

Comprehensive Planning for Clean Water: Tools and Strategies

July 23, 2020 | 10:00am–11:30am | Zoom Webinar



Hillsborough
County Florida

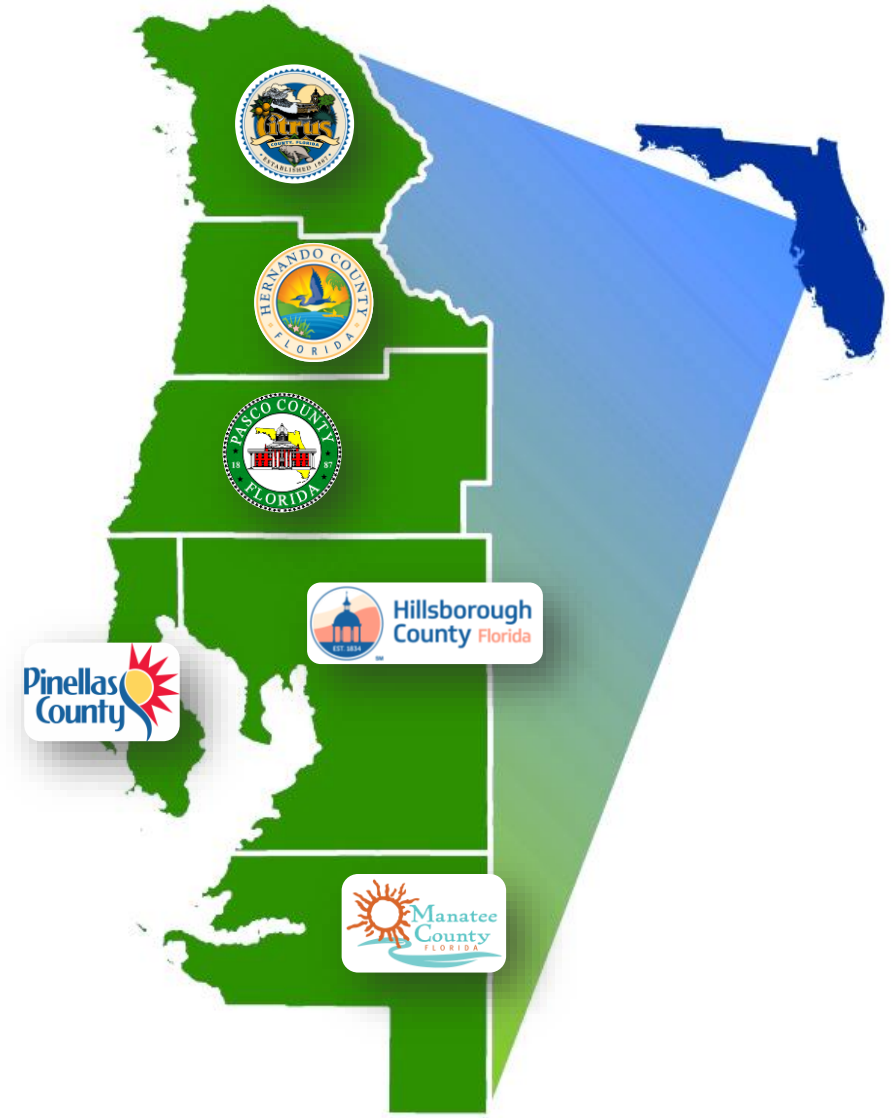


Mission Statement

To serve our citizens and member governments by providing a forum to foster communication, coordination, and collaboration in identifying and addressing needs regionally.

Who We Serve (Members)

- 6 Counties
- 21 Municipalities
- 13 Gubernatorial Appointees
- 3 Ex-Officios



TAMPA BAY WATERSHED

SIZE:

TAMPA BAY PROPER: 400 SQUARE MILES

TAMPA BAY WATERSHED: 2,200 SQUARE MILES

AVERAGE DEPTH: 11 FEET

MAXIMUM DEPTH: 43 FEET (MAIN SHIPPING CHANNEL)

SALINITY RANGE: >20-35 PARTS PER THOUSAND IN BAY PROPER;
<1-25 PARTS PER THOUSAND IN TIDAL TRIBUTARIES

POPULATION IN WATERSHED: 2.7 MILLION (2010 CENSUS)

MAJOR TRIBUTARIES: HILLSBOROUGH, ALAFIA, LITTLE MANATEE
AND MANATEE RIVERS



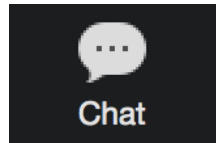
Moderator



Sarah Vitale, AICP
Senior Planner



Housekeeping

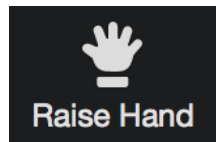


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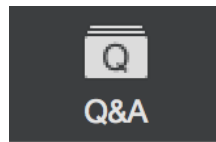


This presentation is being recorded.

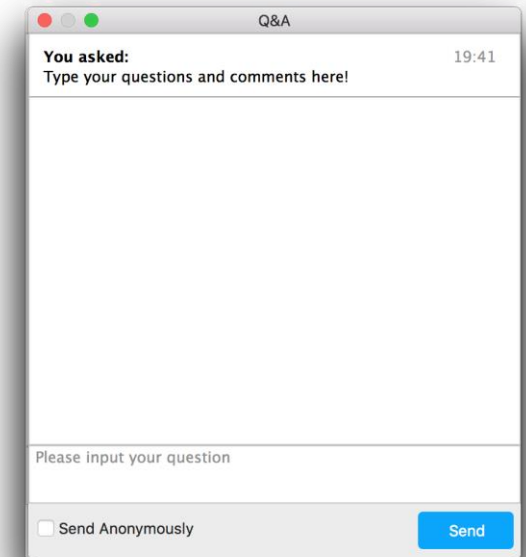
How do I ask a question?



Attendees are in listen-only mode. Raise your hand to be unmuted during the Q/A period.



You can type questions for the presenters at any time using the Q/A window.



Speakers



Maya Burke
*Tampa Bay Estuary
Program*



Melissa Dickens,
AICP
*Hillsborough
County Planning
Commission*



Kevin Moran, PE
Hillsborough County



Cara Woods Serra,
AICP, CFM
*Tampa Bay Regional
Planning Council*

Poll Questions

Overview

1. History

- National Estuary Programs (NEPs)
- Barriers to Implementation

2. Incorporating Clean Water Policies

- Collaborating with a Multijurisdictional Team
- Hillsborough County One Water

3. Comprehensive Plan Crosswalk

- Project Goals
- Development of the Crosswalk
- Stakeholder Review

4. Model Language Development

- Development of Model Language
- Selection of CCMP Priority Actions
- Development and Review of Model Language Guide

COMPREHENSIVE PLANNING FOR CLEAN WATER:

