

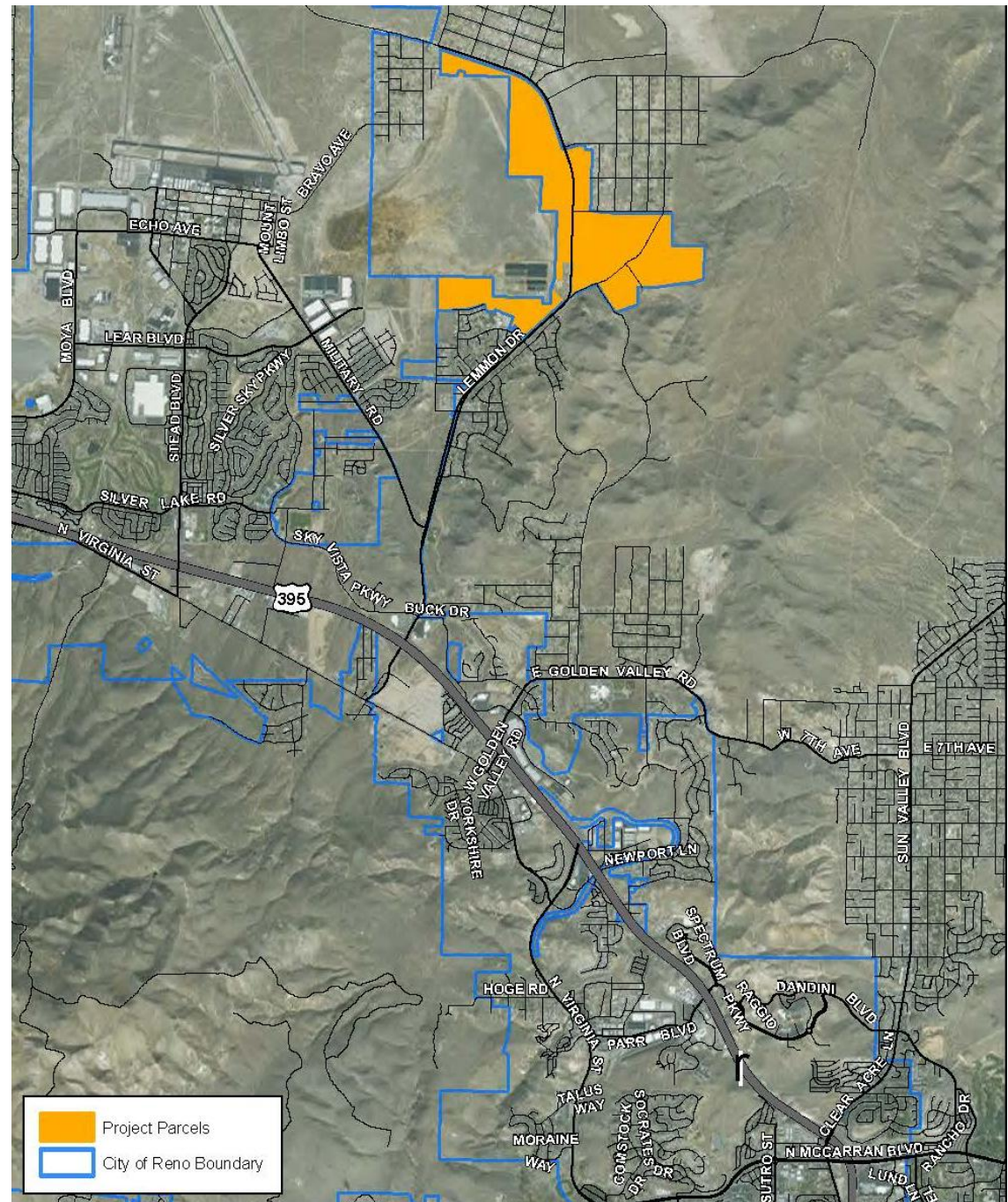
# PRADO RANCH

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PLANNING COMMISSION | DECEMBER 19, 2018

- ❖ ~728 acre project area
- ❖ Annexed into City of Reno in 2015
  - Provide mix of jobs & housing
  - Positive Fiscal Impact based on mix of uses
- ❖ Significantly smaller development area than recent PUD's reviewed
  - Stonegate – 1700 ac; 5000 du
  - Prado Ranch – 728 ac; 705 du

## Project Area





## ❖ Master Plan Amendment

1) From Single Family Residential to Mixed Residential, Industrial, and Open Space on  $\sim 316.7 \pm$  acres on east side of Lemmon Dr

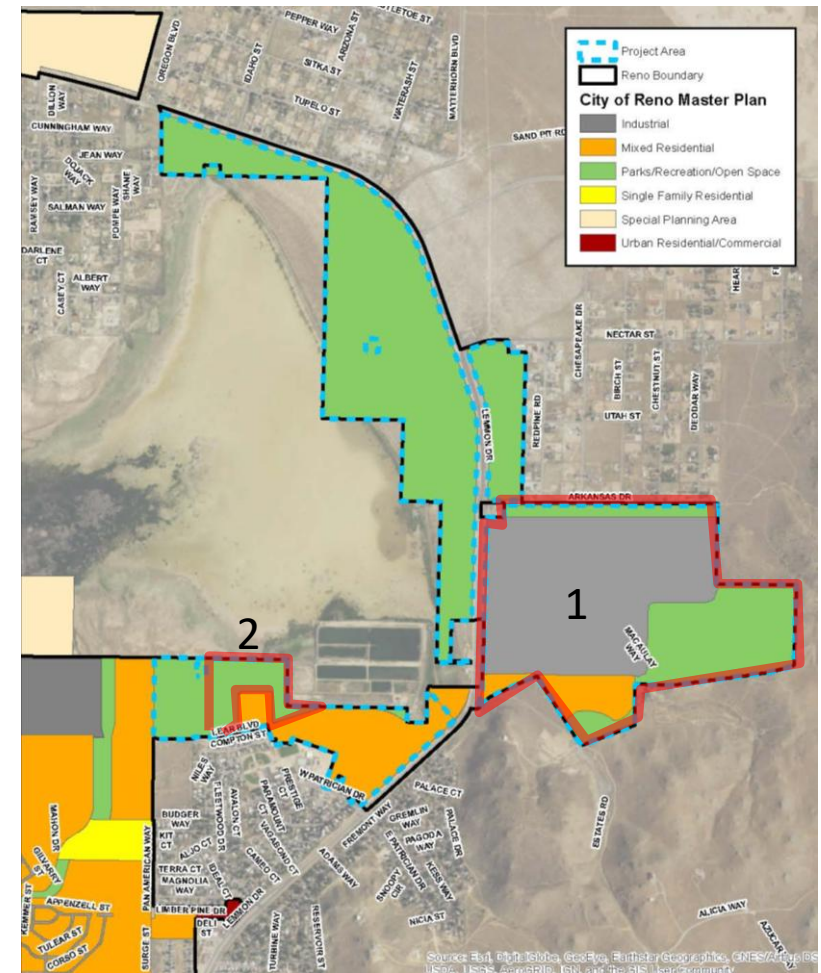
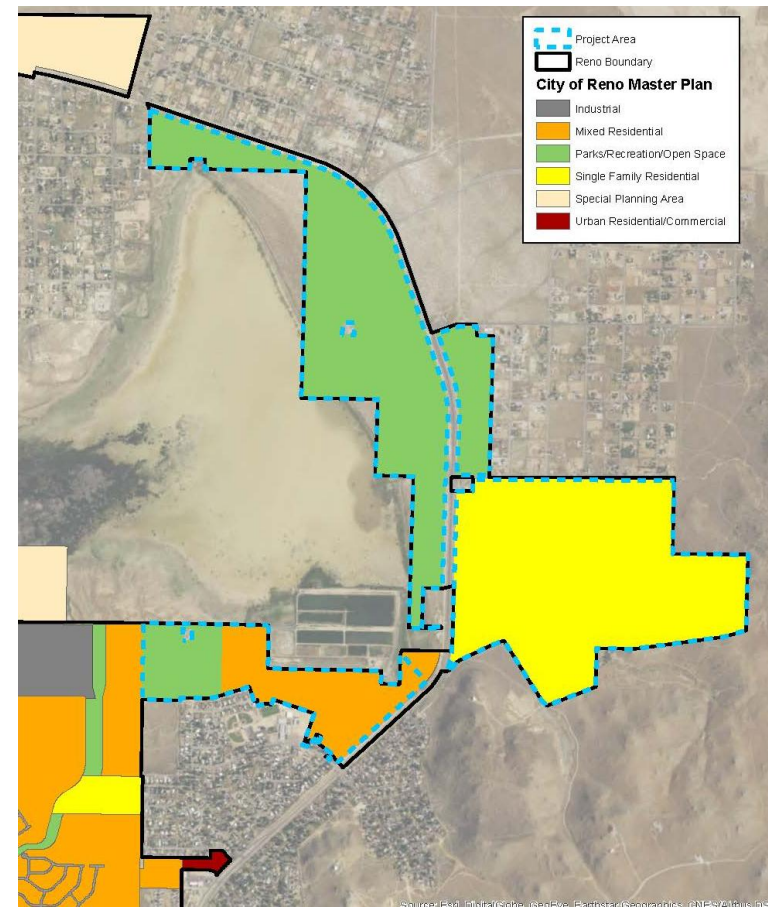
2) From Mixed Residential to Open Space on  $14.8 \pm$  acres on west side of Lemmon Dr

