



Smart Cities and Service Improvements Committee

February 6, 2020



and (3) Spatial Data Integration (SDI)

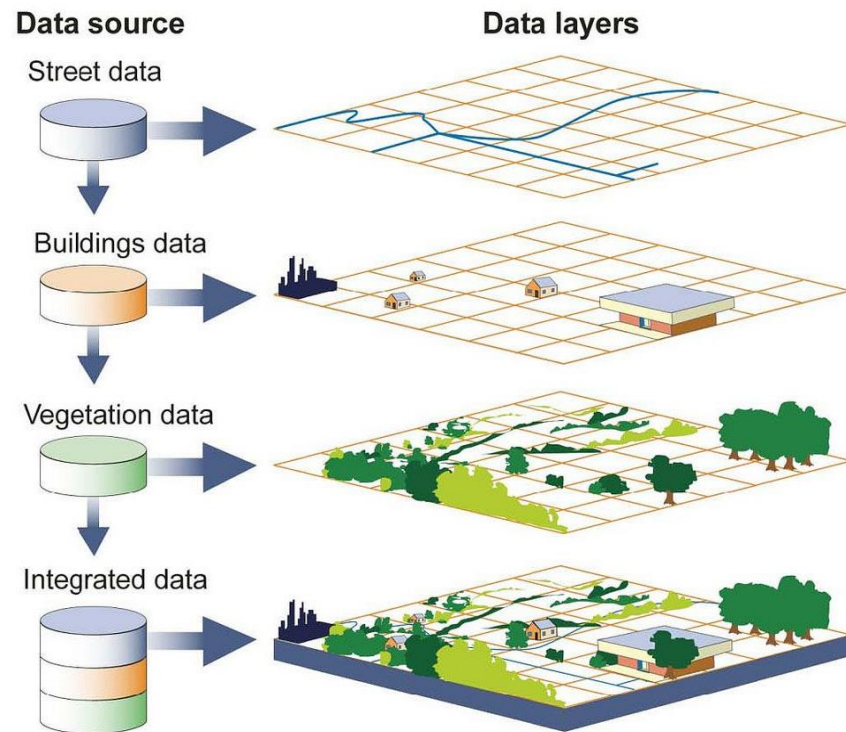
Matt Loesch, Assistant Director of Public Works
Nichole Reyes, Information Systems Analyst
Andrew Ehrich, Data Analytics Lead, Office of Civic Innovation

Agenda

- **Spatial Data & GIS Technologies**
- **Spatial Data Repository**
- **Spatial Data & Non-Spatial Data**
- **Addressing Data uses**
- **Repository + Integrations**
- **What's next in GIS Applications**
- **What's next in Non-Spatial Data**

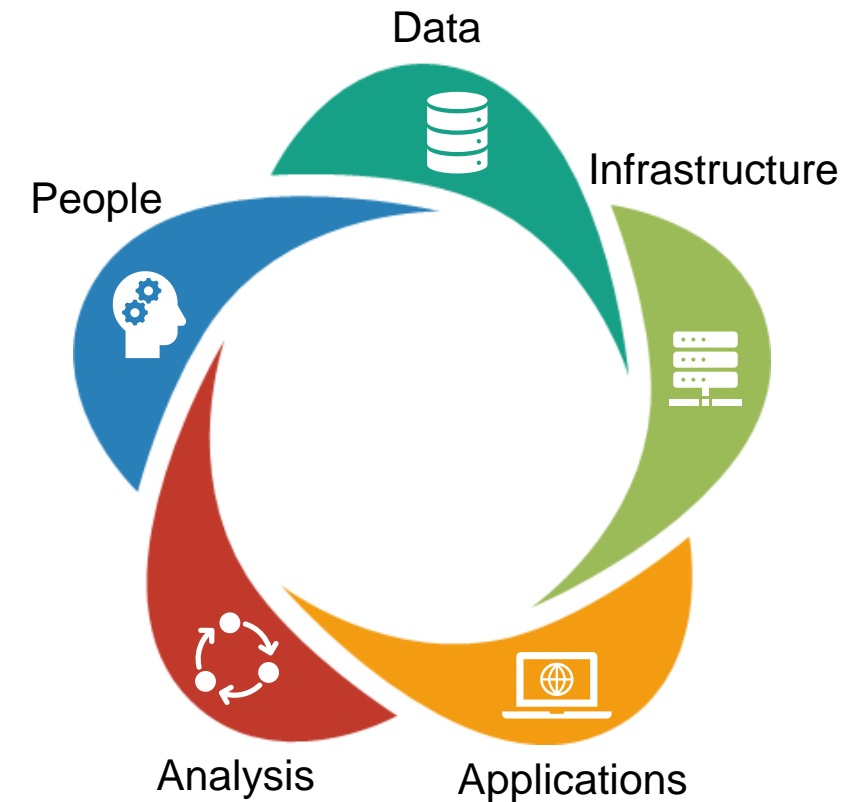
SPATIAL DATA

- Object information relative to geometric space
- Location represented by points, lines, or polygon
- Component of Information Systems



GIS TECHNOLOGIES

- Input, visualize, and analyze
- Detect, quantify patterns, and make predictions



Spatial Data Repository – 2016

GeoDPW

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- | | | | | |
|-----------------------|----------------------|---------------------|-------------------------|-------------------------|
| AddressEntrancePoint | SidewalkCenterline | PreIncidentPlanLine | isGravManHistoic | isVehicleStructure |
| ZcodeBoundary | SideAmityLine | PreIncidentPlanNode | isLaneLine | isCanDraw |
| CountyBoundary | Street | PreIncidentPlanArea | isManHole | isPressuredMain |
| Notcorporated | StreetCenterline | PreIncidentPlanArea | isManHoleHistoric | isPressuredMainHistoric |
| ParcelID | Intersection | PreIncidentPlanArea | isManHoleGIS | isPumpStation |
| QuarterParcelID | Block | PreIncidentPlanArea | isPressuredMain | isPumpStationFootprint |
| ThreeCanalDistrict | ConductParcel | PreIncidentPlanArea | isPressuredMainHistoric | isSanitaryValve |
| UndergroundDistrict | Conduct | PreIncidentPlanArea | isPumpStationFootprint | isVirtualDrains |
| CityPoint | Encumbrance | PreIncidentPlanArea | isPumpStationFootprint | ParkingPolygons |
| CityPolygon | GenericArea | PreIncidentPlanArea | isSanitaryValve | |
| CityPolyline | OwnerParcel | PreIncidentPlanArea | isSystemLine | |
| BridgePoint | Parcel | PreIncidentPlanArea | isSystemValve | |
| Building | ParcelHistory | PreIncidentPlanArea | isCleanOut | |
| BuildingFloor | TraceBoundary | PreIncidentPlanArea | isCurrent | |
| BuildingElevation | EmergencyFacility | PreIncidentPlanArea | isCurWaterHistoric | |
| BuildingFootprint | EmergencyShelter | PreIncidentPlanArea | isDeflection | |
| BuildingInteriorSpace | FloodImpactArea | PreIncidentPlanArea | isDischargePoint | |
| BuildingPermitDoc | HumidityArea | PreIncidentPlanArea | isFiring | |
| CutOutlet | Leaves | PreIncidentPlanArea | isGravManHistoric | |
| CurbRamp | MiscellaneousPackage | PreIncidentPlanArea | isInletLine | |
| Flow | NFPA704 | PreIncidentPlanArea | isManHole | |
| RoadBlock | PreIncidentComplex | PreIncidentPlanArea | isManHoleHistoric | |
| PreIncidentPlan | PreIncidentPlanArea | PreIncidentPlanArea | isManHoleHistoric | |
| SidewalkArea | PreIncidentPlanArea | PreIncidentPlanArea | isManHoleHistoric | |

Features marked with * are in Flight
All other Features are IN

GeoPRN

UP NEXT

GeolWM

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- PublicLitterCans*
- WasteCollectionDays*

