



# Pinellas County Stormwater Manual Peer Review Stakeholder Meeting #2

*Presented by*

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# Agenda

- Welcome & Introductions
  - Kevin McAndrew – Director of Building & Development Review Services & Code Enforcement
  - VHB Staff
- Comparative Assessment
  - General Exemptions
  - Quality/Treatment Criteria
  - Quantity Criteria
- Environmental & Economic Trends Assessment
  - Water Quality Trends
  - Cost Trends
  - Development Trends
- Draft Findings & Recommendations








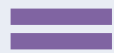





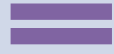
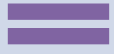

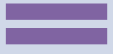



# Pinellas County Stormwater Manual Technical Requirements and Comparative Overview








# General Exemptions | Snapshot Summary

Pinellas County Criteria	SWFWMD	Hillsborough County	Sarasota County	City of Largo	City of Seminole	City of Clearwater
Applies to redevelopment with no net increase in impervious area						
Exemption for projects less than 3,000 SF of impervious area						
Individual Single-Family units less than 10,000 SF of impervious area						




**Pinellas' Criteria is...**

More Stringent	Less Stringent	Equal/Comparable
		

# Quality / Treatment Criteria | Snapshot Summary

Pinellas County Criteria	SWFWMD	Hillsborough County	Sarasota County	City of Largo	City of Seminole	City of Clearwater
<b>Pollutant Removal</b> Reduction in post development nitrogen load by at least 55% and phosphorus load by at least 80%	^	^	^	^	^	^

**Pinellas' Criteria is...**

More Stringent 	Less Stringent 	Equal/Comparable 
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# Quantity / Flood Control Criteria | Snapshot Summary

Pinellas County Criteria	SWFWMD	Hillsborough County	Sarasota County	City of Largo	City of Seminole	City of Clearwater
<b>Open watershed basins:</b> <ul style="list-style-type: none"> <li>Maximum allowable discharge based on historic discharge.</li> <li>No adverse off-site impacts.</li> </ul>	==	==	==	==	==	==
<b>Closed watershed basins:</b> <ul style="list-style-type: none"> <li>Retention volume equal to post-development minus pre-development volume</li> <li>No adverse off-site impacts.</li> </ul>	==	==	==	==	==	==
<b>Tidal waters:</b> <ul style="list-style-type: none"> <li>Peak discharge requirements may not apply if the discharge doesn't cause adverse impacts (e.g., scouring).</li> <li>Discharges to tributaries without demonstrated hydraulic constraints considered if no adverse hydraulic or water quality impacts are demonstrated.</li> </ul>	==	==	==	==	==	==