❖ Open Space adjacent to Swan Lake remaining

❖ Land uses consistent with Fiscal Analysis as reviewed by City Council for Annexation

❖ MPA originally submitted October 2015 (prior to ReImagine Reno but in conformance with many policies)

❖ Intent behind land use mix is live/work close to reduce commute/congestion on freeway



# Project Master Plan



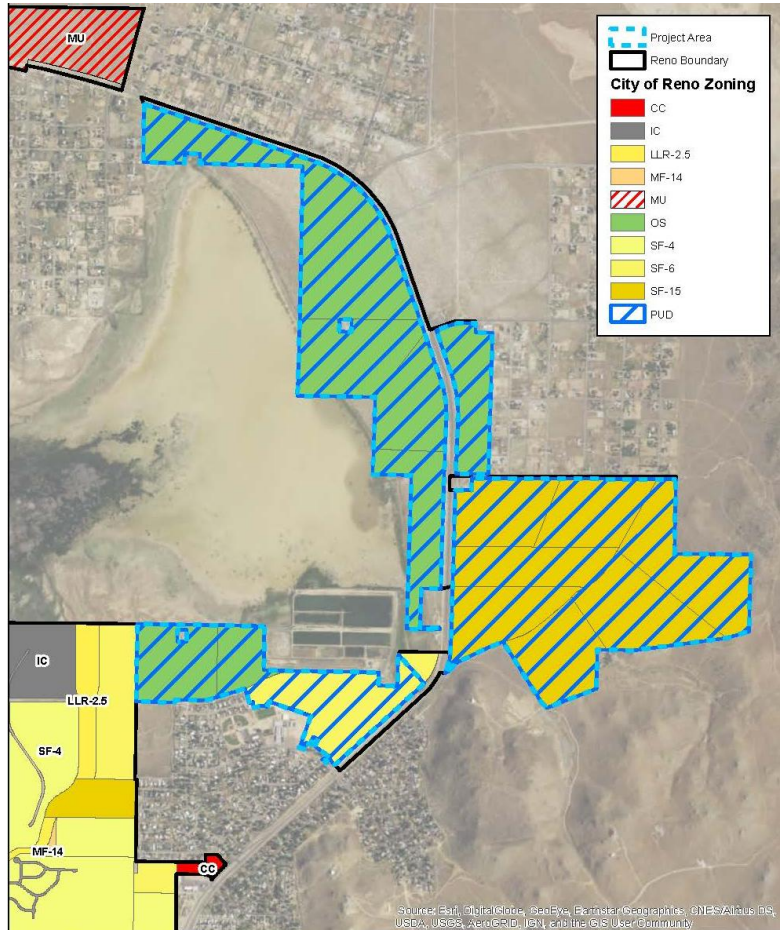
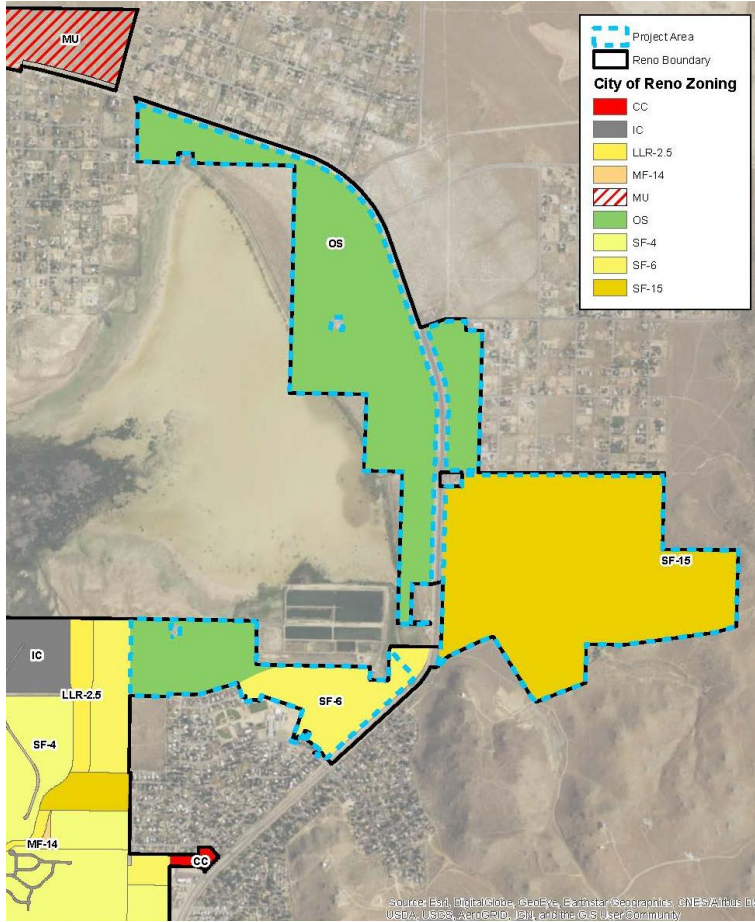
# ❖ Mix of Zoning Designations

