Walsh Ave

Geographic Information Systems Strategic Plan

Alum Rock

areen

Participa Ave

ruitdale

Smart Cities and Service Improvements Committee May 06, 2021

> Matt Loesch, P.E. Assistant Public Works Director

AGENDA

- Short history of GIS in SJ
- Assessment
- Recommendations
- Successes & Achievements

Alum Rock

San Jose

A SHORT HISTORY OF GIS IN SAN JOSÉ

Willow Glen

WHAT IS GIS?

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



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



HISTORY



HISTORY OF GIS IN SJ







HISTORY OF GIS IN SJ

Early 2000s

2010s



STANDARD TECHNOLOGY STACK





Windows Server/IIS

Goal: Cost-effective, modern, reliable enterprise platform using supported, standardized software versions

SPATIAL DATA REPOSITORY – 2016

GeoDPW

AddressEntranceFindt ZapcdeBundley AddressPoint ZapcdeBundley AddressPoint Count Boundary Count Boundary Count Boundary Count Boundary CountBoundary CustarteFinanCind There&CashBoundary CustarteFinanCind SuddwarteFinanCind SuddwarteFinaCind SuddwarteFinanCind SuddwarteFinaCind SuddwarteFina	Sidevasti Conterine Site Armani, Line Sheet Sh	Pelinocaettiinatukse Pelinocaettiinatukse Pelinocaettiinatukse Pelinocaettiinatukse Pelinocaettiinatukse pelinocaettiinatukse piirStatukse piir	so Growty Mainteristoric so Subterallum so Subterallum so Subterallum so Subterallum so Pressurged Mainterature so Press Mainterature so Press Mainterature so Press Mainterature so Maint	 ent/elevice/Structure sw0-pear/Crain sw0-pear/Crain sw0-pear/Crain sw0-pear/Station sw0-pear/Station sw0-pear/Station sw0-pear/Station sw0-pear/Station sw0-pear/Station sw0-pear/Station sw0-pear/Station
		All other Feetures are II	1	

GeoPRN UP NEXT

GeolWM

\NCH-PWINTERIM\#nch-pwinterim\infra_docs\MIGRATION\Third Party Data Migration\GeoIWM.gdb PublicLitterCans*
 WasteCollectionDays*

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

GeoPLN \\nch-gispub\geodata\Publish\GeoDB\GeoPLN.gdb Annexation HCPFara GeneralFlant0200 Centrol Tradt HCPFara HCPFara HCPFara HCPFara HCPFara HCPFara HCPFara HCPFara HCPFara Horpstarfs/minist SNI ThomasBrosGrid VacantLandinventory WaterProvider HMPZone SpecialProjectCategory TransportationAnalysis2 Grand Boulevard Historic Landmas* ArportApproachZon ArportReferralArea BarclayGnd BuildingInspectingArea Cemetery CityCouncilDistrict FieldCoord Grano sourevard* Historic Landmark* Transit Employment Residen Overlay* Zoning Ordinance Downtown MobileHom PavilonArenaReferralArea PassionArenarise pwlutiityinspector pwUtiityinspector School SchoolDistrict SmallQrid Boundary" EIRSite CoyoteGreenBelt GeologicHazardZone FloatingPark

ZoningPermit

Features marked with * are in Flight All others are IN

Advase Polential 3* Advase Polential 4* Tapestry Segmentation* Flood Zone* Zip Code* Zip Code* Dika Routs Network* CPMS_015_CIP_DCOM_point* CPMS_015_CIP_DCOM_point* CPMS_015_CIP_DCOM_point* CPMS_015_CIP_DCOM_point* CPMS_015_CIP_DCOM_point* CPMS_015_CIP_DCOM_point* CPMS_015_CIP_DCOM_point* Dens Space Authority Tails* Copen Space Authority Tails* Dens Space Authority Tails*	 City of Sunnyvale Spantation District" Con Sentiation District" and 2% Cupertino Sanitation Patrict" Sunol Sanitation District" Vest Valley Sanitation District" Sunvey Mantoles"
	ra_docs/MIGRATION/Third Marker Porenal 2* Marker Porenal 4* Topetry Segmentation* Piede Zone* 2 C Code 2 C C Code 2 C C C C C C C C C C C 2 C C C C C C C

GeoRWF
UP NEXT

GeoDOT **UP NEXT**

GeoHSG
\\nch-gispub\geodata\Publish\GeoDB\GeoHSG.gdb
UP NEXT

GeoMWS Vinch-gispub/geodata\Publish\Gee • wAsse • wCasing • wCasin	DDB/Geo/WWS.gdb • ut.lterat.ine • ut.ask • withersoftworkse • withersoftworkse • withersoftworkse • witherso • withersoftwork • wi	 wRetailerArea wRoute wSangingStation wScada wServeeConnection wStructure wStructure wStructure wTurnout wWeit
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GeoOEM UP NEXT

GeoFIR

\\NCH-PWINTERIM\#nch-pwinterim\infra_docs\MIGRATION\Third Party Data Migration\GeoFIR.gdb FireStationDepictingboundary
 WildlandUrbanInterface*
 InspectingFireStation*

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

GeoAIR

UP NEXT

GeoPOL

UP NEXT

GeoSBW **UP NEXT**

SPATIAL DATA REPOSITORY – 2020

GeoDPW

GeoPLN

\/geo-data\/GeoDB\/Ge AddressPoint ZipcodeBoundary Notincorporated PanelGrid Quarter/PanelGrid ThreeDashBoundary ACSBeats ControlPoints SurveyBenchmark CriticalFacilitesGenerato BuildingPotpint Curb Layers Pole RRCrossing Sidewalk/centerline StreetCenterline	boDPW.gdb - FuelStorage - Site, Address, Points - CondoParcel - CondoPoint - Encumbrance - GenericArea -	 ssGravityMain ssGravityMainHistoric ssLateralLine ssManhole ssManhole ssNetholeHistoric ssPressurzedMainHistoric ssPressurzedMainHistoric ssSewierWard ssSewierWard ssSewierWard ssWeits and ssWeits and swCeanOut swCeanOut swCeanOut swCulvert swCulvertHistoric swDetention 	swDischargePoint swFlitting swGravityMain swGravityMainistorc swinlet swLateraiLine swManhole swManholeHistoric swMetworkStructure swOepenDrain swPressurzedMain swPressurzedMain swPressurzedMain swSystemVaive swSystemVaiv
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GeoPRN