## Pinellas' Criteria is...

More Stringent



Less Stringent



Equal/Comparable





# Environmental & Economic Trends Assessment

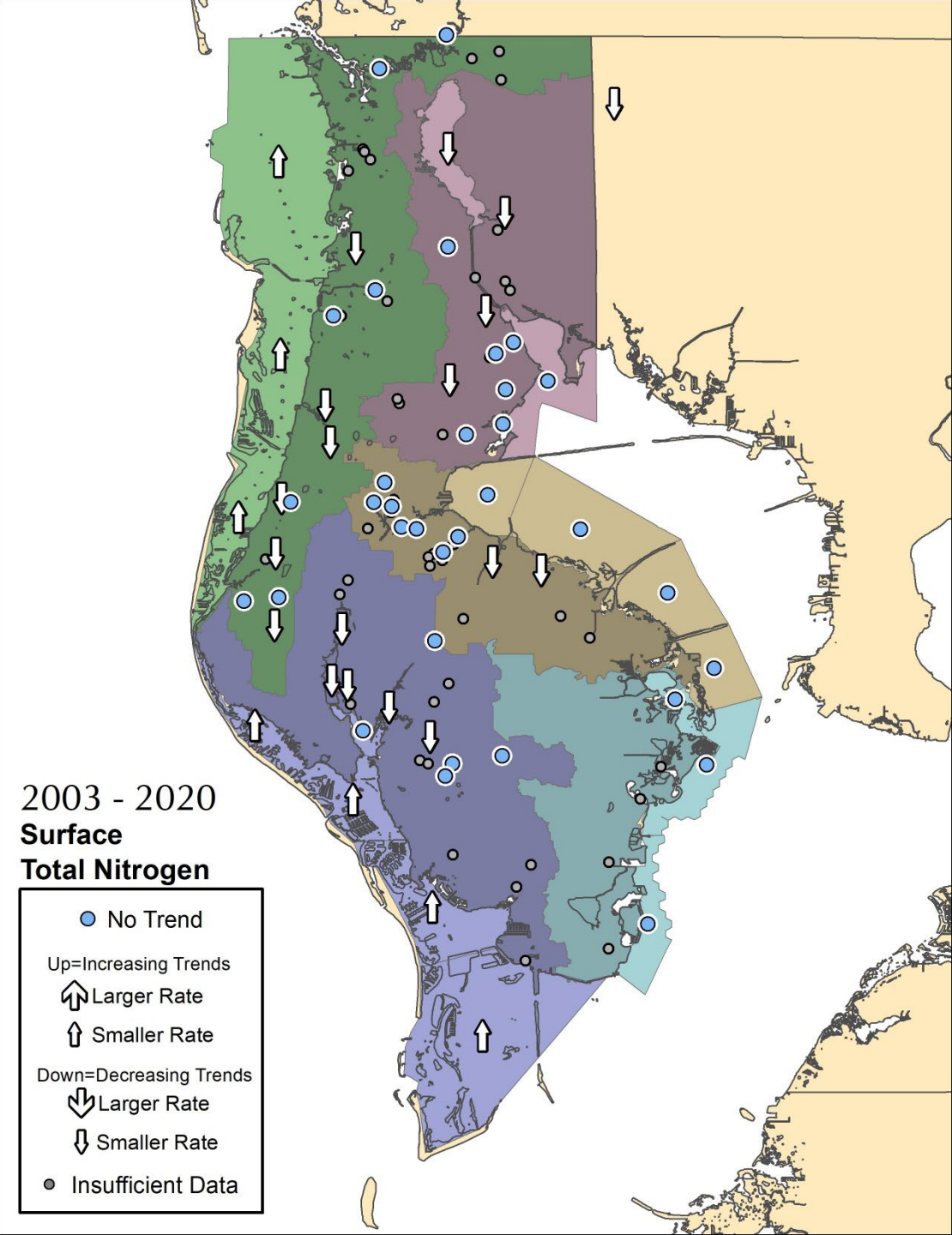




# Water Quality Trends

- Trends are both increasing and decreasing across County
- Cannot attribute changes in water quality solely to effects from the Stormwater Manual
- Multiple jurisdictional requirements contribute to the development in the watersheds
- Multiple factors beyond stormwater management (precipitation levels, other pollutants, etc.)