- Open Space, SF-15 and SF-6
  - Current zoning could allow up to 1300 single family detached units
  - As proposed limited to ~700 dwelling units

❖ Address current environmental constraints and comprehensively provides solutions and timing for improvements

❖ Creates certainty for how & what will be developed with timeframes for development

❖ PUD establishes standards to ensure future development is sensitive to environmental and physical constraints



# Zoning – Why PUD?



## ❖ Development Plan

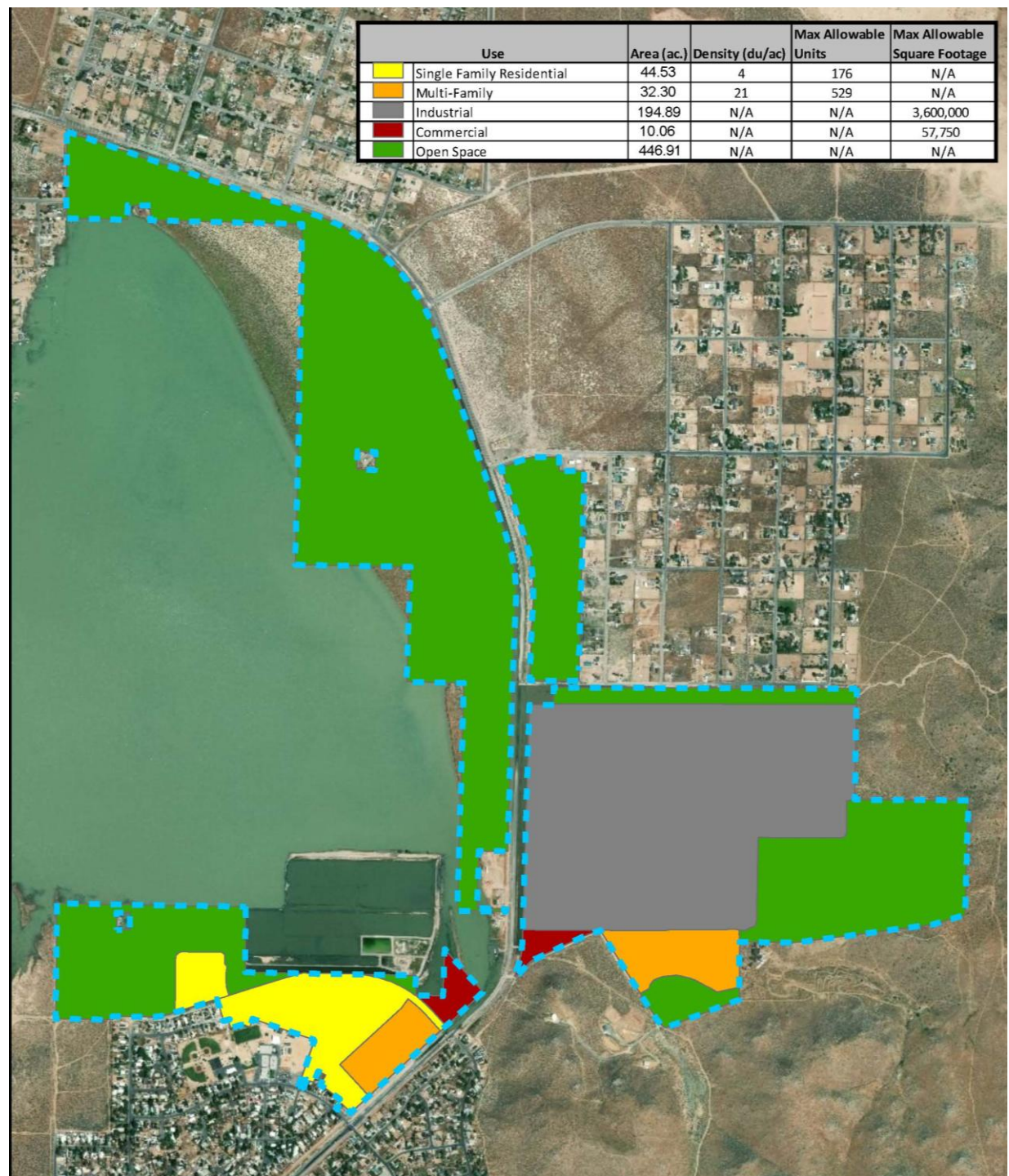
- 44 ac Single Family (176 du)
- 32 ac Multi Family (529 du)
- 10 ac Commercial (57,000 sqft)
- 195 ac Industrial (3.6M sqft)
- 446 ac of Open Space
  - Over 60% of project

Smaller in acreage and development potential than PUD's recently reviewed

PUD development plan is basis for physical development of the City

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# Development Plan



# MASTER PLAN POLICY ANALYSIS

***C&R7 “should work with area service providers to ensure that the water supply, water treatment and distribution capacity, sewerage treatment and road network is capable of serving present and future demand within the city.”***

- ❖ Reno Stead Treatment Plant expansion planned by 2021. Timing of improvements consistent with proposed development schedule.
- ❖ Developer is providing all new infrastructure at their cost in Phase 1 and understands the risk including that if service is not available when a future development project comes forward, there will be no project until sewer, or other utilities are available.



# Wastewater -

❖ Project anticipated to generate ~432,564 gpd AT BUILD OUT

- Initial Phase 1 development generates 98,091 gpd by 2023
- RSWTF plant capacity expansion to 4 MGD by 2021
- Incremental development timed with infrastructure improvements

