COMMUNITY FLOOD ASSESSMENT
WHAT IS AT RISK IN FISCAL YEAR 2021?

Stormwater Division

STORMWATER INFRASTRUCTURE

The Stormwater Division works year-round to safeguard San Diego's waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. The infrastructure is interconnected and must be managed with a watershed-wide approach; the degradation or failure of one component can impact the entire stormwater system. Across the City, the Stormwater Division operates and maintains over 1,100 miles of storm drain pipe, 70 miles of channels, 80 miles of drainage ditches, 2,700 miles of streets swept, 46,000 stormwater structures like inlets and outfalls, 7 miles of levees, and 15 pump stations.

Total value of the existing stormwater system quantified as replacement cost **=$5.8B**

PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding for proactive maintenance and repairs.

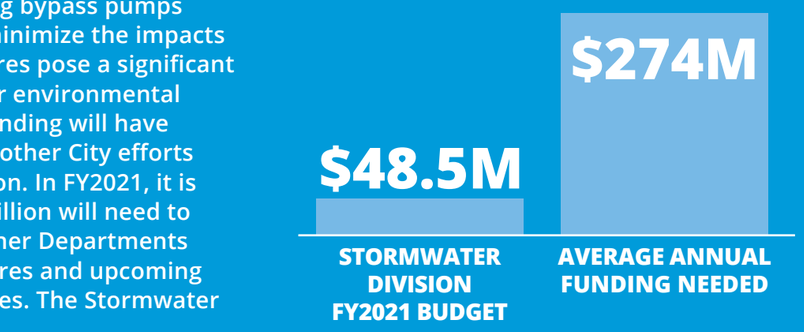
A Citywide summary of the fiscal year (FY) 2021 pre-storm flood assessment is presented to the right, of which

less than **1%** ***will be addressed in FY2021 due to current funding levels.***

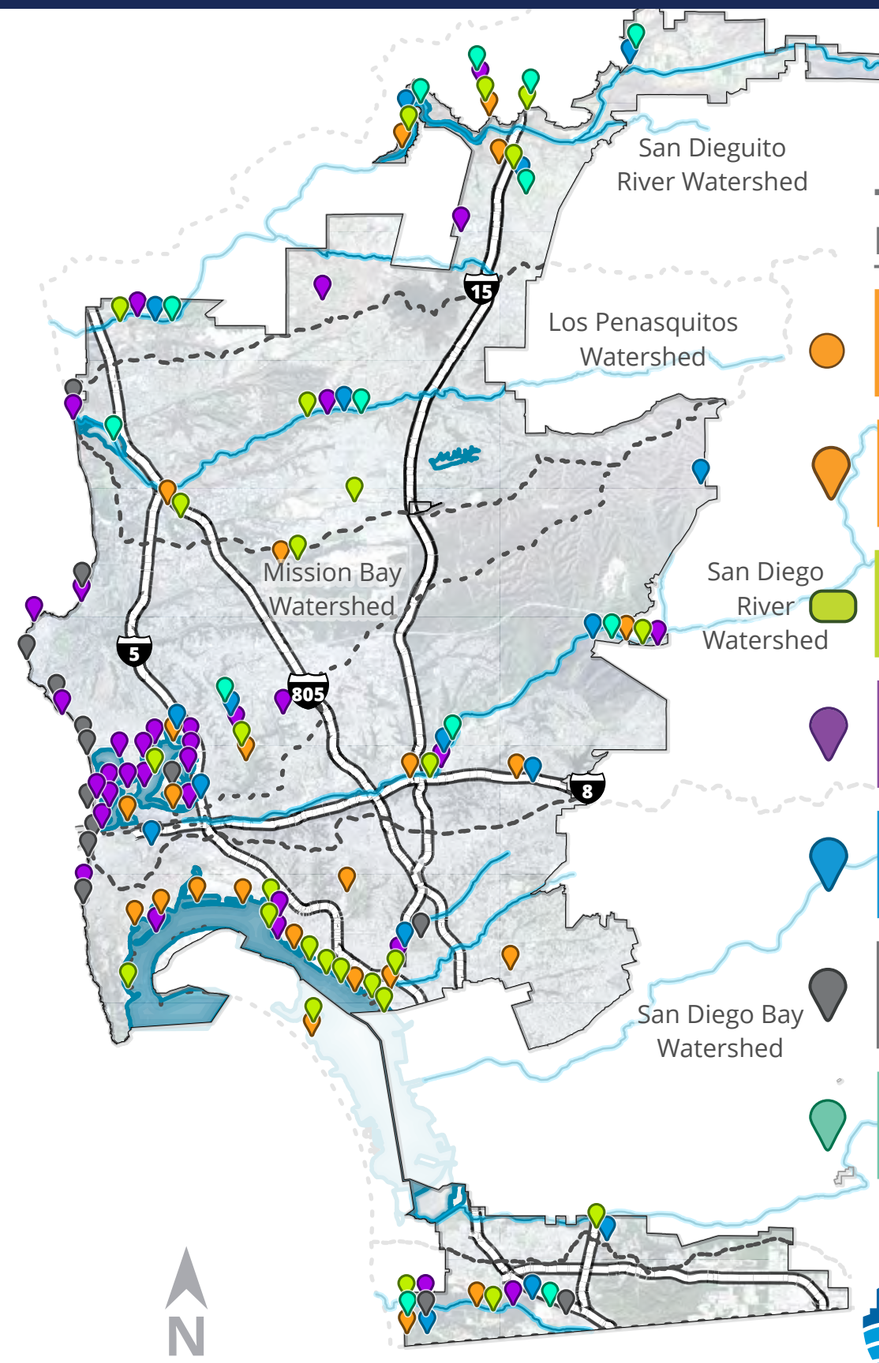
Detail on the types of stormwater system vulnerabilities is presented on the back of this sheet and locations within each Council District are presented on specific Council District Community Flood Assessment fact sheets.

STORMWATER DIVISION FUNDING GAP

Due to insufficient funding to address vulnerabilities, the Stormwater Division often has to resort to temporary mitigation measures like operating bypass pumps during rainstorms to minimize the impacts of pipe failures. If failures pose a significant public health, safety, or environmental concern, emergency funding will have to be reallocated from other City efforts at City Council discretion. In FY2021, it is anticipated that $26 million will need to be reallocated from other Departments to address known failures and upcoming stormwater emergencies. The Stormwater Division is developing a long-term strategy to secure additional funding and address the growing number of vulnerable locations.



December 2020



TOTAL KNOWN LOCATIONS CITYWIDE

- **1,832** Pipe Failure Locations
- **24** Pipe Failure Bypass Locations
- **68** Channel Degradation Locations
- **7** Structure Degradation Locations
- **49** Flooding Locations – Surface Drainage
- **13** Levee Degradation Locations
- **2** Drainage Ditch Degradation Locations

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COMMUNITY FLOOD ASSESSMENT TYPES

Stormwater Division

1832 Pipe Failures Locations

These locations represent stormdrain pipes that have been damaged or have degraded to a condition that requires replacement. Pipe failures can lead to community safety risks like flooding, sinkholes and slope failures.

24 Pipe Failure Bypass Locations

During rain events, Stormwater Division staff operate mobile bypass pumps at certain pipe failure locations as a temporary mitigation measure due to funding being unavailable to permanently repair or upgrade the pipe. These bypasses are necessary to decrease flooding impacts and reduce chance for larger scale failures in the surrounding infrastructure and community. Over the long term, operating these "band aid" solutions both diverts resources from other priorities and is more expensive than fixing the failure in the first place.

49 Flooding Locations - Surface Drainage

These locations experience flooding due to surface drainage issues – some causes include current infrastructure that is undersized, the need for new infrastructure, or roads that have been paved over and do not have sufficient capacity in the curb and gutter system to minimize flood risk.

68 Channel Degradation Locations

These locations represent the priority channels identified over the past three years (FY2018-FY2020) as needing maintenance or repair to reduce the risk of failure and impacts to the surrounding community. The Stormwater Division may need to remove invasive or overgrown vegetation, clear accumulated sediment and trash, repair holes or failures in the channels, or address erosion.

7 Stormwater Structure Degradation Locations

These locations include stormwater structures like outfalls, and debris or detention basins that are designed to reduce the chance for flooding and the transport of trash, debris and pollution through the stormwater system. Over time these locations experience degradation and may become clogged with sediment and overgrown vegetation that needs to be maintained.

13 Levee Degradation Locations

Levees are embankments that protect large waterways from flooding nearby communities. To reduce the chance of unwanted overtopping of levees and flooding, maintenance and repairs are needed including removal of vegetation and trees and restoration of slopes and banks.

