

# City of San Diego Public Meeting

## Smart Streetlights

September 10, 2019



# Definition of Smart Streetlights

- **Smart Streetlights** refers to City streetlights enhanced with embedded technology, including CityIQ sensor nodes, deployed as part of the City's efforts to update its lighting infrastructure.



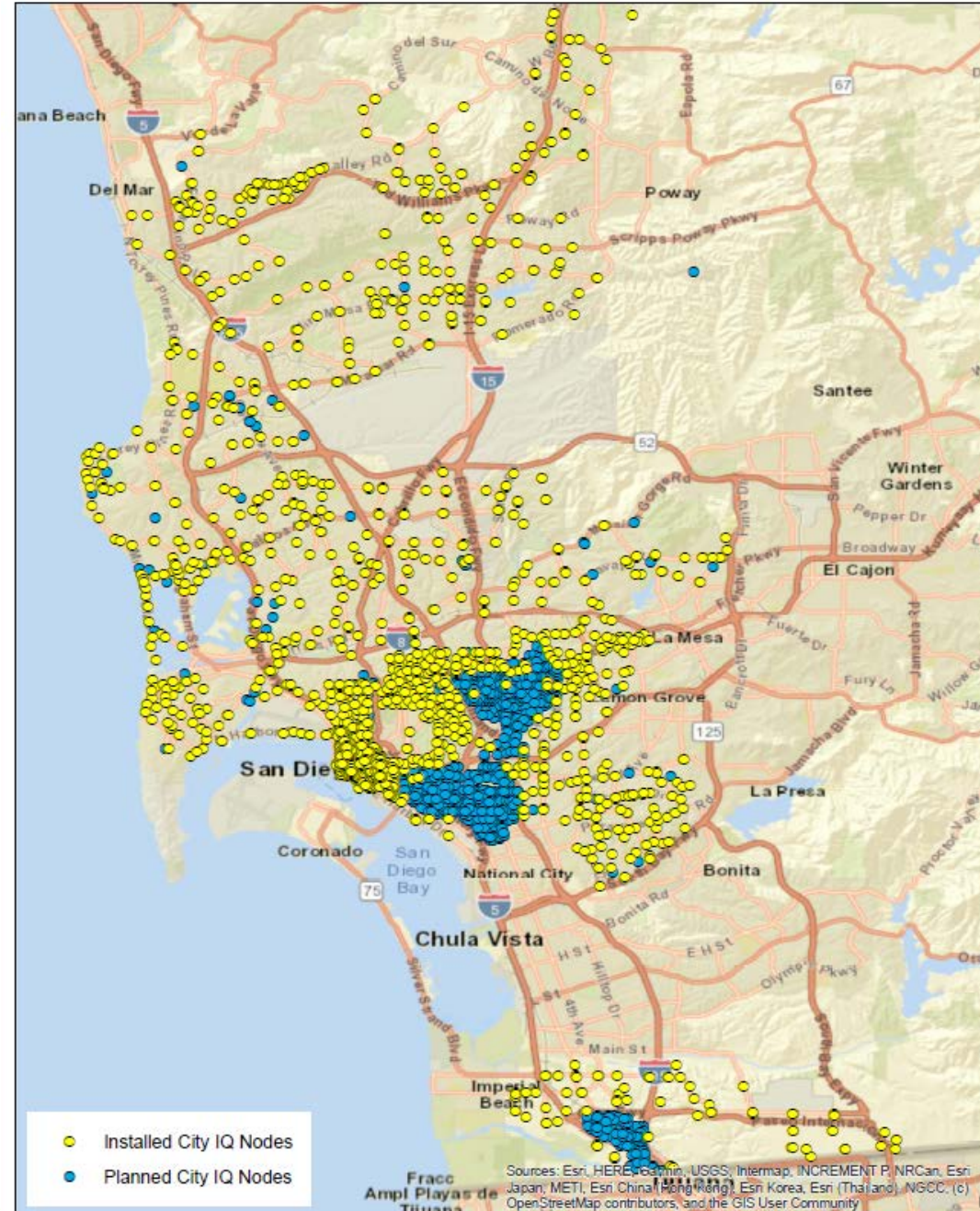
- Adaptive control LED light retrofit and sensor installation
  - 8,000 lights (streetlights, parks)
  - 4,200 sensors
- Benefits
  - Cost savings on deploying sensors and LED lights simultaneously
  - Adaptive control (lower light output at dawn/dusk)
  - Provide the right light level at the right place at the right time
  - Ability to proactively plan maintenance
  - Operational energy and cost savings
  - A multipurpose city asset
  - Valuable data for city planning and public use
- Lessons Learned
  - Technology deployment
  - Management of data open to public
  - Better community engagement