❖ Analysis of plant capacity at each building permit and/or final map required

➤ If no capacity, no will serve, no project

# Infrastructure

**LIFT STATION**

- EXISTING
- PROPOSED - COR

**PROPOSED SS**

- GRAVITY MAIN
- FORCE MAIN

**EXISTING SS**

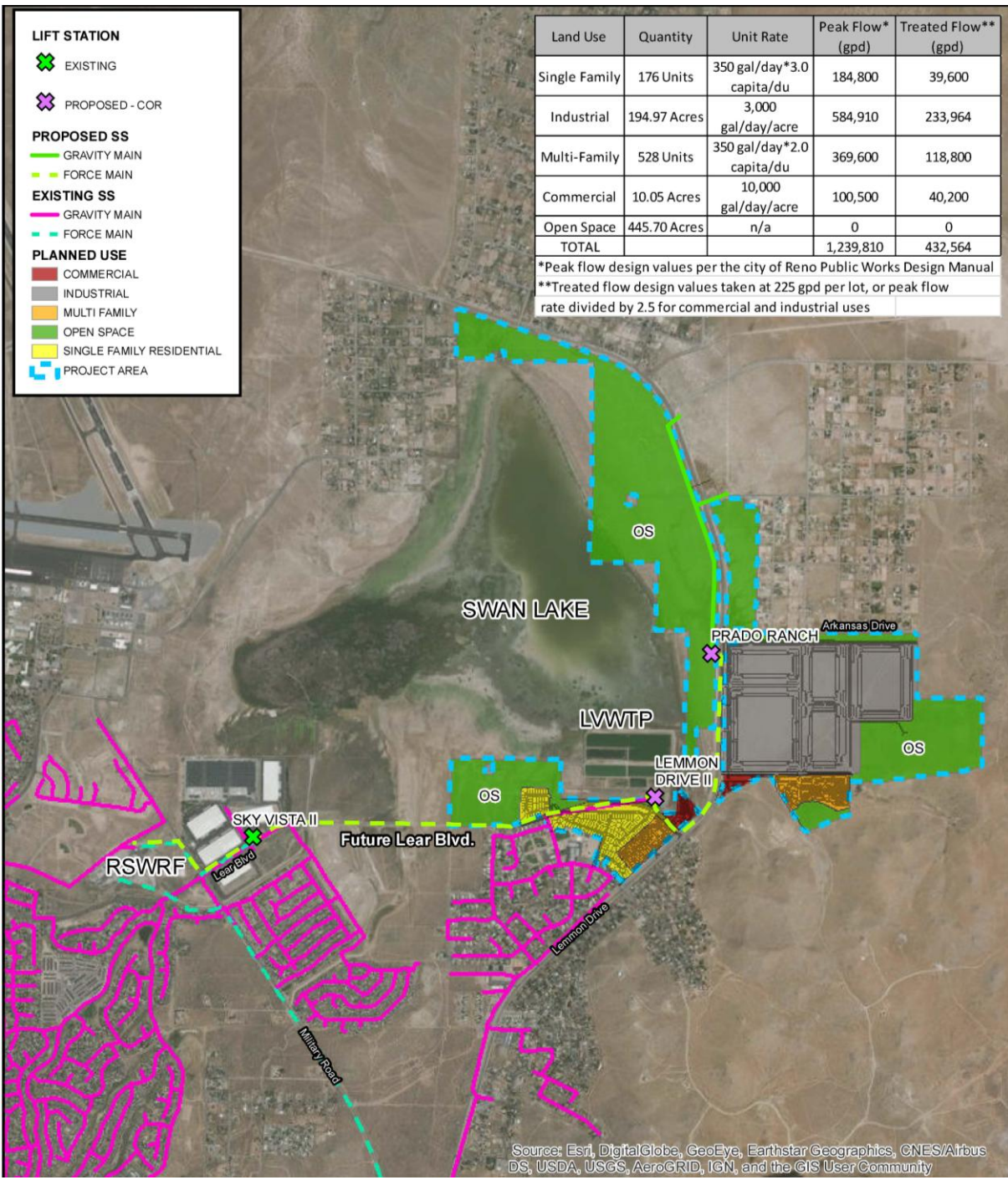
- GRAVITY MAIN
- FORCE MAIN

**PLANNED USE**

- COMMERCIAL
- INDUSTRIAL
- MULTI FAMILY
- OPEN SPACE
- SINGLE FAMILY RESIDENTIAL
- PROJECT AREA

Land Use	Quantity	Unit Rate	Peak Flow* (gpd)	Treated Flow** (gpd)
Single Family	176 Units	350 gal/day*3.0 capita/du	184,800	39,600
Industrial	194.97 Acres	3,000 gal/day/acre	584,910	233,964
Multi-Family	528 Units	350 gal/day*2.0 capita/du	369,600	118,800
Commercial	10.05 Acres	10,000 gal/day/acre	100,500	40,200
Open Space	445.70 Acres	n/a	0	0
<b>TOTAL</b>			<b>1,239,810</b>	<b>432,564</b>

\*Peak flow design values per the city of Reno Public Works Design Manual  
 \*\*Treated flow design values taken at 225 gpd per lot, or peak flow rate divided by 2.5 for commercial and industrial uses



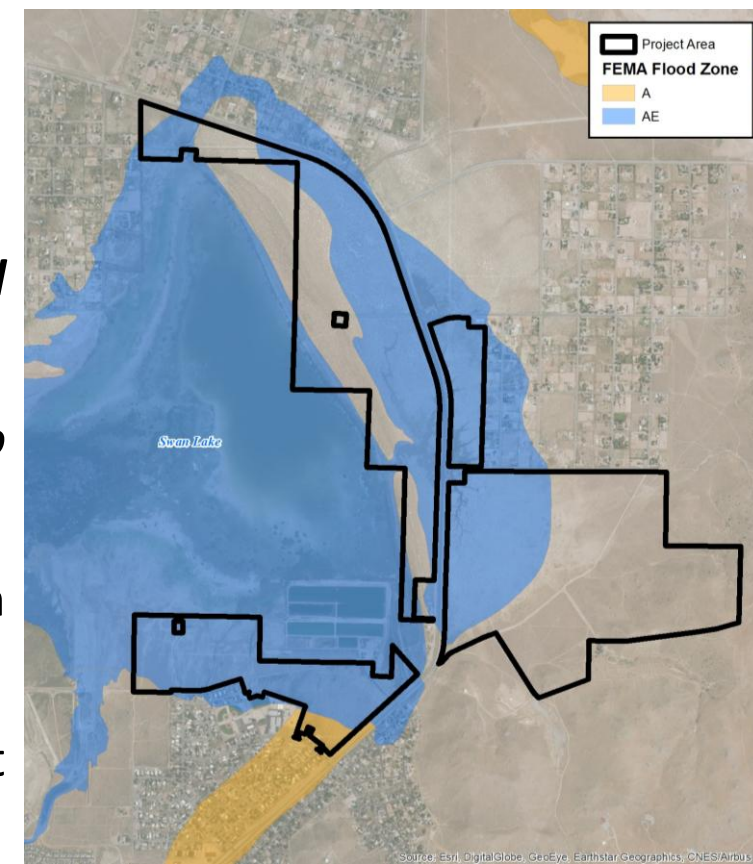
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

# MASTER PLAN POLICY ANALYSIS

***E-8 “Hydrologic resources in immediate danger...should receive the highest level of protection through...land use and/or zoning controls”***