**Source:** Pinellas County Monitoring Program

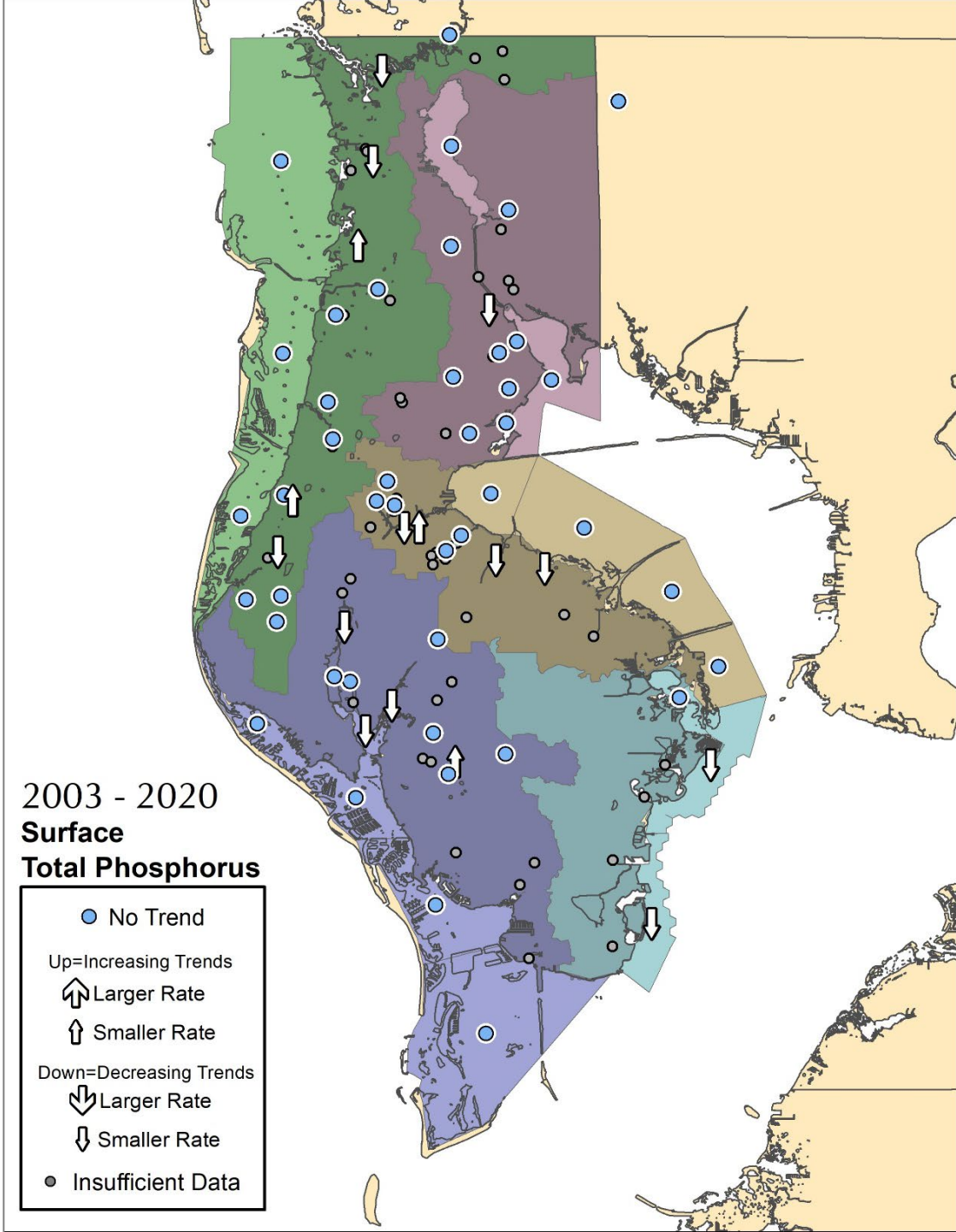




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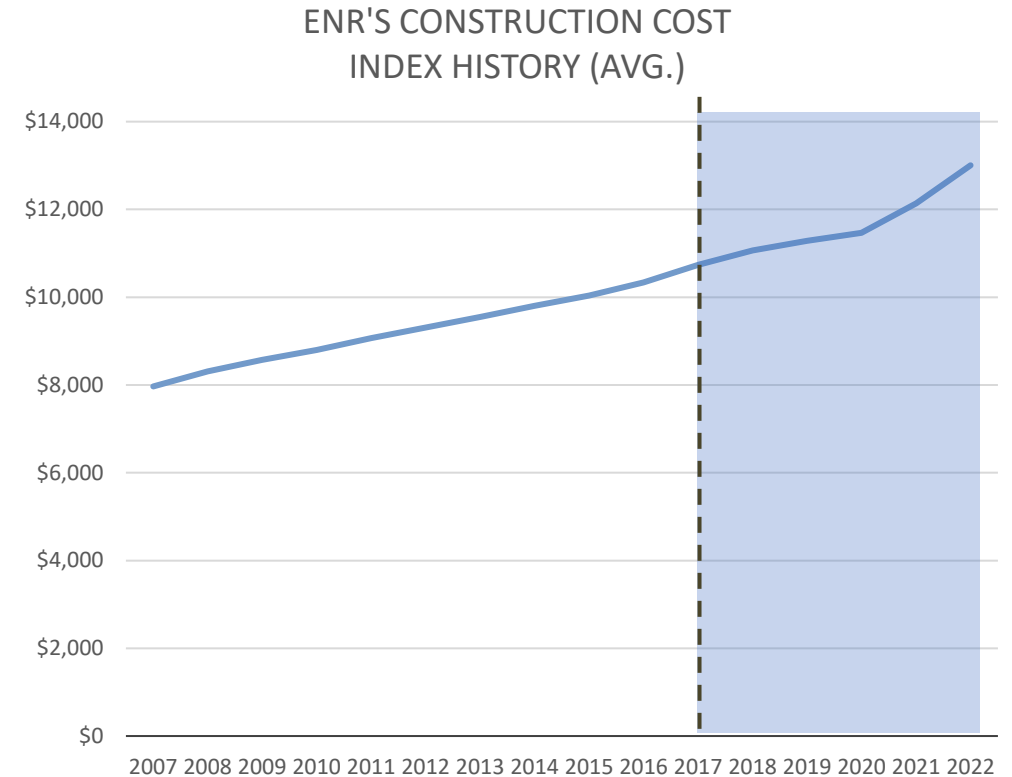
# Cost Data Trends

## Costs of Low Impact Development further stressed by Labor and Material Costs

- Cost of Low-Impact Development (LID) compared to conventional systems per 2016 case studies
  - Small Commercial Sites: **28% Increase** for LID
  - Large Commercial Sites: **223% Increase** for LID
  - Residential Subdivision: **11% Decrease** for LID
- **Labor & Materials Costs: 24.5% Increase** from 2016 to 2022 further stresses development
- **Land Value: 83.7% Increase** (2016 to 2022) further stresses development

### Sources:

- Pinellas County Case Studies (Cardno),
- US Bureau of Labor Statistics Consumer & Producer Price Index
- Pinellas County Property Appraiser