2 Drainage Ditch Degradation Locations

Drainage ditches are above ground depressions that carry stormwater. These ditches require that the Stormwater Division keep them clear of vegetation, trash and debris and make sure they don't become damaged over time. These locations have been identified as needing maintenance and repair to protect from flooding.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 1: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 1

Council District 1 encompasses the northern coastal communities within the City and includes many of the City's iconic waterways like the Los Peñasquitos Lagoon, San Dieguito Lagoon and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 1 alone, the Stormwater Division operates and maintains more than:

156	Miles of Storm Drain Pipe
12	Miles of Channels
3,200	Storm Drain Inlets
3,722	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

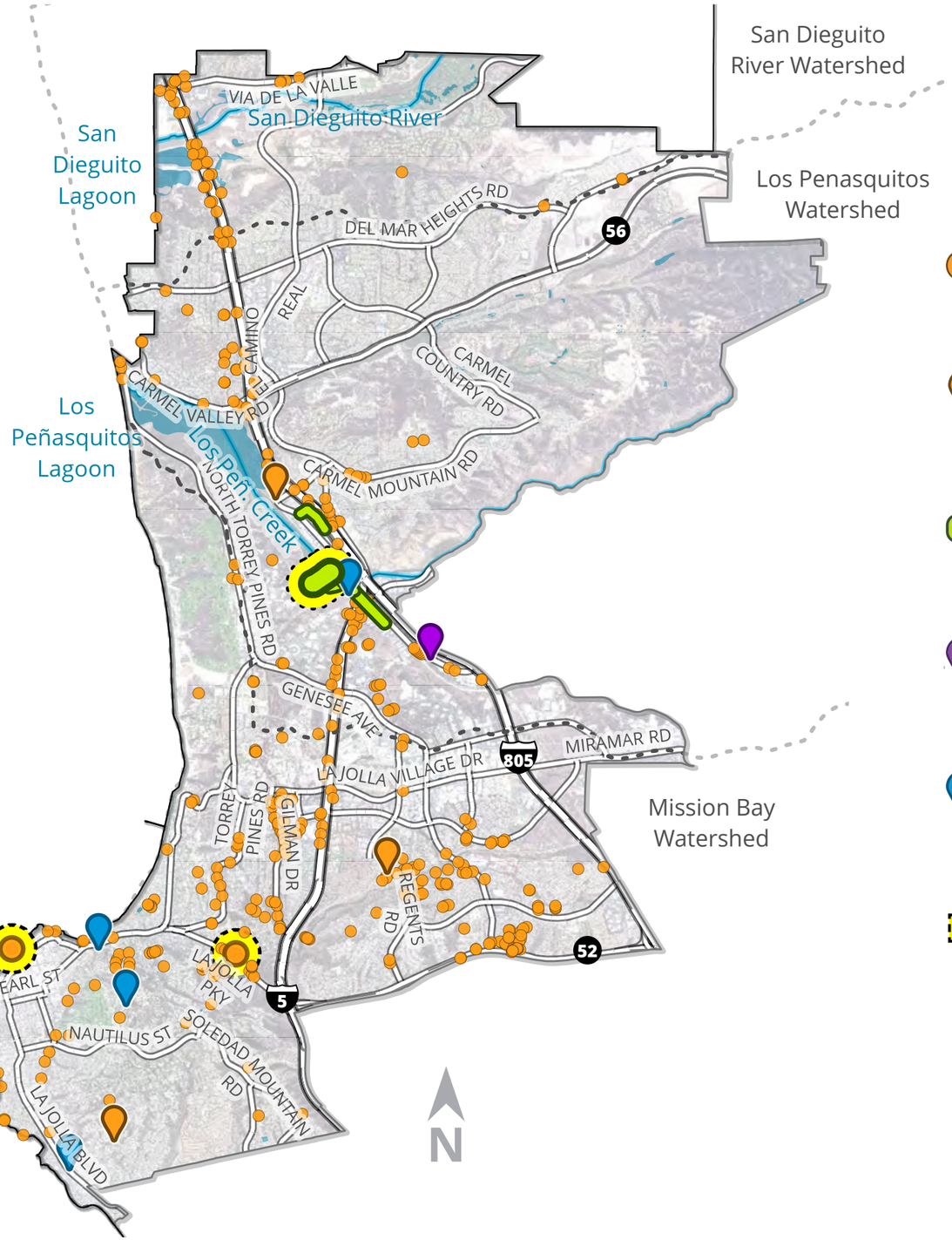
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 1 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of these* 426 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **413** Pipe Failure Locations
- **3** Pipe Failure Bypass Locations
- **5** Channel Degradation Locations
- **1** Structure Degradation Location
- **4** Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 1: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 426 vulnerable locations within Council District 1, including 5 channel degradation locations, 416 pipe failure locations, 4 known flooding locations attributed to surface drainage issues, and 1 degraded stormwater structure.

None of these 426 vulnerable locations are currently funded for FY2021.

The locations presented on this page demonstrate the range and types of vulnerabilities in Council District 1, and are a snapshot in time for FY2021 (a full summary is presented on Page 1).

Pipe failures and achannel degradation location have caused flooding and slope failures along La Jolla Scenic Drive.

Example Pipe Failure and Channel Degradation Location

The stormwater system near La Jolla Scenic Drive has three pipe failures and a channel degradation location that has caused flooding, erosion, and slope failures along the roadway and offramp that pose a public safety risk.

Example Pipe Failure Location

There is a failed pipe with a missing bottom near the Children's Pool Lifeguard Station. The broken pipe continues to cause erosion to the coastal bluffs and beaches below. It is also unsafe for people to walk or stop near the broken pipe due to the potential for further failures or disintegrating pipe falling.

The broken pipe near the Children's Pool Lifeguard station causes erosion and poses a public safety risk.

Vegetation at the end of the channel has caused standing water and flooding near Flinkote Avenue.

Example Channel Degradation Location

The concrete channel near Flinkote Avenue needs to be maintained and to remove vegetation that is clogging the channel and causing undesirable standing water even during dry weather (as shown). During rainfall, the channel often floods into the adjacent properties. The clearing of this channel is anticipated to be conducted in FY2022 if funded during the annual budget process.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 2: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 2

Council District 2 encompasses the southern coastal communities within the City and includes many of the City's iconic waterways like the San Diego Bay, San Diego River, Mission Bay and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 2 alone, the Stormwater Division operates and maintains more than:

105	Miles of Storm Drain Pipe
8	Miles of Channels
2,200	Storm Drain Inlets
7.5	Miles of Levees
9	Pump Stations

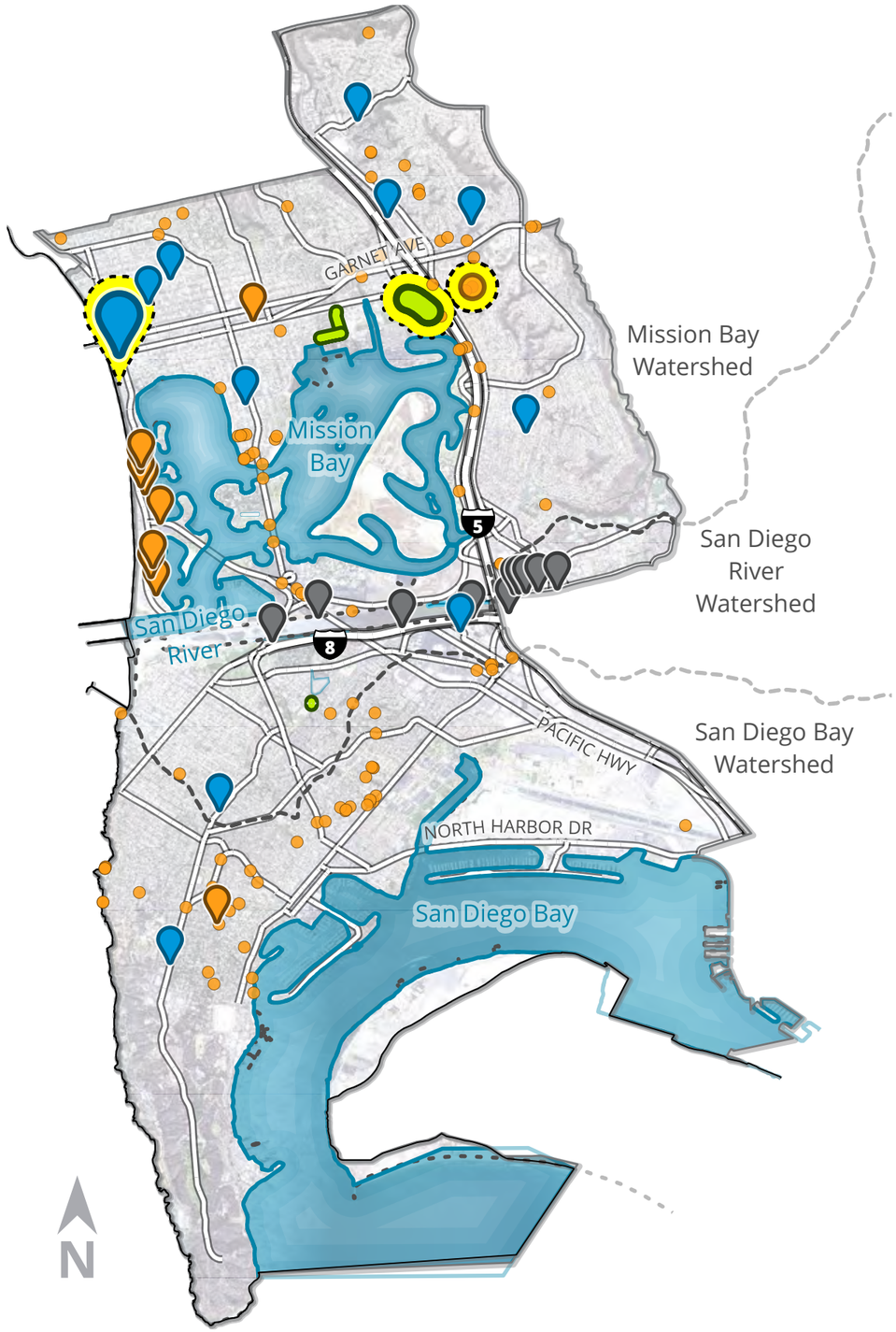
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 2 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

One of the* 145 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **107** Pipe Failure Locations
- **10** Pipe Failure Bypass Locations
- **4** Channel Degradation Locations
- **12** Flooding Locations – Surface Drainage
- **13** Levee Degradation Locations
- **Highlighted locations are presented in additional detail on Page 2 of this fact sheet.**

