



# National Pollutant Discharge Elimination System Program

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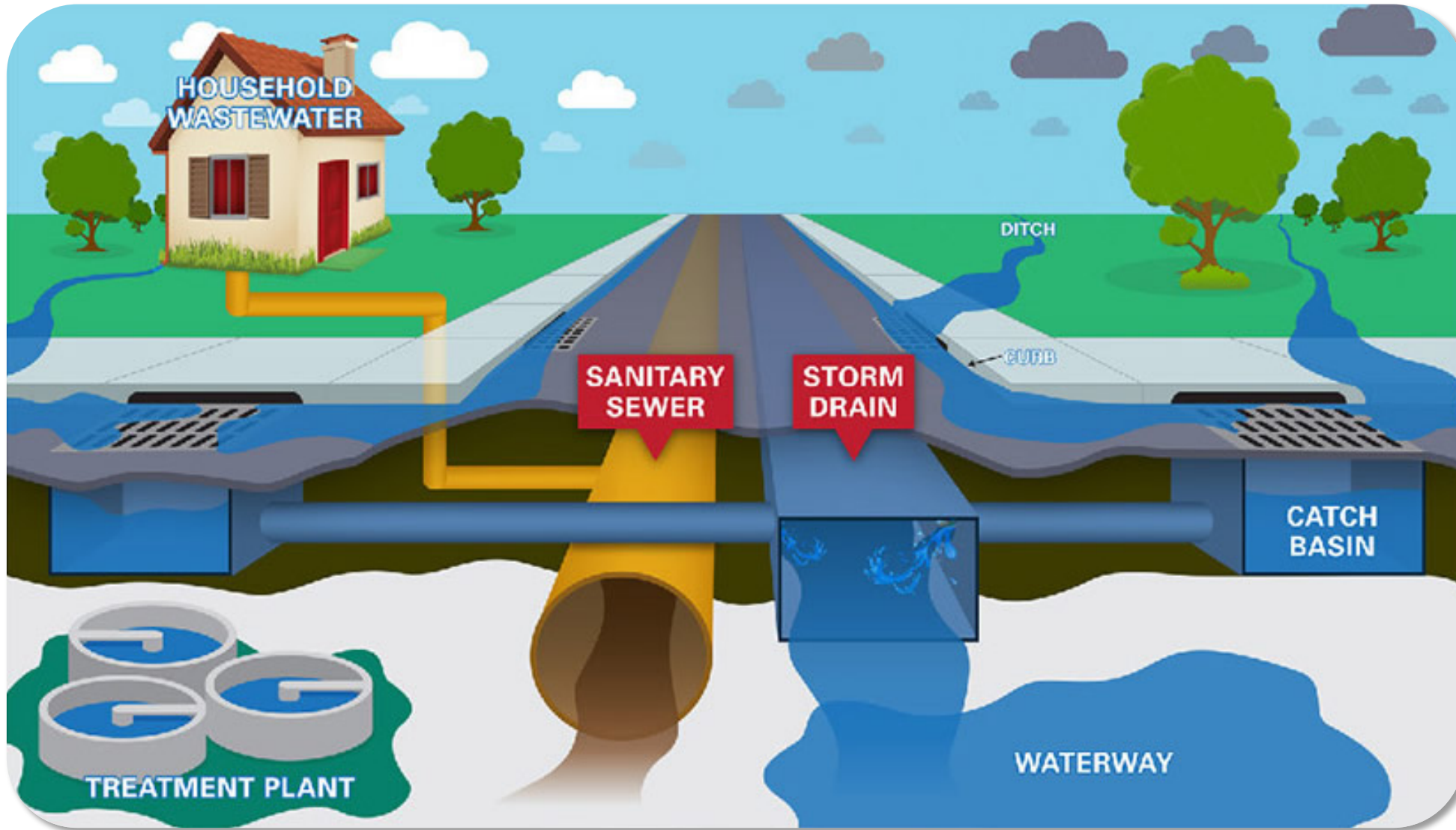
# Agenda

