadisaster.org/Recovery/documents/FLGreenbook.pdf
  - See: **p. 11** and **Appendix F** for additional information on building retrofit projects.
  - See: **pp. 34-39** for state and federal agency contact information.
- NEPAssist Mapping Tool
  - https://www.epa.gov/nepa/nepassist
  - Provides an initial screening of site-specific environmental conditions (e.g., wetlands, floodplain, critical habitat, etc.)
- Gulf Coast Parkway
  - https://www.greshamsmith.com/project/florida-department-of-transportation-district-3-for-gulf-coast
- Natural Resource Conservation Service Web Soil Survey
  - https://websoilsurvey.nrcs.usda.gov/app/
  - Provides a mapping database of soil types.
- U.S. Army Corps of Engineers – Jacksonville District Office
  - https://www.saj.usace.army.mil/
- U.S. Fish and Wildlife Service IPaC Mapper
  - https://ecos.fws.gov/ipac/
  - Provides information on Threatened and Endangered Species as well as Critical Habitat for a given area.
- U.S. Environmental Protection Agency PA EJSCREEN: Environmental Justice Screening and Mapper
  - https://www.epa.gov/ejscreen
  - Provides data on pollutant sources and socio-economic information for a population.
- Florida State Historic Preservation Office
  - https://dos.myflorida.com/historical/
- Seminole Tribal Historic Preservation Office
  - http://www.stofthpo.com/
- FL Dept. of Environmental Protection - Division of Air Resource Management
  - https://floridadep.gov/air
- FL Dept of Environmental Protection - Office of Resilience and Coastal Protection
  - https://floridadep.gov/RCP

Section 8
Community Profile

City of Springfield Community Profile

Springfield is a city in Bay County, Florida, United States, east of Panama City. It is part of the Panama City–Lynn Haven–Panama City Beach Metropolitan Statistical Area. It has a population of 9,475 people with a median household income of $36,647. The poverty rate is 24.80% with an employment rate of 51.1%. The 3 largest ethnic groups in Springfield are White (Non-Hispanic) (64.8%), Black or African American (23.5%) and White (Hispanic) (4.83%). About 43.4% of the population has a high school education.

Metric	City	Bay County	Florida State
Total Population	9,475	182,482	21,299,325
Total Growth/Decline Trend	0.612% Growth	0.985% Growth	1.5% Growth
Identifying As Single Race			
White (Non-Hispanic)	64.80%	77.3%	53.30%
Asian	1.10%	2.30%	2.80%
Black or African American	24.30%	11.00%	16%
Native Hawaiian or Other Pacific Islander	0.10%	0.00%	0.10%
White (Hispanic or Latino)	4.83%	4.59%	21.40%
Identifying as two or more races	4.10%	3.80%	2.90%
Median Age (Years)	35.8	39.4	42.2
Median Household Income	$36,647.00	$51,829.00	$55,462.00
Poverty Rate	24.80%	14.70%	13.60%
Employment Rate	51.10%	54.90%	55.40%
Population with a High School Education	43.40%	31.40%	28.70%
Population with a Bachelor's Degree	6.60%	14.8%	19.10%

EPA Environmental Justice Screen (EJSCREEN)

EJSCREEN is an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. EJSCREEN allows users to access high-resolution environmental and demographic information for locations in the United States, and compare their selected locations to the rest of the state, EPA region, or the nation. This “screening level” look is a useful first step in understanding or highlighting locations that may be candidates for further review. This information can help document need and support grant writing efforts.

One key output from EJSCREEN is a standard report that describes a selected location. The first page of EJSCREEN’s report shows the state, regional and national EJ Indexes for the selected area in tabular form and in a bar chart. "Percentiles" are an important part of EJSCREEN. Every indicator in EJSCREEN is put into perspective by showing its associated percentiles. To learn more about EJSCREEN, how to interpret the report, and explore more of the city’s environmental and demographic indicators, visit EPA EJSCREEN webpage here.

A copy of the City of Springfield’s EJSCREEN report is available on the following page.

Observation: Springfield is in the 76th percentile compared to the state of Florida using the Lead Paint indicator. This means that only 24% of the state level has a higher risk of percentage of housing built before 1960 as an indicator for lead paint. Lead paint exposure can be addressed as part of the City’s redevelopment efforts that support community health and wellness.