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

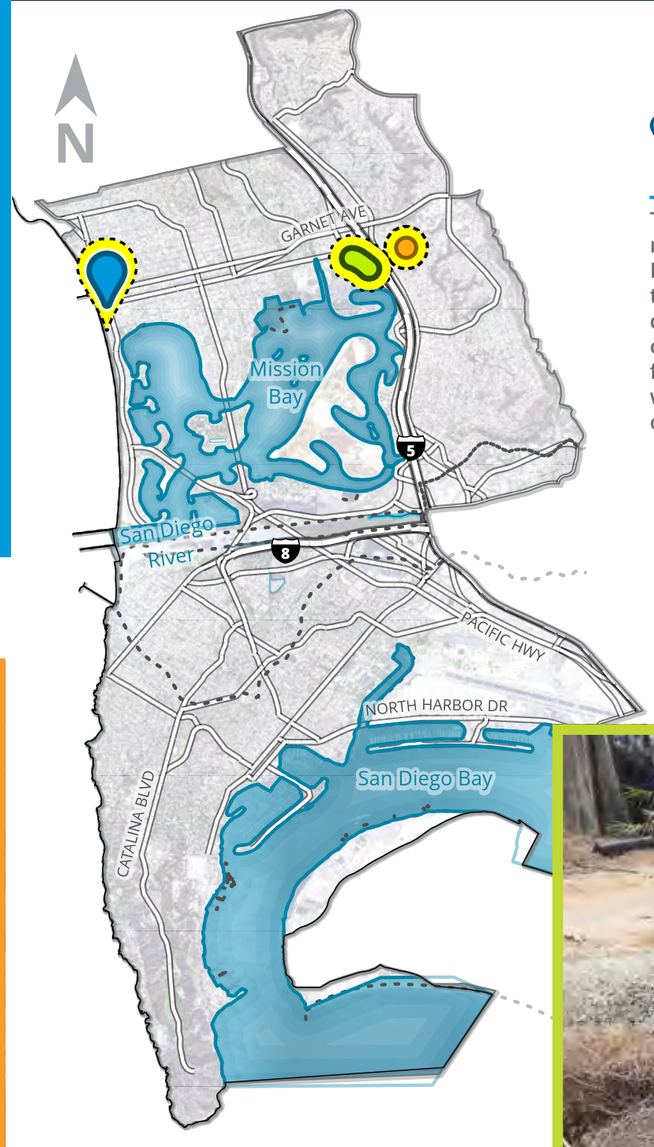
COUNCIL DISTRICT 2: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 145 vulnerable locations within Council District 2, including 4 channel degradation locations, 107 pipe failure locations, 10 pipe failure locations with bypass pumps being operated, 12 known flooding locations attributed to surface drainage issues, and 12 levee degradation locations.

Of these 145 vulnerabilities, only one, an emergency channel replacement along Mission Bay Drive, is anticipated to be addressed in FY2021 due to funding limitations.

The locations presented here are intended to demonstrate the types and extent of the vulnerabilities in Council District 2 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Example Flooding – Surface Drainage Location

The existing storm drain system near the intersection of Mission Boulevard and Grand Avenue needs to be increased in size to reduce the chance of flooding that currently occurs during rain events. The flooding poses a public safety risk when driving, walking, or biking and often enters nearby properties.

Flooding during rainfall at Mission Boulevard and Grand Avenue causes unsafe conditions for vehicles and pedestrians and often impacts nearby properties.

A completely detached storm drain pipe along Sioux Avenue is causing significant erosion.

Example Pipe Failure Location

A pipe has broken and completely separated in the canyon adjacent to Sioux Avenue. The pipe failure has caused significant erosion along the slope, which if left unaddressed will continue to move towards adjacent homes.

Overgrown and dense vegetation has caused unwanted standing water and flooding (see SWD team member for scale).

Example Channel Degradation Location

This channel is located in Mission Bay Golf Course and is adjacent to Mission Bay Drive. Dense vegetation and sediment deposition are present in the channel and restricts the passage of water and causes flooding. This project will be maintained as an emergency project in FY2021.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 3: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 3

Council District 3 encompasses some of the more urban neighborhoods within the City and runs along many of the City's iconic waterways like the San Diego Bay and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 3 alone, the Stormwater Division operates and maintains more than:

72	Miles of Storm Drain Pipe
2	Miles of Channels
2,300	Storm Drain Inlets
2	Pump Stations
1,800	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

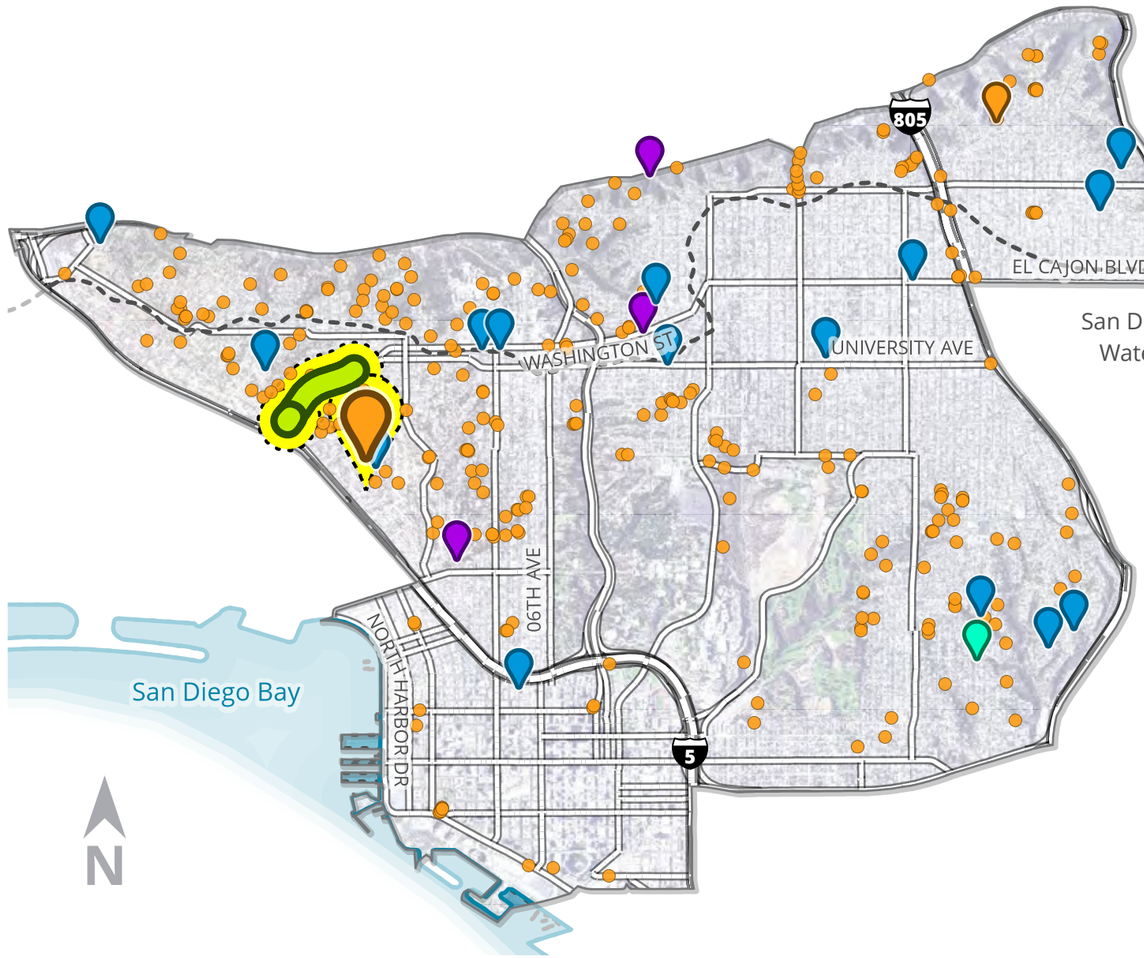
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 3 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

Two of the* 316 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **293** Pipe Failure Locations
- **3** Pipe Failure Bypass Locations
- **2** Channel Degradation Locations
- **3** Structure Degradation Locations
- **15** Flooding Locations – Surface Drainage
- **1** Drainage Ditch Degradation Location

San Diego River Watershed

San Diego Bay Watershed

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

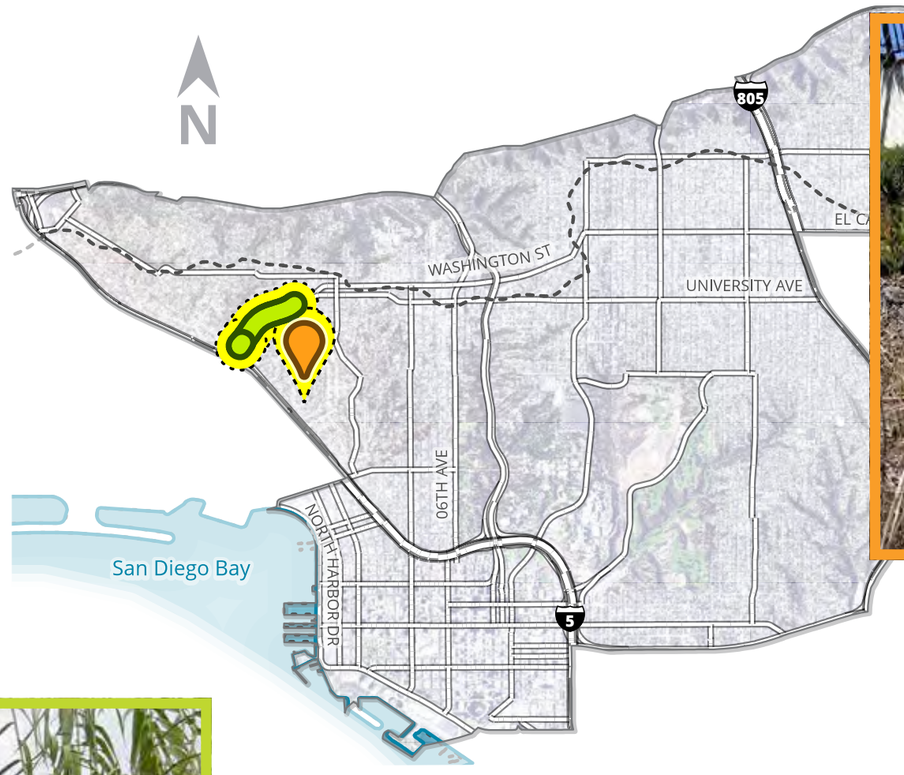
COUNCIL DISTRICT 3: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 316 vulnerable locations within Council District 3, including 2 channel degradation locations, 295 pipe failure locations, 2 pipe failure bypass locations, 15 known flooding locations attributed to surface drainage issues, 1 at-risk drainage ditch, and 3 at-risk stormwater structures.