- Program Overview
- Regulatory Background
- Program Funding
- NPDES/MS4 Permit
- NPDES/MS4 Permit Components
- New Legislations and Initiatives
- Purpose – To provide Council an update of the NPDES program and the upcoming MS4 Permit anticipated to be implemented as early as 2022

# Program Overview

- NPDES/MS4 – National Pollutant Discharge Elimination System/Municipal Separate Storm Sewer System
- Administer the NPDES Program by:
  - i. Implement BMPs to prevent pollutants from discharging to the storm drain system
  - ii. Conduct site inspections and respond to complaints regarding pollutants from public and private property (residential, industrial, and commercial)
  - iii. Submit Annual Progress Report of the City's NPDES Program to Riverside County Flood Control and Water Conservation District (RCFC & WCD)
  - iv. Maintain inspection database to keep track of all activities
  - v. Conduct Public Outreach and Education
  - vi. Participate in Task Force Groups for Regional Water Quality Monitoring
  - vii. Collaborate with other departments to address NPDES activities



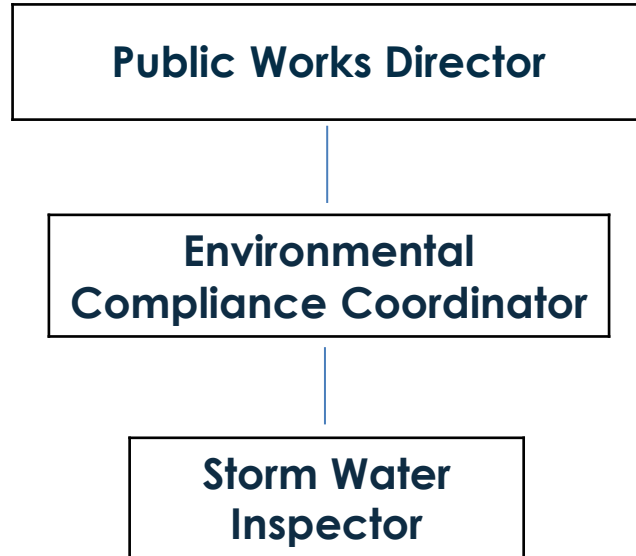


- Unlike sewer system (carries water from indoor drains to wastewater treatment plants), storm drain system releases untreated water into flood control channel (onsite treatment BMPs now required for new developments)
- Storm water runoff comes from private property, roads with drainage systems, municipal streets, catch basins, curbs/gutters, man-made channels, or storm drains



# Program Overview

## NPDES Group Organizational Chart



- 2 full time employees
- Collaborate with various departments on NPDES activities:
  - i. Street Maintenance (street sweeping, maintenance of storm drain infrastructures, mitigation of pollutants in City right-of-way, etc.)
  - ii. Construction Inspection Activities
  - iii. Land Development – Water Quality Management Plans
  - iv. General Accounting (Budget)

# What contributed to the formation of the NPDES Program?



Cuyahoga River Fires - 1868, 1912, 1952, 1969 **{13 fires starting in 1868}**  
(Ohio History Central)

# Regulatory Background

## NPDES Permit Applicability

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graph LR; A[NPDES Permit Applicability] -- Purple Arrow --> B[FEDERAL LEVEL]; A -- Green Arrow --> C[STATE (CA) LEVEL]; A -- Blue Arrow --> D[STATE (based on Regions) LEVEL]; A -- Red Arrow --> E[LOCAL LEVEL];
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### FEDERAL LEVEL

- United States Environmental Protection Agency
- 1972 NPDES Permit Program part of Clean Water Act (CWA) to regulate storm water discharges to Waters of the United States (WOTUS)
- Authorized State Governments to perform permitting, administrative and enforcement program

### STATE (CA) LEVEL

- State Water Resources Control Board (SWRCB)
- Regulates Municipal Storm Water Program (storm water discharges from Municipal Separate Storm Sewer Systems {MS4s})
- SWRCB has 9 Regions to cover the State pursuant to different water bodies