Features marked with * are in Flight
All other Features are IN

GeoPLN

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- | | | | | |
|--------------------------------|--------------------------|------------------------|---------------------------|----------------------------|
| • Annexion | • HCPArea | • GeneralPlan2020 | • AirportApproachZone | • SNI |
| • CensusTract | • HCPFeeZone | • LandReserve | • AirportReferArea | • ThomasBroGrid |
| • Incorporated | • ImportantAmland | • HeritageTree | • BarclayGrid | • VacantLandInventory |
| • Jurisdiction | • LandCover | • HistoricDistrict | • BuildingsInspectingArea | • VacantProvider |
| • PlanningArea | • NaturalAssets | • HistoricResource | • Cemetery | • HMPZone |
| • SpentRefugee | • OwlConservationZone | • GeneralPlan2040 | • CityCouncilDistrict | • SpecialProCategory |
| • AirPaceBoundary | • OwlConservingHabitat | • OwlConservingHabitat | • CityCouncilDistrict | • TransportationKioskZone |
| • BuildingHeightException | • PrivateDevelopmentZone | • UrbanServiceArea | • Hospital | • Grand Boulevard |
| • DevelopmentPolicyArea | • RoadNoise | • Zoning | • Hotel | • Historic Landmark* |
| • EnvironmentalImpactStudyDist | • SeismicHazard | • AirMogAreaAmendmen | • Library | • Transit Employment Reide |
| • SpecificHeightRestriction | • SoilType | • AirMogAreaPermit | • MobileHome | • Overlay* |
| • TrafficPolicyArea | • WildlifeSurveyArea | • AnnexionPermit | • PavilionAreaReferArea | • Zoning Ordinance Downp |
| • Utilities | • AllIrrigationDistrict | • AnnexionPermit | • PublicSafety | • Boundary* |
| • ArcheologyReport | • AllIrrigationArea2040 | • CensusTractCRA5ale | • PublicUtilityInspector | • Approval |
| • ArcheologicalSensitivity | • AnnexionHistorical | • OtherPlanningPermit | • School | • School |
| • ArcheologicalSensitivity | • CoyoteGreenBel | • PublicUseCRA5ale | • SmallDistrict | • SmallGrid |
| • GeographicHazardZone | • FloatingPark | • ZoningPermit | | |

Features marked with * are in Flight
All others are IN

GeoREF

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- | | | | |
|---------------------|-------------------------------|----------------------------------|--|
| BARTLine | Washed | Market Potential 3* | City of Sunnyvale Sanitation District* |
| BARTStationsJd | PublicPavingAndStampingArea | Market Potential 4* | Coyote Section 2 and 3* |
| BusRte | Railroad | "Regency Segmentation" | Superior Sanitation District |
| ServiceAreaBoundary | BRTLine | Flood Zone | Sunny Sanitation District |
| MainParkBasins | BRTStation | Zip Code | West Valley Sanitation District |
| Parkway | Fire/Fireman Community Survey | Bike Route Network | Survey Manholes |
| AirFac | Business Summary NAICS | CPMS GIS_CIP_GEO_line | |
| BusinessSummary | Business Summary NAICS | CPMS GIS_CIP_GEO_point | |
| StreetCenterlines | Census 2010* | CPMS GIS_CIP_GEO_polygon | |
| CTCDDI | Consumer Expenditure | Open Space Authority | |
| Catchments | Updated Demographics* | Open Space Authority Staging and | |
| Creekname | Market Potential 2* | Trails | |
| Waterbody | Market Potential 2* | Burbank Sanitation District | |

Features marked with * are in Flight
All other Features are IN

GeoHSG

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UP NEXT

GeoOEM

UP NEXT

GeoMWS

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- wAsset
- wWaterDistribution_Net_Junctions
- wCasing
- wControlValve
- wCrossOver
- wFitting
- wHydrant
- wIntertie
- wLateraLine
- wLeak
- wMain
- wNetworkStructure
- wPressureContourLine
- wPressureZone
- wPump
- wPumpStation
- wReservoir
- wServiceArea
- wRoute
- wSamplingStation
- wScada
- wServiceConnection
- wStructure
- wSystemValve
- wTurnout
- wWell

Features marked with * are in Flight
All other Features are IN

GeoSBW

UP NEXT

GeoDOT

UP NEXT

GeoRWF

UP NEXT

GeoFIR

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- FireStationDepictingboundary
- WildlandUrbanInterface*
- InspectingFireStation*

Features marked with * are in Flight
All other Features are IN

GeoAIR

UP NEXT

GeoPOL

UP NEXT

Spatial Data Repository – 2020

GeoDPW

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- AddressPoint
- ZipcodeBoundary
- NotIncorporated
- PanelGrid
- QuarterPanelGrid
- ThreeDashBoundary
- ACSBeats
- ControlPoints
- SurveyBenchmark
- CriticalFacilitiesGenerator
- BuildingFootprint
- Curb Layers
- Pole
- RRCrossing
- SidewalkArea
- SidewalkCenterline
- StreetCenterline
- StreetIntersection
- FuelStorage
- Site_Address_Points
- CondoParcel
- CondoPoint
- Encumbrance
- GenericArea
- GenericLine
- Parcel
- TractBoundary
- psFire Layers
- psPolice Layers
- FleetParking
- Railroad
- ssNet & Junctions
- ssCasing
- ssCleanOut
- ssCulvert
- ssFitting
- ssGravityMain
- ssGravityMainHistoric
- ssLateralLine
- ssManhole
- ssManholeHistoric
- ssNetworkStructure
- ssPressurizedMain
- ssPressurizedMainHistoric
- ssPumpStation
- ssSewerWard
- ssSystemValve
- swNet & Junctions
- swCasing
- swCleanOut
- swCulvert
- swCulvertHistoric
- swDetention
- swDischargePoint
- swFitting
- swGravity/Main
- swGravity/MainHistoric
- swInlet
- swLateralLine
- swManhole
- swManholeHistoric
- swNetworkStructure
- swOpenDrain
- swPressurizedMain
- swPressurizedMainHistoric
- swPumpStation
- swSystemValve
- swVirtualDrainline
- RadioSites
- UndergroundProject
- Parking Polygons*

GeoPRN

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- MitigationPlanting
- Layers
- ParkBuildings
- ParksGroundcover
- ServiceYards
- Trails Layers
- WeedAbatement
- PTFCollectionSite
- IrrigationLayers*
- AmenitiesSportsFields
- CommunityCenters
- LegacyNeighborhoods
- MLDistricts
- NeighborhoodGroups
- ParkDevelopmentStatus
- PDOPIOProjectTracking
- ParkDistricts
- ParkParcels
- ParksMaster
- ParksBuffer
- Tree
- Park Stormwater Layers*

GeoIWM

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- IllegalDumping
- MultiFamilyWasteCollection
- CertifiedFacilities
- PublicLitterCans
- SingleFamilyWasteCollection
- UnincorporatedWasteCollection
- CommercialWasteCollection

GeoDOT

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- BikeRacks
- Bikeways
- StreetlightMetalPullBox
- StreetlightWorkOrderBacklog
- ElectricDistributionJunction
- ElectricDistributionLine
- StructureJunction
- StructureLine
- Backflows
- BeautifySJ Layers
- CalTransAgreements
- CountyRoadsAndAirportsLandscaping
- ElectricalMeters
- FountainPumps
- HomeOwnersAssociationLandscaping
- IrrigationControllers
- IrrigationValves
- OrnamentalLightFixtures
- PedestrianOvercrossings
- PedestrianOvercrossingsLights
- ROWLandscaping
- WaterMeters
- WeedAbatement
- ParkingMeters
- RPPZones
- Bridges
- ConditionsIndex
- CurbRamps
- MaintenanceZones
- Moratorium
- ProjectsCurrent
- ProjectsArchive
- ProjectsThreeYearPlan
- SanitarySewer Layers
- Stormwater Layers
- HeritageTrees
- StreetTrees Layers
- Cameras
- FacebookTerraGraph
- Pole
- TWIGInspectionZones
- QuadZone
- RadarSign
- SeLFixtures
- SeCo
- SmallCell
- SmartPole
- Wifi
- MiscellaneousAssets
- REVTABLE Layers
- SidewalkGaps
- AverageDailyTraffic
- TransportationAnalysisZones
- StreetSweeping Layers
- WasteBins
- AirQualitySensor
- Banners
- RecycledWaterAccessPoints
- SoundWalls
- SpecialDistricts Layers

