

# Understanding Stormwater Utilities and Their Importance

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KEY ROLES AND BENEFITS OF STORMWATER  
MANAGEMENT





# Definition and Purpose

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## **Stormwater Management**

Stormwater utilities are vital for effectively managing stormwater runoff, ensuring proper drainage and water quality.

## **Pollution Prevention**

The primary goal of stormwater utilities is to protect water bodies from pollution caused by urban runoff.

## **Urban Flood Prevention**

Stormwater utilities also play a crucial role in preventing urban flooding during heavy rainfall, safeguarding communities.

# Urbanization and Increased Runoff

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## **Impervious Surfaces**

Urbanization increases impervious surfaces like roads and buildings, which prevent water absorption into the ground.

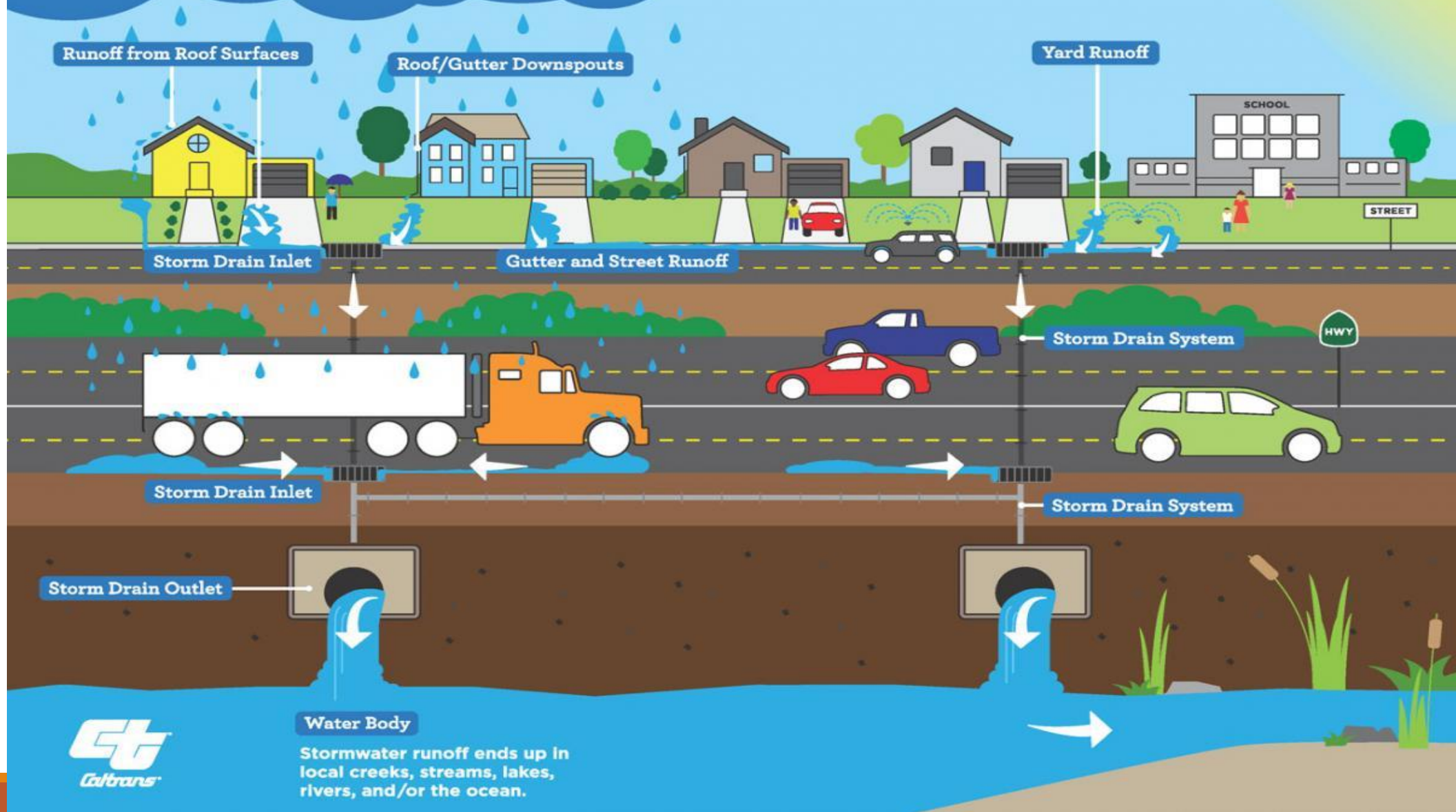
## **Higher Runoff Volumes**

The increase in impervious surfaces leads to higher volumes of runoff during rain events, raising the risk of flooding.