### STATE (based on Regions) LEVEL

- Santa Ana Regional Water Quality Control Board (SARWQCB) – Region 8
- SARWQCB governs discharges to Santa Ana River (SAR) based on Order No. R8-2010-0033 & NPDES No. CAS 618033 (current Permit)
- NPDES Permit issued to Riverside County Flood Control & Water Conservation District (RCFC&WCD), County of Riverside, Corona, & 14 Co-Permittees

### LOCAL LEVEL

- Corona owns/operates an MS4
- Corona collaborates with RCFC&WCD (Principal Permittee) & other Permittees to implement Permit requirements
- Corona Municipal Code, Chapter 13.27 addresses Storm Water Management & Discharges Controls



# Regulatory Background

**Clean Water Act (CWA):** Protect and maintain chemical, physical, and biological integrity of local water ways





# Regulatory Background

- City established its NPDES Program in 1991
- Urban runoff discharges to WOTUS via Temescal Wash/Creek



*City outfall and the Temescal Wash Channel (channel owned & maintained by RCFC&WCD)*



# Regulatory Background

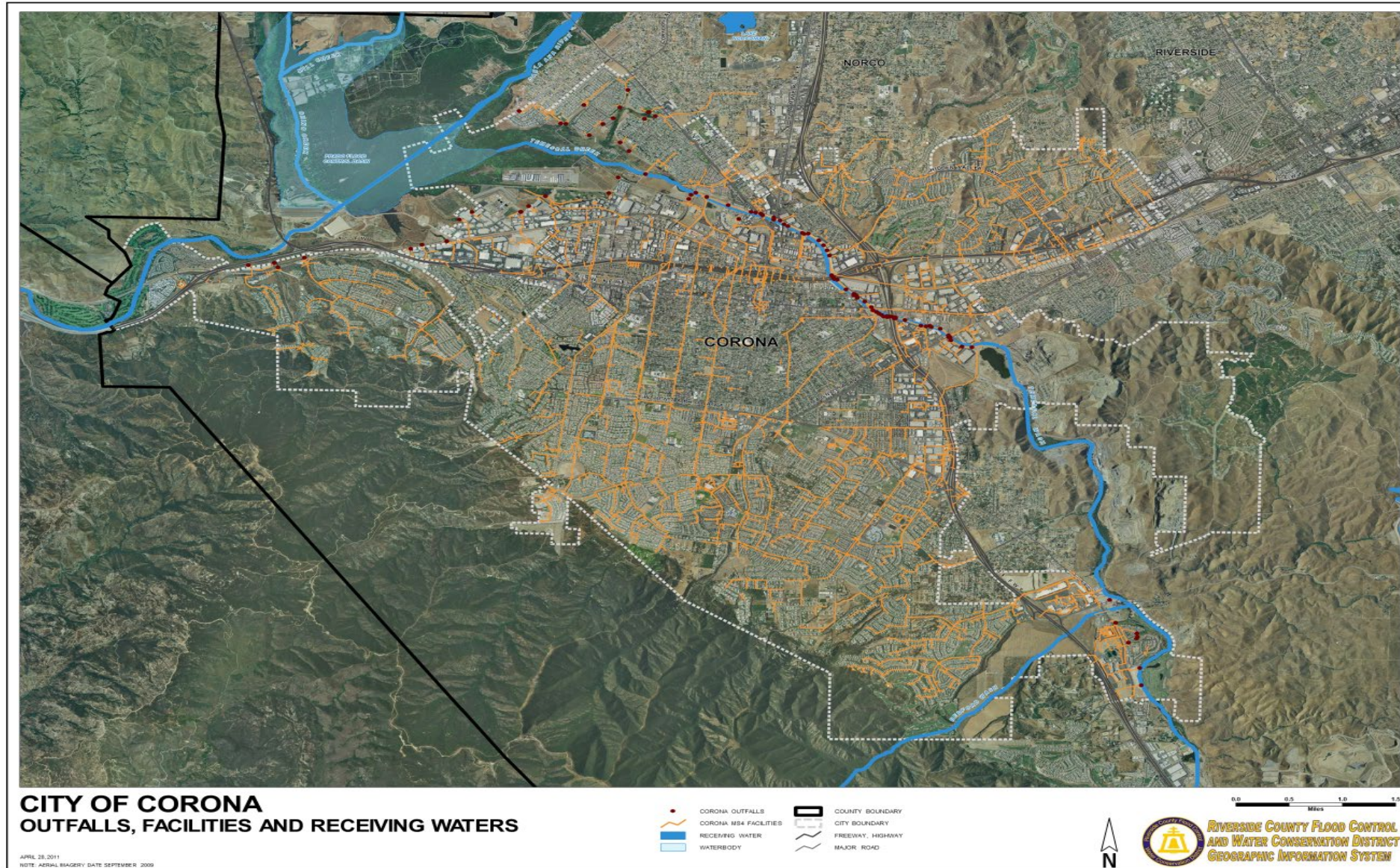


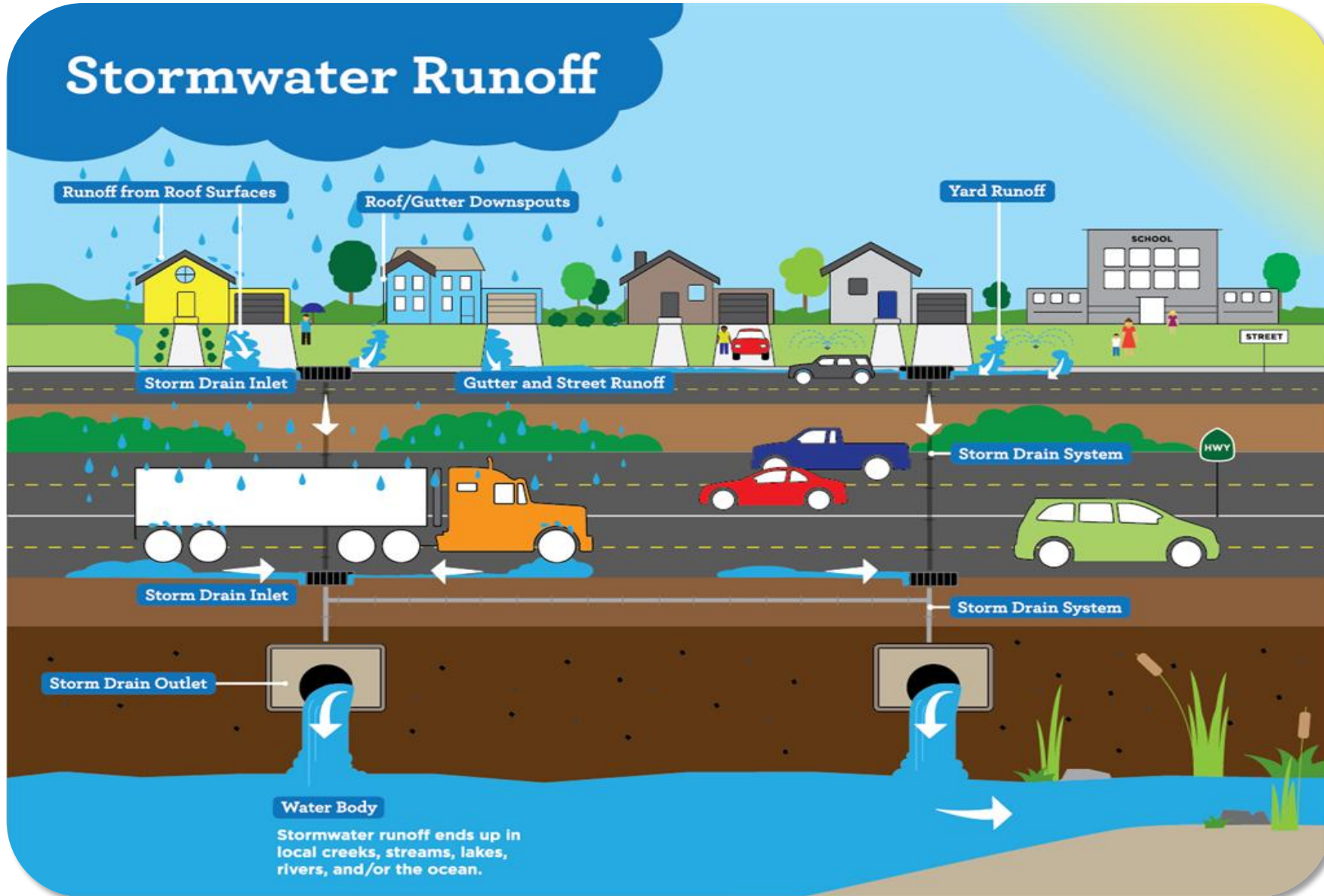
Illustration of urban runoff to the Temescal Wash/Creek (in blue) and SAR