TOOLS AND STRATEGIES

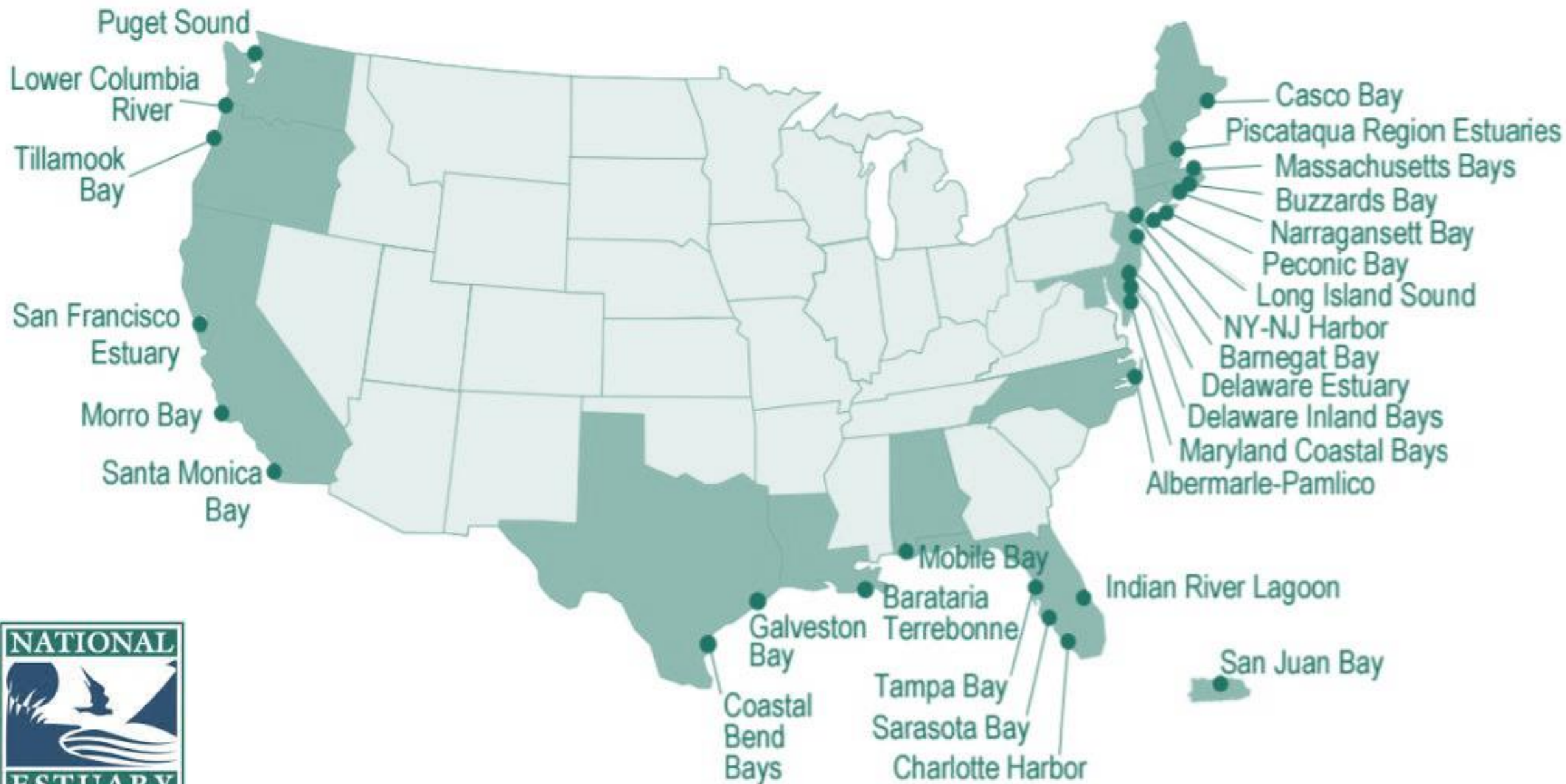


- BRIEF HISTORY OF ESTUARY PROGRAMS
- CCMPs + LOCAL COMPREHENSIVE PLANS
- AVAILABLE TECHNICAL ASSISTANCE

MAYA BURKE

SCIENCE POLICY COORDINATOR
mburke@tbep.org







Hillsborough
County Florida





CHARTING THE COURSE:

THE COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN FOR TAMPA BAY

2017 UPDATE



WATER AND
SEDIMENT
QUALITY



BAY
HABITATS



FISH AND
WILDLIFE



DREDGING
AND DREDGE
MATERIAL
MANAGEMENT



SPILL
PREVENTION
AND RESPONSE



INVASIVE
SPECIES



PUBLIC
EDUCATION AND
INVOLVEMENT

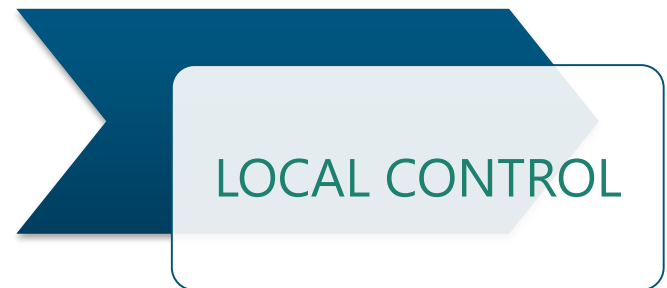
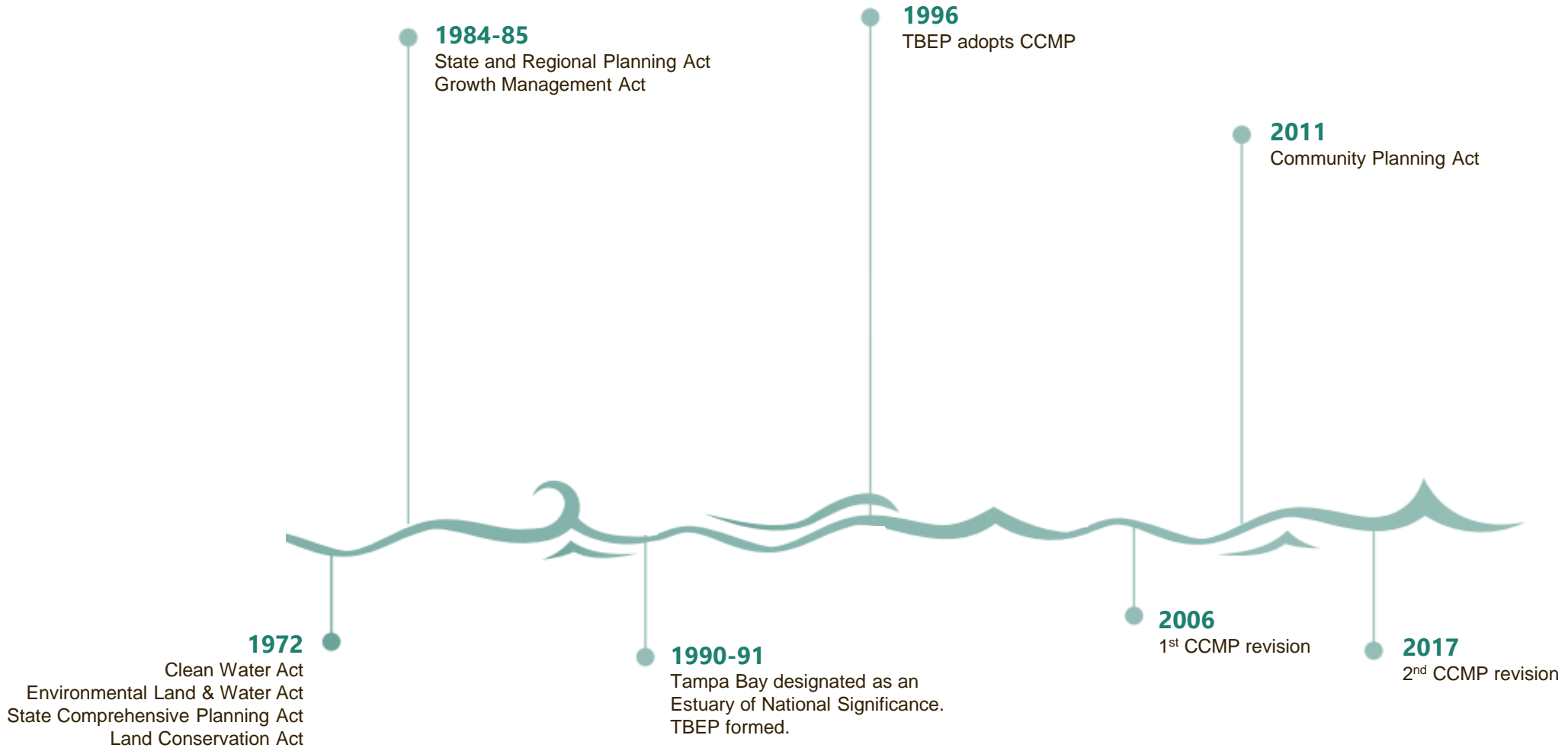