GeoPLN

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- Annexation
- CensusTract
- Incorporated
- Jurisdiction
- PlanningArea
- SphereOfInfluence
- AllPlannedCommunity
- BuildingHeightException
- DevelopmentPolicyArea
- GroundFloorUseRestArea
- DowntownEmploymentPriority
- AreaOverlay
- NeighborhoodBusinessDist
- SpecificHeightRestriction
- TrafficPolicyArea
- AirportNoise
- ArcheologicReport
- ArcheologicSensitivity
- EIRSite
- GeologicHazardZone
- HCPArea
- HCPFeeZone
- ImportantFarmland
- LandCover
- NaturalAsbestos
- OwlConservationZone
- OwlOverwinteringHabitat
- PrivateDevelopmentZone
- RoadNoise
- Seismic Layers
- SoilType
- WaterwayAdjacentParcels
- WildlifeSurveyArea
- WilliamsOnArlt and
- AllGrowthArea2040
- AmendmentHistory
- CoyoteGreenBelt
- FloatingPark
- GeneralPlan2020
- GrandBoulevards2040
- TransitEmploymentRes
- Overlay
- UrbanReserve
- HeritageTree
- HistoricArea
- HistoricLandmark
- HistoricResource
- ResourcesInventory
- GeneralPlan2040
- UrbanGrowthBoundary
- UrbanServiceArea
- Zoning
- ZoningOrdDownBound
- AllGeneralPlan
- Amendment
- AllMajorDevPermit
- AnnexationPermit
- ApprovedPermit
- CensusTractOffSale
- OtherPlanningPermit
- PoliceBeatCrimeRate
- ZoningPermit
- AirportApproachZone
- AirportReferralArea
- BarclayGrid
- BuildingInspectorArea
- Cemetery
- CityCouncilDistrict
- CodeComplaints
- CodeInspector
- Hospital
- Hydrant
- ServiceAreaBoundary
- MasterPlanBasins
- FireHydrants
- AirParcels
- LandParcels
- SurveyManhole?
- ParcelOwnership
- StreetCenterlines
- Catchments
- CreeksCanals
- Waterbody
- Watershed
- PublicParkingAndStagingAreas
- PublicTrails
- BaseMapIndex
- AmericanCommunitySurvey
- BusinessSummaryNAICS
- BusinessSummarySIC
- Census2010
- CensusLanguages
- ConsumerExpenditure
- MobileHome
- PavilionArenareferralArea
- pwInspector
- pwUtilityInspector
- School
- SchoolDistrict
- SmallGrid
- SNI
- ThomasBrosGrid
- VacantLandInventory
- WaterProvider
- HMPZone
- SpecialProjectCategory

GeoREF

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- BARTLine
- BARTStationsSJ
- Hydrant
- ServiceAreaBoundary
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- Watershed
- PublicParkingAndStagingAreas
- PublicTrails
- BaseMapIndex
- AmericanCommunitySurvey
- BusinessSummaryNAICS
- BusinessSummarySIC
- Census2010
- CensusLanguages
- ConsumerExpenditure
- UpdatedDemographics
- Market Potential Layers
- SJHighPovertyRate
- TapestrySegmentation
- Flood Zone*
- Bike Route Network*
- CPMS_GIS_CIP_GEOM layers*
- Sanitary District Layers
- FaithBasedOrganizations
- SanitaryCCTVSurvey
- SanitaryCIPManholeSurvey
- SanitaryManholeSurvey
- StormManholeSurvey
- BaseFloodElevation
- BaseMapIndex
- SandbagLocations
- Waterbody
- Watershed
- CrossSectionLine
- FIRMPlans
- FloodHazard Layers
- LetterOffMapAmendment
- LetterOffMapRevisions
- Levee
- PoliticalArea
- ProfileBaseLine
- PublicLandSurveySystem
- StationStartingLocation
- Structure
- SurfaceWaterFeatures Layers
- CountyAnnexations
- CountyBoundaryLine
- Bikeways
- BRT Layers
- Light Rail Layers
- ParkRideLots
- RampMeter

GeoRWF

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- CMMSAreIdentification
- CMMSBoundaries
- CMMSBuildingsStructures
- CMMSMaintenanceSections
- CMMSMajorAreaBoundaries
- BatteryBanks
- BatteryChargers
- DirectBuryConduits
- DuctBanks
- ETCHandholes
- ETCManholes
- ETCPullboxes
- FiberOpticCables
- GroundRods
- GroundGrid
- MCCsTransformersVFDs
- OutsideLighting
- OverheadWires
- RemovedElectrical
- Poles
- Switchgears
- FlowMonitors
- LeakDetectionPoints
- Irrigation Layers
- Backflows
- CatchBasins
- ChannelsFlumes
- AirCompressors
- AirReliefs
- AutomatedSamplerStations
- Cleanouts
- CondensateAccumulators
- DischargePipes
- FireHydrants
- HeatExchangers
- Hoists
- HoseBibs
- JunctionStructures
- Manholes
- Meters
- MonitoringWells
- Pumps
- PumpStationLocations
- UtilityVaults
- WaterModelPoints
- Blowoffs
- WetWells
- AbandonedDewateringPipes
- ExposedPipesGPSPoints
- Pipes
- RemovedPipes
- Tracer/WireAccess
- AlarmStrobes
- AsbestosReports
- EvacuationAssemblyAreas
- EvacuationRoutes
- FireAlarms
- FireExtinguishers
- GasCylinders
- HistonFireSuppression
- HazmatChemicalStorage
- Hearing Protection Zones Layers
- LifeSafetyStations
- SensorsMonitors
- SplitResponseKit
- TributaryServiceArea
- CheckValves
- IsolationValves
- RemovedIsolationValves
- BuildingsStructures
- ControlPoints
- EdgeOfCurbPavement
- FenceLines
- FloorPlans
- RailroadTracks
- StreetCenterlines
- TunnelsBasements
- SupportColumns

GeoHSG

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- AffordableRentalHousing
- MultipleHousingRoster_RSP
- PlaceBasedNeighborhood
- RDAProjectAreas
- CalEnviroScreen3
- CDBGLowModBlockGroups
- CDBGLowModTracts
- DifficultToDevelopAreas
- MTCCommunitiesOfConcern
- QualifiedCensusTracts
- UCDisplacementAnalysis

GeoOEM

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- FacilitiesCombined
- Shelters
- WarmingCoolingCenters
- FaultCalaveras Layers
- FaultHayward Layers
- FaultNorthSanAndreas Layers
- CalFireHazardZones
- AndersonDamFailure
- DamFailureArea
- DikeFailureHazardZones
- FloodZones
- LiquefactionSusceptibility
- Soils
- RoadBlocks
- RoadClosures
- RoadDetours
- SeaLevelRise Layers
- Tsunami Layers

GeoMWS

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- wAsset
- WaterDistribution_Net & Junctions
- wCasing
- wControlValve
- wCrossOver
- wFitting
- wHydrant
- wIntertie
- wLateralLine
- wLeak
- wMain
- wNetworkStructure
- wPressureContourLine
- wPressureZone
- wPump
- wPumpStation
- wReservoir
- wRetailerArea
- wRoute
- wSamplingStation
- wScada
- wServiceConnection
- wStructure
- wSystemValve
- wTurnout
- wWell

GeoSBW

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- AccessPoints
- AirReliefsBlowoffs
- CathodicProtection
- LandUse
- Manholes
- MonitoringWells
- PressureMonitoringStations
- PressureZones
- PumpStations
- ControlValves
- HorizontalControlPoints
- PipeMarker
- Pumps
- RetailerServiceAreas
- IsolationValves
- ServiceConnections
- Pipes
- AssetsNotLocated

GeoAIR
UP NEXT

GeoPOL
UP NEXT

Datasets Up-Next

- **Housing:** Homeless Encampment
- **DOT:** Access and Mobility Plan
- **DOT:** Transportation Projects
- **Airport:** Airport Infrastructure
- **Police:** Crime Analysis
- **CMO:** Beautify San Jose
- **PW:** Animal Care Services
- **PW:** Utility Easement
- **Community Energy:** Energy Benchmarking
- **Storm Master Plan:** Watersheds
- **EOC:** Emergency Plans and Critical Infrastructure