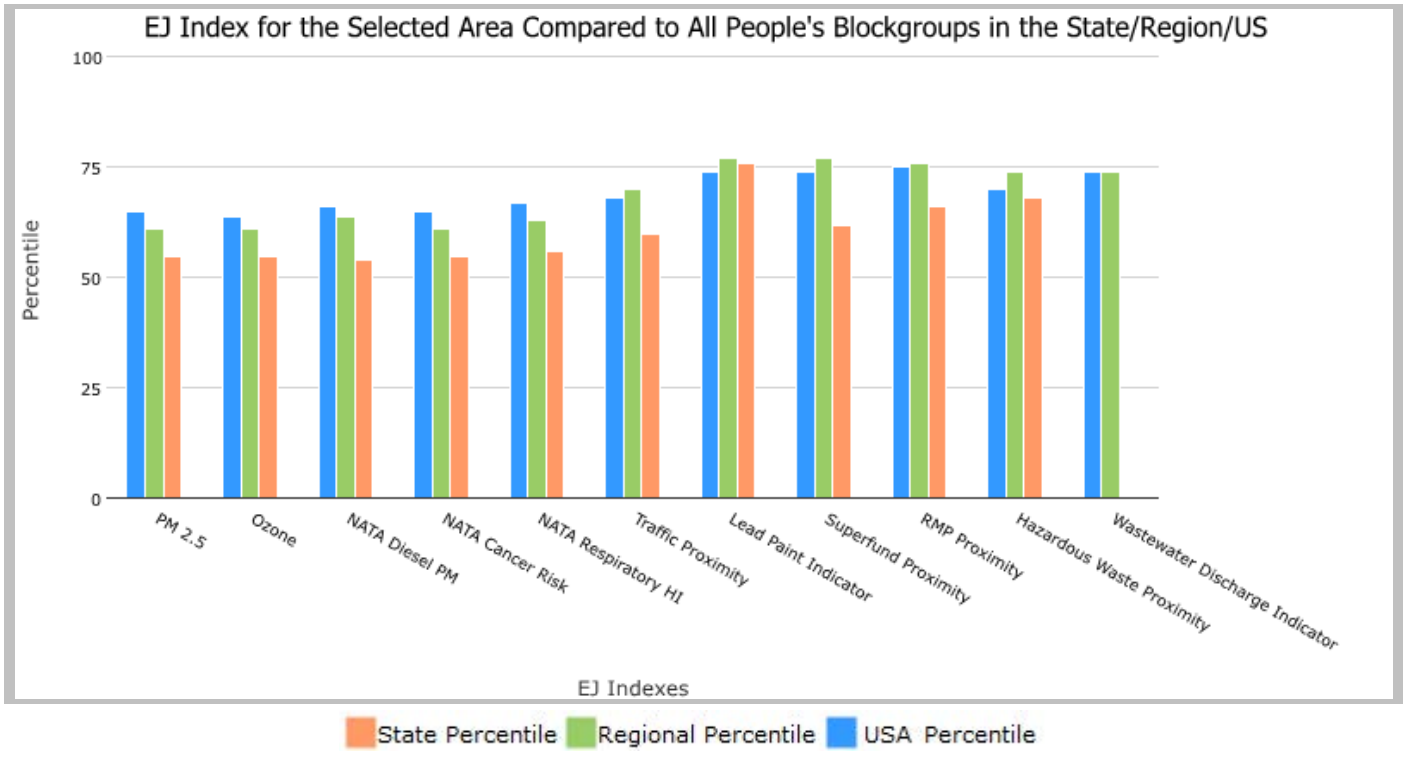
EJSCREEN Report (Version 2019)

City: Springfield, FLORIDA, EPA Region 4

Approximate Population: 9,326

Input Area (sq. miles): 4.54

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	55	61	65
EJ Index for Ozone	55	61	64
EJ Index for NATA* Diesel PM	54	64	66
EJ Index for NATA* Air Toxics Cancer Risk	55	61	65
EJ Index for NATA* Respiratory Hazard Index	56	63	67
EJ Index for Traffic Proximity and Volume	60	70	68
EJ Index for Lead Paint Indicator	76	77	74
EJ Index for Superfund Proximity	62	77	74
EJ Index for RMP Proximity	66	76	75
EJ Index for Hazardous Waste Proximity	68	74	70
EJ Index for Wastewater Discharge Indicator	N/A	74	74



