Environmental & Economic Benefits of Stormwater Planning

City of Deerfield Beach Stormwater & Flood Resiliency Master Plan

Deerfield Beach Florida

Deerfield Beach faces flooding from rain, tides, and hurricanes. The City reviews the infrastructure every few years to ensure the community is well protected, roads remain passable during rainstorms, and disruptions are minimized. This process culminates in a Stormwater Master Plan tailored to the needs of the community. Comprehensive stormwater planning can have both environmental and economic benefits in addition to reducing flood risk.

GREEN INFRASTRUCTURE & ENVIRONMENTAL BENEFITS

Natural or green infrastructure mimic nature's organic processes for dispersing rain from storms, and simultaneously improve the resilience of a particular location or community by allowing more water to be stored or drained locally. Natural or green infrastructure:

- Can be a cost-effective means to improve on-site stormwater capacity
- Provides natural water quality improvements by filtering the water prior to entering stormwater drains
- Reduces flow rates as water drains allowing for better control of flood waters
- Provides alternatives to pipes and other "grey infrastructure" for increased water storage capacity
- Can provide recreational benefits when not being used for stormwater management, such as stormwater parks or rain gardens

Green infrastructure examples include pervious pavers, rain gardens, and stormwater parks. In the example on the left, rather than a purely impervious driveway such as concrete, the grass allows for water to filter into the ground on-site. In the example on the right, the stormwater park provides additional capacity for rainwater and natural drainage in the community, as well as recreational benefits during good weather. Both filter the water, improving the overall water quality.

THE ECONOMIC BENEFITS OF ADAPTATION AND FLOOD REDUCTION

Stormwater systems are the primary flood protection infrastructure in most communities, including Deerfield Beach. By improving the stormwater system and considering future conditions, such as heavier rainstorms and sea level rise, flood risk can be reduced while providing economic benefits. These benefits include:

- Reduced nuisance flooding and reduced disruptions to businesses and everyday life
- Improvements to the Community Rating System Score of the National Flood Insurance Program, reducing flood insurance premiums throughout the entire community
- Lessen the likelihood of damage during certain flood events, avoiding losses to buildings and property

In addition to the benefits of improved stormwater systems, a recently released Business Case for Resilience in Southeast Florida report demonstrated that community-wide adaptation to frequent flooding and sea level rise, such as seawalls and beach renourishment, provides $2 in benefits for every $1 invested. Individual actions to improve the flood resilience of a property can provide $4 in benefits for every $1 invested.

For more information, please contact **Environmental Services** at (954) 480-4270.