# Program Funding

- NPDES – vital function of City operations that involve implementation/ management of Federal, State and Local regulations (unfunded mandates rely heavily on General Fund)
- Program funding is primarily County Service Area 152 (CSA 152) – a \$10 per Benefit Assessment Unit (BAU) is levied/imposed to parcels in the City (collected annually by Riverside County)
- Implementation Agreement with Riverside County for CSA 152 Funding (BAU approved annually by City Council to use funding collected from properties in the City)
- On 2/17/21, City Council approved CSA 152 funding for fiscal year 2022 – projected to generate approximately \$783,000
- CSA 152 funding is for maintenance of storm drains, catch basins, and street sweeping

# Municipal Separate Storm Sewer Systems (MS4) Permit Program



# MS4 Permit Program

## Permit Categories:

- **Phase I** MS4 Permit – Joint Permit issued to RCFC&WCD, Riverside County, Corona, and 14 Co-Permittees
  - i. Large MS4s ( $\geq 250,000$  people)
  - ii. Medium MS4s ( $\geq 100,000$  but  $< 250,000$  people)
- **Phase II** MS4 Permit
  - i. Small MS4s ( $< 100,000$  people)
  - ii. Non-Traditional MS4s (e.g., School Districts, Hospitals, Universities, Government Facilities)