# Locations of Installed and Planned Sensors

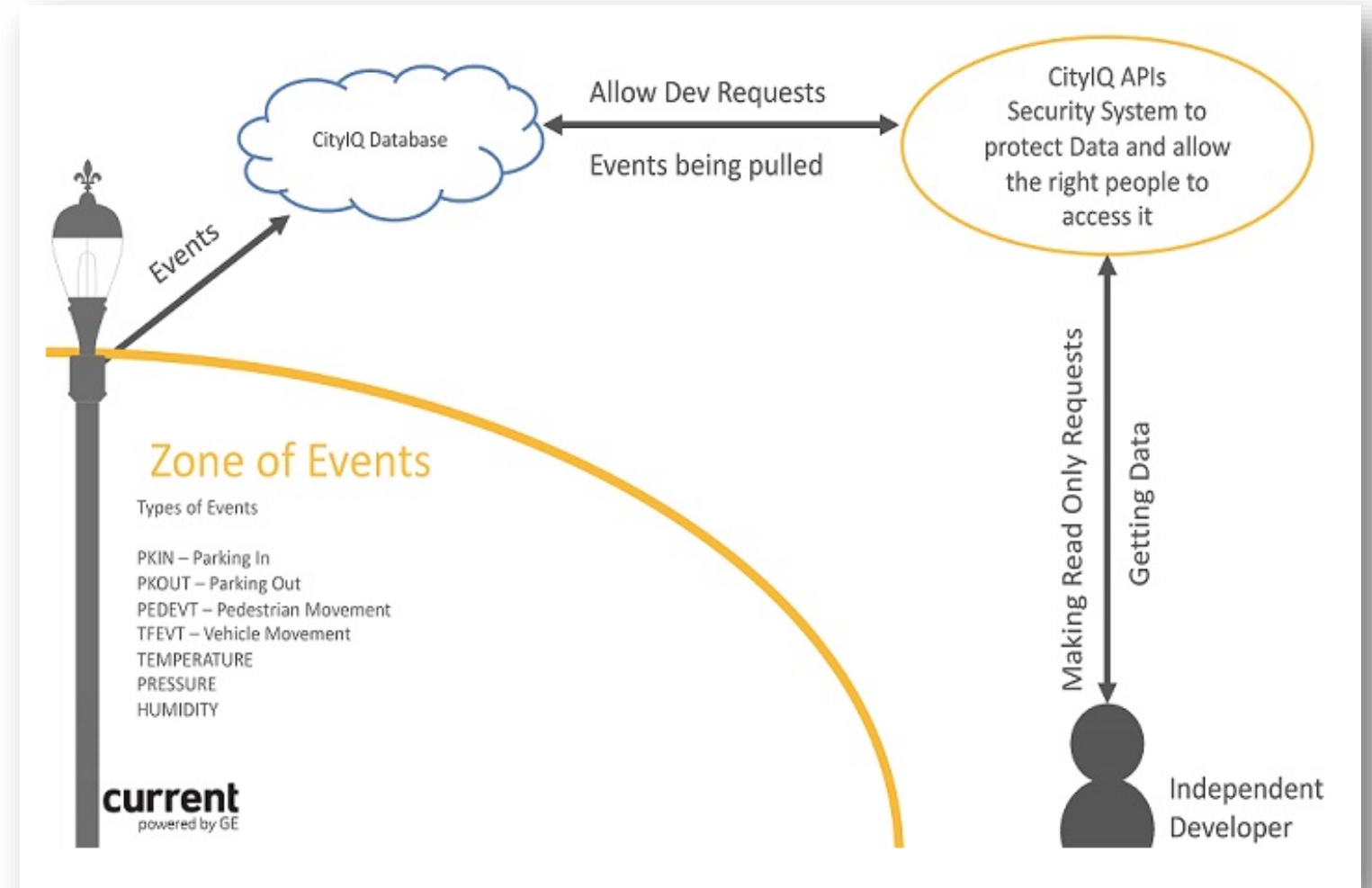