PUBLIC
ACCESS



CLIMATE
CHANGE





WATER AND
SEDIMENT
QUALITY



BAY
HABITATS



FISH AND
WILDLIFE



DREDGING
AND DREDGE
MATERIAL
MANAGEMENT



SPILL
PREVENTION
AND RESPONSE



BROADER IMPLICATIONS OF 2011 COMMUNITY PLANNING ACT

- COMPATIBLE APPROACHES BETWEEN LOCAL PARTNERS
- CAPACITY BUILDING FOR LOCAL PLANNING STAFF
- NEW WORKFLOWS FOR TECHNICAL ASSISTANCE

INVASIVE
SPECIES



PUBLIC
EDUCATION AND
INVOLVEMENT



PUBLIC
ACCESS



CLIMATE
CHANGE



LOCAL
IMPLEMENTATION



LOCAL EXAMPLE



STORMWATER RUNOFF Expand use of Green Infrastructure practices



<https://adobeindd.com/view/publications/cf7b3c48-d2b2-4713-921c-c2a0d4466632/2gv9/publication-27.html>

Activity 3 Encourage unified adoption and implementation of regional policies to expand use of Green Infrastructure techniques.

OBJECTIVES:

Promote expanded use of Green Infrastructure practices to prevent and reduce nitrogen pollution. Promote development and delivery of tools and incentives to expand low impact/green infrastructure implementation, including: professional training; compatibility reviews of local government development codes and comprehensive plans; and demonstration sites. Encourage Tampa Bay Estuary Program (TBEP) partners to submit local projects that implement innovative building or site design techniques to the *Action Plan Database* of the Tampa Bay Nitrogen Management Consortium. Encourage adoption and implementation of regional policies facilitating low impact/green infrastructure development.

STATUS:

Revised from previous SW-10 *Design and Implement a Low Impact Development Strategy*.

RELATED ACTIONS:

WW-1 *Expand the beneficial use of reclaimed water*
BH-6 *Encourage habitat enhancement along altered waterfront properties*

BACKGROUND:

Historically, stormwater management in Florida focused on rapidly removing rainwater from the built environment to avoid flooding. High volumes of polluted runoff were routed to the nearest receiving water body through



WASTEWATER Expand the beneficial use of reclaimed water



<https://adobeindd.com/view/publications/cf7b3c48-d2b2-4713-921c-c2a0d4466632/2gv9/publication-34.html>

Activity 4 Update or modify Comprehensive Land Use Plans or Land Development policies addressing reclaimed water, where appropriate, to ensure protection of nutrient-sensitive watersheds and wellfield recharge areas, and prioritize use of reclaimed water to benefit the Tampa Bay watershed. Track and ensure compliance with state legislation regarding development and distribution of reclaimed water systems.

OBJECTIVES:

Encourage and expand beneficial water reuse to reduce nutrient loadings from wastewater discharges and enhance ecosystem benefits. Track the regional strategy and practices for Aquifer Storage and Recovery (ASR) and direct recharge projects to strengthen understanding of their cumulative effect on ground and surface water quantity and quality. Strengthen understanding of the contribution of nutrients and other constituents from beneficial uses of reclaimed water to Tampa Bay.

STATUS:

Ongoing. Nitrogen load estimates to Tampa Bay from all sources, including reclaimed water, were developed in 1994 and updated in 2001 and 2005. The Tampa Bay Nitrogen Management Consortium developed a *Nutrient Management Strategy*, with regular updates and assessments in 2007, 2009 and 2012 on the nitrogen loading reductions from reclaimed water projects. Estimates of nitrogen loading from irrigation were developed in 2008, leading to recommendations for reduced fertilizer application with reclaimed water irrigation incorporated into the Model Fertilizer Ordinance developed by TBEP. The potential presence, fate and transport of emerging contaminants of concern and microplastics in reclaimed water, wastewater, and other sanitary sewer systems warrants further investigation (see *Action COC-4*).





**Plan
Hillsborough**



**Hillsborough
County Florida**

ONE WATER |

One Water

Protect and
Preserve

Water
Conservation

Integrated
Water Resource
Management

Discourage Sprawl
and Encourage
Redevelopment

Sustainable
Infrastructure and
Programs

Low Impact
Development

NOVEL APPROACH FOR RESOURCE MANAGEMENT

Water as Holistic, Interrelated, and Valuable

Match Right Resource to Right Use

Concept Identified in CCMP Update

INTERDEPARTMENTAL COLLABORATION

Water Resources

Environmental Management

Development Services

Engineering and Operations

REGIONAL COORDINATION

Southwest Florida Water Management District

Tampa Bay Water

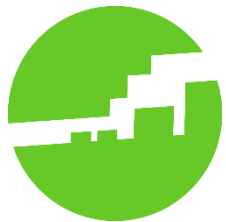
Tampa Bay Estuary Program

Other outside expertise

Context and About Us

The Planning Commission is an independent, consolidated planning agency that serves as the long-range planning agency for all four local governments in Hillsborough County. The agency is responsible for the Comprehensive Plans and other studies. Along with the Hillsborough MPO and Hillsborough River Interlocal Planning Board, it is part of Plan Hillsborough.

Hillsborough County's Environmental Management Division was created to assist the County's utility services with regulatory issues. Regulatory issues include potable water, wastewater, solid waste and stormwater permitting and compliance. The Division also houses the environmental laboratory, which is a full service testing laboratory for water quality testing. The Division is also responsible for the County's resilience planning.



**Hillsborough County
City-County
Planning Commission**



**Hillsborough
County Florida**

Background – Current Adopted Plan

- In 2020 working with 2008 Comprehensive Plan language (or earlier!)
- Stormwater Management, Sanitary Sewerage and Potable Water Elements are separate and siloed
- Other water resources language and maps found throughout various other Elements
- 200+ Goals, Objectives and Policies related to water – limited linkages to current aspects of technical implementation and today's County priorities



**Future of Hillsborough
Comprehensive Plan for
Unincorporated Hillsborough
County Florida**

SANITARY SEWERAGE

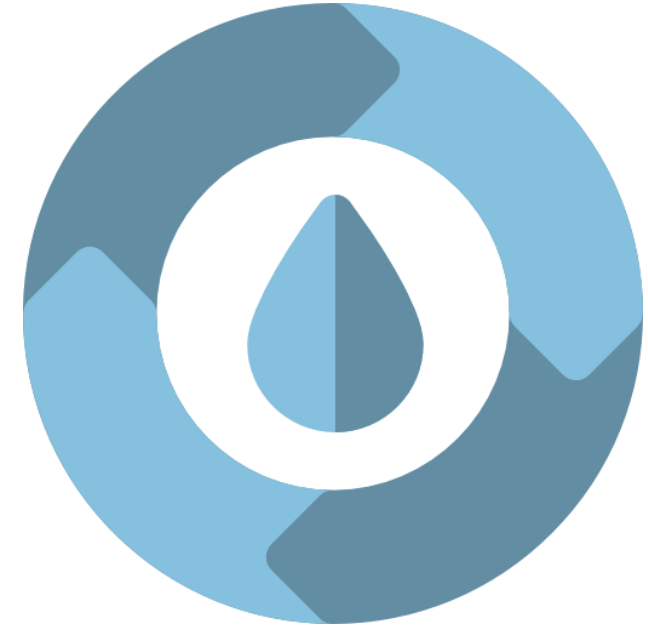
As Amended by the Hillsborough County Board of County Commissioners June 5, 2008 (Ordinance 08-13)