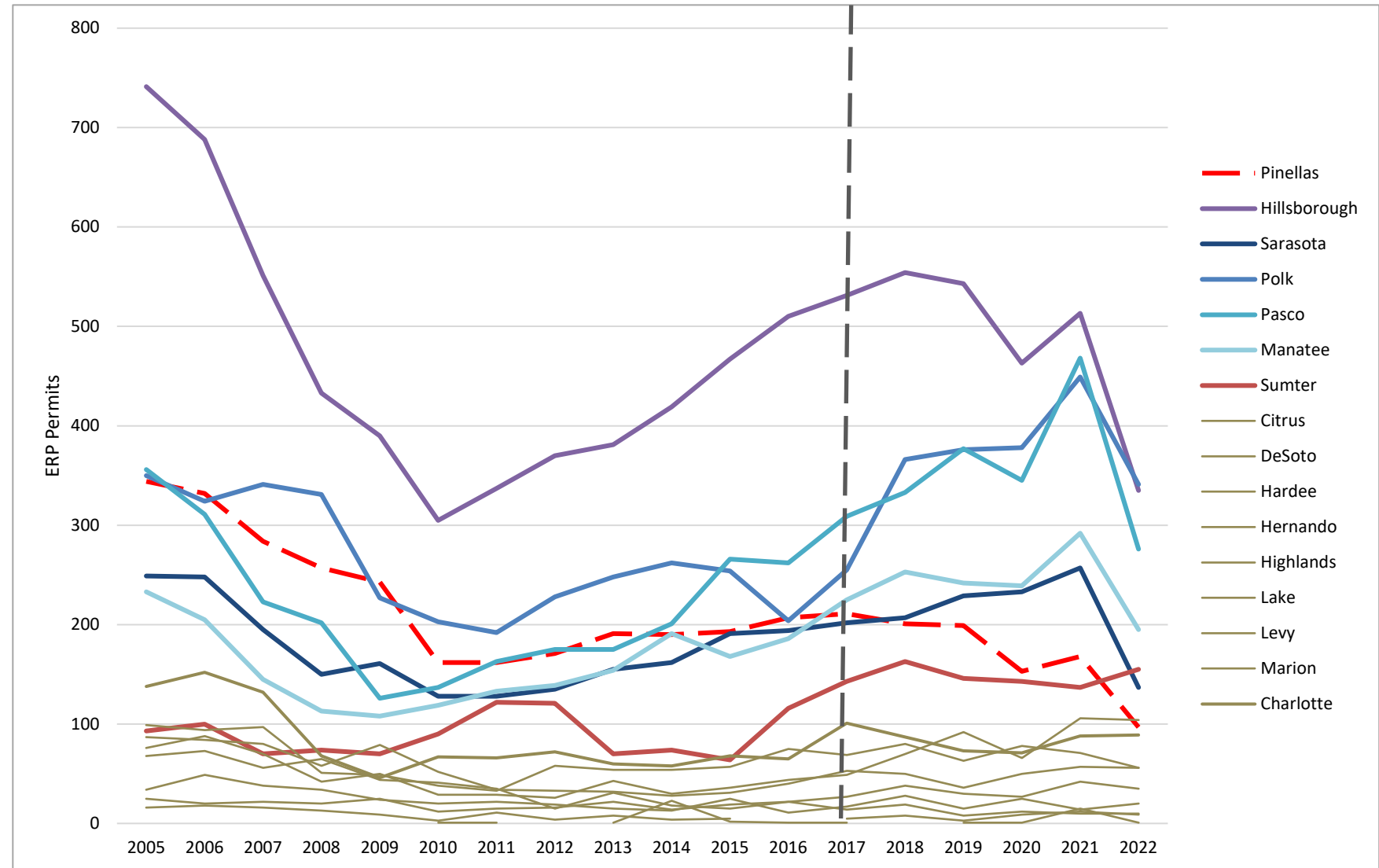


Source: Engineering News Record. All US Construction Markets.



# Development Trends: Environmental Resource Permit (ERP) Data

- County-wide data for all SWFWMD Counties
- Three generalized tiers
- Pinellas plateaus before 2017 and doesn't keep pace
- Multiple interpretations and potential causes





# Draft Findings & Recommendations





# Draft Findings

- Local government regulations can be **more stringent than State and Federal regulations**.
- Pinellas County's Stormwater Manual is **more stringent than surrounding jurisdictions' regulations**.
- There has been a **slower rate of development** in Pinellas County relative to other local counties.
  - This trend appeared before 2017.
  - Due in part to the built-out nature of Pinellas and associated higher land costs.
  - Increased costs from stringent stormwater regulations also likely plays a role.
- Stakeholders identify the **high cost of stormwater improvements** as a significant issue.
  - **Labor, material, and other development-related costs** have also increased.
  - 2016 case studies show that more stringent stormwater standards contribute additional costs.
- **Inconclusive water quality trends** with a mix of positive, negative, and neutral changes.
  - Multiple jurisdictions have differing regulations for development within the same basin.
  - Other variable factors such as local precipitations.
  - Regulations follow best practices for quality enhancements.
  - Goal of the County is to be a model community for other jurisdictions to enhance the regional water quality.

# Revisiting Stormwater Manual Standards

- VHB's approach is to provide a menu of recommendation options to update the manual
- Stakeholder feedback ranged from specific technical updates to reverting to more lenient SWFWMD or adjacent jurisdiction standards.
  