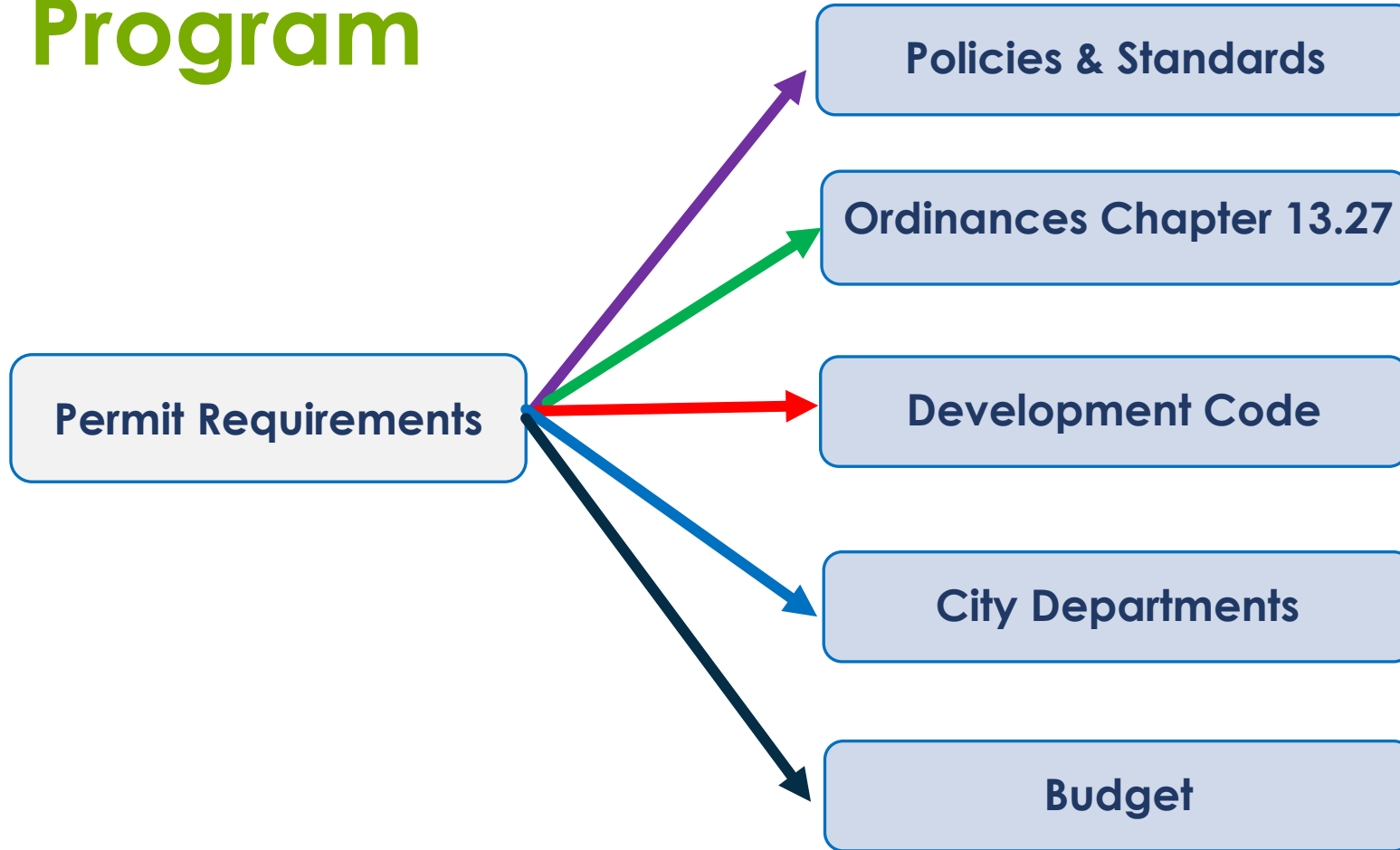


# MS4 Permit Program

Historic Permit Timeline for Riverside County Phase 1 MS4 Permit, including Corona:

- Initial Permit – early 1990s
- 2<sup>nd</sup> Permit – Late 1990s
- 3<sup>rd</sup> Permit – 2000
- 4<sup>th</sup> Permit – 2010 (Order expired 1/29/15, but currently effective until new Permit is implemented)
- 5<sup>th</sup> Permit – Currently being drafted (anticipated as early as calendar year 2022)

# MS4 Permit Program



# MS4 Permit Components

Investigations and Inspections for BMP implementation:  
*(completed approximately 2,000 total inspections/investigations for FY 19-20)*

- Investigation of Illicit Connections/Illegal Discharges (IC/ID)
- Construction Site Inspections
- Commercial/Industrial Site Inspections
- Pool Test Inspections
- Municipal Facilities Inspections



# MS4 Permit Components

**Investigations:** IC/ID  
(non-stormwater  
discharges)



***Illicit discharge to City right-of-way in  
residential area from home remodel project***



# MS4 Permit Components

- Construction Site Inspections

- i. Site Inventory
- ii. Compliance Inspections
- iii. Enforcement
- iv. Construction General Permit (CGP)
- v. Reporting



*Improper  
Installation of BMPs*



*Proper Installation of BMPs for storm drain  
inlet protection & street sweeping*