\\geo-data\GeoDB\GeoPRN	.gdb	
MitigationPlanting Layers ParkBuildings ParksGroundcover ServiceYards Trails Layers WeedAbatement PTFCollectionSite	Irrigation Layers* AmenitiesSportsFields Communit/Centers LegacyNeighborhoods MLSDistricts NeighborhoodGroups ParkDevelopmentStatus PDOPIOProjectTracking	ParkDistricts ParkDarcels ParkBarcels ParkSMaster ParkSbuffer Tree Park Stormwater Layers*

GeolWM

CensusLanguages
 ConsumerExpenditure

GeoOEM

Shelters

FacilitiesCombined

WarmingCoolingCenters

FaultCalaveras Layers

FaultNorthSanAndreas Lavers

FaultHayward Layers

\\geo-data\GeoDB\GeoOEM.gdb

\\geo-data\GeoDB\GeoIWM.gdb				
IllegalDumping MultiFamilyWasteCollection CertifiedFacilities	PublicLitterCans SingleFamilyWasteCollection	UnincorporatedWasteCollection CommercialWasteCollection		

GeoREF \\geo-data\GeoDB\GeoREF BARTLine BARTstationsSJ Hydrant ServiceAreaBoundary MasterPlanBasins FireHydrants AirParcels LandParcels ParcelOwnership StreetCenterlines Catchments CreeksCanals Waterbody Watershed PublicParkingAndStagingAreas PublicTrails AmericanCommunitySurvey BusinesSummarySIC Census2010	gdb UpdatedDemographics Market Potential Layers SJHighPovertyRate TapestrySegmentation Flood Zone* Bike Route Network* CFMS_GIS_CIP_GEOM layers* Survey Manholes* Sanitary CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(CTVSurvey Sanitary(Sanitary) BaseMapIndex SandbagLocations Waterbody Watershed CrossSectionLine	FIRMPanels FloodHazard Layers LetterOfMapAmendment LetterOfMapAmendment LetterOfMapAmendment LetterOfMapAmendment ProfileBaseLine ProfileBaseLine PublicLandSurveySystem StationStartingLocation Structure SurfaceWaterFeaters Layers CountyBoundaryLine Bikeways BRT Layers Light Rail Layers PartkIRideLots RampMeter

GeoDOT		
Vigeo-data(SeoDB\GeoDOT.gdb Bikeyays StreetlightMetaPulBox StreetlightWetaPulBox StreetlightWetaPulBox ElectricDistributionJunction ElectricDistributionJunction StructureJunction StructureJunction StructureJunction Backflows BeautifySJ Layers CountyRoadsAndAtportsLandscaping CountyRoadsAndAtportsLandscaping ElectricalWeters FountainPumperAssociationLandscaping IrringationValves OrnamentalLightFitures OramentalLightFitures PedestinaOvercrossings	WaterMeters WeedAbatement ParkingMeters RFPZones Bridges ConditionsIndex, CurbRamps MaintenanceZones Moratorium ProjectsCurrent ProjectsCurrent ProjectsThreeYearPlan SanitarySewer Layers Stormwater Layers Stormwater Layers StreetTrees Layers Cameras FacebookTerragraph Poile	QuadZone RadarSign SLFixtures SeCo SmallCell SmartPole WitscellaneousAssets REVTABLE Layers SidewalkGaps AverageDailyTraftic TransportationAnalysisZone StretESweeping Layers WasteBins AirCoualitySensor Banners RecycledWaterAccessPoint SoundWalls SpeciaDIstricts Layers
 PedestrianOvercrossingsLights 	 TWIGInspectionZones 	

ROWLandscaping

GeoRWF Vigeo-data/GeoDB/GeoRWF.gdb - - CMMSBuildingsStructures - - CMMSMaiprAreaBoundaries - - CMMSMaiprAreaBoundaries - - BatteryBanks - - DirectBuryChargers - - DirectBuryConduits - - ETCHanholes - - ETCHanholes - - ETCPulboxes - - CondensateAccumulators - - GroundGid - - FilerOpticCables - - GroundGid - - Heattig:ChangePipes - - GroundGid - - FilerOpticCables - - GroundGid - - Heattig:ChangePipes - - Ground	5

GeoFIR \\geo-data\GeoDB\GeoFIR.gdb		
 FireBattalions FireESZ FireStations SCCFireGrids 	 SJFireGrids StationFirstDue MTZ 	SRA WildlandGrids WildlandUrbanInterface

GeoAlR

UP NEXT

GeoPOL

\\geo-data\GeoDB\GeoP	LN.gdb		
Annexation CensusTract Incorporated Jurisdiction PlanningArea SphereOfInfluence AilPlannedCommunity BuildingHeightException DevelopmentPolicyArea GroundFloorUseRestArea GroundFloorUseRestArea DowntownEmploymentPriority AreaOverlay NeighborhoodBusinessDist SpecificHeightRestriction TrafficPolicyArea AircheologicReport ArcheologicReport ArcheologicReport ArcheologicReport EIRSite GeologicHazardZone HCPArea HCPArea HCPArea HCPArea HCPArea	LandCover NaturalAsbestos OwlConservationZone OwlConservationZone OwlConservationZone Solaric Layers Solaric Layers Solarit Layers Solarit Layers WitalerwayAdjacentParcels GandBaueverds2040 TransitEmploymentRes Overlay UrbanReserve HistoricArea HistoricArea	HistoricResource ResourcesInventory GeneralPlan2040 UrbanGrwiteArea Zoning ZoningOrdDownBounda AllGeneralPlan Amendment AllBeneralPlan Amendment AninyationPermit AninyationPermit CensusTractOffSale OtherPlanningPermit PoliceBealCrimeRate ZoningGrdi BuildingInspectorArea EarclayGrd BuildingInspectorArea Cemetry CityCouncilDistrict CodeComplaints	CodeInspector Hospital Hotel Library MobileHome PavilionArenaReferralAre pw/URityInspector School SchoolDistrict SmallCrid SNI ThomasBrosGrid Vacantandinventory WaterFrovider HMPZone SpecialProjectCategory

GeoHSG		
\\geo-data\GeoDB\GeoHSG. AffordableRentalHousing MultipleHousingRoster_RSP PlaceBasedNeighborhood RDAProjectAreas	gdb CalEnviroScreen3 CDBGLowModBlockGroups CDBGLowModTracts DlfficultToDevelopAreas	MTCCommunitiesOfConcern QualifiedCensusTracts UCDisplacementAnalysis