Of these 316 vulnerabilities, only the two channel degradation segments along Washington Street are anticipated to be addressed in FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 3 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Pipe failure has caused erosion and slope failure directly adjacent to residential properties.

Overgrown and dense vegetation in the channel near West Washington Street restricts capacity and needs to be removed.

Example Pipe Failure Bypass Location

A 25-foot portion of pipe along Kite Street has failed and separated from the downstream system at Jackdaw Street. The resulting flooding has caused erosion, slope failure and a sinkhole downstream. Bypass pumps have been operated at this location since March 2018. The permanent upgrade at this location has been fully designed; however, the project remains unfunded for construction.

Example Channel Degradation Location

Channel maintenance is needed along West Washington Street in Mission Hills where two channel degradation segments will be maintained as one project. There are some structural concerns related to cracked concrete due to tree roots. In addition, dense and overgrown vegetation and sediment deposition are present in the channel and restrict the passage of water and cause flooding. This project will be maintained in FY2021.

Pipe failure has caused a sinkhole and separation of drainage from the downstream system.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 4: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 4

Council District 4 encompasses some of the more urban neighborhoods within the City and contains portions of Chollas Creek, which ultimately drains to the San Diego Bay. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 4 alone, the Stormwater Division operates and maintains more than:

71	Miles of Storm Drain Pipe
14	Miles of Channels
1,680	Storm Drain Inlets
1,800	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

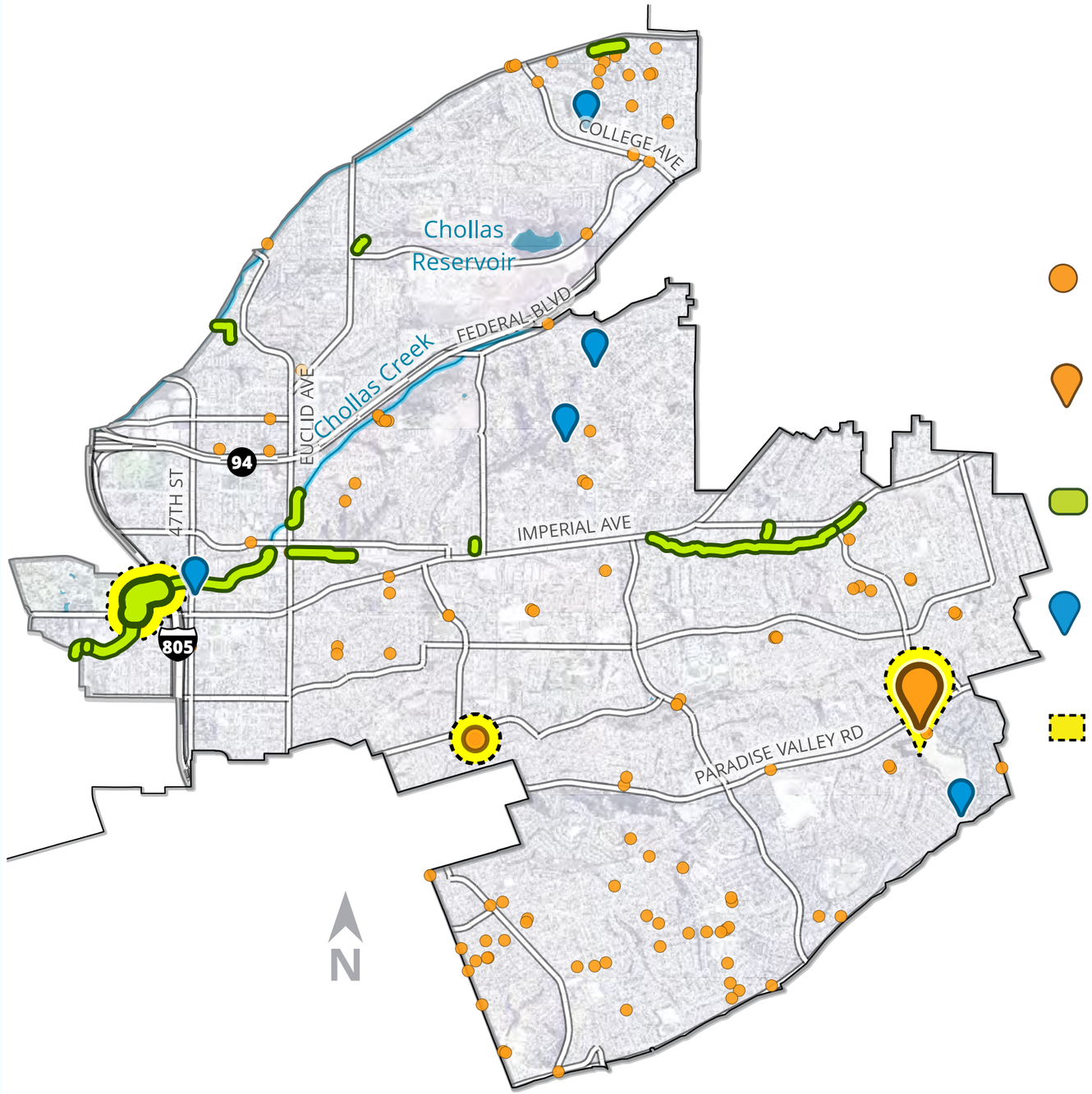
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 4 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 145 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

123 Pipe Failure Locations

1 Pipe Failure Bypass Locations

15 Channel Degradation Locations

6 Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

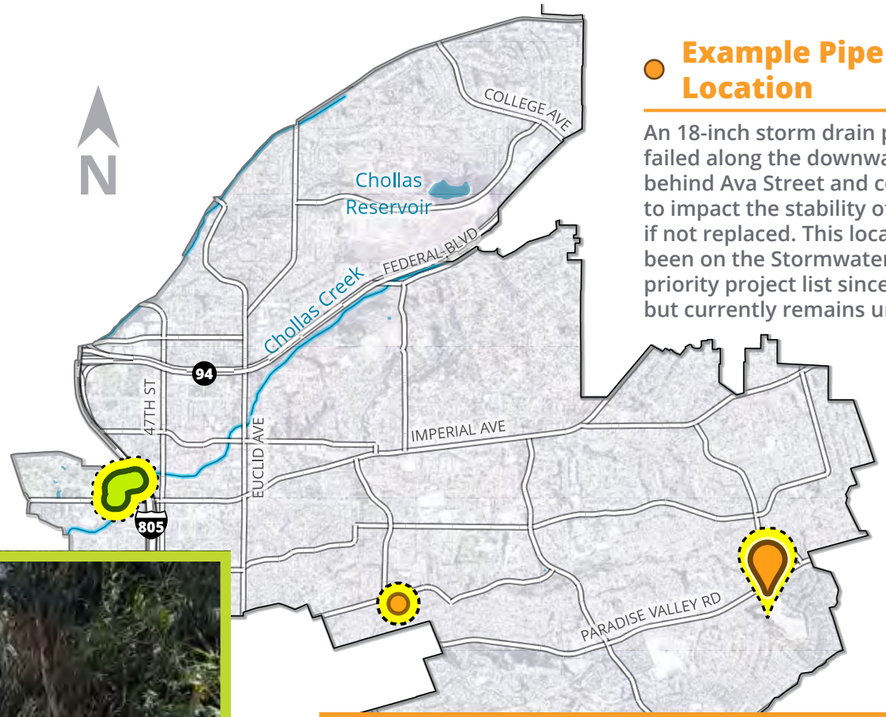
COUNCIL DISTRICT 4: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 145 vulnerable locations within Council District 4, including 15 channel degradation locations, 123 pipe failure locations, 1 pipe failure bypass location, and 6 known flooding locations attributed to surface drainage issues.

None of these 145 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 4 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Example Pipe Failure Location

An 18-inch storm drain pipe has failed along the downward slope behind Ava Street and could continue to impact the stability of the slope if not replaced. This location has been on the Stormwater Department priority project list since April 2020 but currently remains unfunded.

The failed storm drain near Ava Street has caused erosion and collapse of slopes that pose a safety risk.

Invasive vegetation in the channel restricts the passage of water and causes accumulation of trash and debris.

Example Channel Degradation Location

Channel maintenance is needed in Chollas Creek between Imperial Avenue and Inland Freeway to remove vegetation and accumulated sediment, trash, and debris. Portions of the channel have cracking concrete due to tree roots, while other sections are earthen and have visible erosion due to high velocity flows. Maintenance and repair of this channel is anticipated in FY2023 if funded during the annual budget process.

Pipe failure at behind Prairie Mound Way has caused erosion and slope failures.