## **Flooding and Water Quality Issues**

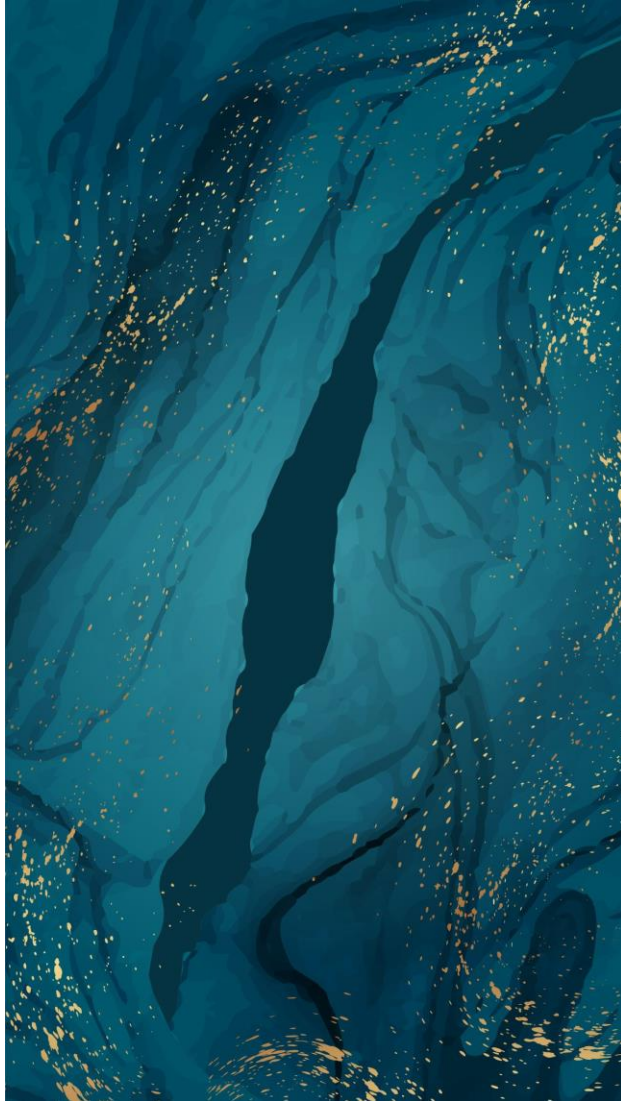
Increased runoff contributes to flooding and deteriorates water quality, necessitating effective urban water management strategies.

# Stormwater Runoff



**Water Body**

Stormwater runoff ends up in local creeks, streams, lakes, rivers, and/or the ocean.



# Pollution and Environmental Impact

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## **Stormwater Runoff**

Stormwater runoff can transport a variety of pollutants from urban areas into nearby water bodies, leading to contamination.

## **Pollutants Impact**

Pollutants like sediments and heavy metals can severely impact aquatic ecosystems, harming fish and other wildlife.

## **Public Health Threats**

Chemical runoff can pose serious health risks to nearby communities, affecting drinking water quality and increasing disease risk.