***SD-#2 – The significant natural features of a site should be retained and used to advantage.”***

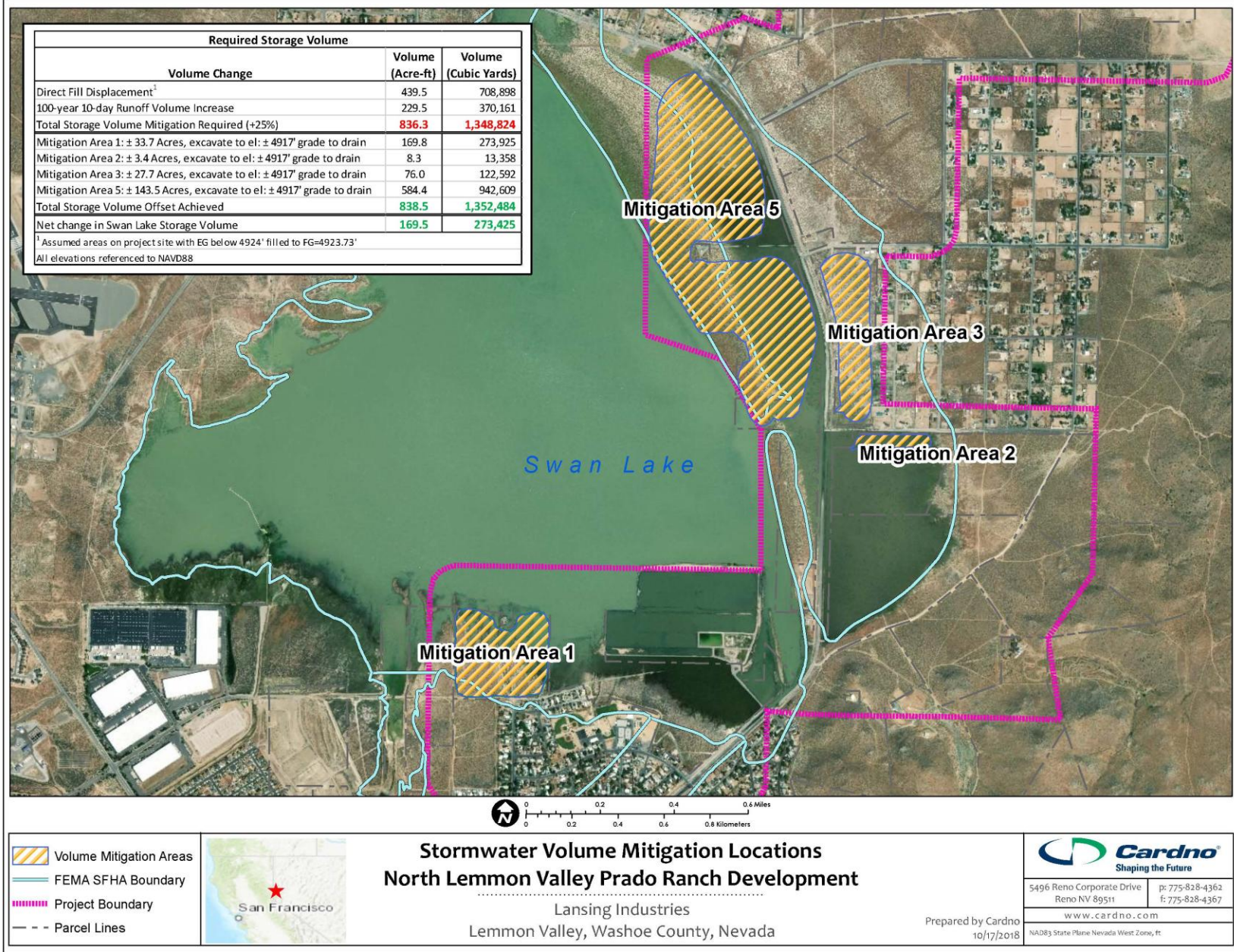
- ❖ Project preserves ~300 acres of open space (as zoned) for floodplain with increased capacity
- ❖ Where development is proposed within 100-year floodplain, project provides volume offset mitigation at 125% (higher than required)
- ❖ Elevating Lemmon Drive above existing 100-year floodplain will further protect Swan Lake
- ❖ Conditional Letter of Map Revision (CLOMR) approved by City of Reno; submittal to FEMA is next step
- ❖ MUST be approved by FEMA prior to ANY earthwork on site
  - If not approved by FEMA, no development including floodplain mitigation or road improvements





# Master Hydrology analysis of existing watershed

- ❖ Looked at Direct Fill Displacement and 100-year 10-day volume increase
- ❖ Minimum Required off-set at 1:1 ratio  
~1M cubic yards
- ❖ Project proposes mitigation at ratio of 1.25:1
  - Provided Off-set (1.25:1) ratio  
~1.3M cubic yards
- ❖ Net increase in Swan Lake Storage Volume  
**273,425 cubic yards (169.5 AF)**



# Hydrology

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Shaping the Future

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Reno NV 89511 | f: 775-828-4367

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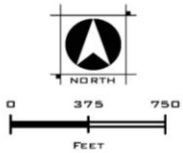
Prepared by Cardno  
10/17/2018

NAD83 State Plane Nevada West Zone, ft.





PLATE A-1b: SITE MAP  
 PRADO RANCH  
 JOB NO.: 1669016  
 RENO, NV  
 NOVEMBER, 2018

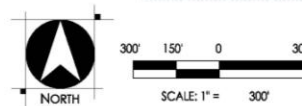
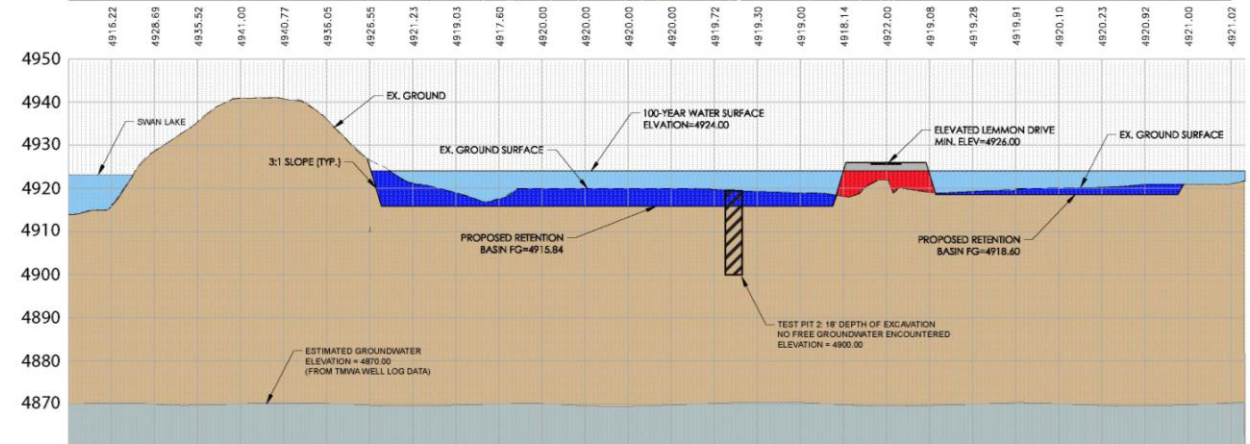


**WOOD RODGERS**  
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME  
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 Tel: 775.823.4068 Fax: 775.823.4066

VOLUME OFFSET GROUNDWATER RELATIONSHIP EXHIBIT

PRADO RANCH

RENO, NEVADA  
 OCTOBER, 2018



LEGEND

- Existing Retention
- Fill in Existing Retention
- Existing Ground Water
- Proposed Retention (1.25%)
- Existing Ground