Department of Community Affairs Notice of Intent to Find Comprehensive Plan Amendments in Compliance published August 4, 2008 {DCA PA No. 08-1ER-NOI-2901- (A)-(I) }

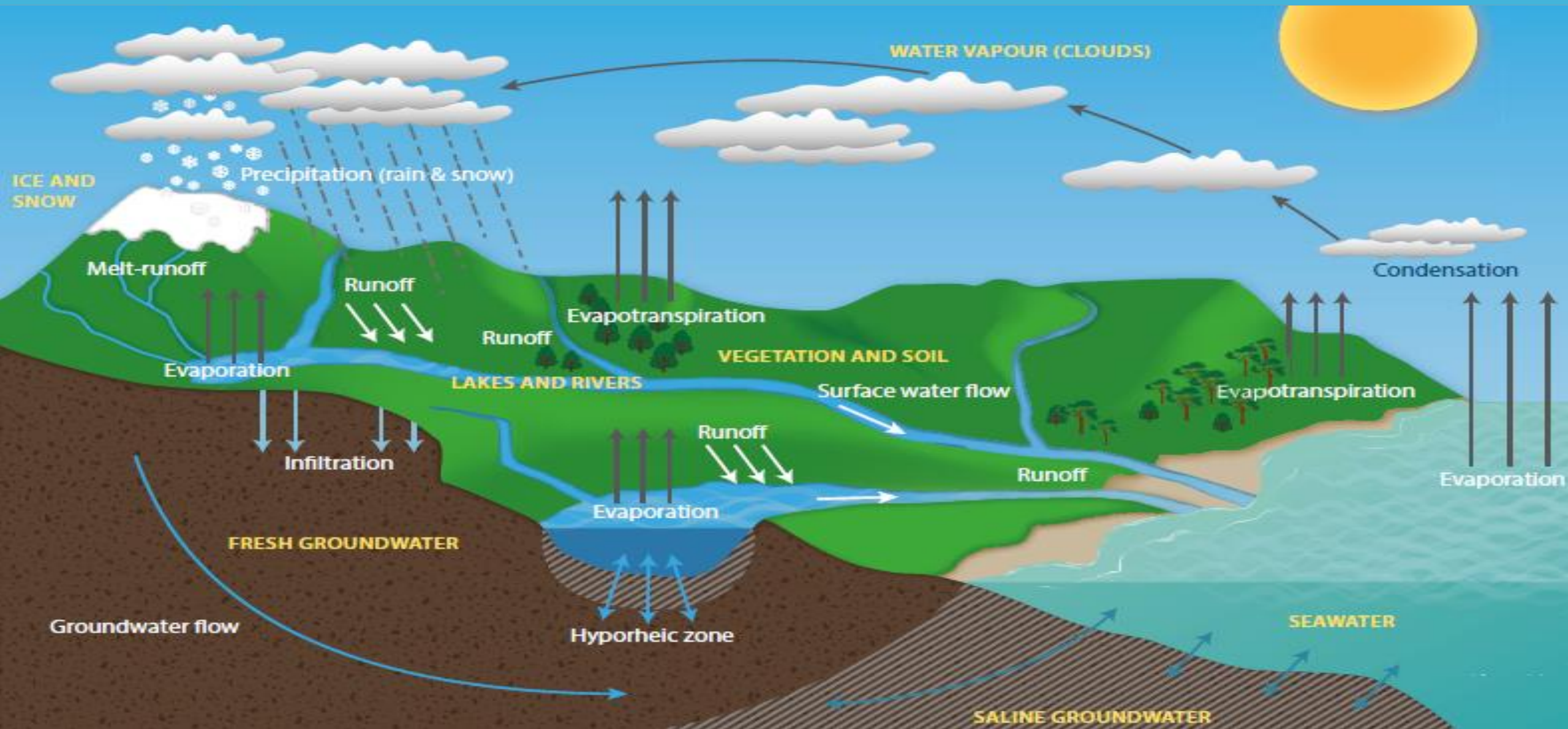
August 26, 2008 Effective Date

Background – County Technical Context

- Staff attempted to develop projects breaking down silos
- Senior Staff had a difficult time with internal processes including budgeting and project development
- Board developed a stronger interest in sustainability and resilience, which includes Integrated Water Resource Management concepts

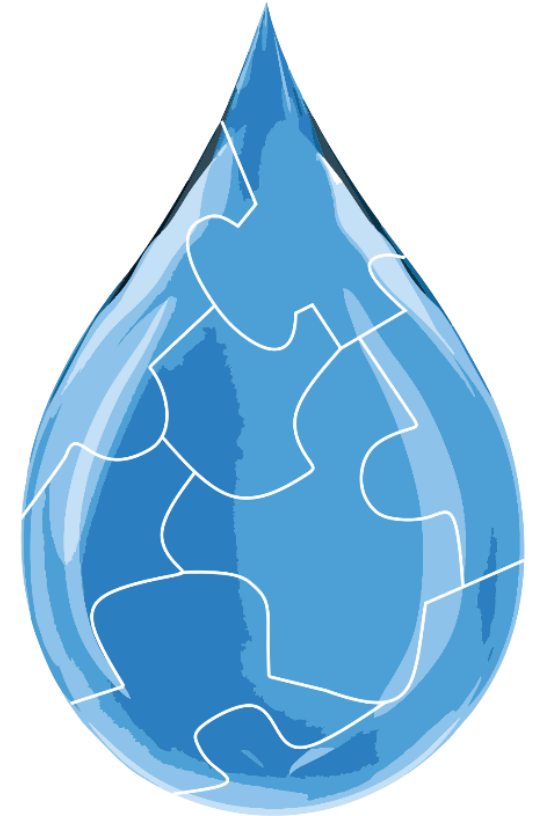


All Water is Related

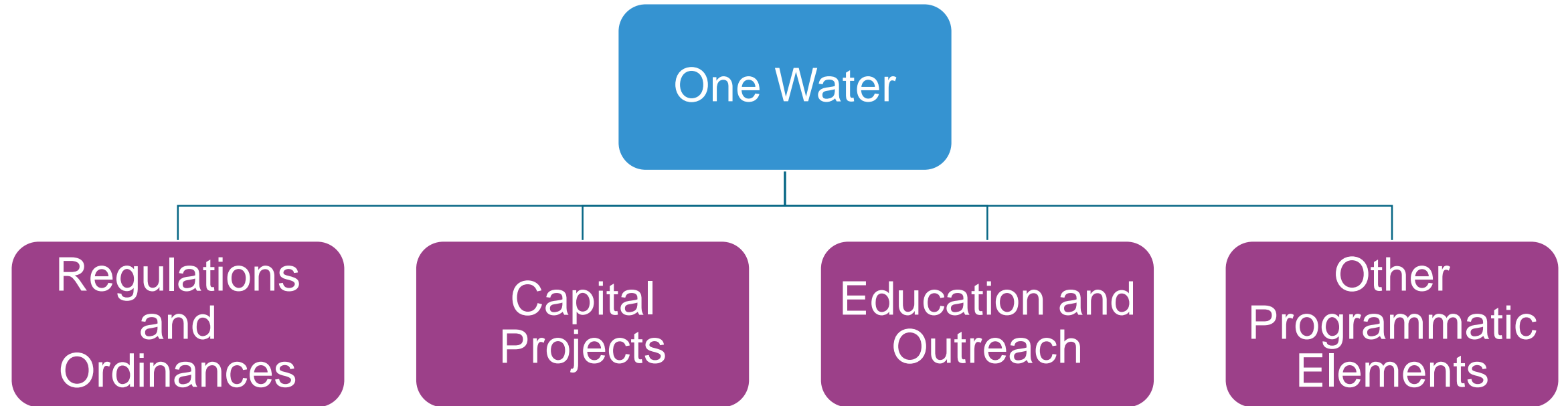


Project Goals

- Potential to be one of the first “One Water” Comprehensive Plan approaches in the country. Goals of the project:
 - Reflect the interrelated nature of water
 - Incorporate BOCC direction from a series of sustainable land use and planning workshops
 - Provide a framework for new County initiatives
 - Utilize best practices in planning and water resources management
 - Coordinate water with other aspects of planning within the County
 - Eliminate duplication, redundancy and inconsistencies
 - Be an implementable document – not a “shelf plan”