# Flooding and Water Quality Issues

## Impact of Stormwater Runoff

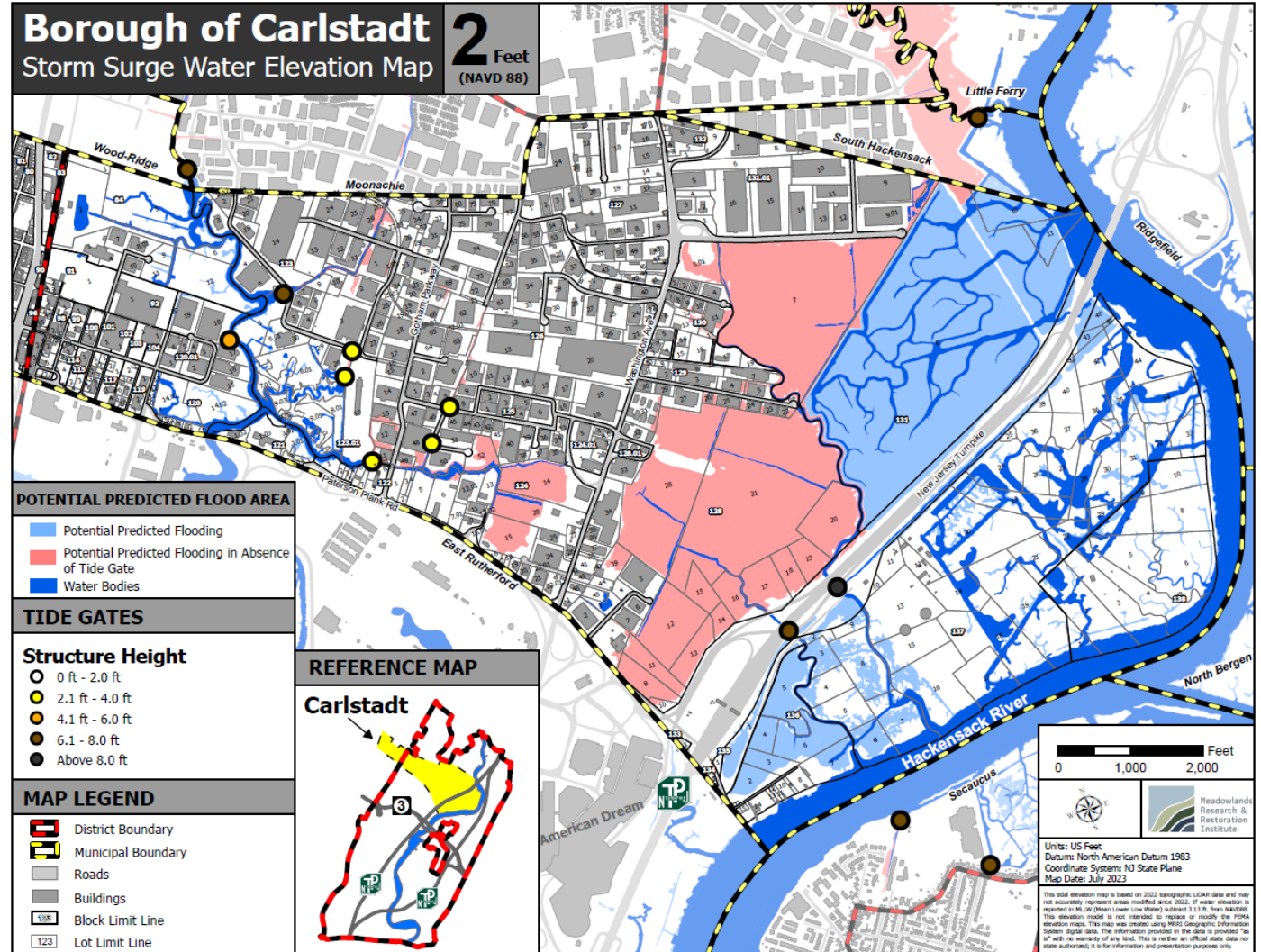
Excessive stormwater runoff can lead to significant flooding, causing damage to infrastructure and displacing communities.

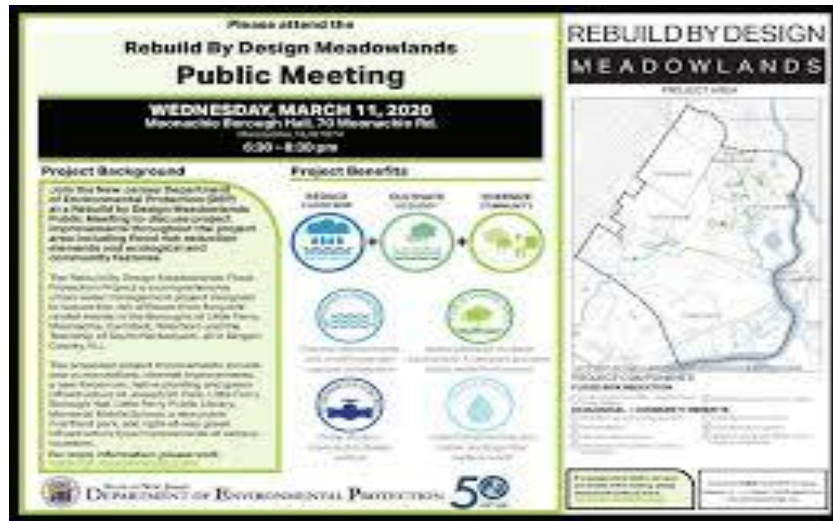
## Damage to Infrastructure

Flooding can severely damage roads, bridges, and buildings, resulting in costly repairs and disruptions to daily life.