Example Pipe Failure Bypass Location

Failure of a storm drain pipe behind Prairie Mound Way has caused slope failure along private property. The excess stormwater that flows down this slope due to the storm drain failure also has the potential to impact the stability of a downstream closed County of San Diego landfill. Bypass pumps have been operated at this location since September 2017 to reduce flows at this location. Permanent upgrades remain unfunded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 5: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 5

Council District 5 includes the communities in the northeast portion of the City of San Diego and includes local waterbodies like Lake Hodges, Los Peñasquitos Creek, and Santa Ysabel Creek that ultimately drain to Los Peñasquitos Lagoon, Mission Bay, the San Diego River and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 5 alone, the Stormwater Division operates and maintains more than:

171	Miles of Storm Drain Pipe
2	Miles of Channels
3,700	Storm Drain Inlets
4,160	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

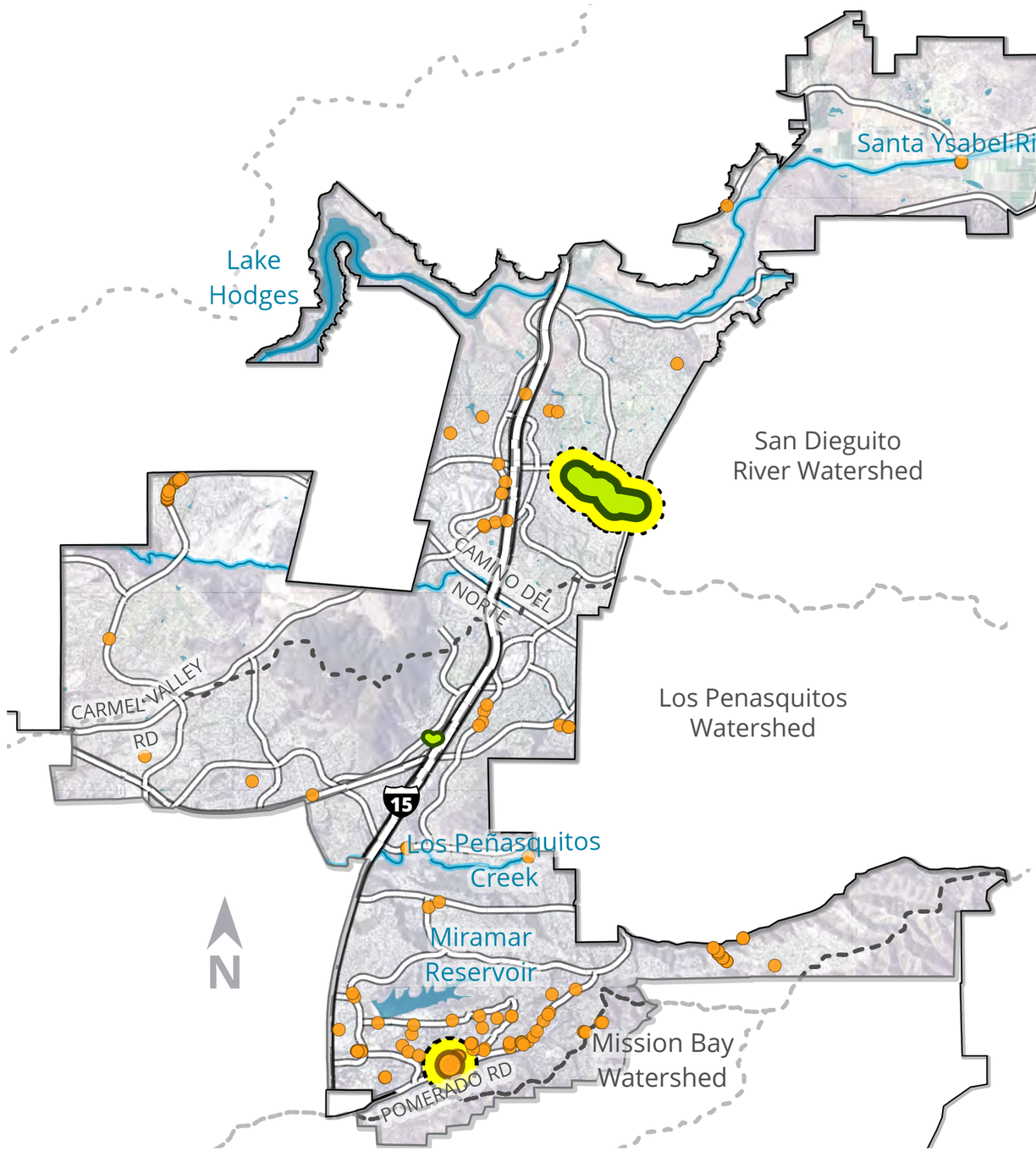
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 5 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 153 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

150 Pipe Failure Locations

3 Channel Degradation Locations

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

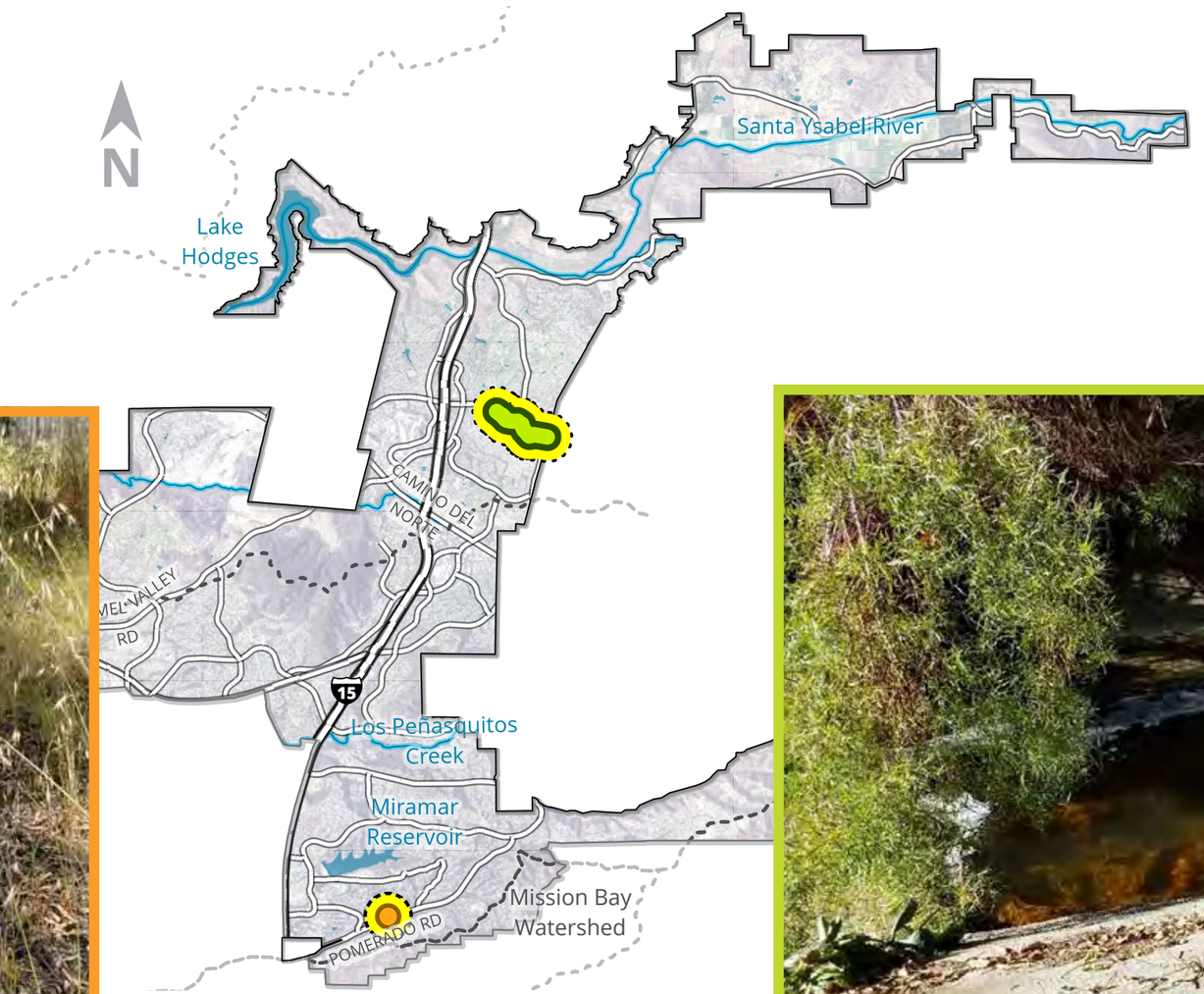
COUNCIL DISTRICT 5: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 153 vulnerable locations within Council District 5, including 3 channel degradation locations and 150 pipe failure locations.

None of these 153 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 5 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Example Channel Degradation Location

Channel maintenance is needed in Green Valley Creek near Pomerado Road to remove overgrown vegetation and accumulated sediment, trash, and debris. Portions of the channel have failed concrete segments that need to be replaced to prevent further degradation. Maintenance and repair of this channel is not currently funded.

The concrete channel bottom has collapsed and causes unwanted standing water as shown.

The collapsed storm drain behind Negley Avenue has caused slope failure and poses a public safety risk.