Implementation



Collaborative Approach

- One Water Working Group
 - Planning Commission, Water Resources Department, Environmental Management Division, Development Services Department and Engineering & Operations Department staff
 - Bi-weekly meetings with multi-disciplinary staff
 - Review and vet existing 200+ policies, examine best practices and draft One Water Chapter
- Senior Leadership Check-Ins
 - Evaluate drafts - provide direction and guidance
- External Agency Coordination
 - Review drafts of language ahead of public release
- Public and Stakeholder Outreach – current phase

Considerations for Language Development

- What to keep from the current adopted plan?
- What are best practices, new initiatives or priorities of the community/BOCC direction that are not reflected?
- How can the Comprehensive Plan best serve as backing or framework for County initiatives? When does a programmatic objective rise to the level of needing to be in the Comprehensive Plan?
- How to arrive at the right “level” of language? Broad policy direction vs specifics
- How ensure expectations are set appropriately given financial limitations and competing interests?

Collaboration Benefits, Lessons Learned and Recommendations for Others

- Open Discussion and Conversation
 - Technical Expert Perspective
 - Planner Perspective



One Water Chapter

- Initial portion of the overall Hillsborough County Comprehensive Plan update
- The Chapter updates and combines the Stormwater Management, Sanitary Sewerage and Potable Water Elements, as well as water-resources related language and maps from other Elements
- Modernized, streamlined language tailored to current context and County priorities
- Vetted and implementable by County staff



One Water Goals

01

Protect and preserve water resources

02

Water conservation

03

Integrated water resource management

04

Discourage sprawl and encourage redevelopment

05

Sustainable infrastructure and programs

06

Low impact development

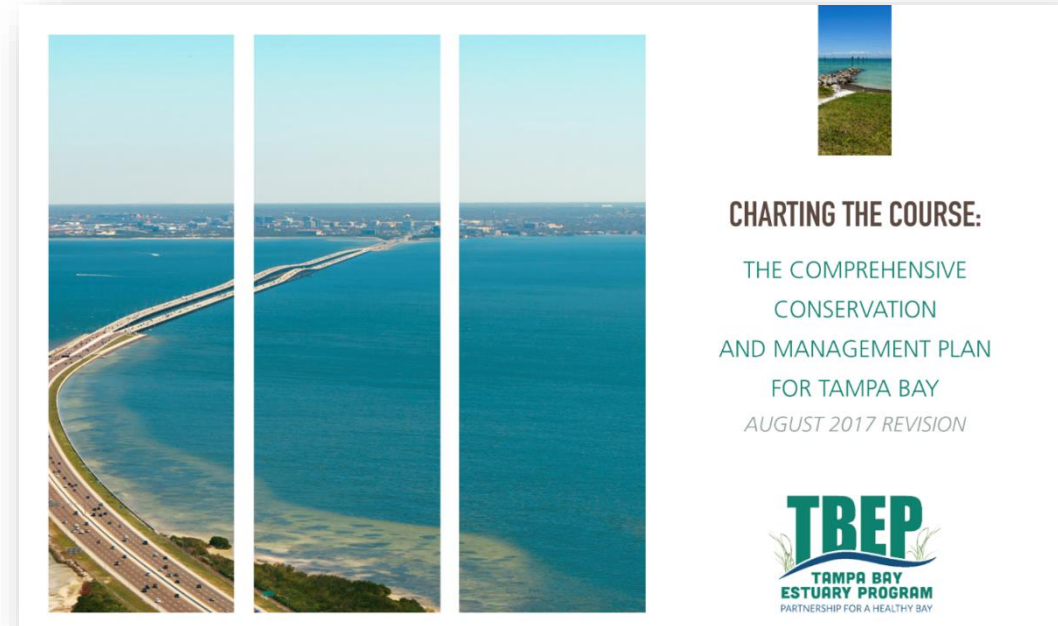


One Water and Planning - Resources

- <http://www.planhillsborough.org/one-water/>
- APA Water and Planning Network
- PAS Report – Planners and Water
- Blueprint for One Water – Environmental Research Foundation
- One Water Roadmap – US Water Alliance
- APA Knowledgebase – Integrated Water Resources Planning
- Comprehensive Plan Guidance for Water Resources Planning – APA White Paper
- One Water – Integrated Water Resources Planning - County Planning Directors Association of Pennsylvania – One Water Task Force
- Integrating Water Into the Comprehensive Plan – Colorado Pace Land Use Law Center
- One Water LA
- One Water San Francisco

CCMP and Model Language Development

- Opportunity to implement similar approaches in other local government Comprehensive Plans
- Technical assistance, model language and examples
- Incorporate best practices and sound scientific information into Comprehensive Plans
- Ability to tailor to individual local government context

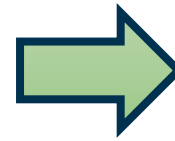


CCMP Project Overview

Goals of Project –

1. Create a crosswalk that relates Comprehensive Conservation and Management Plan (CCMP) goals and actions to appropriate elements of local government comprehensive plans
2. Develop model language for local governments to use in long range planning

Phase 1 - Compare CCMP to Comprehensive Plans



Pinellas County
Manatee County
Hillsborough County
Pasco County
City of Clearwater
City of Tampa
City of St. Petersburg

Review System:

How CCMP Actions Are Addressed within the Comp Plans



Activity is specifically addressed.

Language specifically refers to and enables the practice or measure of said activity. If conditional, states criteria considered acceptable for approval, so questions are limited.



Activity is generally addressed.

Language generally supports the CCMP action plan.



Activity intent is vaguely referenced.

Not specifically mentioned or has ambiguous application or intent. Not prohibited or in conflict with other specific actions in planning documents. Not disallowed or encouraged.



Activity is prohibited or prevented by conflicting code or state statute.

Language of statute, code, or other planning documents either specifically discourage the practice, or makes the practice impractical without providing a path for approval.



Activity is not applicable.

Not applicable at the local level of government.



Activity is not addressed.

Not addressed in the comprehensive plan.



Determined not applicable at the local level by Steering Committee

Example of Crosswalk: CCMP WQ-1 in the Comp Plan

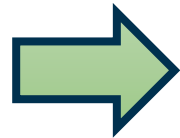


Water Quality

Implement the Tampa Bay nutrient management strategy

OBJECTIVES:

Continue to implement the nutrient management strategy for Tampa Bay to maintain water quality necessary to support seagrass at or above target levels. Document trends in water quality, and track nutrient reduction and prevention actions within the watershed. Develop and implement nutrient criteria recommendations and management strategies for the bay's tidal streams.