GeoMWS		
\\geo-data\GeoDB\GeoMWS.	.gdb	
wAsset WaterOistribution_Net & Junctions wCasing wControlValve wCrossOver wFitting wHydrant wIntertie	wLateralLine wLeak wMain wNetworkStructure wPressureContourLine wPressureZone wPump wPumpStation wReservoir	wRetailerArea wRoute wSamplingStation wSarplingStation wServiceConnection wStructure wSystemValve wTurnout wWell

G \\ge	eoSBW ao-datal\GeoDB\GeoSBW.gdb AccesPoints ArReliefsBlowoffs CathodicProtection LandUse Manholes MonitoringVells PressureJones	PumpStations ControlValves HorizontalControlPoints PipeMarker Pumps RetailerServiceAreas IsolationValves	 ServiceConnectio Pipes AssetsNotLocater
•	PressureZones	Isolation valves	

CalFireHazardZones

AndersonDamFailure

DikeFailureHazardZones

LiquefactionSusceptibility

DamFailureArea

FloodZones

Soils
 RoadBlocks

RoadClosures

RoadDetours

Tsunami Lavers

SeaLevelRise Layers

SPATIAL DATA REPOSITORY – 2021

GeoDPW \\geo-data\GeoDB\GeoDPW.gdb

ZipcodeBoundary	 Encumbrance 	 ssCleanOut 	 swLateralLine
AddressPoint	 Parcel 	 ssCasing 	 swPressurizedMain
Notincorporated	 TractBoundary 	 ssPumpStation 	 swNetworkStructure
PanelGrid	 CondoPoint 	 ssNetworkStructure 	 swControlValve
QuarterPanelGrid	 GenericArea 	 ssFitting 	 swFitting
ThreeDashBoundary	 psPoliceDivision 	 ssSewerWard 	 swVirtualDrainline
ControlPoints	 psPoliceDistrict 	 ssValve 	 swSystemValve
SurveyBenchmark	 psPoliceESZ 	 swGravitvMainHistoric 	 swOpenDrain
BuildingFootprint	 psPoliceBeat 	 swCleanOut 	 swManholeHistoric
CurbGutter	Railroad	 swPressurizedMainHistoric 	 RadioSites
SidewalkArea	 FleetParking 	 swDischargePoint 	 UndergroundDistricts
RRCrossing	 DevelopmentInspector 	swinlet	 UndergroundDesignatedStructure
CurbRamp	 UtilityInspector 	 Stormwater Net Junctions 	Site Address Points
Pole	 ssPressurizedMain 	 swDetention 	Flood Lavers
SidewalkCenterline	 ssManhole 	 swGravityMain 	 CapitalImprovement Lavers
StreetCenterline	 ssLateralLine 	 swCulvertHistoric 	 CriticalFacilitiesGenerators
StreetIntersection	 ssGravitvMain 	 swCasing 	 FacilityLightFixtures
Alleys	 ssGravityMainHistoric 	 swManhole 	 Facility/ John Flytubes
CondoParcel	 ssManholeHistoric 	 swCulvert 	
GenericLine	 ssPressurizedMainHistoric 	 swPumpStation 	

82 total

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Cecouple Construction of the second s	Recourted Inventory General Plun 2040 Urban Growth Boundary Urban Service Area Zoning Zoning Crown Bound Zoning Crown Bound Zoning Promit Other Planning Permit AliGeneral Plan Amendment Zoning Permit Anicesation Permit Census Tract Offsale Police Beat Crime Rate	93 total + Hotel + Hospital City-CouncilDatrict - Cernetery - Barclay-Grid - Aliport/Elerral-Aca - CodeCompliants - Mobilishome - BuildinginspectorArea - CodeCompliants - Mobilishome - BuildinginspectorArea - SpecialProjectCategory - HMPZong - SpecialProjectCategory - HMPZong - SpecialProjectCategory - HMPZong
Trafficipatini rulu Vieta Coylet&Greehelt Coylet&Gree	A AllMajorDevVermit AnnexationPermit CensusTractOffSale PoliceBeatCimeRate WaterProvider VacantLandInventory ThomasBrosGrid SNI SmallGrid SchoolDistrict SchoolDistrict School	NeighborhoodAndbusinessA ssociatiorCategory HMPZone HMPZone PermitsPlanning Layers PermitsBuilding Layers

GeoPRN		39 total
\\geo-data\GeoDB\GeoPRN.gdl	0	
AdoptAPark AmenitiesSportsFields CommunityCenters HopeZones Iringation Layers LegacyNeighborhoods MitigationPlanting Layers MLSDistricts	NeighborhoodGroups Park Stormwater Layers ParkBuildings ParkDistricts ParkBuiffer ParkBuiffer ParkSBuiffer ParkSGroundcover ParkSMaster	PD0PIOProjectTracking Predestrainbridges PTGollectionSite ServiceTards Trails Layers Tree WeedAbatement

GeolWM	8 total
\\geo-data\GeoDB\GeoIWM.gdb IllegaDumping MultFamilyMasteCollection CertifiedFacilities • RuiseRetailDeconstructionFacilities	UnincorporatedWasteCollection CommercialWasteCollection

GeoREF			83 total
\\geo-data\GeoDB\GeoR	EF.gdb		
AinParceic AnnaricanCommunitySurvey BARTUse BARTSationSJ BaseFloodTevation BaseMapindex BaseMapindex BBR Layers BusinesSummaryStC BusinesSummaryStC BusinesSummaryStC CensusLanguages CensusTractASC2010 CensusLanguages CensusTractASC2010 ConsumertSpenditure CountyAnneastions	County Boundary Line • CPUSS GIS_COP_GECNU Hypers* Creek9 arciclowership CrossSectionLine FaithBoardOrganizations • FiltblAnends • FilosOdtsaard Layers • Hydram • LetterOfMagAmendment • MarkerPotential Layers • MarkerPotential Layers	Parcel/oversthip ParkNideLots PalDBoundaries PalDBoundaries PointsQhreest Po	Sittigh Bovery flate Station/Stating Location StormMainlockSurvey StormCentroliceSurvey Structure Survicture SurfaceWater Features/Inte SurfaceWater Features/Inte Transitiones/Internation TopOBank Transitiones/Internation Transitiones/Internation Transitiones/Internation Transitiones/Internation UpdatedDemographics Valent/WaterShot Watershot