- VHB's recommendation menu is guided by:
  - Trends indicate regulations don't entirely prevent redevelopment but may slow its rate.
  - Enhanced regulations support Pinellas County vision directives
    - PLANPinellas - FLUM, CM, & SWM Elements
    - Strategic Plan - Goal 3
    - Sustainability & Resiliency Action Plan
  
- VHB's recommendation menu aims to maintain the core principles of the existing standards while providing meaningful flexibility and reduction in the burden of meeting the enhanced standards.



# Recommendation Categories

- **Exemptions:** Allowing specific sites to bypass certain standards.
- **Flexibilities:** Customizing criteria for diverse site conditions.
- **Incentives:** Offering rewards to offset stormwater compliance costs.
- **Technical Updates:** Modifying regulations based on review and stakeholder input.
- **Adaptive Feedback Process:** Establishing an approach for updating the Stormwater Manual in response to evolving economic, environmental, and technological factors.

# Draft Recommendations Menu Summary

## **Exemptions**

- Minimum Impervious Area Exemption
- Small Site Exemptions for Reduction in Impervious
- Residential Exemption

## **Flexibilities**

- Specify Allowed Adjustment of Nutrient Requirements
- Compensatory Treatment or Payment-In-Lieu

## **Incentives**

- Reduction in Stormwater Criteria
- Density & Intensity Bonus
- Parking Requirement Reduction
- Stormwater Utility Tax Credit

## **Technical Updates**

- Large-Site, Small-Site Criteria
- Stone Aggregate Void Space
- Reduction in Site Acreage allowed for Rational Method
- Vertical Wall Requirements for Retention/Detention Facilities
- Defining Master Stormwater Systems Areas
- Allow Use of Stormwater Pumps Under Normal Conditions
- Discharge into County Systems

## **Adaptive Feedback Process**

- Incorporate Voluntary Feedback in Review Process
- Establish a Stormwater Technical Advisory Committee
- Review and Update of Stormwater Manual



# Exemptions | Draft Recommendations

## Minimum Impervious Area Exemption

## Small Site Exemptions for Reduction in Impervious

## Residential Exemption

- Projects will qualify for an exemption to stormwater standards if:
  - It involves development or redevelopment of less than 4,000 square feet of impervious.

# Exemptions | Draft Recommendations

Minimum Impervious Area Exemption

Small Site Exemptions for Reduction in Impervious

Residential Exemption

- **Sites** one acre and smaller will qualify for a treatment requirement exemption if:
  - The existing impervious area is reduced by at least 10%
  - And the project incorporates Green Infrastructure



# Exemptions | Draft Recommendations

Minimum Impervious Area Exemption

Small Site Exemptions for Reduction in Impervious

Residential Exemption

- Single-Family, Duplex, Triplex, or Quadplex residential developments are exempt from stormwater treatment and attenuation standards unless:
  - They are part of a larger plan of development, or
  - They exceed 10,000 square feet of impervious area, or
  - The impervious area exceeds 25% of the site acreage for sites larger than one acre.

# Flexibilities | Draft Recommendations

Specify Allowed Adjustment of Nutrient Requirements

Compensatory Treatment or Payment-In-Lieu

- Applies to large sites
- Up to 10% reduction in nutrient removal requirements with standard stormwater infrastructure
- Increased to 20% reduction with the inclusion of Green Infrastructure
  - Also presented as an incentive



# Flexibilities | Draft Recommendations

Specify Allowed Adjustment of Nutrient Requirements

Compensatory Treatment or Payment-In-Lieu

- Where it is not possible or feasible to provide water quality treatment within the site the following substitutes are permitted:
  - Treatment of an equivalent amount of similar land use within the same drainage basin
  - OR payment-in-lieu\* of providing the improvements necessary to treat an equivalent amount of similar land use may be allowed.