Example Pipe Failure Location

An 18-inch storm drain pipe has failed at two different locations along the downward slope behind Negley Avenue. This impacted slope has caused instability to the surrounding area, including to the public park trail system in the canyon below the failure. This location has been on the Stormwater Department priority project list since May 2020 but currently remains unfunded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 6: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 6

Council District 6 encompasses the Mira Mesa, Miramar, and Clairmont Mesa neighborhoods within the City and ultimately drains to three different downstream waterbodies: Los Peñasquitos Lagoon, San Diego Bay, and the San Diego River. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 6 alone, the Stormwater Division operates and maintains more than:

127	Miles of Storm Drain Pipe
4	Miles of Channels
2,600	Storm Drain Inlets
2,490	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

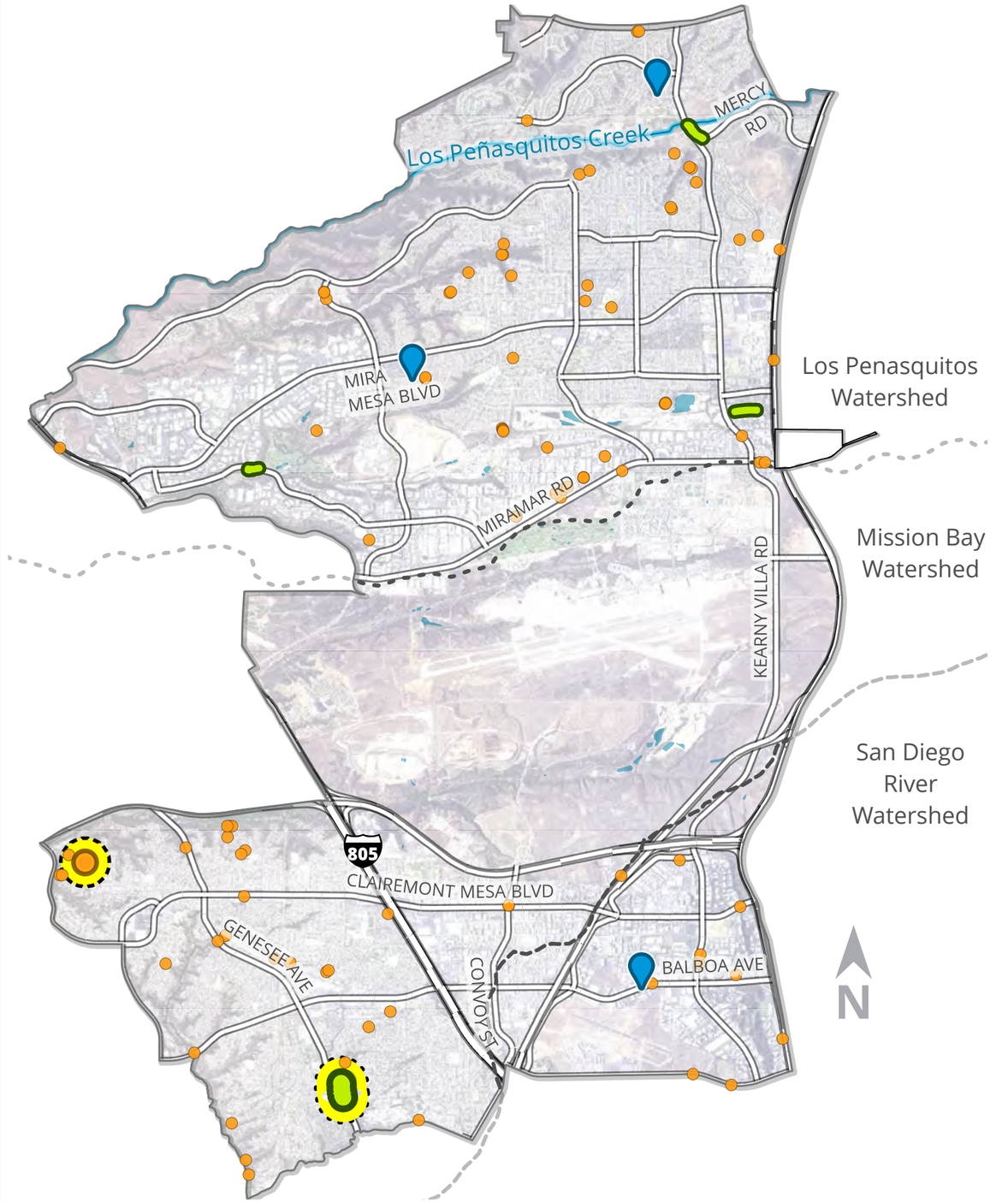
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 6 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 106 *known vulnerable locations will be funded in FY2021.

December 2020



Los Penasquitos Watershed

Mission Bay Watershed

San Diego River Watershed

KNOWN LOCATIONS

99 **Pipe Failure Locations**

4 **Channel Degradation Locations**

3 **Flooding Locations – Surface Drainage**

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 6: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 106 vulnerable locations within Council District 6, including 4 channel degradation locations, 99 pipe failure locations, and 3 known flooding locations attributed to surface drainage issues.

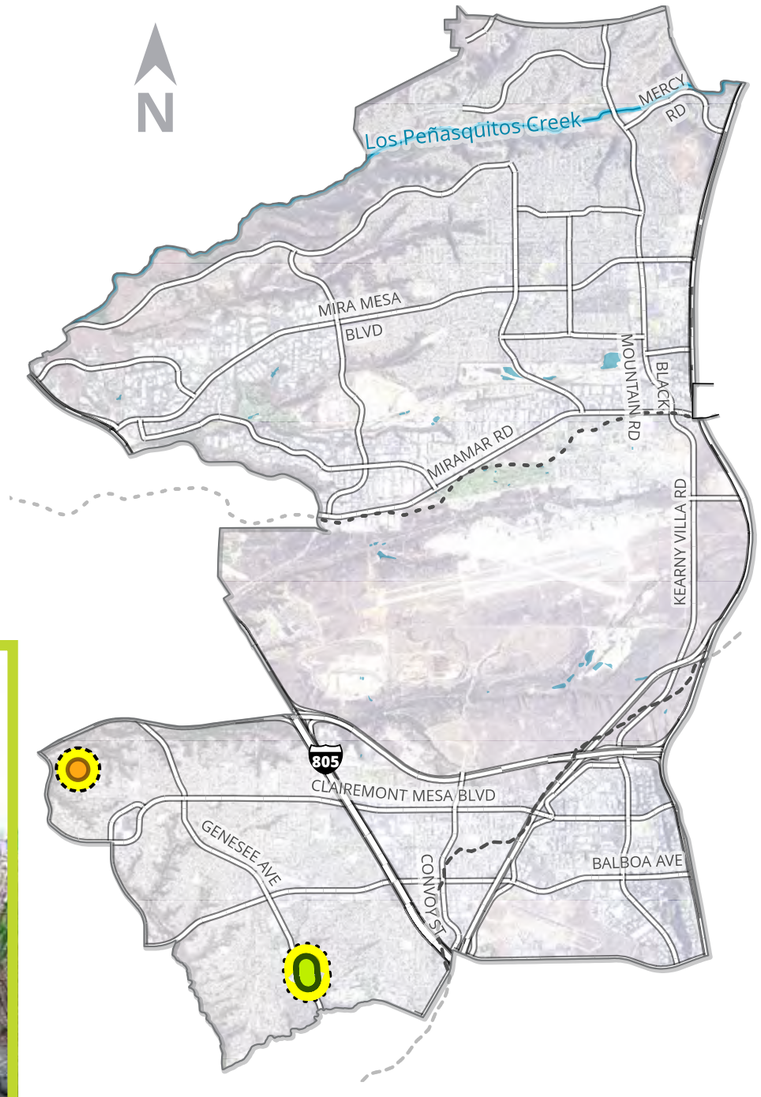
None of these 106 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 6 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

Example Channel Degradation Location

Channel maintenance is needed in Tecolote Creek along Genesee Avenue to remove vegetation and accumulated sediment, trash, and debris that may cause flooding downstream. In addition, the culvert at the upstream portion has a failed pipe that needs to be replaced. Maintenance and repair of this channel is anticipated in FY2022 if funded during the annual budget process.

Dense vegetation as shown on the right side of the Channel along Genesee Avenue restricts the passage of water and causes accumulation of trash and debris.



The collapsed storm drain near Argonne Court has caused slope failure and poses a growing public safety risk.

Example Pipe Failure Location

An 24-inch storm drain pipe has failed along the downward slope behind Argonne Court and could continue to impact the stability of the slope and the adjacent areas. This location has been on the Stormwater Department priority project list since April 2020 but currently remains unfunded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 7: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 7

Council District 7 is located central to the City's boundaries to the west where many of the neighborhoods are directly along the San Diego River. The Stormwater Division works to safeguard San Diego's waters and protect from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 7 alone, the Stormwater Division operates and maintains more than:

100	Miles of Storm Drain Pipe
12	Miles of Channels
2,200	Storm Drain Inlets
3	Pump Stations
2,170	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

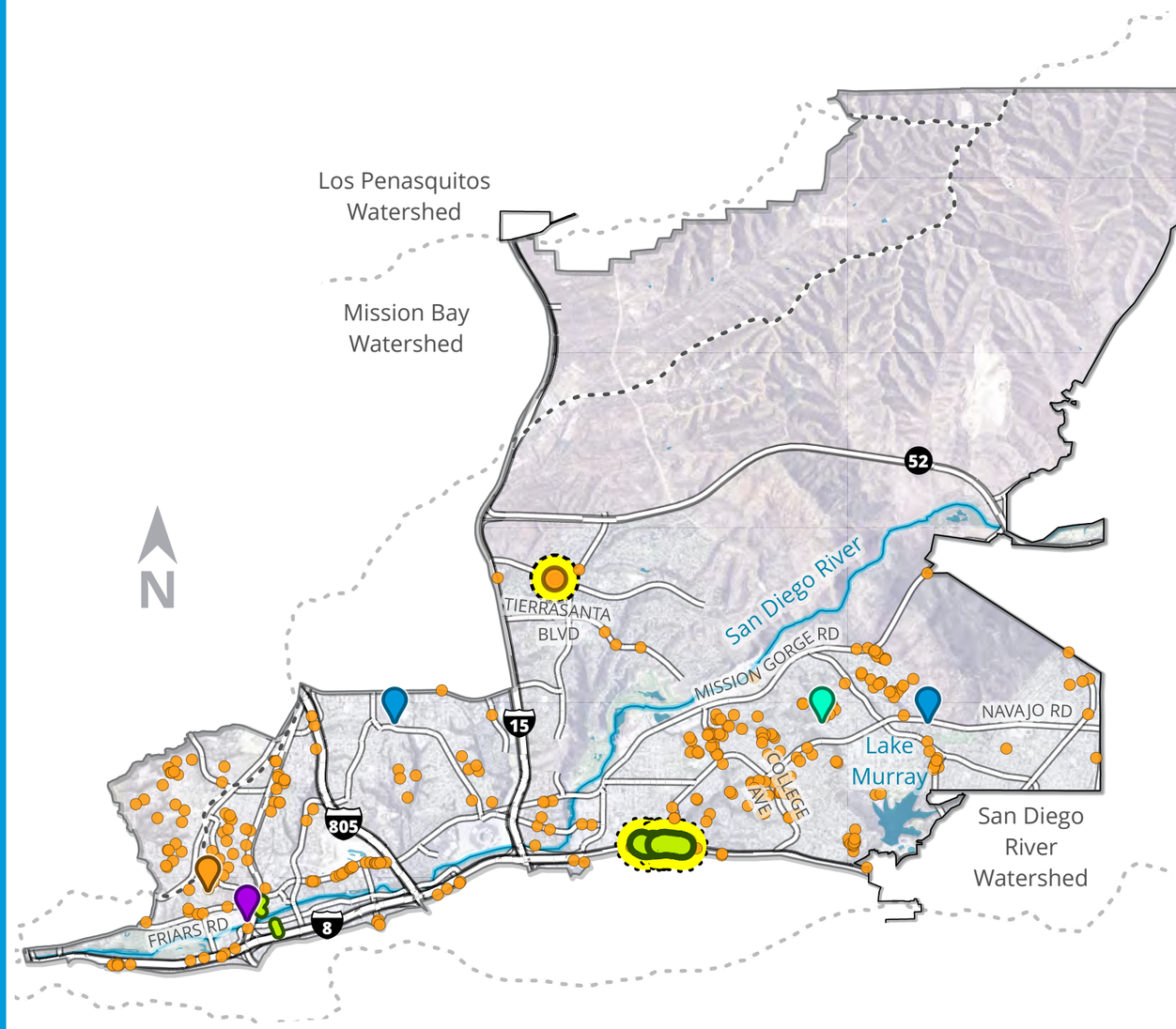
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 7 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