GeoOEM		42 total
\\geo-data\GeoDB\GeoOEM.gdb		
GatilitesCombined Shelters WormingCoolingCenters FaulCialwers layers FaulCialwers layers Faulthayward Layers Faulthayward Layers LicensedHeahtCareFacilities HomeCareOrgs ResidentBibleCareFacilities	HazmatSiles UigentGacCenters Schools CalFireHazardZones AndersonDamFailure DamFailureArea OikeFailureHazardZones FloodZones Houdzones LiquefactionSusceptibility Soils	RoadBlocks RoadClosurs RoadClosurs Soldverlike Layers Tsunami Layers DisaterBbirticOffices CERT ShelterUseAgreements ShelterCommunityCenterHubs

GeoHSG \\geo-data\GeoDB\GeoHSG.gdb	G.gdb	12 total
AffordableRentalHousing MultipleHousingRoster_RSP PlaceBasedNeighborhood RDAProjectAreas	CalEnviroScreen Layers CDBGLowModBlockGroups CDBGLowModTracts DifficultToDevelopAreas	MTCCommunitiesOfConcern QualifiedCensusTracts UCDisplacementAnalysis BridgeHousingCommunities

GeoMWS		26 total
\\geo-data\GeoDB\GeoMWS.gdb • WAsset • WaterDistribution_Net & Junctions • wCasing • wControlValve • wCrossOver • wfriting • wthydrant • wintertie	wLateralLine wLeskwMain wletworKStructure wPressureContourLine wPressureZone wPump wPumpStation wReservoir	wRetailerArea wRoute wSamplingStation wSamplingStation wScate_Connection wStructure wStructure wStructure wVirenvit

Imagery	st/services/imagery	 DPW ImagenCarbad
geo.sanjoseca.gov/server/rest/serv • DPW_ImageryCached2001 • DPW_ImageryCached2016	ices/Imagery • DPW ImageryCached2017 • DPW_ImageryCached2018	DPW_ImageryCached2019 DPW_ImageryStatePlane20

GeoOED		5 total
\\geo-data\GeoDB\GeoOED.gdb • Redlining	MajorPrivateDevelopmentFootprints	CommercialLinkageFeeSubAreas
Neighborhoods	 MajorPrivateDevelopmentProjects 	

AccessPoints AccessPoints AccessPoints Cathod/Protection Landbse AccessPoints PressureRoutions PressureRoutioningStations PressureRoutingStations	PumpStations ControlValves HorizontalControlPoints PipeMarker Limps Limps IsolationValves	ServiceConnections Pipes AssetNotLocated Tanks WellAnnotation

GeoDOT			133 tota
\\geo-data\GeoDB\GeoD	OT.gdb		(133 total)
AurqualitySensor AurqualitySensor AurageDailyTraffic Backflows Backflows Beachines Backflows Beachines Backflows Beachines Backflows Ba	OT.gdb - Curbfaces - Curbfamponent - Curbfamponent - Curbfamponent - Curbfamponent - Curbfamponent - Electric/Datribution/uncion - Electric/Datribution/uncion - Electric/Datribution/ - Electric/Datribution/ - Electric/Datribution/ - Electric/Datribution/ - Electric/Datribution/ - Electric/Datribution/ - Electric/Datribution/ - Formain/energy - G720406aakway/tyooglege - Homeofwares/ - Homeofwares/ - Homeofwares/ - Maintenance/ - Maintenance/ - Morestriam	PartingPayStations PartingPayStations PartingTafficControlOfficer PartingTafficControlOfficer PartingTafficControlOfficer PartingTafficControlOfficer PartingTafficControlOfficer ProjectSUrrent ProjectSUrr	SmallCell SmallCell
Communities/Concern ConditionsIndex CountyRoadsAndAirportsLan dscaping CSJROW	Layers NonCitySignals OrnamentalLightFixtures OwnershipCondoParcel OwnershipParcel	SignalMaintenanceHotspots SignalsInVirtualLocalAreaNet work SignalsOtherAgenciesRefere nce	WasteBins WaterMeters WeedAbatement Wifi WirelessLink
	ParkingMeters	 SI Fixtures 	WirelessStations

GeoRWF \\geo-data\GeoDB\Geo	RWF.gdb		98 tota
CMMSS-dealereff-cation CMMSSS-dealereff-cation CMMSSSJudingsfor-cutres CMMSSJudingsfor-cutres CMMSSJudingsfor-cation Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges Batterg/BaryCateges ETCMandholes	FlowMonitors Isa/DatcionPoints Inrigation Layers Backflows CatchBasins Channels/Humes AutomatedSamplerStations CondensateAccumulators DistributedSamplerStations CondensateAccumulators DistributedSamplerStations HeatExchangers Hoists Honists Honisten	MonitoringVells Fumps FumpstationLocations UtilityValats WaterModePoints VaterModePoints AbandonedDeviatingPipe ExposedPiperGPSPoints Fipes RemovelPiper AlarmStrobes AlarmStrobes EvacuationAssemblyAreas EvacuationAssemblyAreas GasQVingInders	Hearing Protection Zones Layers UtsSafer Systems SensorMonitors SensorMonitors Tributary Syntaxiana Tributary Syntaxiana Charter Systems Sensore Statistical Systems Sensore Statistical Systems Sonsore Systems Sonsore Systems SupportColumns StagingAreas
Poles Switchgears	 MonitoringWells Pumps 	 HalonFireSuppression HazmatChemicalStorage 	ProjectAreas

GeoFIR		10 total
\\geo-data\GeoDB\Geol • FireBattalions • FireSS2 • FireStations • SCCFireGrids	FIR.gdb • SJFireGrids • StationFirstDu • MTZ	 SRA WildlandGrids WildlandUrbanInterface

A 1 13		
GeoAIR		(117 total
\SQLSERV-GISPRD\G	eoAIR	
\SQLSERV-GISPRD\G InfieldAres ArcraftParkingd ArcraftParkingd ArcraftParkingd ArcraftParkingd ArcraftParkingd ArcraftGispart ArcraftGi	RoofLine RoofLine Building Layers Building Layers ParkingLine ParkingLine ParkingLine Space Layers Conservation Space Layers Conservation ParkingLine ParkingLange FireExtinguishers EmergencyCalinet EmergencyCalinet EmergencyCalinet EmergencyCalinet EmergencyCalinet SurveyPoint SurveyPoint	NorthConcourseOutline OrtdSubsurfaceUtility Obtacle OrtdSubsurfaceUtility Charace Characee Characeee Characeee
WirelessAccessPoints BadgeReader Anno Layers BagMakeupTSA	 SpotElevationPoint GridRoomNumber GridMapBook GridAirfieldPerimeter 	mVAVs FuelTruckParking FPRVs SurfaceWaterFlow ePanelSystem UndergroundFuelLine ePowerEquipment FloraSpeciesSite
Camera	 GridTerminal 	fSprinklerSystemArea BuildingElementsDissolve