\* All sums collected shall be placed in a stormwater utility fund

# Incentives | Draft Recommendations

## Reduction in Stormwater Criteria

## Density & Intensity Bonus

## Parking Requirement Reduction

## Stormwater Utility Tax Credit

- Large Sites are eligible for up to a 20% decrease in stormwater treatment if they meet both of the following criteria:
  - Provide an additional 20% plantings above landscape code minimum
  - Provide a variety of Green Infrastructure such as:
    - Pervious pavement
    - Rain gardens
    - Tree wells
    - Bioswales
    - Rainwater harvesting
    - Living Shorelines
  - Also presented as an flexibility



# Incentives | Draft Recommendations

Reduction in Stormwater  
Criteria

Density & Intensity Bonus

Parking Requirement  
Reduction

Stormwater Utility Tax Credit

- Sliding scale up to a defined maximum increase in residential density (units/acre) and commercial intensity (FAR)
- Small and Large Sites eligible if:
  - They meet 55/80 requirements
  - They are not receiving administrative adjustments or waivers

# Incentives | Draft Recommendations

Reduction in Stormwater Criteria

Density & Intensity Bonus

Parking Requirement Reduction

Stormwater Utility Tax Credit

- Large Sites eligible if:
  - They meet 55/80 requirements
  - They are not receiving administrative adjustments or waivers
  - They incorporate Green Infrastructure into the site design
- Reduction of mandated parking spaces up to 10%
  - Does not apply to ADA spaces
  - Percent reduced from base parking requirements, not based off amount required with other reductions from code

# Incentives | Draft Recommendations

Reduction in Stormwater Criteria

Density & Intensity Bonus

Parking Requirement Reduction

Stormwater Utility Tax Credit

- Stormwater provisions beyond the minimum standards may be eligible for a reduction in the stormwater utility tax fee portion of their property tax up to 50%.
- Currently in the Stormwater Manual's BMP Criteria section but without defined value
- Relocate program to a more prominent location in the Stormwater Manual



# Technical Updates | Draft Recommendations

## Large-Site, Small-Site Criteria

Stone Aggregate Void Space

Reduction in Site Acreage  
allowed for Rational Method

Vertical Wall Requirements for  
Retention/Detention Facilities

Defining Master Stormwater  
Systems Areas

Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

### ▪ **Small Site Criteria (One acre or smaller)**

- Demonstrate a net improvement or meet a minimum of presumptive criteria
- And provide an effort towards green infrastructure
- Cumulative site area of one acre or less

### ▪ **Large Site Criteria (Larger than one acre)**

- Still need to meet 55/80
- or 10% reduction in predevelopment conditions, whichever is greater

# Technical Updates | Draft Recommendations

Large-Site, Small-Site Criteria

Stone Aggregate Void Space

Reduction in Site Acreage  
allowed for Rational Method

Vertical Wall Requirements for  
Retention/Detention Facilities

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Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

- Exfiltration design standards adjusted to allow for 30% of stone aggregate void space to be counted towards volume calculations above seasonal highwater elevation

# Technical Updates | Draft Recommendations

Large-Site, Small-Site Criteria

Stone Aggregate Void Space

Reduction in Site Acreage  
allowed for Rational Method

Vertical Wall Requirements for  
Retention/Detention Facilities

Defining Master Stormwater  
Systems Areas

Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

- Reduction from ten acres to five acres
- Encourage the use of stormwater routing software to improve accuracy of model



# Technical Updates | Draft Recommendations

Large-Site, Small-Site Criteria

Stone Aggregate Void Space

Reduction in Site Acreage  
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Vertical Wall Requirements for  
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Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

- Increase allowable portion of retention/detention facilities that is allowed for vertical side walls or slopes steeper than 3:1 to 100%.
  - Previously 25% of wet detention ponds and 50% of dry ponds
  - Must include adequate fall protection
  - Must provide safe means of **ingress** and **egress** for facility maintenance and inspection