## Effects on Water Quality

Stormwater runoff can carry pollutants, leading to poor water quality that can harm local ecosystems.





# Revenue Sources and Rate Structures

## Revenue Generation

Stormwater utilities generate revenue through fees based on the impervious surface area of properties.

## Impervious Surface Area

Fees are calculated based on impervious surfaces to ensure fairness in the cost of runoff management.

## Shared Responsibility

This fee structure ensures that all contributors to runoff share the responsibility for its management and mitigation.



## Hackensack Meadowlands District Floodplain Management Plan 2022

Prepared in conformity with:

The National Flood Insurance Program  
Community Rating System  
Activity 5.10 Guidelines

For:

The New Jersey Sports and Exposition Authority  
One DeKorte Park Plaza  
Lyndhurst, New Jersey

October 11, 2022

Adopted by NISEA Resolution 2022-18 on October 20, 2022

# Benefits of Effective Stormwater Utilities



# Flood Mitigation and Prevention

## Effective Stormwater Management

Managing stormwater runoff is essential for preventing flooding and maintaining the integrity of urban infrastructure.

## Public Safety Enhancement

Flood mitigation strategies are crucial for enhancing public safety and protecting communities from flood-related hazards.

## Economic Loss Reduction

Effective flood prevention measures can significantly reduce economic losses associated with flood damage and recovery efforts.



Stormwater Activities	Description
Establishment of stormwater utility	Initial planning, including the feasibility study and data gathering (e.g., budget expenses and impervious coverage by parcel)
Capital expenditures	Planning, design, engineering, acquisition, construction, and improvement of a stormwater management system, including green infrastructure components
Operations and maintenance	Service requests, street sweeping, catch basin cleaning, snow removal, channel/culvert maintenance, pipe repairs, and maintenance of green infrastructure installations
Asset management program	Program development activities for a stormwater management system
Stormwater management plan and stormwater control ordinances	Program development activities for a stormwater management plan and stormwater control ordinances pursuant to section 1 of P.L. 1981, c.32 (C.40:55D-93).
New Jersey Pollutant Discharge Elimination System (NJPDES)	Any compliance activities required pursuant to NJPDES permit
Monitoring, inspection, and enforcement	Any such activities to carry out the purposes of P.L.2019, c. 42(C.40A:26B-1 et al.)
Public outreach and education	Any public education and outreach related to stormwater management
Administrative costs	Staff or service costs for billing invoices, requests for fee credits, legal review, collection of overdue fees, periodic reporting, and general office overhead.
<p>*Also, any additional stormwater activities as authorized by the NJDEP, the Division of Local Government Services in the department of Community Affairs, or the Local Finance Board pursuant to rules, regulations, or permits. P.L2019, c.42 (C.40A:26B-8(e)).</p>	

## **Reliable Water Management**

Stormwater utilities provide dependable water management systems that help communities prepare for heavy rainfall and flooding.

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## **Handling Extreme Weather**

By improving stormwater management, communities can better cope with extreme weather events, reducing the risk of disasters.

## **Climate Change Adaptation**

Robust stormwater utilities contribute to climate change adaptation strategies by managing runoff and reducing vulnerabilities.

# Enhanced Community Resilience

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# Conclusion

## **Importance of Stormwater Utilities**

Stormwater utilities play a crucial role in managing urban runoff and protecting local water quality from pollution.

## **Overcoming Challenges**

Communities must overcome various challenges to effectively manage stormwater, including infrastructure development and public engagement.

## **Securing Funding**

Effective stormwater management requires securing funding for projects and maintenance to ensure long-term sustainability.

## **Innovative Practices**

Implementing innovative practices like green infrastructure enhances community resilience and promotes sustainability.