- Willow Glen

dependence High School

San juse

19th St

San Jose Municipal Golf

88

San Jo - State University

GIS AND SPATIAL DATA



- GIS is complete information system
- Data is one component
- Spatial data drives GIS products, but Enterprise GIS has broader focus

Functions of GIS as spatial data platform:

- Input: Editing workflows, mobile collection, business system integration
- Transformation
- Analysis
- Presentation: Maps, apps, analytics, dashboards

ENTERPRISE GIS STRATEGIES

Central Administration Simplify administration and maximize cost-effectiveness through collaboration and of departments standardization * = * * = **Emergency** Applications Support emergency planning, response, and recovery Spatial Data Integration $\langle \cdots \rangle$ Promote integration of geospatial technologies with business systems

Coordination and Support

Provide geospatial coordination throughout the City, building partnerships with departments

Standards and Policies

Establish and implement GIS standards, policies, and practices considering needs and resources

Authoritative Data

Maintain enterprise repository for production and publication of authoritative GIS data

Modern, Stable Systems

Ensure enterprise systems are stable, reliable, secure, and up-to-date

Sustainable Innovation

Pursue new and innovative use of geospatial technologies, balancing value, sustainability, and supportability

ORGANIZATION



*Integration

*Dept Support

• Broad group of consumers and analysts using GIS, including departments with and without assigned GIS staff

15

CONTRIBUTORS

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- Tracy Tisbo
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- Yonas Birhanemeskel
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GIS PROGRAM ASSESSMENT

3-Tier Approach



DEPARTMENT FEEDBACK

Survey Responses **Broad Needs** More training and 153 12communication Ent bandwidth for USERS DEPARTMENTS dept requests **Broader access** 3 to GIS tools • GIS user survey distributed to 200 users identified from access Business system integration to software and online maps

 Individual follow-up sessions with GIS staff in 9 Departments



GENERAL CONCLUSIONS



- GIS investment varies widely across depts.
- Supplemental support from enterprise

Operational vs strategic outlook

- Dept. GIS challenges are operational
- Support issues vs broad strategic initiatives

Collaboration and governance

- Increased communication among citywide GIS staff
- Enterprise GIS governance

 Address Enterprise GIS program gaps

Initial

Focus

1

- Establish governance
 - Departments Needs
 Assessment
 - Alignment of Enterprise priorities

Future

2

URISA GIS CAPABILITY MATURITY MODEL

- Theoretical model defines framework for effective Enterprise GIS
- Evaluation criteria associated with well-managed GIS that maximizes effectiveness and ROI
- Commonly accepted, local government focused, best practices based

Enabling Capability Measures implementation of GIS technology

Execution Ability

Measures standardization & optimization of services

50%



Reflects City's investment in GIS and focus on data & infrastructure Identifies opportunities for growth in formalization and assessment of processes



22

RECOMMENDATIONS

CEFCU Stadium

The Plant

Yerba Bueni High Schoo

> Shirakawa Elementary School

Spartan Keys / Monterey Corridor

82

Oak Hill Ave

Communications

Oak Hill Memorial Park Franklin Elementar

OUTCOMES

Objectives in 6 Cores Areas

Data

Pivot data focus toward support for integration, applications, & analytics

Software/Applications

Provide broad access to GIS tools for users at all levels; standardize solution deployment & support

Workforce

Build enterprise team capable of leading GIS coordination, supporting department requests, & building GIS capacity citywide

Infrastructure

Increase redundancy, reliability, & security of Enterprise GIS server platform

Procedure/Workflow

Expand GIS coordination; streamline project intake & delivery

Governance Implement Enterprise GIS governance structure

	Current State	In Progress	Assessment	Action Items	25
Data	Sizable Enterprise GIS data repository	Department data migration	Shift focus to usability, enhancement, integration	Add Integrations	
Software	Esri Enterprise Agreement (EA) effective CY21	ArcGIS Portal build	Application development capacity needed on Enterprise GIS team	Consolidate ArcGIS Online organizations; implement ArcGIS Portal	
Workflow	Project requests come in through different channels, sometimes duplicated	Enterprise GIS SharePoint site	Depts seek more support from Enterprise GIS team, including capacity to take on project requests	Standardize project intake, prioritization, tracking	
Workforce	25 GIS positions citywide assigned to 9 departments	Dept hiring support for GIS positions (as needed)	Some GIS teams are well-staffed; other depts have need but lack staffing/skills	Build app development capacity on Enterprise GIS team	
Governance	User-driven GIS program	Enterprise GIS strategic plan, governance	Formal Enterprise GIS governance lacking	Implement GIS steering committee and user group	
nfrastructure	Robust Enterprise GIS infrastructure	ArcGIS Portal implementation	Expand platform for new technologies and increasing use	Add publication database environment	

*** See Appendix for full list of objectives

	Current State	In Progress	Assessment	Action Items	26
Data	Sizable Enterprise GIS data repository	Department data migration	Shift focus to usability, enhancement, integration	Add Integrations	
Software	Esri Enterprise Agreement (EA) effective CY21	ArcGIS Portal build	Application development capacity needed on Enterprise GIS team	Consolidate ArcGIS Online organizations; implement ArcGIS Portal	
Workflow	Project requests come in through different channels, sometimes duplicated	Enterprise GIS SharePoint site	Depts seek more support from Enterprise GIS team, including capacity to take on project requests	Standardize project intake, prioritization, tracking	
Workforce	25 GIS positions citywide assigned to 9 departments	Dept hiring support for GIS positions (as needed)	Some GIS teams are well-staffed; other depts have need but lack staffing/skills	Build app development capacity on Enterprise GIS team	
Governance	User-driven GIS program	Enterprise GIS strategic plan, governance	Formal Enterprise GIS governance lacking	Implement GIS steering committee and user group	
nfrastructure	Robust Enterprise GIS infrastructure	ArcGIS Portal implementation	Expand platform for new technologies and increasing use	Add publication database environment	

*** See Appendix for full list of objectives

GIS GOVERNANCE

System of control to coordinate decisions on geospatial investments



Direct governance activities associated with GIS operations; provide recommendations to Steering Committee Provide business approval of strategic investment decisions; tie into data governance & privacy Operational arm responsible for implementation, advancement, & support of geospatial investments