Data Types

NON-SPATIAL DATA

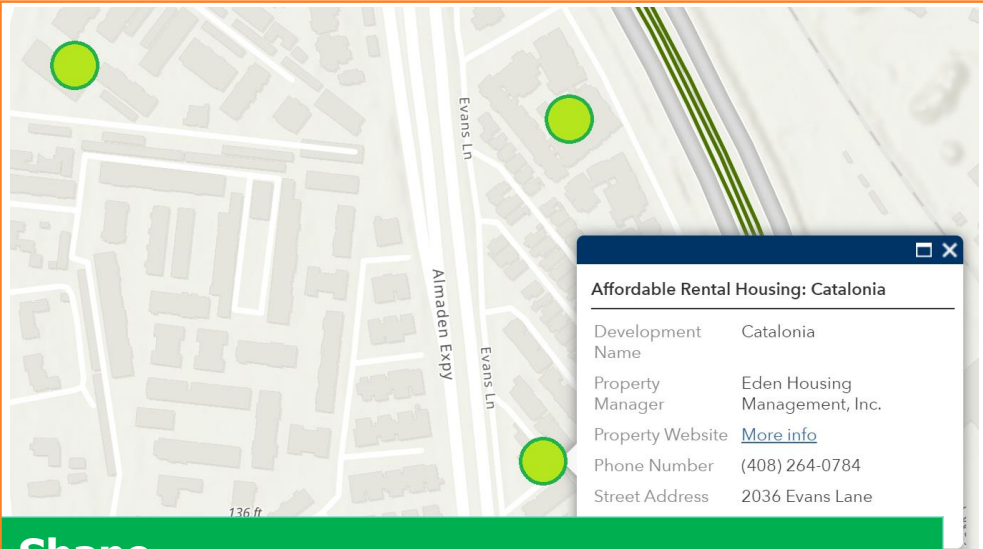
- Tabular attributes only

Name	Address	Property Mgmt.	Phone
Catalonia	2036 Evans Ln	Eden Housing Mgmt.	408-264-0784
Las Ventanas	1800 Evans Ln	CA Real Estate Mgmt.	408-265-9300
Almaden 1930	1930 Almaden Rd	VPM Mgmt.	408-264-1930

SPATIAL DATA

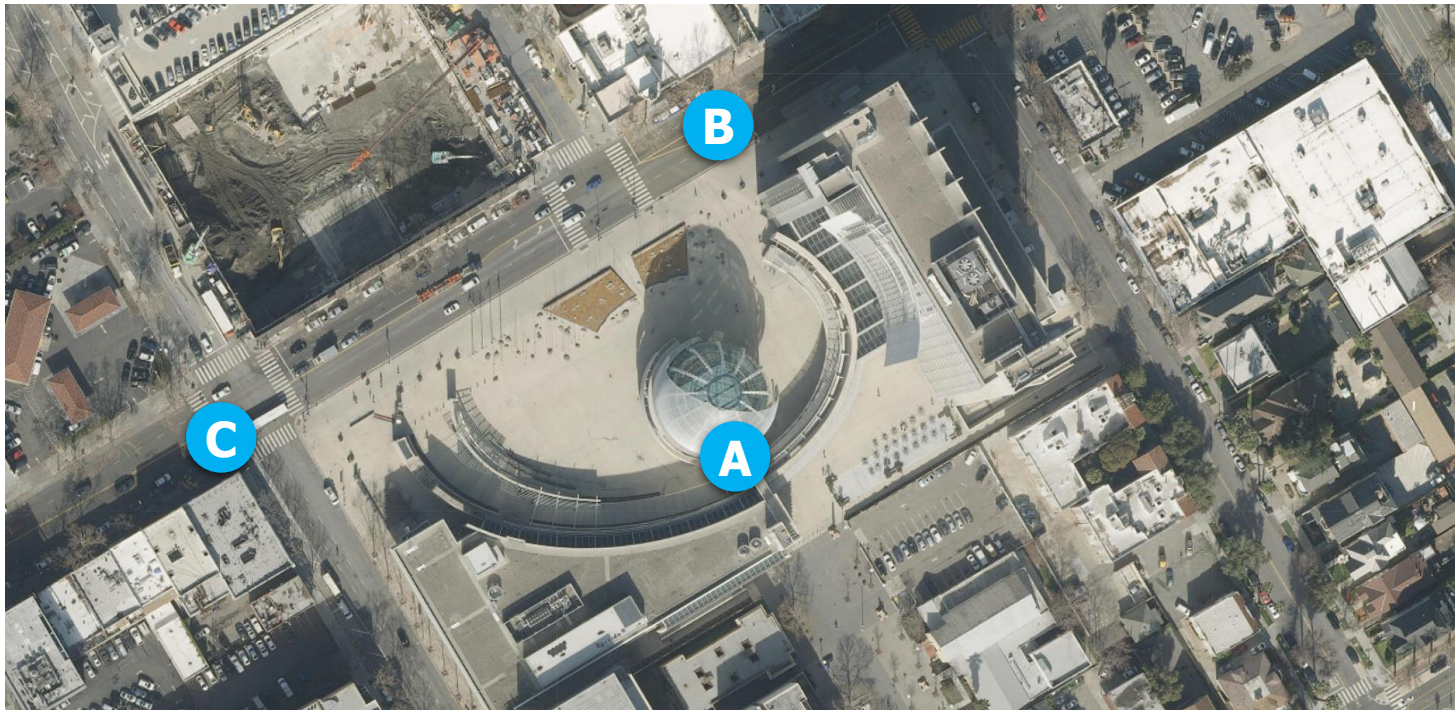
- Tabular attributes + geometry location (point, line, polygon)

Name	Address	Property Mgmt.	Phone	Shape
Catalonia	2036 Evans Ln	Eden Housing Mgmt.	408-264-0784	0xB3080000010C303D4EA8F7805741407477CE71813D41
Las Ventanas	1800 Evans Ln	CA Real Estate Mgmt.	408-265-9300	0xB3080000010C2035B9E30081574180B541EE53843D41
Almaden 1930	1930 Almaden Rd	VPM Mgmt.	408-264-1930	0xB3080000010CE0CC7B33F37F574180088157E7843D41



Converting Data – Flat File to Spatial Data

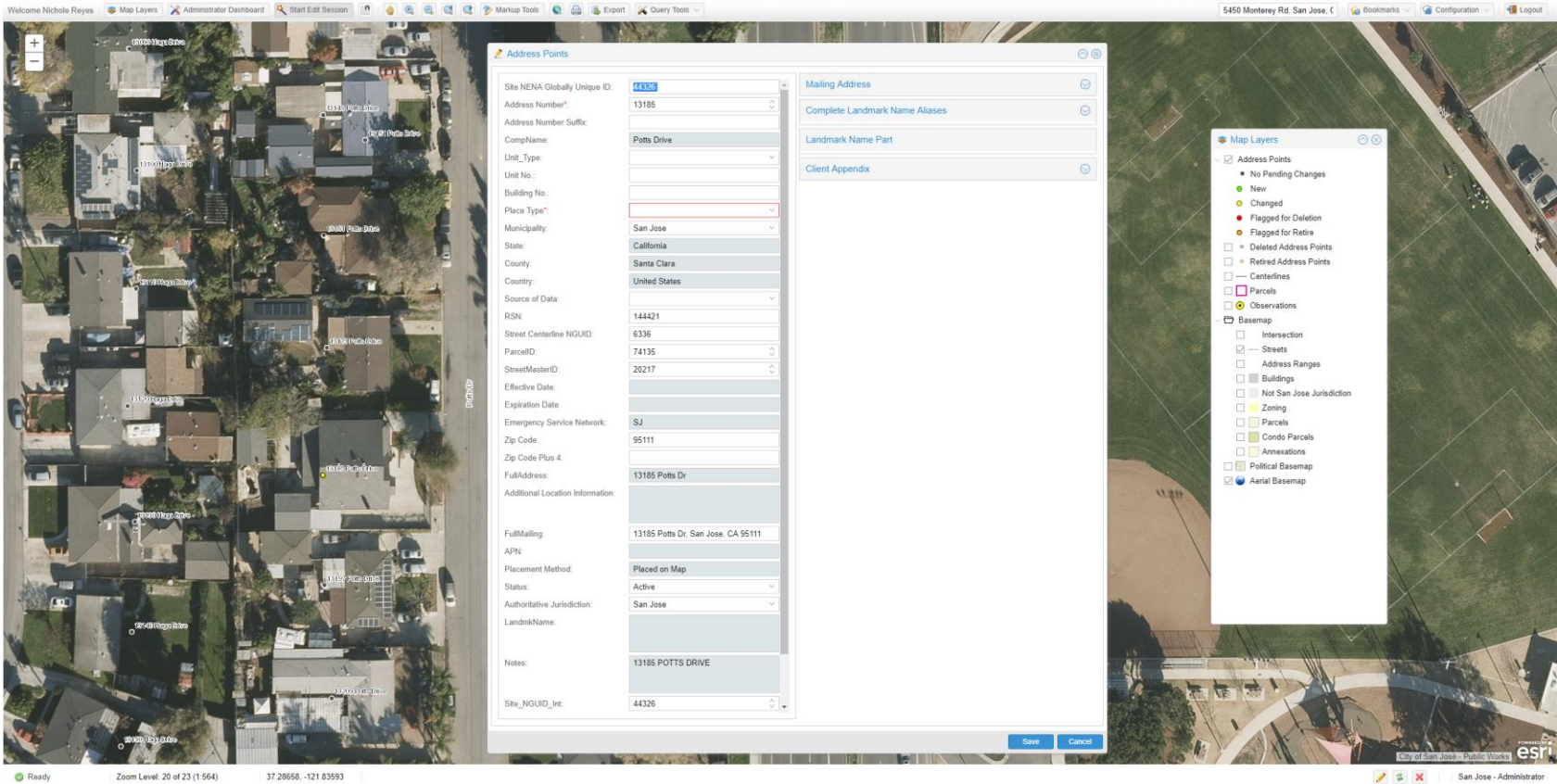
- A Geocoding:** Convert address to a map location (Address: 200 E Santa Clara St., San Jose, CA)
- B Relative comparison:** Translate relative location description to map location (150ft E. of 200 E. Santa Clara St)
- C Plot coordinates:** Append location using X,Y coordinates (Lat/Long: 37.337566 -121.887452)