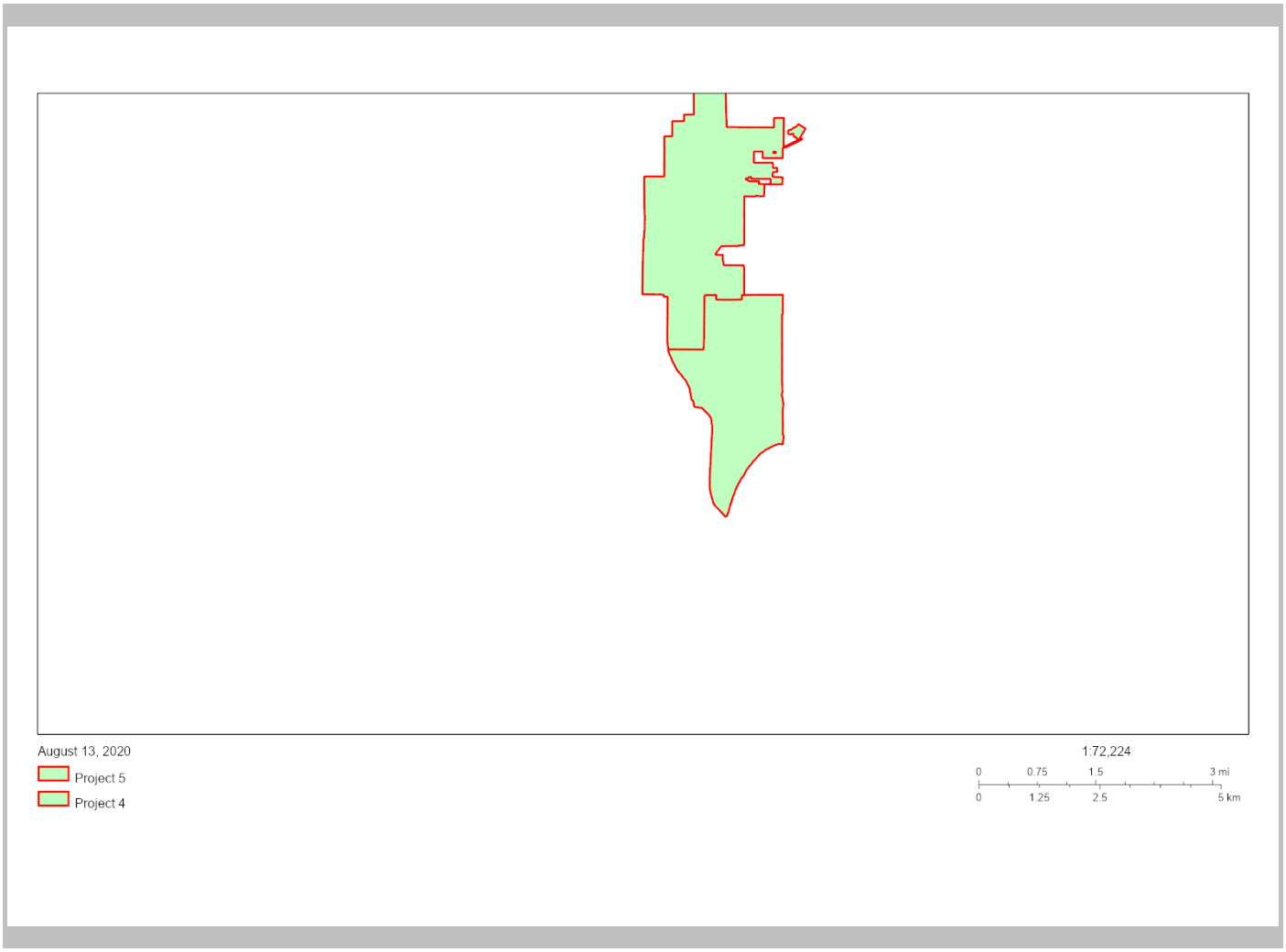
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJSCREEN Report (Version 2019)