Pinellas County Comp Plan Review

WQ-1 Implement the Tampa Bay nutrient management strategy

Specifically Addressed

NRC 4.2.1: Pinellas County shall continue to cooperate with, and assist as appropriate, the Southwest Florida Water Management District in the development and implementation of Surface Water Improvement and Management Plans for water bodies in Pinellas County.

NRC 7.2.7: Redevelopment activities within the unincorporated County will contribute to the overall environmental improvement of the local and regional watershed.

SUR 1.5.1: Pinellas County shall continue to systematically prepare watershed or waterbody management plans for approval and implementation by the Board of County Commissioners. Such plans shall address water quality, stormwater management, habitat requirements, and biological targets, as well as recommended funding sources.

Specifically Addressed Generally Addressed Vague Not Disallowed In Conflict Not Applicable Not Addressed

Example of Crosswalk: CCMP BH-6 in the Comp Plan

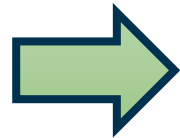


Bay Habitats

Encourage habitat enhancement along altered waterfront properties

OBJECTIVES:

Expand use of living shorelines instead of traditional seawalls along waterfront properties. Support demonstration projects; explore regulatory rule revisions to support living shorelines; assess the use of living shorelines to mitigate climate change; and support education of waterfront homeowners about the benefits of living shorelines.



St. Petersburg Comp Plan Review

BH-6 Encourage habitat enhancement along altered, waterfront properties

Generally Addressed

C3.3: Restoration of seawalled, ditched or other severely altered shorelines and channels to natural conditions will be instituted wherever possible. Such improvements include natural slopes, indigenous plant communities and seagrasses.

CM1.8: Opportunities for non-structural shoreline enhancement projects shall be identified in the repair of seawalls along low energy shorelines.

CM1.9: The planning department shall have available for property owners information on maintenance of native vegetation and shoreline features including:

Legend:
 ■ Specifically Addressed
 ■ Generally Addressed
 ■ Vague Not Disallowed
 ■ In Conflict
 ■ Not Applicable
 ■ Not Addressed

Crosswalk Matrix

This matrix crosswalks the Tampa Bay Estuary Program's CCMP Goals and Actions with local government comprehensive plans.

Water and Sediment Quality Goals	Manatee	Tampa	Hillsborough	Clearwater	St. Petersburg	Pasco	Pinellas	Not Applicable
WQ-1 Implement the Tampa Bay nutrient management strategy	Specifically Addressed	Generally Addressed	Specifically Addressed	Specifically Addressed	Generally Addressed	Generally Addressed	Specifically Addressed	
WQ-3 Reduce frequency and duration of harmful algal blooms	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	X
SW-1 Reduce nitrogen runoff from urban landscapes	Vague Not Disallowed	Generally Addressed	Generally Addressed	Vague Not Disallowed	Vague Not Disallowed	Vague Not Disallowed	Specifically Addressed	
SW-8 Expand adoption and implementation of best management plans for commercial and urban agriculture	Vague Not Disallowed	Generally Addressed	Generally Addressed	Not Addressed	Not Addressed	Generally Addressed	Not Addressed	
SW-10 Expand use of Green Infrastructure practices	Vague Not Disallowed	Generally Addressed	Generally Addressed	Specifically Addressed	Vague Not Disallowed	Generally Addressed	Specifically Addressed	
AD-1 Continue to reduce nitrogen loading from atmospheric deposition	Specifically Addressed	Generally Addressed	Generally Addressed	Vague Not Disallowed	Generally Addressed	Generally Addressed	Specifically Addressed	
WW-1 Expand the beneficial use of reclaimed water	Specifically Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	
WW-2 Extend central sewer service to priority areas now served by septic systems	Vague Not Disallowed	Specifically Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	
WW-3 Require standardized monitoring and reporting of wastewater discharges	Not Addressed	Generally Addressed	Generally Addressed	Vague Not Disallowed	Vague Not Disallowed	Generally Addressed	Not Addressed	
WW-5 Reduce the occurrence of sanitary sewer overflows to the bay	Vague Not Disallowed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	
COC-1 Address hot spots of contamination in the bay	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	X
COC-4 Identify and understand emerging contaminants	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Vague Not Disallowed	X
PH-2 Continue source and risk assessments of human and ecosystem health indicators suitable for Tampa Bay beaches and other recreational waters	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	X
PH-4 Reduce fecal contamination from humans and pets in Tampa Bay Area waters	Vague Not Disallowed	Specifically Addressed	Specifically Addressed	Not Addressed	Generally Addressed	Vague Not Disallowed	Not Addressed	

■ Specifically Addressed
 ■ Generally Addressed
 ■ Vague Not Disallowed
 ■ In Conflict
 ■ Not Applicable
 ■ Not Addressed

X Determined not applicable at the local level by Steering Committee

Crosswalk Matrix

This matrix crosswalks the Tampa Bay Estuary Program's CCMP Goals and Actions with local government comprehensive plans.

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WQ-3 Reduce frequency and duration of harmful algal blooms								X
SW-1 Reduce nitrogen runoff from urban landscapes								
SW-8 Expand adoption and implementation of best management plans for commercial and urban agriculture								
SW-10 Expand use of Green Infrastructure practices								
AD-1 Continue to reduce nitrogen loading from atmospheric deposition								
WW-1 Expand the beneficial use of reclaimed water								
WW-2 Extend central sewer service to priority areas now served by septic systems								
WW-3 Require standardized monitoring and reporting of wastewater discharges								
WW-5 Reduce the occurrence of sanitary sewer overflows to the bay								
COC-1 Address hot spots of contamination in the bay								X
COC-4 Identify and understand emerging contaminants								X
PH-2 Continue source and risk assessments of human and ecosystem health indicators suitable for Tampa Bay beaches and other recreational waters								X
PH-4 Reduce fecal contamination from humans and pets in Tampa Bay Area waters								
PH-5 Reduce pollution from recreational boaters								
Bay Habitats								
BH-1 Implement the Tampa Bay Habitat Master Plan								
BH-2 Establish and implement mitigation criteria for Tampa Bay, and identify priority sites for mitigation								
BH-3 Reduce propeller scarring of seagrass and pursue seagrass transplanting opportunities at select sites								
BH-4 Identify and protect hard bottom communities and avoid impacts								
BH-6 Encourage habitat enhancement along altered, waterfront properties								
BH-8 Expand habitat mapping and monitoring programs								X
BH-9 Enhance ecosystem values of tidal tributaries								
BH-10 Implement the Tampa Bay Freshwater Wetland Habitat Master Plan								
FI-1 Maintain Seasonal Freshwater Flows in Rivers								
Dredging and Dredged Material Management								
DR-1 Develop a plan for beneficial uses of dredged material in Tampa Bay								
DR-2 Continue to minimize impacts to wildlife and their habitats from dredging activities								
Fish and Wildlife								
FW-1 Increase on-water enforcement of environmental regulations on the bay								X
FW-3 Support bay scallop restoration								X
FW-5 Continue and expand the Critical Fisheries Monitoring Program								X
FW-6 Preserve the diversity and abundance of bay wildlife								
Spill Prevention and Response								
SP-1 Continue implementation of advanced technology to improve coordination of ship movements in Tampa Bay								X
SP-2 Evaluate and update spill response plans for priority areas								
Invasive Species								
IS-2 Support prevention, eradication or management of invasive species in Tampa Bay and its watershed								
Public Access								
PA-1 Provide for and manage recreational uses of the bay								
Public Education								
PE-1 Promote public involvement in bay restoration and protection								
PE-2 Promote public education about key issues affecting Tampa Bay								
Local Implementation								
LI-1 Incorporate CCMP goals and actions in local government comprehensive plans, land development regulations or ordinances								
Climate Change								
CC-1 Improve ability of bay habitats to adapt to a changing climate								
CC-2 Understand and address the effects of ocean acidification								X

Review completed November 2017.