Address Portal



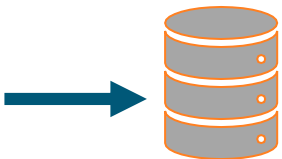
Addressing Team



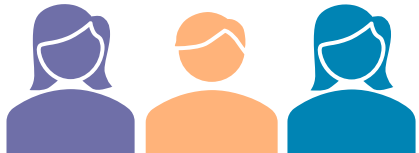
GIS



GIS Team

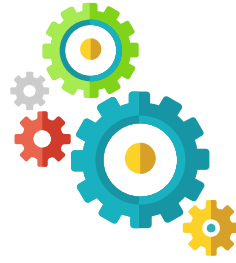


AMANDA

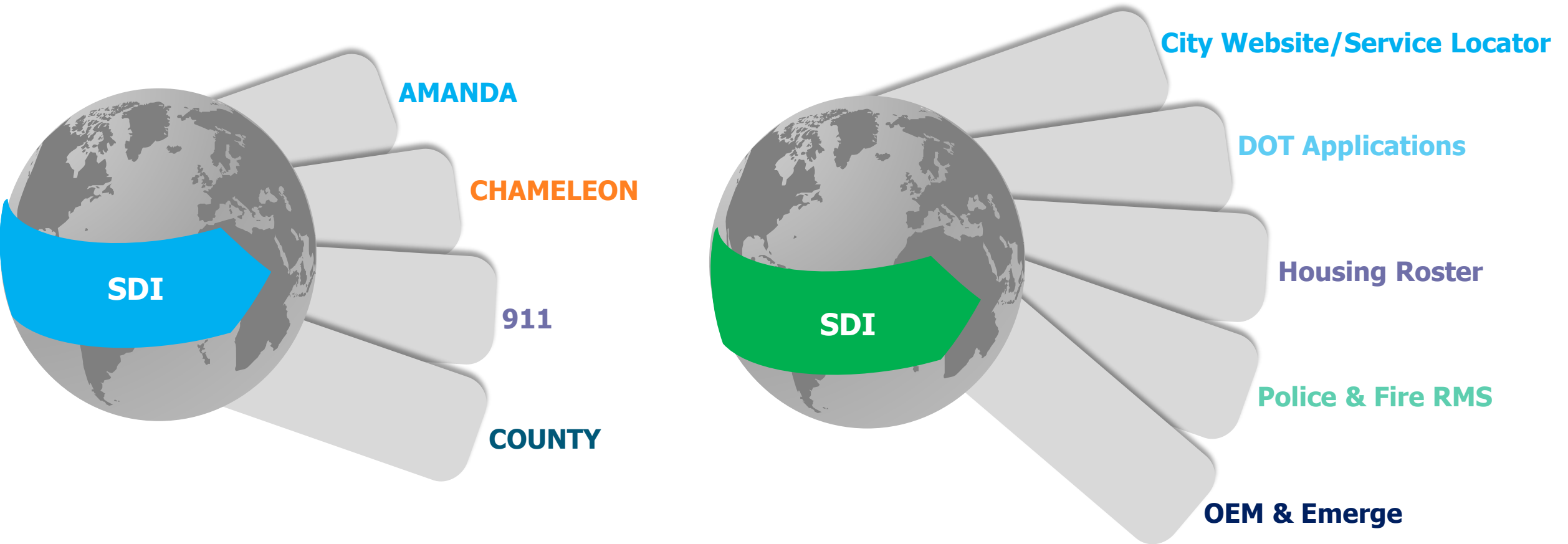


City Staff

INTEGRATION COMPLETED



INTEGRATIONS UP-NEXT



NO CODE INTEGRATIONS USING ETL TOOLS

Census Data Validation

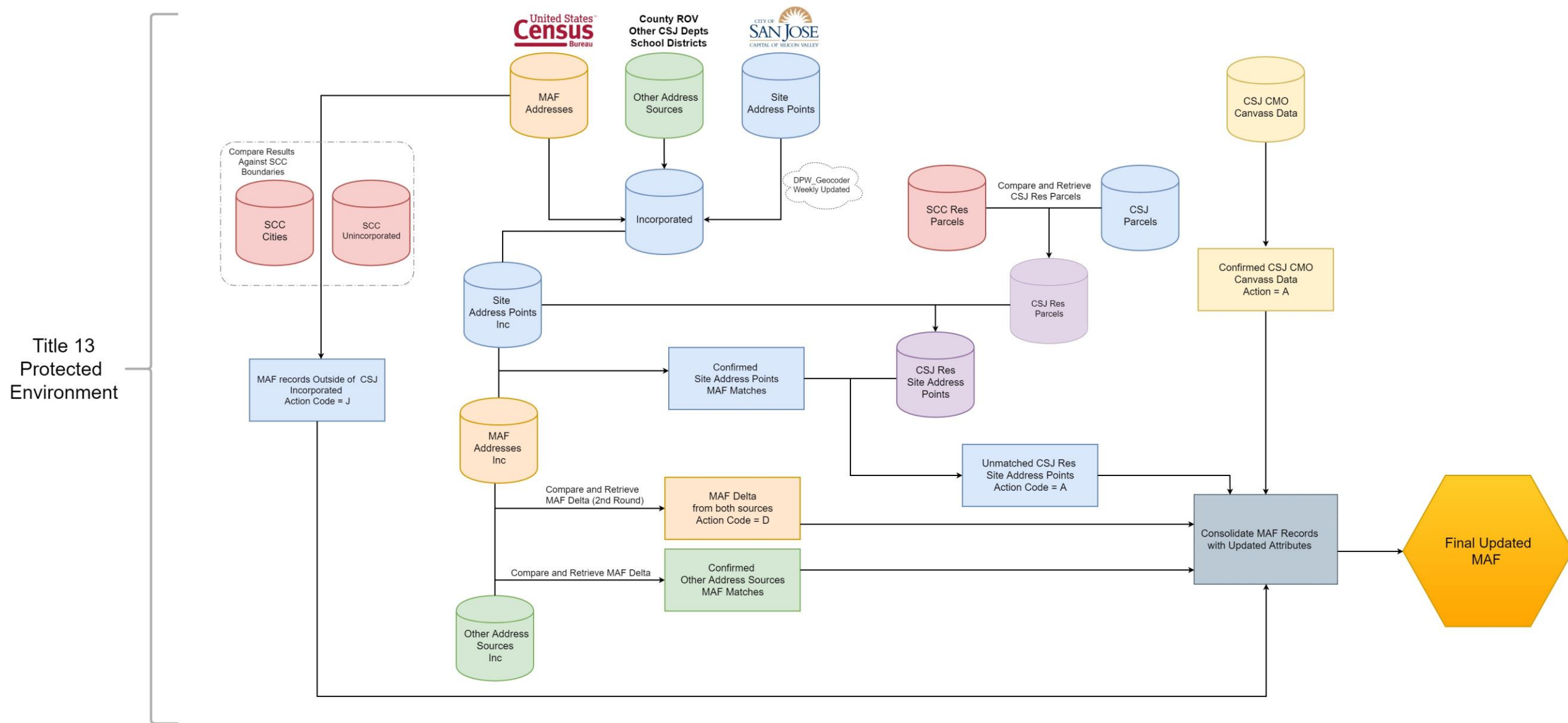
U.S. Census	Housing Units
Census 2010	314,038
Census 2018 MAF	335,171
Unit Increase	21,133