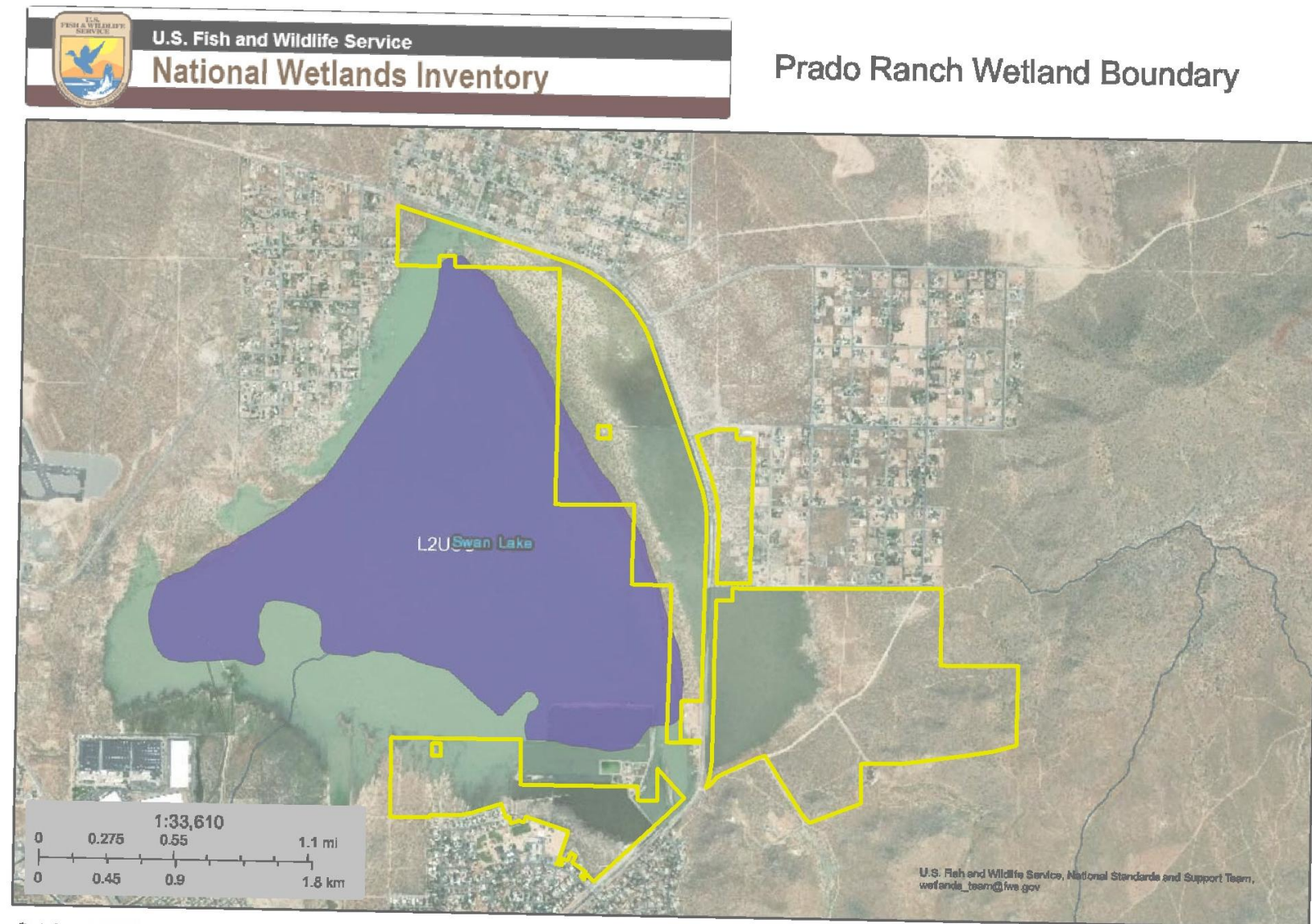
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# MASTER PLAN POLICY ANALYSIS

***E-10 “Where wetlands provide flood control and groundwater recharge functions, they should be preserved to include the 100-year floodplain...”***

- ❖ No 404-regulated wetlands on project site
- ❖ US Fish and Wildlife National Wetlands Inventory identifies Swan Lake wetlands “inside” berm, not extending onto project site.
- ❖ No proposed project impacts on wetlands as identified by National Wetlands Inventory.



October 4, 2018

#### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# MASTER PLAN POLICY ANALYSIS

***F-2 “The City should strive for a four minute Fire response time to 75% of the City and not exceed a six minute response time for any area of the City without mitigation”.***

- ❖ Project includes extension of Lear Blvd as minor arterial to improve response times to area. When future development occurs, if responses times are not adequate, additional mitigation such as sprinklers may be provided.
- ❖ Improvements to Lemmon Dr will also improve emergency response times for overall region.
- ❖ Project also includes Developer purchase of aerial apparatus (ladder truck) for nearby station which further addresses response times.

Although project may not meet six minute response time, the improvements being made by this project to the existing street network and other infrastructure will improve the overall emergency response times for the area.



# MASTER PLAN

## POLICY ANALYSIS

***T-11 “City should encourage businesses and new land development which requires substantial generators or attractors of traffic to implement programs to reduce trips and/or mitigate air quality impacts”***

- ❖ Project promotes live/work within close proximity. Facilitates employment opportunities close to new and existing residential, which reduces travel impacts and poor air quality from congestion.
- ❖ Handbook includes requirement for Employee Trip Reduction program
- ❖ Regarding air quality – project designed with residential, commercial, open space and industrial uses. By creating a development with a mix of jobs and housing and recreation, residents living in the North Valleys will have access to jobs and services in close proximity to housing, thereby reducing vehicle miles traveled and reducing the negative impact on air quality.