Three of the* 309 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

99 Pipe Failure Locations

1 Pipe Failure Bypass Locations

4 Channel Degradation Locations

1 Structure Degradation Location

2 Flooding Locations – Surface Drainage

1 Drainage Ditch Degradation Location

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 7: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 319 vulnerable locations within Council District 7, including 4 channel degradation locations, 309 pipe failure locations, 1 pipe failure bypass location, 2 known flooding locations attributed to surface drainage issues, 1 at-risk drainage ditch, and 1 at-risk stormwater structure.

Of these 319 vulnerabilities, the two channel degradation segments along Mission Gorge and the pipe replacement at Fitch Court are anticipated to be addressed in FY2021 (three locations total).

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 7 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

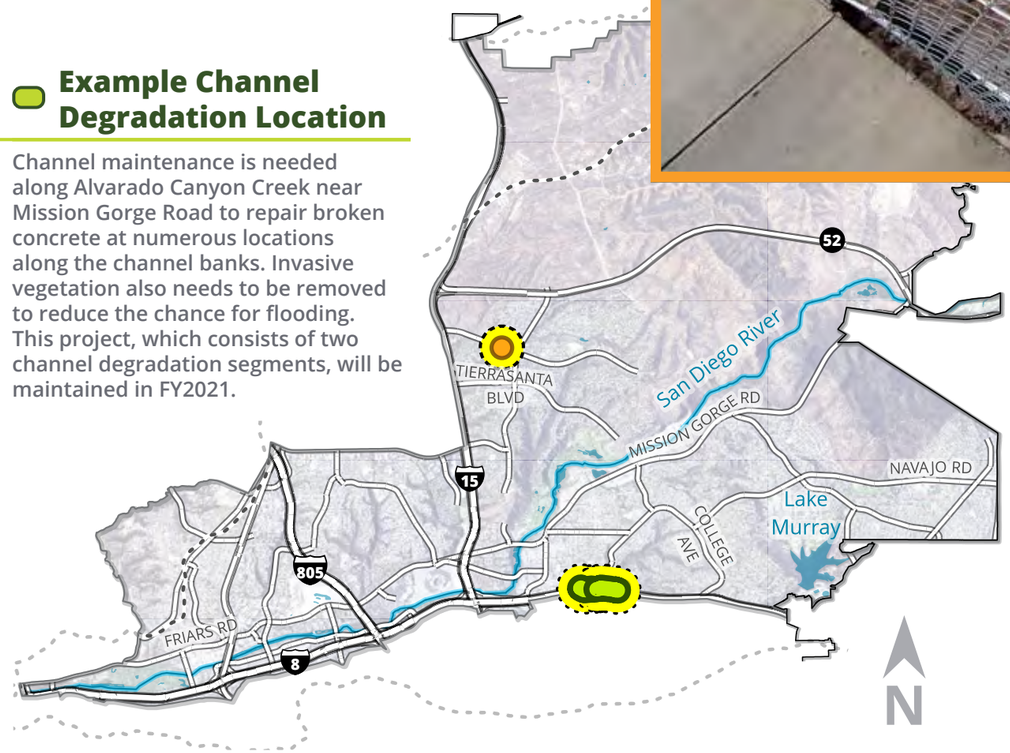
Pipe failures along Clairmont Mesa Boulevard causes flooding during rain events that runs off of the side of the road and causes significant erosion.

A large portion of the slope along Clairmont Mesa Boulevard have been eroded due to flooding.

Broken concrete on the banks of Alvarado Canyon Creek needs to be repaired.

Example Channel Degradation Location

Channel maintenance is needed along Alvarado Canyon Creek near Mission Gorge Road to repair broken concrete at numerous locations along the channel banks. Invasive vegetation also needs to be removed to reduce the chance for flooding. This project, which consists of two channel degradation segments, will be maintained in FY2021.



Example Pipe Failure Location

The storm drain pipe and inlet at this location are too small to safely convey flows. As a result, the location floods during wet weather and has eroded the adjacent slope. Because this failure has not been funded, there are concerns about the structural integrity of the street. Stormwater improvements at this location have been needed since November 2014 and are not currently funded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 8: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 8

Council District 8 includes two geographically separate parts of the City that (1) run along San Diego Bay or (2) are along the United States and Mexico Border and ultimately drain to the Tijuana River. Across both of these areas in Council District 8, the Stormwater Division operates and maintains more than:

87	Miles of Storm Drain Pipe
10	Miles of Channels
2,000	Storm Drain Inlets
1	Pump Station
2,160	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

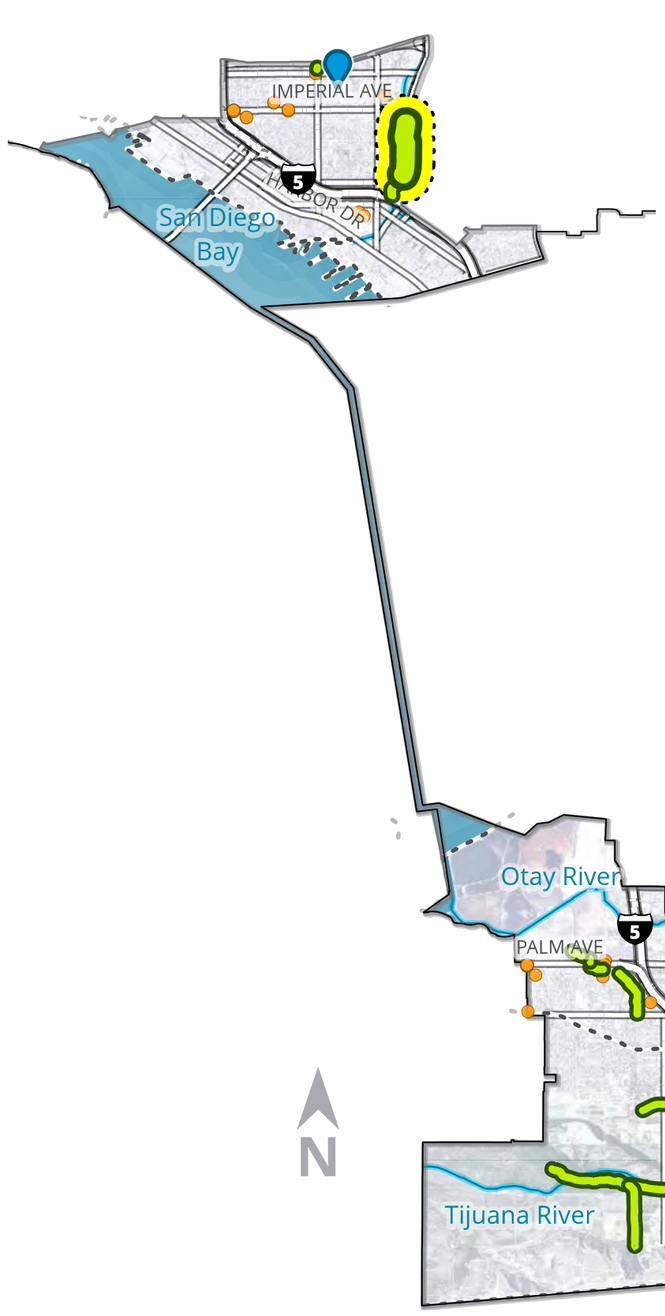
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 8 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 194 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **176** Pipe Failure Locations
- **15** Channel Degradation Locations
- **1** Structure Degradation Location
- **2** Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 8: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 194 vulnerable locations within Council District 8, including 15 channel degradation locations, 176 pipe failure locations, 2 known flooding locations attributed to surface drainage issues, and 1 at-risk stormwater structure.

None of these 194 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 8 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

Insufficient drainage at Palm Avenue and Beyer Boulevard causes significant flooding and is a public safety risk.

Example Flooding – Surface Drainage Location

The existing storm drain system near Palm Avenue and Beyer Boulevard is undersized and causes flooding at the intersection and surroundings during rain events. Upgrades of the storm drain system are needed to prevent impacts to transit and nearby businesses.