Manatee	Tampa	Hillsborough	Clearwater	St. Petersburg	Pasco	Pinellas	Not Applicable
							X
							X
							X
							X
							X
							X
							X
							X



Update to CCMP Goal Crosswalk with local Comp Plans

- TBRPC staff received stakeholder comments on the crosswalk matrix and comprehensive plan scoring.
- The revised crosswalk incorporates all comments received by TBRPC staff.



Phase 1 Process

1) Crosswalk

2) Review of Planning Documents:

- Color-categorization and identification of all policies related to CCMP Actions within **Comprehensive Plans**

- Identification of all policies related to CCMP Actions within **Code of Ordinances & Land Dev. Regulations**

Crosswalk Matrix
This matrix crosswalks the Tampa Bay Estuary Program's CCMP Goals and Actions with local government comprehensive plans.

	Manatee	Tampa	Hillsborough	Clearwater	St. Petersburg	Pinellas	Not Applicable
Water and Sediment Quality Goals							
WC-2 Implement the Tampa Bay nutrient management strategy							X
WC-3 Reduce frequency and duration of harmful algal blooms							X
SW-1 Reduce nitrogen runoff from urban landscapes							X
SW-8 Expand adoption and implementation of best management plans for commercial and urban agriculture							X
SW-10 Expand use of Green Infrastructure practices							X
AO-1 Continue to reduce nitrogen loading from atmospheric deposition							X
WW-5 Expand the beneficial use of reclaimed water							X
WW-7 Expand sewer service to priority areas now served by septic systems							X
WW-8 Require standardized monitoring and reporting of wastewater discharges							X
WW-9 Reduce the occurrence of sanitary sewer overflows to the bay							X
CCC-1 Address hot spots of contamination in the bay							X
CCC-2 Identify and understand emerging contaminants							X
PH-2 Continue source and risk assessments of human and ecosystem health indicators suitable for Tampa Bay beaches and other recreational waters							X
PH-4 Reduce fecal contamination from humans and pets in Tampa Bay Area waters							X
PH-5 Reduce pollution from recreational boaters							X
Bay Habitats							
BH-1 Implement the Tampa Bay Habitat Master Plan							X
BH-2 Establish and implement mitigation criteria for Tampa Bay, and identify priority sites for mitigation							X
BH-3 Reduce improper scumming of seagrass and pursue seagrass transplanting opportunities at select sites							X
BH-4 Identify and protect hard bottom communities and avoid impacts							X
BH-6 Encourage habitat enhancement along altered, waterfront properties							X
BH-8 Expand habitat mapping and monitoring programs							X
BH-9 Enhance ecosystem values of tidal tributaries							X
BH-10 Implement the Tampa Bay freshwater Wetland Habitat Master Plan							X
T-2 Monitor Seasonal Freshwater Flows in Bays							X
Designing and Reducing Material Management							
DM-1 Develop a plan for beneficial use of dredged material in Tampa Bay							X
DM-2 Continue to minimize impacts to wildlife and their habitats from dredging activities							X
Fish and Wildlife							
FW-1 Increase developer enforcement of environmental regulations on the bay							X
FW-3 Support bay scallop restoration							X
FW-5 Continue and expand the Critical Fisheries Monitoring Program							X
FW-6 Preserve the diversity and abundance of bay wildlife							X
Soil Prevention and Response							
SP-1 Continue implementation of advanced technology to improve coordination of ship movements in Tampa Bay							X
SP-2 Evaluate and update soil response plans for priority areas							X
Invasive Species							
IS-2 Support prevention, eradication or management of invasive species in Tampa Bay and its watershed							X
Public Access							
PA-1 Provide for and manage recreational uses of the bay							X
Public Education							
PE-1 Promote public involvement in bay restoration and protection							X
PE-2 Promote public education about key issues affecting Tampa Bay							X
Local Implementation							
LI-1 Incorporate CCMP goals and actions in local government comprehensive plans, land development regulations or ordinances							X
Climate Change							
CC-1 Improve ability of bay habitats to adapt to a changing climate							X
CC-2 Understand and address the effects of ocean acidification							X

Review completed November 2017.

CCMP Crosswalk – City of Clearwater Review of Comprehensive Plan

Review completed November 2017

Prepared for the Tampa Bay Estuary Program by Tampa Bay Regional Planning Council.



CITY OF CLEARWATER PLANNING DOCUMENTS

Relevant Code of Ordinance Sections compiled by TBEP CCMP Priority Actions

WC-1 Implement the Tampa Bay nutrient management strategy

CODE OF ORDINANCES

- Chapter 8 - ANIMALS
- ARTICLE 1. - IN GENERAL
 - Sec. 8.04. - Exceptions to section 8.03.
 - (1) Every dog owner or person in charge of a dog who shall have actual knowledge or reasonable cause to believe that a dog who is under their custody or control has defecated on public or private property shall immediately retrieve all such excrement and dispose of such excrement in a sanitary fashion.
 - (2) No dog owner or person having custody or control of a dog shall allow dog excrement to accumulate on their private property in a manner that creates a health hazard or public nuisance (i.e. excrement causes continuous off-site odor offensive to a person of reasonable sensibilities or attracts a large number of flies or other insects or pests).

Chapter 22 - PARKS, BEACHES, RECREATION

Sec. 22.30. - Pollution of waters.
Using the fountains, ponds, lakes, streams, bays or any other bodies of water within the parks or the tributaries, storm sewers or drains flowing into them as dumping places for

Phase 2 – Model Comp Plan Language

Model language was developed for 8 CCMP Priority Action Plans:

	Manatee	Tampa	Hillsborough	Clearwater	St. Pete	Pasco	Pinellas
Water and Sediment Quality Goals							
WQ-1 Implement the Tampa Bay nutrient management strategy	Specifically Addressed	Generally Addressed	Specifically Addressed	Specifically Addressed	Generally Addressed	Generally Addressed	Specifically Addressed
SW-1 Reduce nitrogen runoff from urban landscapes	Vague Not Disallowed	Generally Addressed	Generally Addressed	Vague Not Disallowed	Vague Not Disallowed	Vague Not Disallowed	Specifically Addressed
SW-10 Expand use of Green Infrastructure practices	Vague Not Disallowed	Generally Addressed	Generally Addressed	Specifically Addressed	Vague Not Disallowed	Generally Addressed	Specifically Addressed
Bay Habitats							
BH-1 Implement the Tampa Bay Habitat Master Plan	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed	Generally Addressed
BH-6 Encourage habitat enhancement along altered, waterfront properties	Not Addressed	Specifically Addressed	Specifically Addressed	Not Addressed	Generally Addressed	Specifically Addressed	Generally Addressed
BH-9 Enhance ecosystem values of tidal tributaries	Vague Not Disallowed	Specifically Addressed	Specifically Addressed	Not Addressed	Vague Not Disallowed	Generally Addressed	Generally Addressed
BH-10 Implement the Tampa Bay Freshwater Wetland Habitat Master Plan	Vague Not Disallowed	Generally Addressed	Generally Addressed	Vague Not Disallowed	Generally Addressed	Generally Addressed	Generally Addressed
Climate Change							
CC-1 Improve ability of bay habitats to adapt to a changing climate	Not Addressed	Generally Addressed	Generally Addressed	Not Addressed	Vague Not Disallowed	Vague Not Disallowed	Specifically Addressed

■ Specifically Addressed
 ■ Generally Addressed
 ■ Vague Not Disallowed
 ■ In Conflict
 ■ Not Applicable
 ■ Not Addressed

Highest CCMP Priority Actions



Stormwater 10

Expand use of Green Infrastructure Practices

Objectives: Promote expanded use of Green Infrastructure practices to prevent and reduce nitrogen pollution. Promote development and delivery of tools and incentives to expand low impact/green infrastructure implementation, including professional training; compatibility reviews of local government development codes and comprehensive plans; and demonstration sites. Encourage Tampa Bay Estuary Program (TBEP) partners to submit local projects that implement innovative building or site design techniques to the Action Plan Database of the Tampa Bay Nitrogen Management Consortium. Encourage adoption and implementation of regional policies facilitating low impact/ green infrastructure development.