# What sensors can do

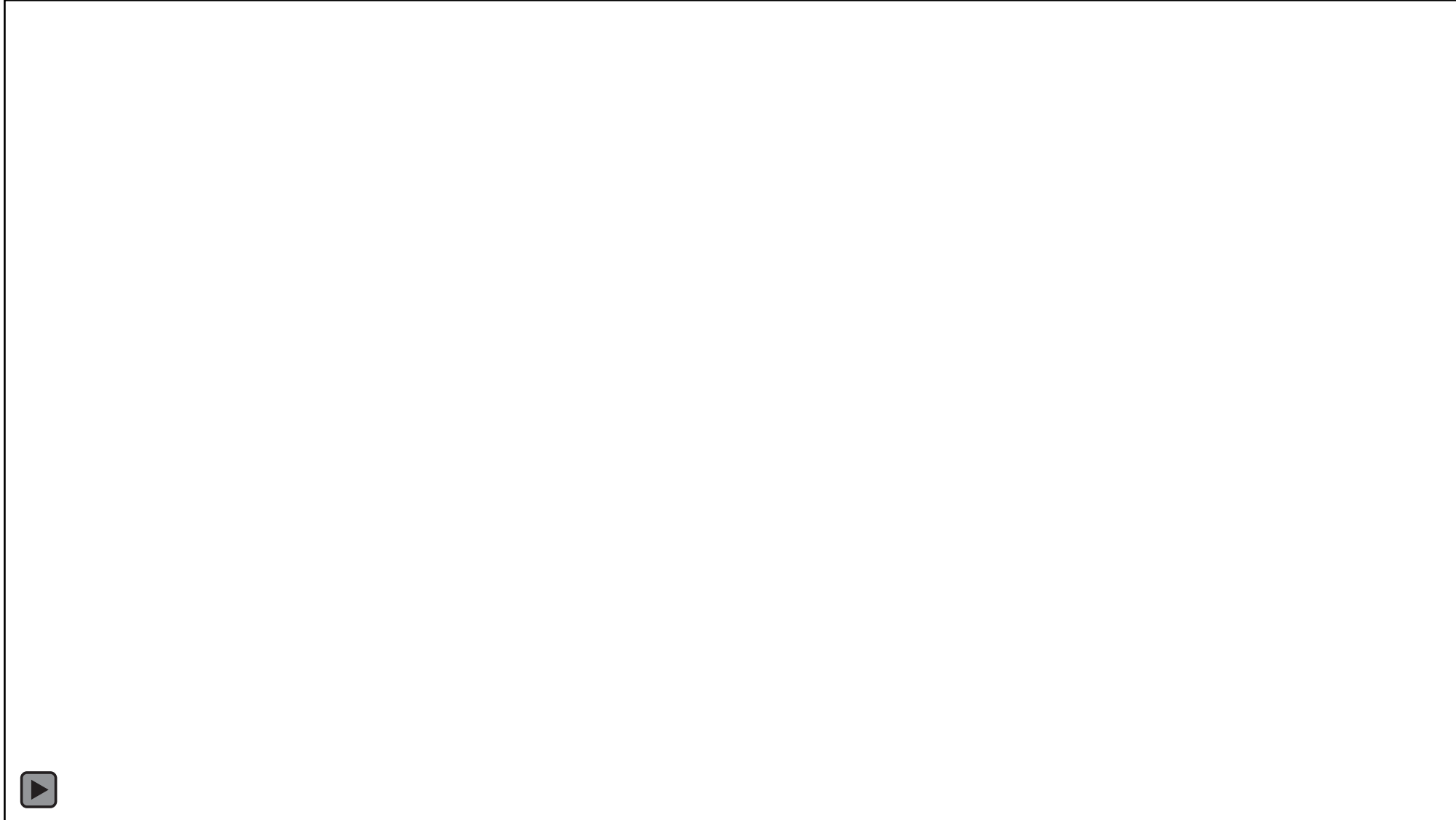
## ➤ Metadata automatically sent to cloud