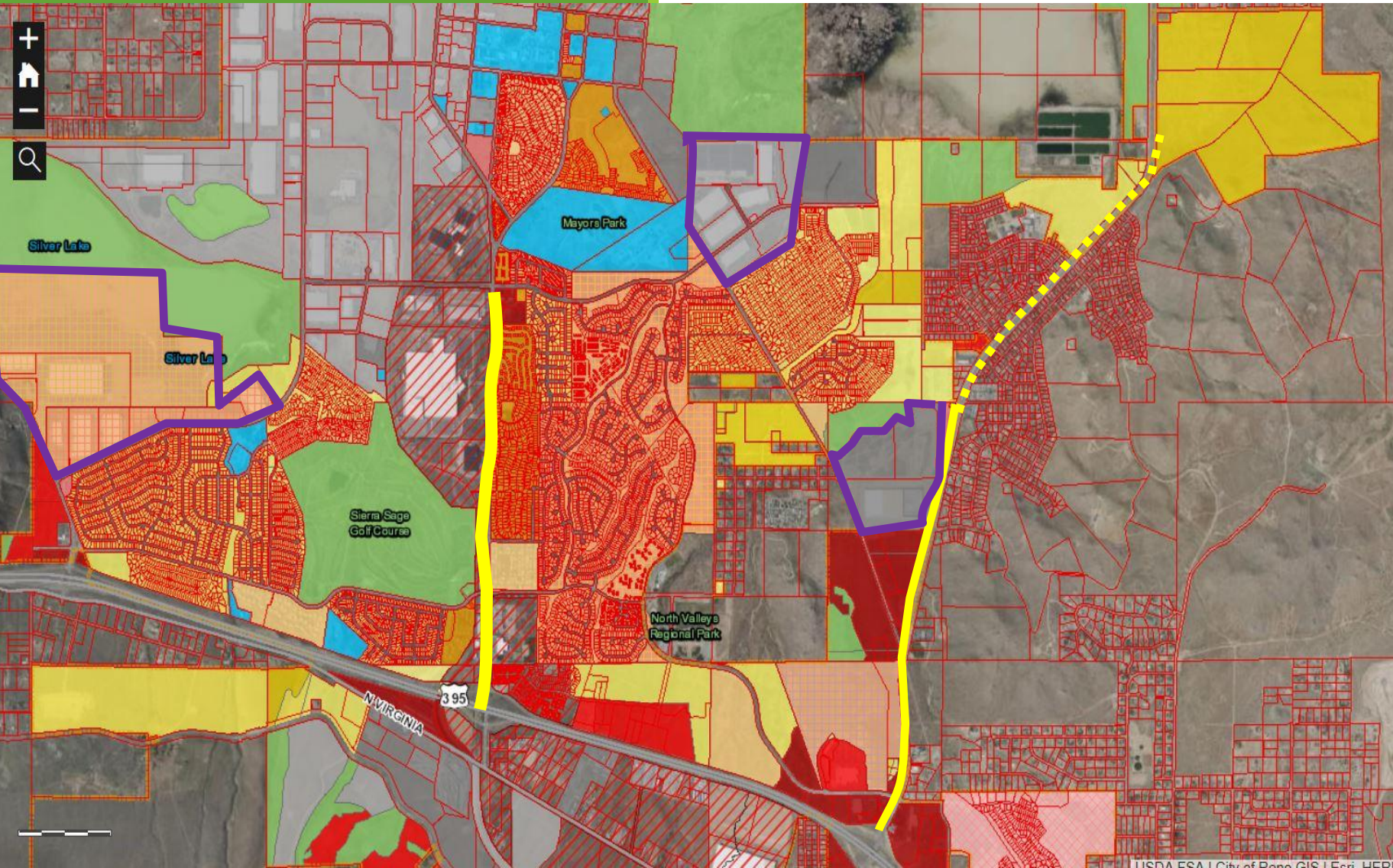
# MASTER PLAN POLICY ANALYSIS

***T-25 "City should allow truck traffic in residential areas only where necessary to serve local residents or businesses"***

❖ Proposed truck traffic using designated Major Arterial with limited signal controls between project and freeway

❖ Lemmon Drive designated Major Arterial by RTC

- RTC plans to widen Lemmon to 4 lanes with sidewalk and landscape strips from Fleetwood to Arkansas by 2026 (project does it quicker)
- Arterial Roads are the appropriate road classification for truck traffic
- WC Chapter 70, Section 70.540 specifically designates Lemmon Dr to Surge St as Truck Route



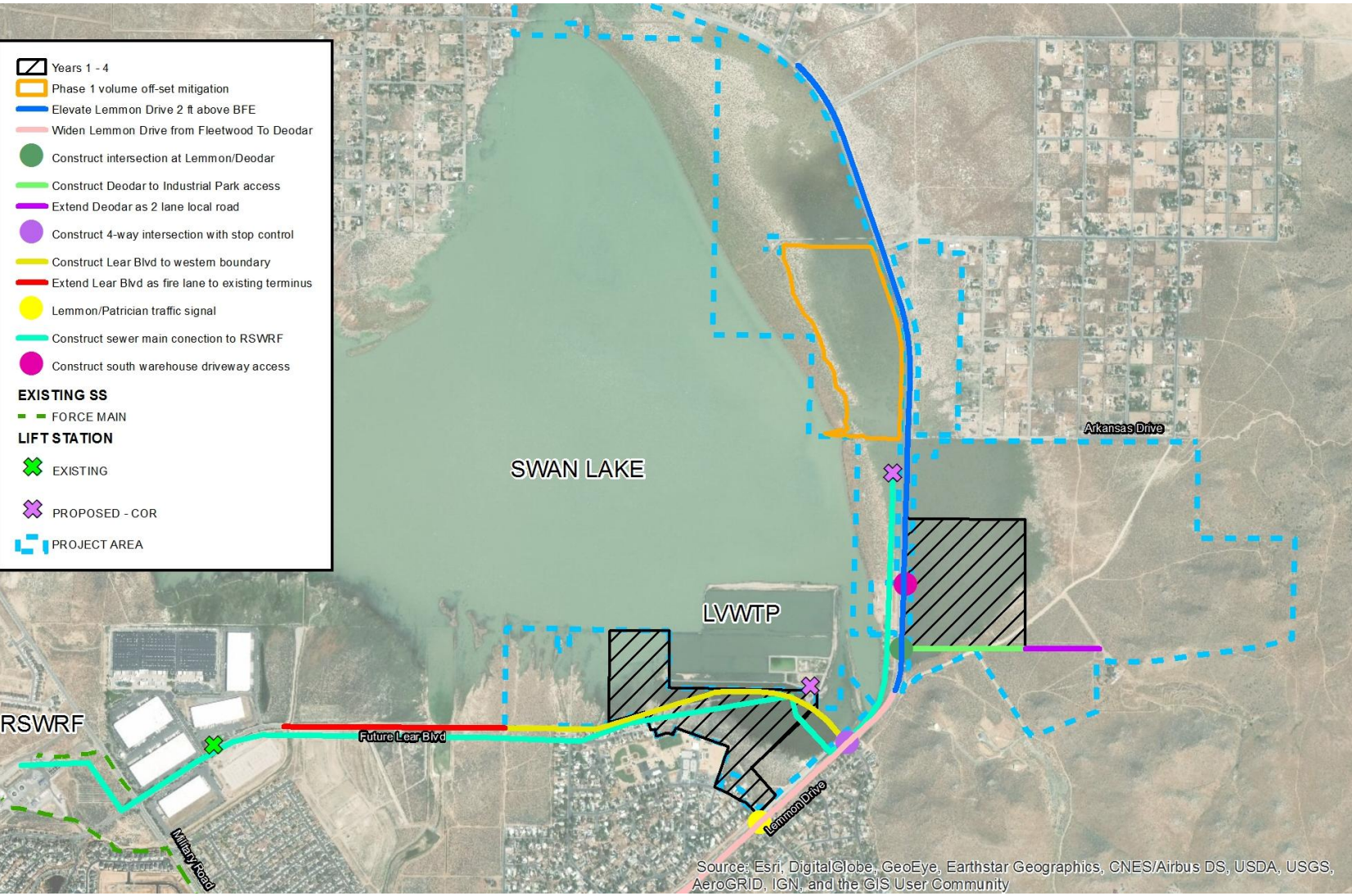


- ❖ Traffic study provided recommendations for roadway and intersection improvements associated with phased development.