# MS4 Permit Components

## Construction Site Inspections





# MS4 Permit Components

- Commercial & Industrial Site Inspections
  - i. Site Inventory
  - ii. Compliance Inspections
  - iii. Enforcement
  - iv. Industrial General Permit (IGP)
  - v. Reporting



*Improper storage containment & cover for materials stored outdoors*



*Proper storage containment & cover for materials stored outdoors*



# MS4 Permit Components

- Commercial & Industrial Site Inspections



*Screen guard BMP for catch basin*



*Straw wattle/Fiber roll BMP to prevent sediment discharge*

# MS4 Permit Components

## **Inspection Databases:**

Using Access Database to manage inspection activities for annual reporting

- Working to transition from Access Database to a paperless system using TrakiT software application for all NPDES activities

## **Staff Training:**

- Collaborate with RCFC&WCD for annual and bi-annual NPDES training



# MS4 Permit Components

## Public Outreach and Education:

- Inner-Coastal Watershed Cleanup Day – held annually in fall at the Auburndale Road crossing of Temescal Wash (temporarily on hold due to construction of Alcoa Dike Project in the area)
- Distribute brochures to residents, businesses, and organizations in response to investigation/inspection activities
- Promote NPDES Residential Guidelines, including Pool Drainage procedures via newsletters sent as water bill inserts
- Collaborate with RCFC&WCD for education at schools located in the SAR
- Posting on City and RCFC&WCD websites and social media

FY 18-19 Temescal  
Wash Cleanup  
Event





# MS4 Permit Components

## Total Maximum Daily Loads (TMDLs):

- Member of regional task force administered by Santa Ana Watershed Project Authority (SAWPA) to address excessive bacteria and nutrients in the SAR
- Comprehensive Bacteria Reduction Plan (CBRP) – implementation of specific BMPs

## Regional Water Quality Monitoring:

- Collaborates with SAWPA, RCFC&WCD, Riverside/San Bernardino/Orange Counties, and other Permittees for Region-wide monitoring and water sampling in the SAR
- Consolidated Monitoring Plan (CMP)
  - i. Wet Weather
  - ii. Dry Weather
  - iii. Receiving Waters
  - iv. Outfalls



# MS4 Permit Components

NPDES Annual Progress Report:

- Annual Program Effectiveness Assessment
- Submittal Dates
  - i. City submits to RCFC&WCD – mid September
  - ii. RCFC&WCD submits to SARWQCB – by November 30<sup>th</sup>

***\*\*\*SARWQCB has authority to conduct an audit of the City's Storm Water Program to ensure compliance with the MS4 Permit***

# New Legislations and Initiatives

- **New MS4 Permit [#5]:**
  - i. Tri-County Region to include Orange, Riverside, & San Bernardino Counties (existing Permit specific to RCFC&WCD, Riverside County, and Co-Permittees in Riverside County)
  - ii. Being reviewed by USEPA and SWRCB
  - iii. 1<sup>st</sup> Public Workshop scheduled for December 2021



# New Legislations & Initiatives

## Trash Provisions:

- i. SWRQB adopted statewide Trash Provisions (prohibit the discharge of trash to surface waters on April 7, 2015)
- ii. Not in existing Permit (will be in new MS4 Permit)
- iii. Two compliance tracks (Track-1 or Track-2)
  - 1) Track 1 – install, operate, and maintain Full Capture Systems for storm drains to capture runoff from Priority Land Uses applied locally
  - 2) Track 2 – install, operate, and maintain any combination of Full Capture Systems, Multi-Benefit Projects, and other Treatment Controls applied locally or regionally
- iv. City selected Track 1 and working to meet the requirements
  - 1) Install/operate/maintain approximately 1,103 Full Capture Systems to catch basins in Priority Land Use areas (initial assessment based on 2017 data – total amount could be closer to 1,200)
  - 2) Compliance timeline will be 10 years after implementation date of the new MS4 Permit



*Trash capturing device for catch basin. (Approx. 1,200 to be installed in the City of Corona)*

# QUESTIONS?

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