City: Springfield, FLORIDA, EPA Region 4

Approximate Population: 9,326

Input Area (sq. miles): 4.54



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2019)

City: Springfield, FLORIDA, EPA Region 4

Approximate Population: 9,326

Input Area (sq. miles): 4.54

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	7.64	7.43	58	8.59	21	8.3	30
Ozone (ppb)	35.7	33.7	61	40	21	43	12
NATA* Diesel PM (µg/m^3)	0.295	0.557	17	0.417	<50th	0.479	<50th
NATA* Cancer Risk (lifetime risk per million)	34	33	58	36	<50th	32	60-70th
NATA* Respiratory Hazard Index	0.58	0.49	87	0.52	70-80th	0.44	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	240	550	50	350	66	750	52
Lead Paint Indicator (% Pre-1960 Housing)	0.17	0.11	78	0.15	71	0.28	49
Superfund Proximity (site count/km distance)	0.11	0.13	66	0.083	81	0.13	69
RMP Proximity (facility count/km distance)	0.88	0.79	69	0.6	78	0.74	73
Hazardous Waste Proximity (facility count/km distance)	0.47	0.47	75	0.52	72	4	50
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0	0.48	N/A	0.45	42	14	37
Demographic Indicators							
Demographic Index	44%	41%	60	38%	66	36%	68
Minority Population	35%	45%	45	38%	54	39%	55
Low Income Population	53%	36%	78	37%	77	33%	81
Linguistically Isolated Population	2%	7%	43	3%	64	4%	57
Population With Less Than High School Education	21%	12%	80	13%	77	13%	79
Population Under 5 years of age	7%	5%	70	6%	65	6%	63
Population over 64 years of age	13%	19%	42	16%	46	15%	50

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

Section 9
R2P2 State and Federal Partners Contact List

R2P2 State and Federal Partners Contact List

Throughout the process, staff from the following regional, state and federal agencies and organizations offered their technical assistance and expertise in helping the city connect their vision to implementation opportunities.

The following are key contacts to support implementation moving forward.

First Name	Last Name	Organization	Email
Rick	Durbrow	EPA	durbrow.rick@epa.gov
Tripp	Boone	EPA	boone.tripp@epa.gov
Drew	Parker	EPA	parker.william@epa.gov
Pamala	Myers	EPA	myers.pamala@epa.gov
Pam	Swingle	EPA	swingle.pamela@epa.gov
Patty	Miller-Crowley	FEMA	patricia.miller-crowley@fema.dhs.gov
Phillip	Jernigan	FEMA	phillip.jernigan@fema.dhs.gov
Endia	Casley	FEMA	endia.casley@fema.dhs.gov
Cherry	Jochum	FEMA	cherry.jochum@fema.dhs.gov
Michael	Sherman	USDOT	michael.sherman@dot.gov
Dee	Hewitt	NPS	deirdre_hewitt@nps.gov
Helen	Siewers	NPS	Helen_Siewers@nps.gov
David	Behler	DOI	david_behler@ios.doi.gov
Loria	Phillips	USDA	loria.phillips@usda.gov
Todd	Boatman	US ACE	todd.h.boatman@usace.army.mil
Melanie	Kaeser	Tyndall Air Force	melanie.kaeser.ctr@us.af.mil
Heidi	Stiller	NOAA	heidi.stiller@noaa.gov
Joseph	Paine	US ACE	joseph.w.paine@usace.army.mil
Cathy	Kendall	DOT	cathy.kendall@dot.gov
Jerica	Richardson	USACE - Mobile District	Jerica.M.Richardson@usace.army.mil
Leda	Khoury	FEMA	leda.khoury@fema.dhs.gov
Jeremy	O'Dell	FL Emergency Management	jeremy.odell@em.myflorida.com
Whitney	Gray	FL DEP	whitney.gray@dep.state.fl.us
Justin	Baldwin	FL DEP, Office of Greenways and Trails	Justin.Baldwin@FloridaDEP.gov
Benjamin	Melnick	FL DEP	benjamin.melnick@floridadep.gov
Ben	Chandler	Apalachee Regional Planning Council	bchandler@thearpc.com
Ada	Clark	Emerald Coast Regional Council	ada.clark@ecrc.org