SUCCESSES & ACHIEVEMENTS POWERED BY GIS

IMPROVED GIS VISIBILITY

RESIDENTS BUSINESS	VISITORS YOUR GO	OVERNMENT NEWS & STORIES
CITY CAREERS PAYMENTS	RECYCLING & GARBAGE HOUSING	POLICE FIRE
PARKS & RECREATION	ANIMALS	VOLUNTEERING
PARKING	REPORT ISSUES	LIBRARY
CITY MAPS	EMERGENCY PREPAREDNESS	AIRPORT

SANJOSECA.GOV

CITY MAPS



Maps Gallery



GIS Open Data



...enabling access to GIS Teams' work

City PDF Maps

https://www.sanjoseca.gov/your-government/departments-offices/city-maps

RESIDENTS BUSIN	NESS VISITORS	YOUR GOVERNMENT	NEWS & STORIES
MAYOR CITY COUNCIL CITY MANAGER CITY ATTORNEY CITY AUDITOR	DEPARTMENT CITY CLERK INDEPENDENT AUDITOR BOARDS & CO PARTICIPATE PUBLIC MEET	TS & OFFICES AGE OFF T POLICE OPE CITY OMMISSIONS & WATCH INGS	ENDAS & MINUTES ICIAL CITY RECORDS EN DATA Y CHARTER NICIPAL CODE

Order by:

OPEN DATA PORTAL

17 departments found



...enabling "GIS Haves" & "GIS Have Nots"



Enterprise GIS Hub

What is Enterprise GIS?

Geographic Information Systems (GIS) is a business-enabling technology that is used throughout the City of San Jose to improve efficiency and inform decision-making. GIS provides a framework for the input, storage, analysis, transformation, and visualization of spatial data and allows for the integration of disparate business data through spatial context. It has applicability across City departments to improve business efficiency and support strategic initiatives.

The Enterprise GIS program aims to maximize effectiveness of the technology through shared investment in data, infrastructure, and applications and through the adoption of common policies and standards.

What is Public Works' role in Enterprise GIS?

The Enterprise GIS team operates out of the Department of Public Works but aligns with the Information Technology Department (ITD) and partners with departmental GIS staff to conduct coordination, system administration and integration, and data management activities in support of the shared vision for an open, interoperable, and efficient data-centric system that provides quality geospatial data to the enterprise user community.

The City of San Jose has adopted a "hub and spoke" model with the Enterprise GIS team in Public Works and departmental GIS staff providing services within business areas.

Enterprise GIS Strategies



Emergency Applications Support emergency planning, response, and recovery

Spatial Data Integration Promote integration of

geospatial technologies into business systems

How do I get started?

Provide geospatial coordination throughout the City, building partnerships with departments Authoritative Data Maintain enterprise repository for production and publication of authoritative GIS data

Standards and Policies

Establish and implement GIS standards.

policies, and practices, considering

needs and resources of departments

Modern, Stable Systems Ensure enterprise systems are stable, reliable, secure, and up-to-date



GIS Open Data Portal The GIS Open Data Portal was...

Contact

To report a system outage or urgent issue, email gis.support@sanjoseca.gov

Need help? For project requests or general assistance, email **gis.info@sanioseca.gov**.

To report a GIS data discrepancy, open a **Solar** Winds ticket.

News

+ Add \



License Monitoring with OpenLM The Enterprise GIS OpenLM server... March 25

See all



GIS Presentation to City Leadership At the Senior Staff Leadership... March 3



Esri Enterprise Agreement Effective December 31, 2020, the Ci...



ArcGIS Server 10.8.1 Upgrade The enterprise ArcGIS Server.

lovember 24, 2020

December 30, 2020

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October 15, 2020



Help! Reporting Outages and Requesting Assistance This article outlines procedures and... August 10, 2020

INTERNAL PORTAL

...enabling internal technical collaboration

https://sanjoseca.sharepoint.com/sites/PW_TS_GIS

For assistance or to discuss your GIS needs, contact the Enterprise GIS team at

IMPROVED GIS APPLICATIONS

EOC – FOOD RESOURCES



EOC – FOOD RESOURCES – DATA FLOW



EOC – FOOD RESOURCES – APPLICATION



EOC – BEAUTIFYSJ



Challenge Cross-Departmental Datasets

Some Siloed, and Static Data

Broad and Complex Scope

Approach Data-Informed From the Beginning

Involve Data Experts From the Outset

Scope the Problem from the Start



EOC – BEAUTIFYSJ – SCOPE THE PROBLEM



EOC – BEAUTIFYSJ – DATA FROM START



EOC – BEAUTIFYSJ – APPLICATION



ANIMAL DISPATCH

- 13 officers
- 20,000 annual calls
- 5 SJ beats + 4 contract cities

Chameleon Animal Shelter Software

- Licensing, Field Ops, & Shelter Ops
- Tabular interface, no map



ANIMAL DISPATCH - APPLICATION

- Operational intelligence
- Situational awareness



- Integration w/ shelter software
- Spatial view of calls
- Summary of volumes



DEMOGRAPHIC VIEWER



EQUITY ATLAS [BETA]