San Jose	Housing Units
MAD 2018	342,229
2019 New Construction	6,550
Total with SJ Count	348,779

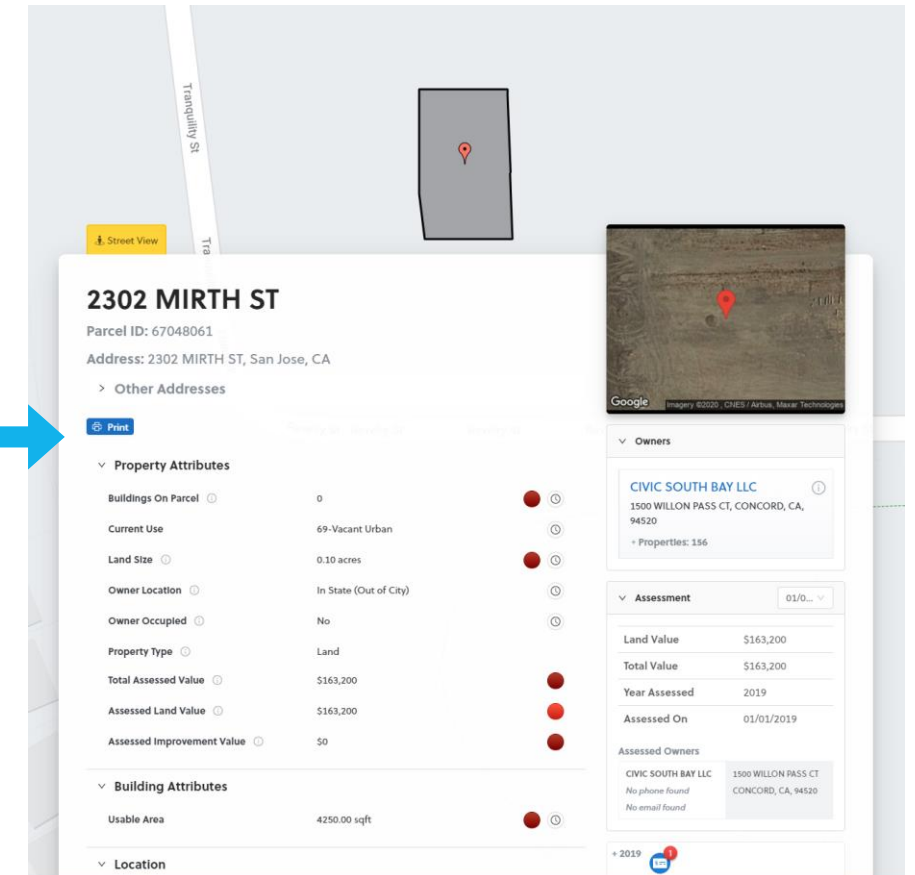
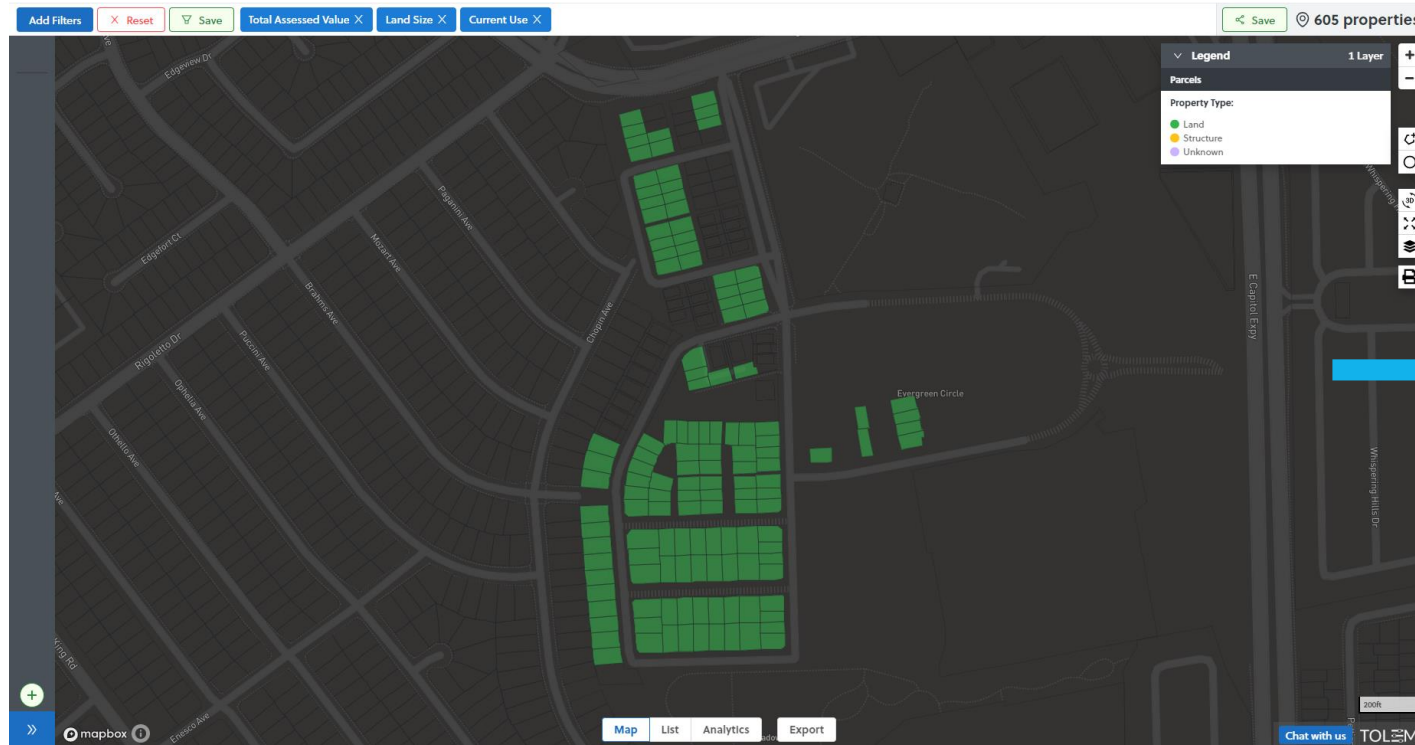
Per California Census Office, every Californian missed in the 2020 Census, the State loses about \$20,000 over the decade

Mission - Maximize Housing Unit Count Accuracy

Census Data Validation

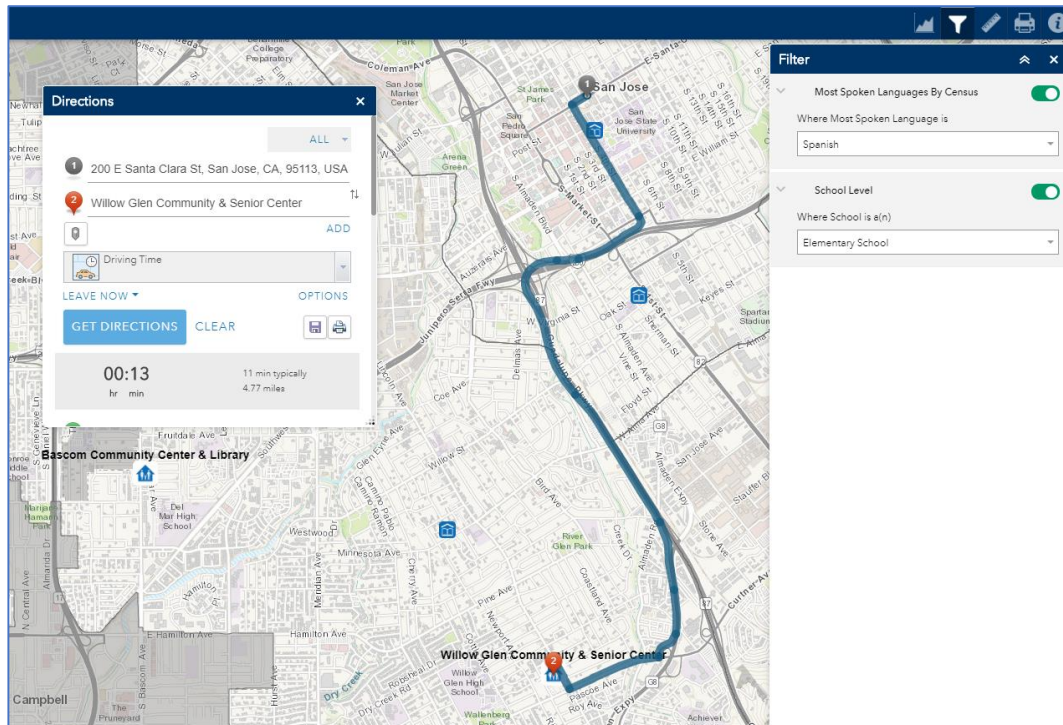


Repository + Integrations = Housing Opportunity Site



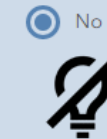
Repository + Integrations = Insights in EOC

- Web Map
- Accessible without GIS Tech tools or training
- Flexibility + Nimbleness
- Stakeholder engagement



Please fill out this form to help the City of San Jose gather accurate information about where the PG&E power outages are occurring in San Jose.