# Technical Updates | Draft Recommendations

Large-Site, Small-Site Criteria

Stone Aggregate Void Space

Reduction in Site Acreage  
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Vertical Wall Requirements for  
Retention/Detention Facilities

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Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

- Define the areas exempt from stormwater treatment criteria identified in the Stormwater Manual as Master Stormwater Management System areas (Stormwater Credits available for purchase)
  - Lealman
  - Sawgrass

# Technical Updates | Draft Recommendations

Large-Site, Small-Site Criteria

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allowed for Rational Method

Vertical Wall Requirements for  
Retention/Detention Facilities

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Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

- Allow for both gravity and pressurized discharge from stormwater systems under normally expected tailwater conditions
- Current regulations only allow gravity discharges that operate under normal tailwater conditions



# Technical Updates | Draft Recommendations

Large-Site, Small-Site Criteria

Stone Aggregate Void Space

Reduction in Site Acreage  
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Vertical Wall Requirements for  
Retention/Detention Facilities

Defining Master Stormwater  
Systems Areas

Allow Use of Stormwater Pumps  
Under Normal Conditions

Discharge into County Systems

- Require projects comply with Stormwater Manual standards when they **directly** discharge into a county stormwater system (e.g., piped connection)
- Prevents regulations applying to sites that do not directly discharge into County systems

# Adaptive Feedback Process | Draft Recommendations

Incorporate Voluntary  
Feedback in Review Process

Establish a Stormwater  
Technical Advisory Committee

Review and Update of  
Stormwater Manual

- Request voluntary information on stormwater related development costs from developers
- Maintain and monitor the County email address dedicated to Stormwater Manual feedback and include the email on appropriate stormwater documents and County webpages.
- Establish feedback method in the review process including an ability to report errors or perceived errors made by reviewers.

# Adaptive Feedback Process | Draft Recommendations

Incorporate Voluntary  
Feedback in Review Process

Establish a Stormwater  
Technical Advisory Committee

Review and Update of  
Stormwater Manual

- Establish a Stormwater Technical Advisory Committee to provide stakeholder perspective and expertise in the update process.



# Adaptive Feedback Process | Draft Recommendations

Incorporate Voluntary  
Feedback in Review Process

Establish a Stormwater  
Technical Advisory Committee

Review and Update of  
Stormwater Manual

- Establish a regular interval (two years) for review and update of the Stormwater Manual
- Establish a set of clear and measurable metrics that can be used to evaluate the effectiveness of the Stormwater Manual.
- New technologies, methods, and innovations in stormwater management should be explored and incorporated as appropriate.

# Recommendation Menu Summary

## Multi Faceted Approach

### **Exemptions**

- Minimum Impervious Area Exemption
- Small Site Exemptions for Reduction in Impervious
- Residential Exemption

### **Flexibilities**

- Redefine Administrative Adjustment Criteria
- Specify Allowed Adjustment of Nutrient Requirements
- Compensatory Treatment or Payment-In-Lieu

### **Incentives**

- Reduction in Stormwater Criteria
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# Potential Implementation Strategies

- Pilot projects and phased roll-out for other alternative strategies.
- Immediate rollout on adoption appropriate for most strategies.
- Active monitoring and feedback loop.
- Ultimately any changes to be decided by Board of County Commissioners.

# External & Internal Stakeholder Input

- External Feedback and suggestions on draft recommendations
  - 14-day listening period
- Internal County Review Process
- **Email**: SWManualComments@pinellas.gov
- **Survey**: <https://pinellas.gov/stormwater-manual/>



# Next Steps

- Document Today's Feedback
- Collect Additional Feedback
  - **Email:** SWManualComments@pinellas.gov
  - **Survey:** <https://pinellas.gov/stormwater-manual/>
- Internal Feedback
- Revise Final Recommendations and Report
- BOCC Workshop – May 18, 2023

# Thank You

Email: [swmanualcomments@pinellas.gov](mailto:swmanualcomments@pinellas.gov)

Survey: <https://pinellas.gov/stormwater-manual/>