VACCINATION SITES

COVID-19 Vaccination Sites and Prioritization Index

Powered by: San José Spatial Team

Dashboard Information and Links



FLOOD SITUATION DASHBOARD



COVID & EQUITY APPLICATIONS IN 2020



SNEAK PEEK INTO GIS LAB

Guadalupid Gamens

ollege Park

e Park

San juse

San Jose State University

lian St

San Jose



CURRENT ENTERPRISE EFFORTS



ANALYTICS – 311 & GARBAGE PICKUP

ANALYTICS – MASTER ADDRESS DATABASE

GIS TOOLS MONITORING

Percentage of concurrent licenses used from total available licenses

Left click to drill down Ctrl + left click to drill up

Date	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
23 March, Tue	10 / 28 (35.71%)	12 / 28 (42.86%)	13 / 28 (46.43%)	17 / 28 (60.71%)	17 / 28 (60.71%)	16 / 28 (57.14%)	15 / 28 (53.57%)	15 / 28 (53.57%)	18 / 28 (64.29%)	17 / 28 (60.71%)	16 / 28 (57.14%)	15 / 28 (53.57%)	10 / 28 (35.71%)	10 / 28 (35.71%)	10 / 28 (35.71%)	10 / 28 (35.71%)	10 / 28 (35.71%)	10 / 28 (35.71%)						
24 March, Wed	10 / 28 (35.71%)	10 / 28 (35.71%)	9 / 28 (32.14%)	9 / 28 (32.14%)	9 / 28 (32.14%)	9 / 28 (32.14%)	10 / 28 (35.71%)	10 / 28 (35.71%)	13 / 28 (46.43%)	15 / 28 (53.57%)	17 / 28 (60.71%)	18 / 28 (64.29%)	19 / 28 (67.86%)	19 / 28 (67.86%)	21 / 28 (75%)	20 / 28 (71.43%)	21 / 28 (75%)	19 / 28 (67.86%)	15 / 28 (53.57%)	14 / 28 (50%)	13 / 28 (46.43%)	13 / 28 (46.43%)	4 / 28 (14.29%)	4 / 28 (14.29%)
25 March, Thu	4 / 28 (14.29%)	7 / 28 (25%)	11 / 28 (39.29%)	13 / 28 (46.43%)	14 / 28 (50%)	16 / 28 (57.14%)	16 / 28 (57.14%)	17 / 28 (60.71%)	18 / 28 (64.29%)	18 / 28 (64.29%)	14 / 28 (50%)	9 / 28 (32.14%)	8 / 28 (28.57%)	8 / 28 (28.57%)	8 / 28 (28.57%)	6 / 28 (21.43%)	5 / 28 (17.86%)							
26 March, Fri	5 / 28 (17.86%)	6 / 28 (21.43%)	11 / 28 (39.29%)	10 / 28 (35.71%)	12 / 28 (42.86%)	14 / 28 (50%)	14 / 28 (50%)	13 / 28 (46.43%)	13 / 28 (46.43%)	14 / 28 (50%)	15 / 28 (53.57%)	13 / 28 (46.43%)	8 / 28 (28.57%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	7 / 28 (25%)						
27 March, Sat	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28 (28.57%)	8 / 28 (28.57%)	9 / 28 (32.14%)	8 / 28 (28.57%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21.43%)
28 March, Sun	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)
29 March, Mon	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	8 / 28 (28,57%)	11 / 28 (39,29%)	11 / 28 (39,29%)	13 / 28 (46.43%)	13 / 28 (46,43%)	13 / 28 (46,43%)	13 / 28 (46,43%)	13 / 28 (46,43%)	13 / 28 (46,43%)	11 / 28 (39.29%)	10 / 28 (35.71%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21,43%)
30 March, Tue	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21,43%)	6 / 28 (21.43%)	7 / 28 (25%)	7 / 28 (25%)	10 / 28 (35.71%)	11 / 28 (39,29%)	12 / 28 (42,86%)	13 / 28 (46.43%)	12 / 28 (42,86%)	12 / 28 (42.86%)	13 / 28 (46,43%)	16 / 28 (57,14%)	14 / 28 (50%)	11 / 28 (39.29%)	7 / 28 (25%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)
31 March, Wed	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	7 / 28 (25%)	8 / 28 (28,57%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28 (28.57%)	8 / 28 (28,57%)	8 / 28 (28,57%)	8 / 28 (28,57%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21,43%)	6 / 28 (21,43%)
1 April, Thu	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21,43%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	7 / 28 (25%)	8 / 28 (28.57%)	10 / 28 (35.71%)	12 / 28 (42,86%)	12 / 28 (42.86%)	12 / 28 (42.86%)	12 / 28	12 / 28 (42,86%)	12 / 28 (42.86%)	11 / 28 (39,29%)	9 / 28 (32,14%)	6 / 28 (21,43%)	4 / 28	4 / 28	3 / 28 (10.71%)	4 / 28	4 / 28 (14,29%)
2 April, Fri	4 / 28	3 / 28	3 / 28	3 / 28	3 / 28	4 / 28	3 / 28	3 / 28 (10.71%)	5 / 28 (17.86%)	6 / 28 (21.43%)	7 / 28 (25%)	9 / 28	11 / 28 (39,29%)	13 / 28 (46.43%)	14 / 28	14 / 28	14 / 28	12 / 28	8 / 28 (28.57%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28 (28.57%)	8 / 28 (28.57%)
3 April, Sat	8 / 28 (28 57%)	8 / 28 (28 57%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28	8 / 28 (28 57%)	9 / 28	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%
4 April, Sun	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	7 / 28 (25%)	6 / 28 (21,43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	7 / 28 (25%)	9 / 28 (32.14%)
5 April, Mon	9 / 28	9 / 28 (32 14%)	8 / 28 (28 57%)	9 / 28 (32 14%)	9 / 28 (32 14%)	11 / 28 (39 29%)	17 / 28	18 / 28	19 / 28	19 / 28	17 / 28 (60 71%)	15 / 28 (53 57%)	15 / 28	13 / 28 (46 43%)	12 / 28	10 / 28	8 / 28	7 / 28 (25%)	7 / 28 (25%)	8 / 28 (28 57%)	8 / 28 (28 57%)			
6 April, Tue	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	8 / 28	9 / 28	10 / 28	15 / 28 (53 57%)	16 / 28 (57 14%)	16 / 28 (57 14%)	14 / 28 (50%)	15 / 28	17 / 28	17 / 28	18 / 28	12 / 28	10 / 28	7 / 28 (25%)	7 / 28 (25%)	6 / 28 (21.43%)	7 / 28 (25%)	7 / 28 (25%
7 April, Wed	8 / 28 (28 57%)	8 / 28 (28 57%)	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	6 / 28 (21.43%)	8 / 28	10 / 28	13 / 28 (46 43%)	14 / 28	12 / 28	12 / 28	14 / 28	13 / 28 (46,43%)	14 / 28	13 / 28 (46 43%)	12 / 28	7 / 28 (25%)	6 / 28 (21.43%)	6 / 28 (21 43%)	6 / 28 (21.43%)	9 / 28 (32 14%)	9 / 28
8 April, Thu	8 / 28 (28 57%)	8 / 28 (28 57%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	9 / 28	11 / 28	14 / 28	15 / 28 (53 57%)	16 / 28 (57 14%)	16 / 28 (57 14%)	15 / 28	16 / 28 (57 14%)	16 / 28	16 / 28 (57 14%)	12 / 28	9 / 28 (32 14%)	7 / 28 (25%)	7 / 28 (25%)	9 / 28	9 / 28	7 / 28 (25%
9 April, Fri	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28 (28 57%)	9 / 28	10 / 28	11 / 28	12 / 28	15 / 28 (53 57%)	17 / 28	17 / 28	16 / 28	17 / 28	15 / 28	15 / 28 (53 57%)	14 / 28	12 / 28	9 / 28	9 / 28	9 / 28	9 / 28	9 / 28
10 April, Sat	9 / 28	9 / 28	8 / 28	8 / 28	8 / 28	8 / 28	8 / 28	8 / 28	8 / 28	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28	8 / 28
11 April, Sun	8 / 28	8 / 28	7 / 28 (25%)	8 / 28	8 / 28	8 / 28	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	8 / 28	7 / 28 (25%)	7 / 28 (25%)	8 / 28	8 / 28	9 / 28	8 / 28	8 / 28	8 / 28	10 / 28	10 / 28
12 April, Mon	9 / 28 (32.14%)	8 / 28 (28.57%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	7 / 28 (25%)	9 / 28 (32.14%)	11 / 28 (39.29%)	13 / 28 (46.43%)	16 / 28 (57.14%)	16 / 28 (57.14%)	(20.3773) 17 / 28 (60.71%)	17 / 28 (60.71%)	17 / 28 (60.71%)	16 / 28 (57.14%)	13 / 28 (46.43%)	(32.1478) 12 / 28 (42.86%)	10 / 28 (35.71%)	(20.3778) 10 / 28 (35.71%)	(20.37 %) 10 / 28 (35.71%)	(39.11/3) 11 / 28 (39.29%)	(39.29%)