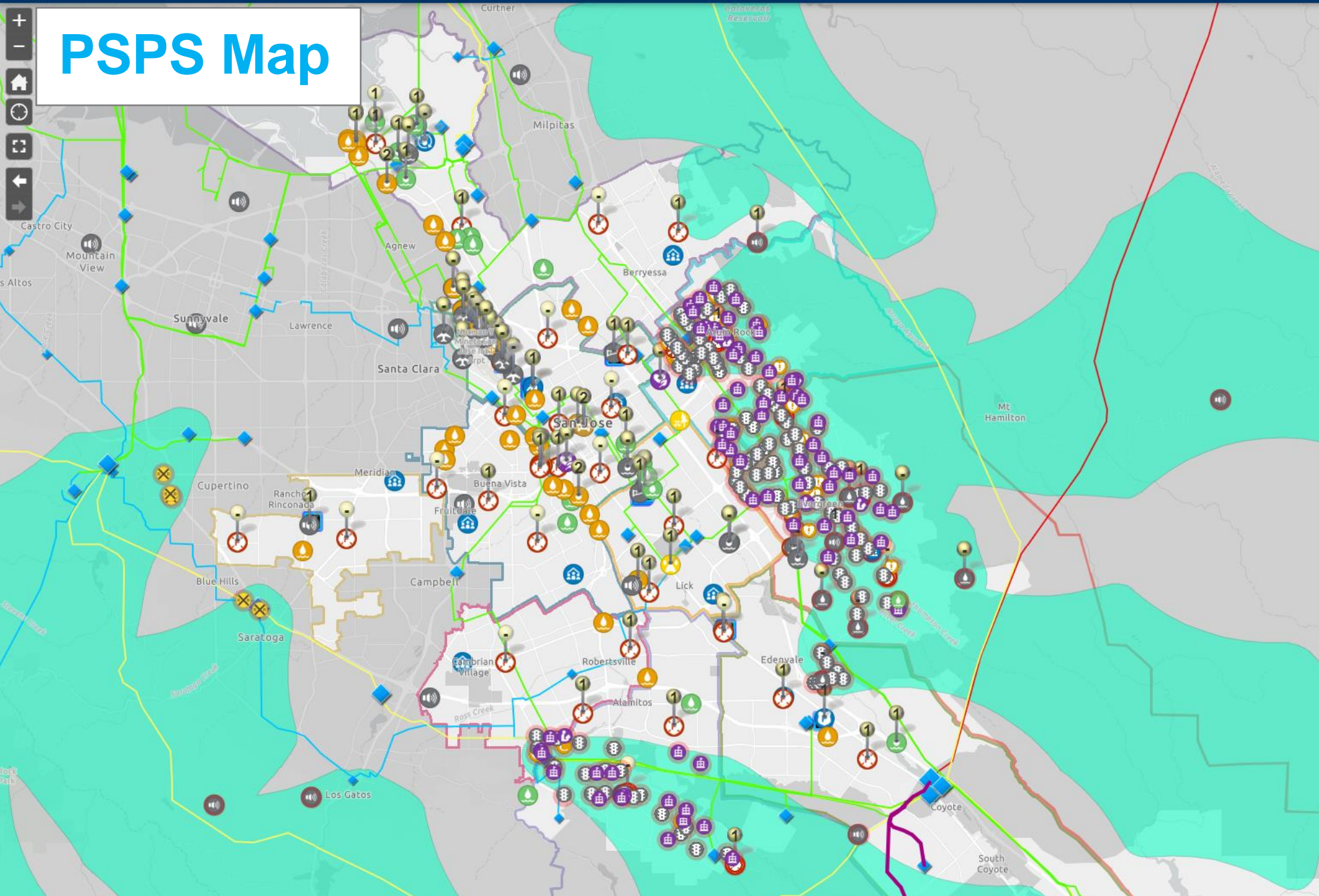
Do you have power?*



What type of location is impacted?*



PSPS Map



Outage Impacted Locations		
	Projected Outage ALL	264
	Projected Outage CRITICAL FACILITY	26
	Projected Outage HAS GENERATOR	23
	Projected Outage Signals	99
	Projected Outage Schools	66
	Projected Outage Radio Towers	11
	Projected Outage Muni Water Pump Stations	6
	Projected Outage Libraries	7
	Projected Outage Shelter and Cooling Center	2
	Projected Outage Fire Stations	6
	Projected Outage Hospitals	1
	Projected Outage Community Center	11
	Projected Outage Health Related Centers	28
	Projected Outage Sanitary Pump Stations	15

PSPS Map Layers

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Traffic Signal Comm Status ... | <input checked="" type="checkbox"/> Projected Outage Fire Stations ... | <input checked="" type="checkbox"/> Live Power Outage Centroids (From PGE Outage Map) ... |
| <input checked="" type="checkbox"/> Power Outage Survey Results ... | <input checked="" type="checkbox"/> Projected Outage Hospitals ... | <input checked="" type="checkbox"/> Live Power Outage Areas (From PGE Outage Map) ... |
| <input checked="" type="checkbox"/> DOT Vehicles (Updated Every 30 Seconds) ... | <input checked="" type="checkbox"/> Projected Outage Health Related Centers ... | <input checked="" type="checkbox"/> PG&E Substations ... |
| <input checked="" type="checkbox"/> Projected Outage Other ... | <input checked="" type="checkbox"/> Projected Outage HAS GENERATOR ... | <input checked="" type="checkbox"/> PG&E Transmission Lines ... |
| <input checked="" type="checkbox"/> Projected Outage Medical Baseline ... | <input checked="" type="checkbox"/> Projected Outage CRITICAL FACILITY ... | <input checked="" type="checkbox"/> Utilities Fire Threat Areas - Tier 3 - Extreme ... |
| <input checked="" type="checkbox"/> Projected Outage Rail Crossing ... | <input checked="" type="checkbox"/> Projected Outage ALL ... | <input checked="" type="checkbox"/> Utilities Fire Threat Areas - Tier 2 - Elevated ... |
| <input checked="" type="checkbox"/> Projected Outage Sanitary Pump Stations ... | <input checked="" type="checkbox"/> Facility Generators ... | <input checked="" type="checkbox"/> Zipcode Boundaries ... |
| <input checked="" type="checkbox"/> Projected Outage Schools ... | <input checked="" type="checkbox"/> Critical City Facilities ... | <input checked="" type="checkbox"/> (Current) PG&E Safety Shutoff Zones ... |
| <input checked="" type="checkbox"/> Projected Outage Radio Towers ... | <input checked="" type="checkbox"/> Fleet Fuel Storage ... | <input checked="" type="checkbox"/> PSPS3 (Past) PG&E Safety Shutoff Zones (10-29-19) ... |
| <input checked="" type="checkbox"/> Projected Outage Muni Water Pump Stations ... | <input checked="" type="checkbox"/> Schools ... | <input checked="" type="checkbox"/> PSPS2 (Past) PG&E Safety Shutoff Zones (10-24-19) ... |
| <input checked="" type="checkbox"/> Projected Outage Libraries ... | <input checked="" type="checkbox"/> Libraries ... | <input checked="" type="checkbox"/> PSPS1 (Past) PG&E Safety Shutoff Zones (10-09-19) ... |
| <input checked="" type="checkbox"/> Projected Outage Signals ... | <input checked="" type="checkbox"/> Hospitals ... | <input checked="" type="checkbox"/> Council Districts ... |
| <input checked="" type="checkbox"/> Projected Outage Non-City Signals ... | <input checked="" type="checkbox"/> Railroads ... | <input checked="" type="checkbox"/> Most Spoken Languages By Census ... |
| <input checked="" type="checkbox"/> Projected Outage Shelter and Cooling Center ... | <input checked="" type="checkbox"/> CAISO Transmission Line Planned Outages ... | <input checked="" type="checkbox"/> City of San Jose Boundary ... |