- Parking in/out
- Pedestrian movement
- Vehicle movement (direction, speed)
- Bicycle movement (in development)
- Temperature
- Pressure
- Humidity



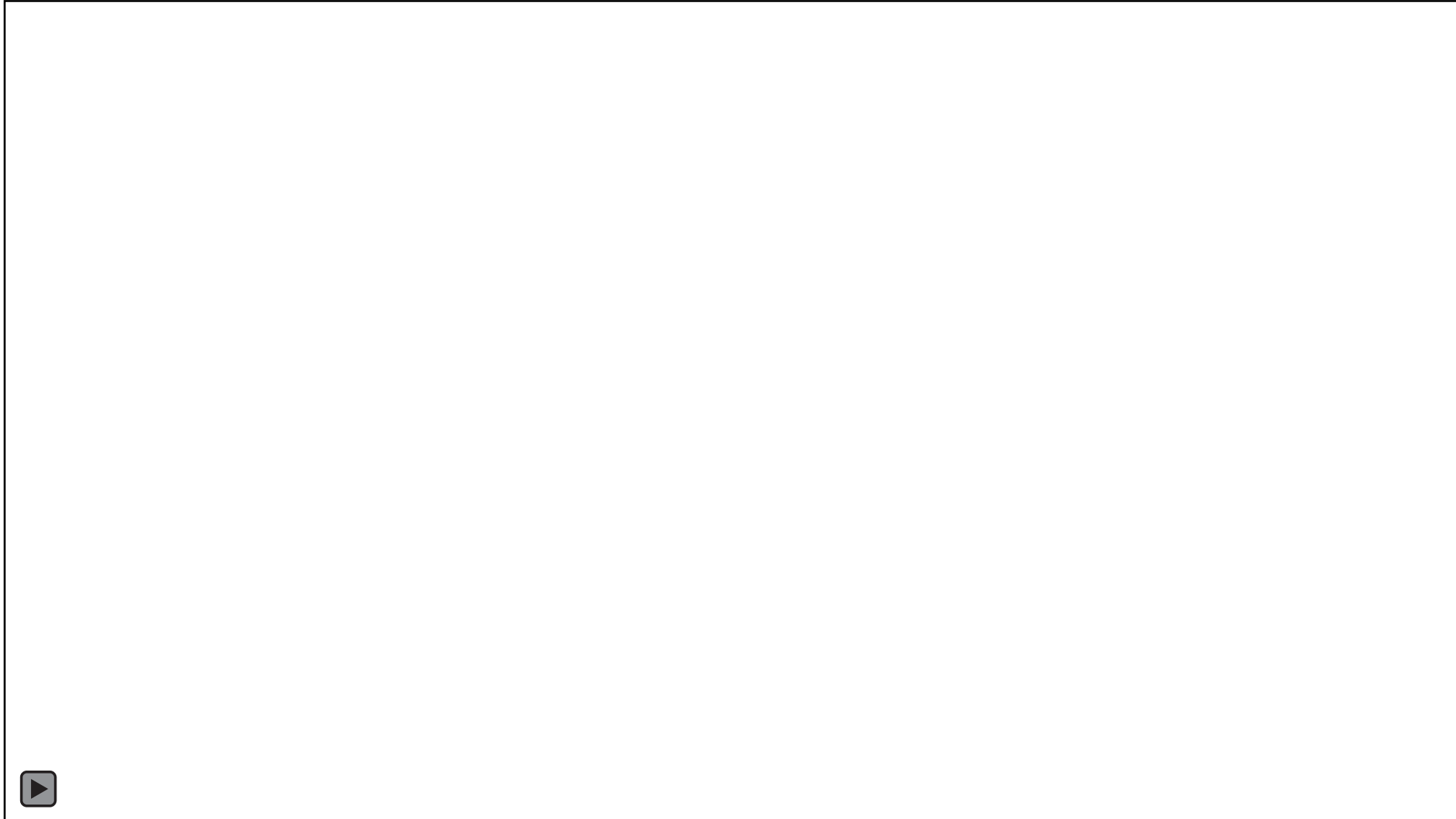


# Crosswalk Utilization





# Parking Enforcement







# What sensors can't do

- Footage stored on local hardware only and overwritten after 5 days unless downloaded by PD
  - Can't view private property
  - No facial recognition
  - No license plate reading
  - No audio
- Technology will identify private property and obscure it from viewing by law enforcement officers.







# Police Usage & Impact

➤ Camera footage from Intelligent Streetlights has enabled the Department to significantly enhance criminal investigations and achieve numerous benefits.

➤ **Case Breakdown 164 Investigated Cases (Aug. 2018 – Sept. 2019)**

Homicide or Attempt Homicide (35)	Sexual Assault (8)	Gunfire Response (1)
Serious Injury Collision (25)	Suspicious Death (4)	Evading (1)
Robbery/Burglary (20)	Felony DUI (3)	Carjacking (1)
Assault with Weapon (Felony) (19)	Kidnap (2)	Felony Domestic Violence (1)
Fatal Collision (16)	Arson (2)	In-Custody Death (1)
Felony Hit and Run (11)	Illegal Dumping (1)	Hate Crime (1)
Vandalism/Series (11)	Security Threat (1)	

➤ **Benefits**

Increased Conviction Rate	Reduced investigation costs
Increased plea bargain over trial	Improved cost recovery
Time saved from incident to prosecution	Reduced police department lawsuits
Reduced gun violence	Cost savings from reduced crime



## ➤ Fairness

- Smart Streetlights were strategically installed throughout the City to positively impact data collection and public safety. The locations of Smart Streetlights can be viewed on the Sustainability Department's [Map Gallery](#) web page.

## ➤ Access

- Access to the video is limited to trained Police Department members authorized by the Chief of Police. The Department does not actively monitor video recorded by Smart Streetlights.