STRAY ANIMAL INTAKE HEAT MAP

PUBLIC WORKS

- Harsh Gautam
- Tracy Tisbo
- Joel Clark
- Nichole Reyes
- Drew Smith
- Yonas Birhanemeskel
- Kevin Newbury
- Jihae Yoon
- Erik Rackley

DOT

- William Harmon
- Jay Van Biljouw
- Carlos Flores
- Tim Chang
- Wing Yi Yeung

PRNS

Nolan Bertuca

AIRPORT

- Sirisha Muppala
- Steve Flores
- Quang Tran

HR

Keith Lewis

ESD

- Tim Hayes
- Kent Brown
- Edwin Xu
- Jake Fiedler
- Kendra Mann
- Jerry Nelson

LIBRARY

Bobby Rodrock

POLICE

Raymond Leung

- PBCE
 Jared Hart
 Jessica Setiawan
 JC Hartfield

 OEM

 Claire Palmer
 Anh Tran
- FIRE
 Perihan Putnam

• Bige Yilmaz

- Vic Farlie
- Jerad Ferguson

ITD

- Aman Sandhu
- Melissa Chen
- Tommy Khuu
- Thai Nguyen
- John Rocha
- Ryan Reynado
- Davis Nguyen
- Jeff Llaneza
- Ray Ghasemi

RACIAL EQUITY

• Hyma Menath

CMO

- Amory Brandt
- Pablo Haake

- Sowmya Raman
- Fereshteh Zakeri

APPENDIX

1. DATA

Current State

In Progress

Assessment

Action Items

Sizable Enterprise GIS data repository

Standards and practices to keep data current

Most siloed GIS data moved into enterprise

Enterprise data management (ongoing)

Department data migration

Spatial Data Integration Imagery acquisition Transition from build to maintenance mode

Shift focus to usability, enhancement, integration

Integrate more business data to support analytics

Add metadata, classify data

Secure imagery funding

Conduct further data discovery

Add integrations

Build standard components to enhance data usability and visualization

Data objective: Pivot data focus beyond basic data consolidation and quality and toward support for integration, applications, and analytics

2. INFRASTRUCTURE

Current State

In Progress

Assessment

Action Items

Robust Enterprise GIS infrastructure

Lacking redundancy, admin SOPs, standard support GIS server rearchitecture, migration to HCI

EOC GIS infrastructure

ArcGIS Portal implementation

Migrate/retire physical servers

Enterprise platform needs higher availability, disaster recovery

Expand platform for new technologies and increasing use

Incorporate additional HA components

Standardize VMs

Formalize maintenance, change control, support

Add publication database environment

Infrastructure objective: Increase the redundancy, reliability, and security of the Enterprise GIS server platform

3. SOFTWARE/APPLICATIONS

Current State

In Progress

Assessment

Action Items

Standard GIS software adopted citywide

Esri Enterprise Agreement (EA) effective CY21

Custom app development is haphazard Esri EA rollout ArcGIS Portal build ArcGIS Pro transition Maps Gallery (ongoing) EOC GIS solutions Tolemi New EA addresses prior software limitations and provides access to new technologies

Solutions should align to standard deployment patterns

Application development capacity needed on Enterprise GIS team Consolidate ArcGIS Online organizations; implement ArcGIS Portal

Formalize Maps Gallery app owners, routine updates

Define solution deployment patterns, specs for vendors

Build spatial analytics platform

59

Software/applications objective: Provide broad access to GIS tools for users at all levels; standardize solution deployment and support

4. PROCEDURE/WORKFLOW

Current State

In Progress

Assessment

Action Items

Large documentation library for users/admins

Project requests come in through different channels, sometimes duplicated

No formal customer feedback mechanism

Enterprise GIS SharePoint site (ongoing)

System and user documentation (ongoing)

Standard project approach, request/prioritization process is needed

Depts seek more support from Enterprise GIS team, including capacity to take on project requests Standardize project intake, prioritization, tracking

Add capacity for dept support, coordination

Establish EA-related policies

Application branding, GIS outreach

60

Procedure/workflow objective: Expand GIS coordination and streamline intake and delivery of GIS project requests

5. WORKFORCE

Current State

In Progress

Assessment

Action Items

25 GIS positions citywide assigned to 9 depts

Includes 3 staff supporting Enterprise GIS GIS trainings (ad-hoc)

Dept hiring support for GIS positions (as needed)

Enterprise GIS onboarding (as needed) GIS investment varies widely across depts

Some GIS teams are well-staffed; other depts have need but lack staffing/skills

Enterprise GIS team has been heavily focused on data management Leverage citywide access to Esri web courses

Conduct broad user training with Portal rollout

Build app development capacity on Enterprise GIS team

Increase GIS coordination; recognize and support opportunities within depts

Workforce objective: Build enterprise team capable of leading GIS coordination, supporting dept requests, & building GIS capacity citywide

6. GOVERNANCE

Current State

In Progress

User-driven GIS program

Prioritization sometimes assumed or based on inconsistent feedback

Limited or haphazard shared funding

Enterprise GIS strategic plan, governance

Formal Enterprise GIS governance lacking

Assessment

No sustainable shared funding model

Action Items

Implement GIS steering committee & user group

Engage these groups to prioritize investments

Pursue ongoing shared funding model

62

Governance objective: Implement Enterprise GIS governance and funding structure