[p. 28 of the CCMP](#)



Bay Habitats 6

Encourage habitat enhancement along altered waterfront properties

Objectives: Expand use of living shorelines instead of traditional seawalls along waterfront properties. Support demonstration projects; explore regulatory rule revisions to support living shorelines; assess the use of living shorelines to mitigate climate change; and support education of waterfront homeowners about the benefits of living shorelines.

[p. 81 of the CCMP](#)



Climate Change 1

Improve ability of bay habitats to adapt to a changing climate

Objectives: Identify coastal habitats vulnerable to climate change and potential buffer areas upslope of coastal habitats. Identify methods to improve the resiliency of vulnerable bay habitats to sea level rise. Continue to investigate the carbon sequestration benefits of coastal habitats (“blue carbon”). Enhance community understanding of the potential impacts of changing climate on coastal habitats and encourage actions to help mitigate effects.

[p. 141 of the CCMP](#)

Comprehensive Plan Review and Model Language Development

1. Review of Comprehensive Plans in Florida and nationwide for 8 Priority Action Plans
2. Stakeholders selected 3 Priority Actions (CC-1, SW-10, and BH-6)
3. Comprehensive Plans are moving in a direction to include broader more general language to allow more flexibility to implement policies in other regulatory mechanisms.

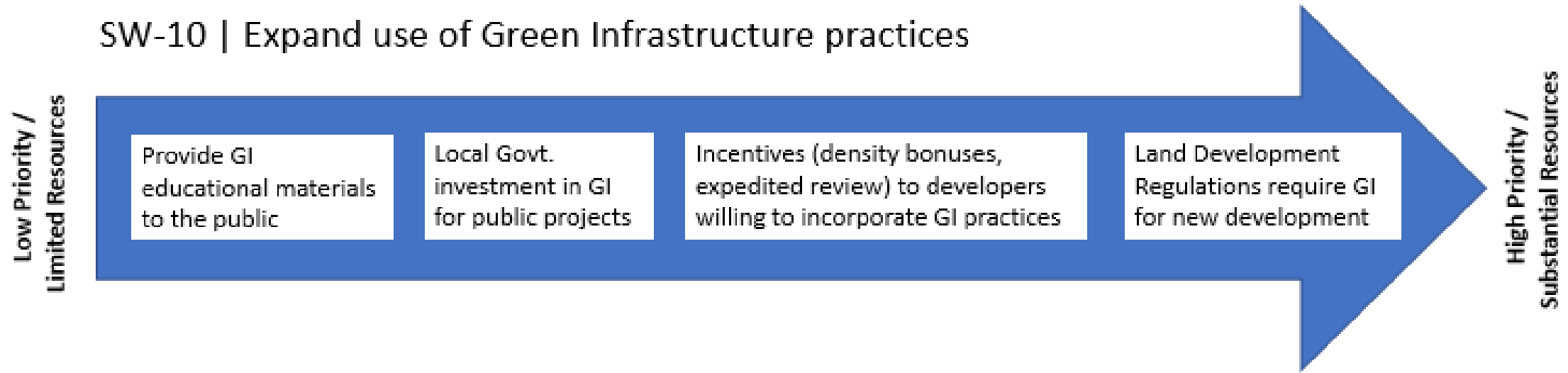


CC-1 Model Language Example

Goal 1: (Insert local government) shall support regional efforts to integrate climate change, stormwater management and bay habitats into planning efforts in alignment with the applicable goals of the Tampa Bay Estuary Program’s Comprehensive Conservation and Management Plan (CCMP)

Climate Change 1 (CC-1)	
Objective 1: Support adaptation strategies that promote the long-term resiliency and diversity of critical coastal habitats for a changing climate.	
Broad or General	Stringent or Specific
<p>1.1.1 (Insert local government) shall support the integration of resilience measures into local plans and continue to develop and advance policies and programs which conserve natural resources, mitigate greenhouse gas pollution, and advance sustainability and climate resiliency.</p> <p>1.1.2 Assess the vulnerability of specific species, habitats, landscapes, and ecosystem functions that may be sensitive to climate change and develop coping strategies and contingency plans for their adaptation, such as identifying habitats that may be viable during climate disturbances and could potentially serve to give refuge to and sustain at-risk species.</p> <p>1.1.3 Continue to support local environmental restoration, mitigation, and adaptive management initiatives, and coordinate with other state, regional, and national strategic planning efforts to improve the resiliency of natural lands and systems to climate change. Support local and regional mapping, modeling, monitoring programs to assure the most current and <u>locally-specific</u> data on climate change vulnerability is available.</p> <p>1.1.4 Seek the support of agencies, such as the National Oceanic and Atmospheric Administration (NOAA), U.S. Geological Survey (USGS), Federal Emergency Management Agency (FEMA), U.S. Army Corps of Engineers (USACE), as well as universities and not-for-profit organizations to coordinate support for updating,</p>	<p>1.1.7 Create/amend a zoning ordinance to address possible sea level changes and develop appropriate use regulations and development standards.</p> <p>1.1.8 Revise land acquisition and preservation policies to consider the values of natural areas for sequestering carbon and providing climate adaptation and mitigation benefits such as the resource's strategic capacity to absorb floodwaters and address coastal ecosystem migration.</p> <p>1.1.9 Evaluate the minimum shoreline and wetland setbacks currently in use and identify the potential for updates to protect vulnerable structures from the effects of long-term sea level rise.</p> <p>1.1.10 Where appropriate, implement wetland design changes, such as the use of living shorelines and wetland mitigation that allow for the landward migration of wetlands, for resiliency to sea level rise.</p> <p>1.1.11 Establish riparian buffers that reflect projected rates of sea level rise for all <u>tidally-influenced</u> waterbodies to allow the conversion of adjacent uplands to wetlands while retaining transitional ecotones.</p> <p>1.1.12 Develop priority areas of land protection efforts based on their strategic capacity to support coastal ecosystem migration.</p> <p>1.1.13 Incorporate habitat vulnerability to climate change into land use planning, land acquisition, and for deed of conservation easement consideration.</p> <p>1.1.14 Evaluate the use of rolling easement zoning to designate areas of future abandonment, future waterway locations, and future lands for</p>

Choosing Model Language



Broad or General Language example:

The jurisdiction will ***encourage*** the use of “Low Impact Development” techniques for stormwater management, ***such as*** minimal land disturbance, the preservation of native vegetation, and the minimization of impervious cover, through site plan and internal review processes.

Stringent or Specific Language example:

Require that impervious surface within the Watershed Overlay District be minimized through the use of ***one or more*** of the following strategies: (...)
By ***December 2020***, for new County construction and in the redevelopment of County properties, the County ***will*** utilize low impact development principles, to the extent practicable, to address stormwater management needs and to model innovative techniques.

Phase 2 Outcomes

1. Initial Project Goals

- Crosswalk local government comprehensive plans
- Develop model language for local governments to use in long range planning

2. Complementing local needs

- Jurisdictions need flexibility in model language to make it more implementable
- Policy development will inform regulations
 - Regional consistency in shoreline hardening

Comprehensive Planning for Clean Water: Tools and Strategies

Q & A



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