Example Channel Degradation Location

Channel maintenance is needed near National Avenue to repair broken concrete at numerous locations along the channel banks. Invasive vegetation and sediment also need to be removed to improve flow capacity at this location, which has a history of flooding. This project is not currently funded.

Broken concrete on the banks of the channel near National Avenue needs to be repaired.

Pipe failure has caused stormwater to bypass the stormwater system and causes ponding and potential flooding.

Example Pipe Failure Location

The existing storm drain pipe has failed along the slope at Aqua Park Court. As a result, stormwater currently discharges along the slope and down into the adjacent area and has the potential to cause flooding. Stormwater improvements at this location have been needed since December 2019 and are not currently funded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 9: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 9

Council District 9 encompasses some of the more urban neighborhoods within the City and contains an extensive, largely underground stormwater system that drains to the San Diego River and San Diego Bay. In Council District 3 alone, the Stormwater Division operates and maintains more than:

47	Miles of Storm Drain Pipe
9	Miles of Channels
1,300	Storm Drain Inlets
1,200	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

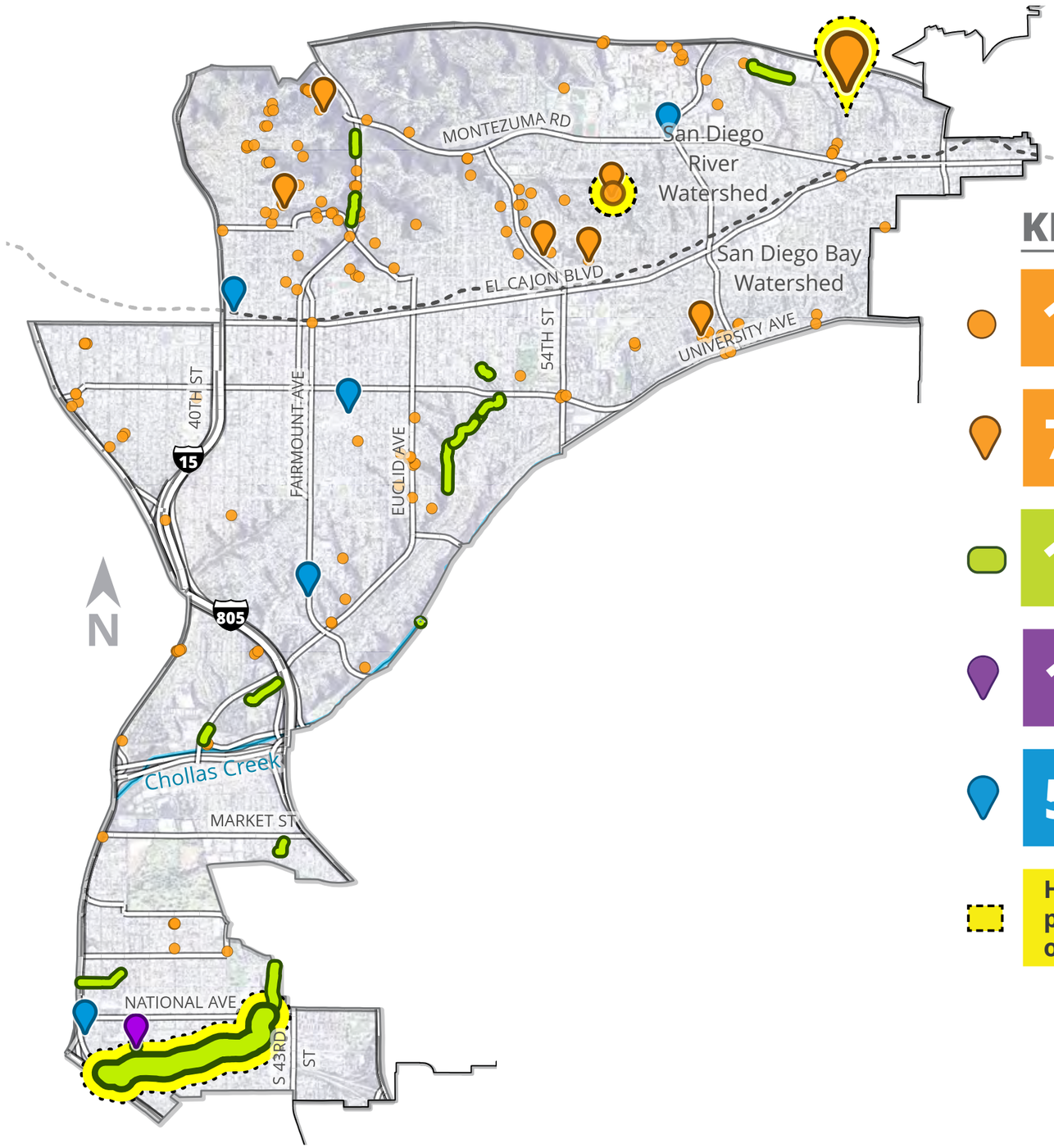
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 9 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 191 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

162 Pipe Failure Locations

7 Pipe Failure Bypass Locations

16 Channel Degradation Locations

1 Structure Degradation Location

5 Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 9: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 191 vulnerable locations within Council District 9, including 16 channel degradation locations, 162 pipe failure locations, 7 pipe failure bypass locations, 5 known flooding locations attributed to surface drainage issues, and 1 at-risk stormwater structure.

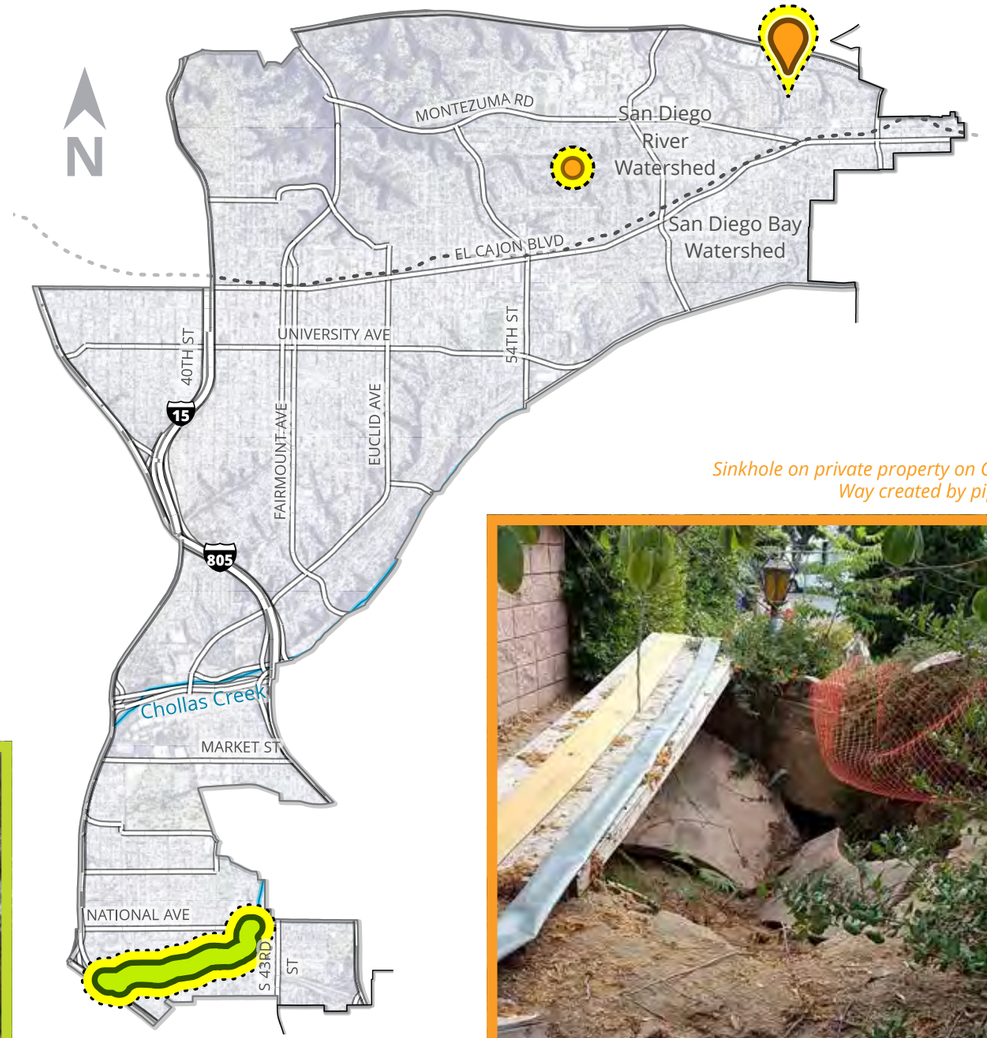
None of these 191 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 9 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

Example Channel Degradation Location

Channel maintenance is needed in South Chollas Creek near Alpha Street to remove significant sediment accumulation and vegetation, which can lead to flooding. This channel has been a priority maintenance location for the Division since 2018; however funding and environmental permit limitations have resulted in postponement. The clearing of this channel is anticipated to be conducted in FY2022 if funded during the annual budget process.

Significant sediment deposition and overgrown vegetation restrict channel capacity in South Chollas Creek.



Example Pipe Failure Location

The existing storm drain pipe has failed and created a sinkhole, resulting in a dangerous condition that could continue to deteriorate. Stormwater improvements at this location have been needed since March 2017 and are not currently funded.

Sinkhole on private property on Campanile Way created by pipe failure.

Example Pipe Failure Bypass Location

A 24-inch storm drain pipe has failed on the slope near Cleo Street, resulting in impacts to downstream areas that include a hospital. Bypass pumps have been operated during rain events at this location since February 2017. Permanent upgrades at this location are needed and include replacement of the failed pipe; however, the project is not currently funded.

The exposed and failed storm drain pipe at Cleo Street has caused erosion and flooding in the surrounding area.

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www.thinkblue.org