## ➤ Transparency

- Requests for recorded video images from the public or the media shall be processed in the same manner as requests for public records. Requests for recorded images from other law enforcement agencies, (e.g., San Diego County District Attorney's Office), shall be evaluated and released in accordance with a specific and legitimate law enforcement purpose.

## ➤ Ethics

- Smart Streetlights shall not be used to harass, intimidate, or discriminate against any individual or group.



## ➤ How to Access the Metadata for Community Innovators and Other Interested Parties

- Anyone who would like to access metadata (static data on parking, vehicle counts, pedestrian counts, temperature, humidity, pressure) from the City's intelligent streetlight sensors may use the publicly available application programming interface (API) key.
- To begin using the APIs, please review the information posted on the [CityIQ GitHub](#) site. CityIQ recommends accessing the API using Postman, the relevant Postman files, FAQs, and other information can be found on the GitHub site.

Visit the Sustainability Department's [Smart City](#) page for additional information.



# Privacy Policies

- **City policy restricting use of sensor data**

[https://www.sandiego.gov/sites/default/files/streetlight\\_data\\_department\\_instruction\\_-\\_d1\\_020619\\_revision.pdf](https://www.sandiego.gov/sites/default/files/streetlight_data_department_instruction_-_d1_020619_revision.pdf)

- **San Diego Police Department procedure governing use of Smart Streetlights**

<https://www.sandiego.gov/police/about/procedures> (Procedures / Investigations / 3.33)

- **Information on the City's Open Data Policy**

<https://www.sandiego.gov/dataandanalytics>



## ➤ Addressing concerns and feedback

- In order to sustain the viability of this technology it must be managed in a way that addresses community concerns and enhances trust.
- As feedback is provided and lesson learned from this technology, city procedures will be continually modified and updated.

## ➤ Next Steps

- Present feedback collected and make recommendations to Committees.
- Continue to inform Council and public of new use cases.

# Questions