PSPS Map Integrations



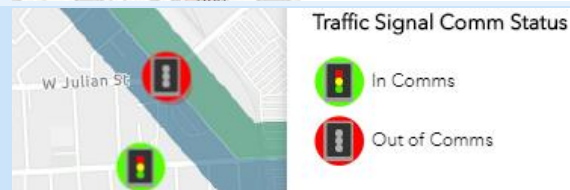
Fuel



Generators



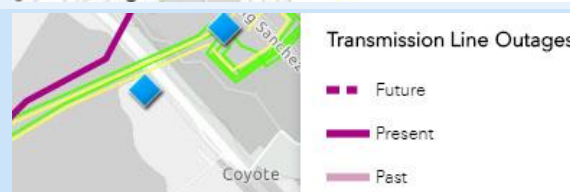
Traffic Signals



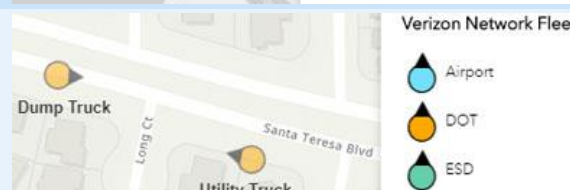
Streetlights



Transmission Lines

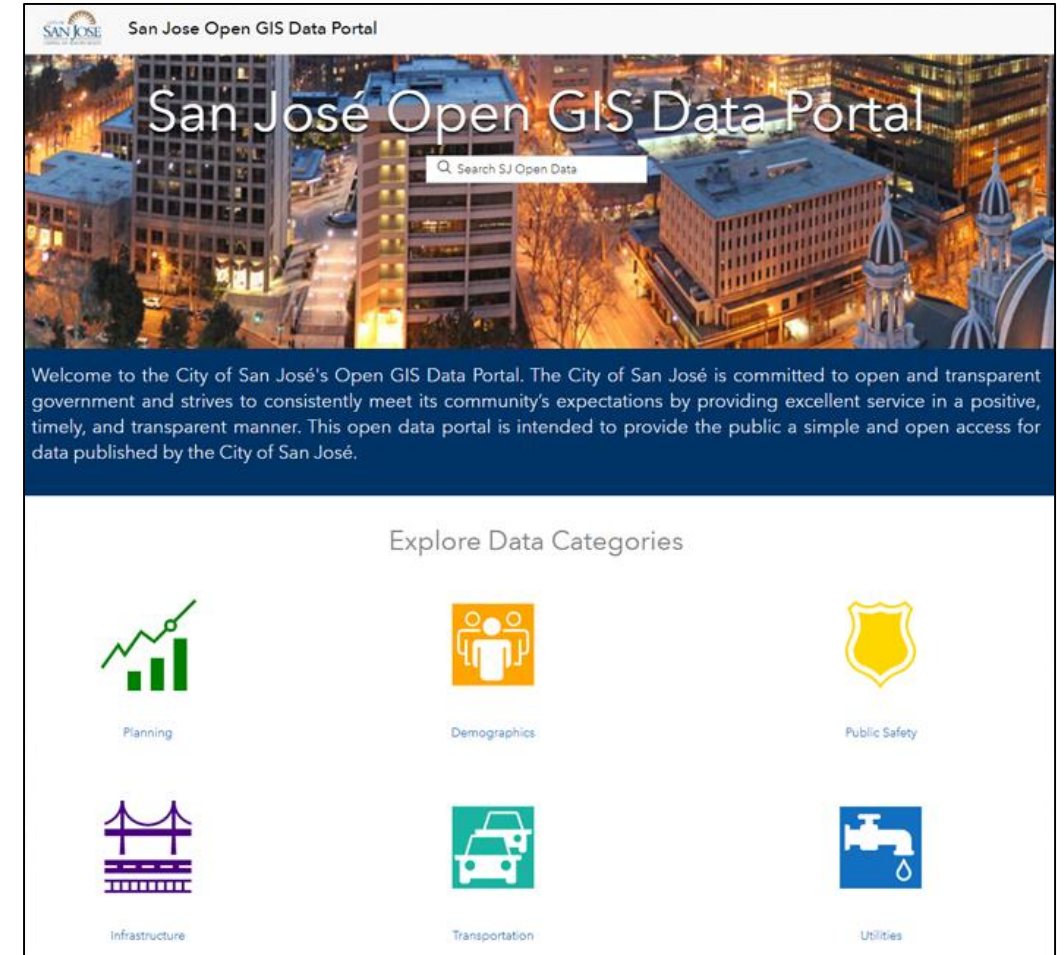
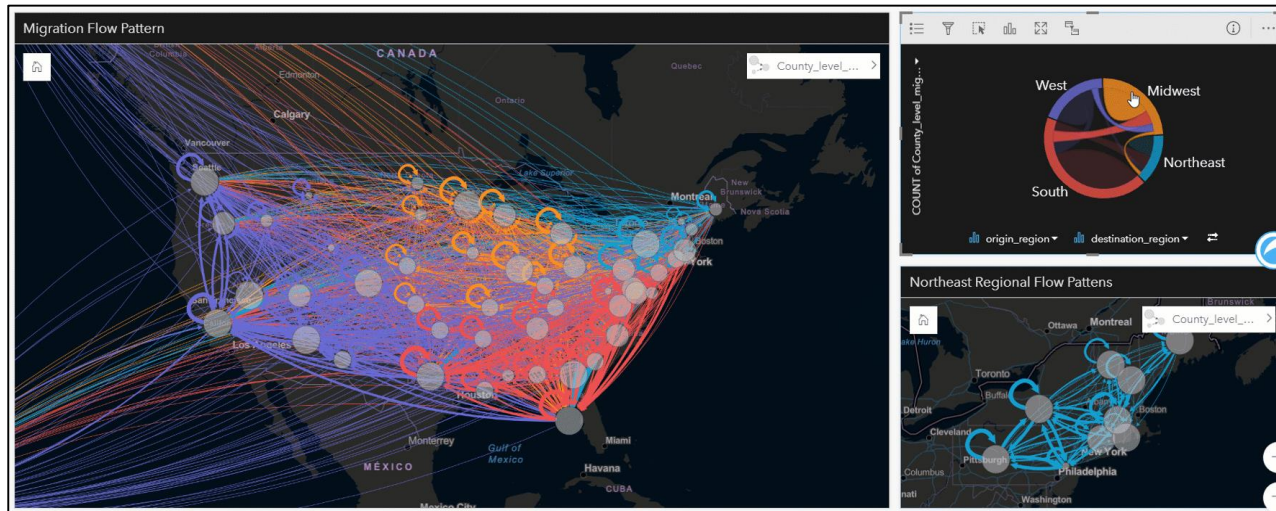


City Vehicles



Tools coming with Esri Enterprise Agreement

- **Community Analyst** (Planners, Recreation Managers)
- **ArcGIS Insights** (Planners, Engineers, Analysts)
- **Portal for ArcGIS** (All City Staff)
- **Spatial Data Engagement Site** (Resident Scientists)
- **And many more**



Non-Spatial Data



- **Bloomberg What Works Cities (WWC) Certification**

- **Why it's important:** National standard for data-driven cities, helps Bloomberg increase confidence in us
- **Status as of 2018:** We fell short of the threshold for receiving certification during initial evaluation
- **December 2019:** We participated in a reassessment and received preliminary certification (Silver or Gold)

- **Citywide Data Strategy**

- Met with 45 stakeholders inside and outside the City to understand current data successes and challenges
- Developed draft Citywide data strategy with City Manager's Technology and Innovation Governance Board
- Strategy will be in concert with GIS and ITD efforts

- **Identified 4 High-Value Data Pilot Projects Under Evaluation for FY20-21**

- Projects were chosen to provide value to the community and pilot key data capabilities needed for the City
- Projects are in collaboration with: Development Services, My San José, Environmental Services, PRNS



Smart Cities and Service Improvements Committee

February 6, 2020



Item (3) Spatial Data Integration (SDI)

Matt Loesch, Assistant Director of Public Works
Nichole Reyes, Information Systems Analyst
Andrew Ehrich, Data Analytics Lead, Office of Civic Innovation