- ❖ Majority of roadway improvements to be provided in Phase 1 (Years 1 – 4) by Developer

- ❖ Improvements include:

- Widening Lemmon Dr from Fleetwood to Deodar as Major Arterial;
- Elevating Lemmon Dr 2' above flood level from Deodar to Tupelo/Sand Pit;
- Constructing Lear Blvd to project boundary; fire access road from boundary to existing terminus
- Installing traffic signal at Lemmon and Patrician for “safe route to school”
- Realigning and constructing new Deodar/Lemmon intersection

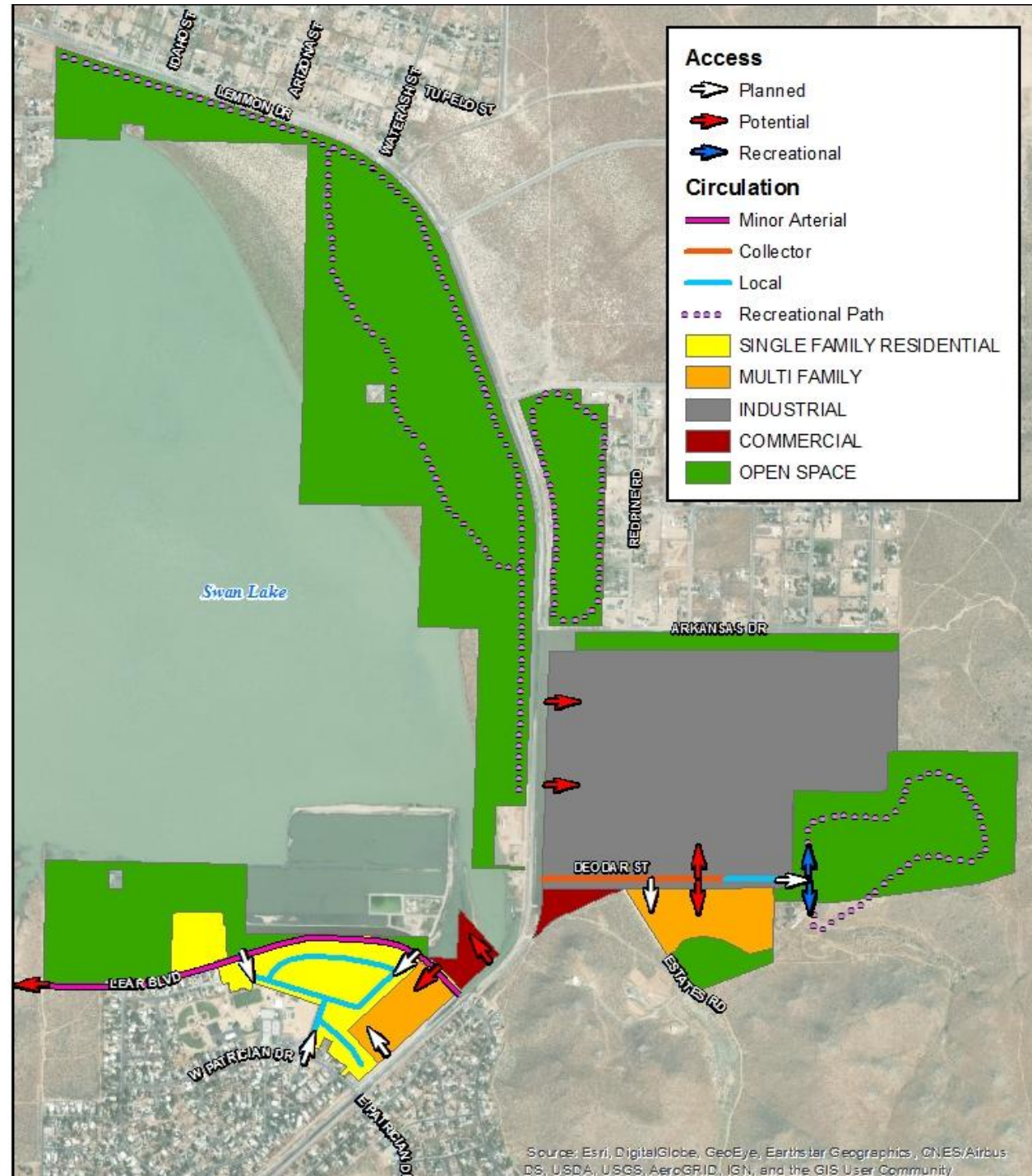


# Traffic & Circulation



- ❖ Traffic Impact Analysis conducted in February 2017 based on scoping from City of Reno and RTC
- ❖ Analysis estimated ~ 15,919 ADT and 1,280 Peak hour trips AT BUILD OUT
- ❖ RTC RTP schedule includes improvements to Lemmon Dr to address rapid growth ahead of programmed schedule.
  - Prado Ranch will help fund these projects through Regional Road Impact Fees
- ❖ NDOT Transportation Improvement Plan
  - Notes US-395 widening & Lemmon Dr Interchange improvements in 2021-2022 timeframe.
    - S/B freeway lane between Lemmon/Clear Acre
  - Private Development has no control over federal funding or timing


















## Traffic & Circulation

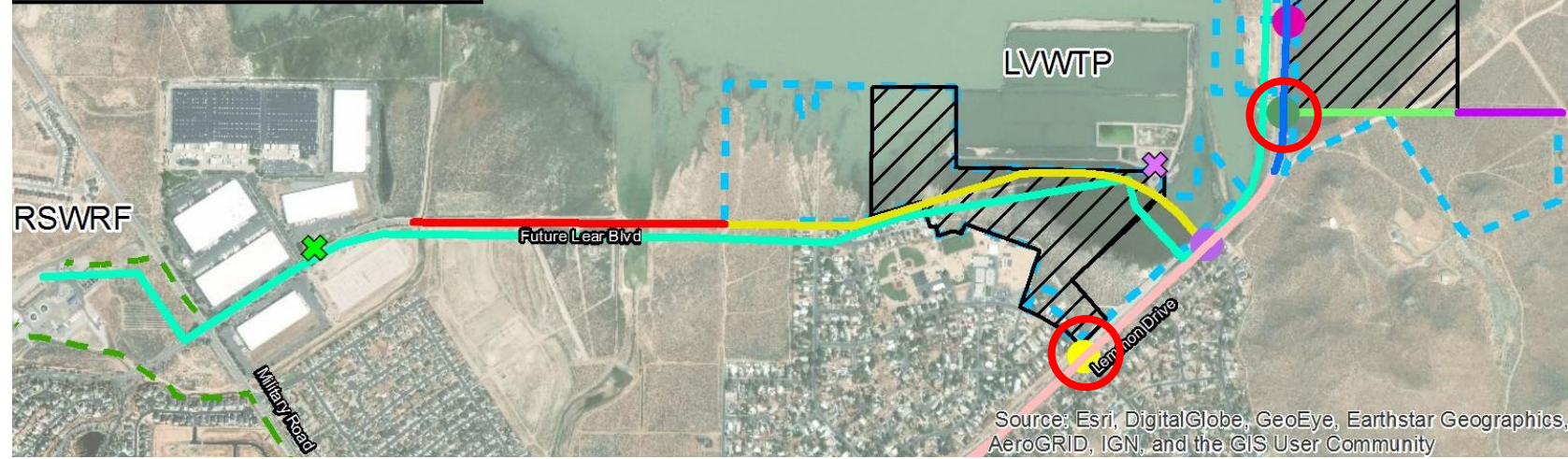




# MASTER PLAN POLICY ANALYSIS

**S-3 “New housing development should accommodate design standards that reflect direct and convenient access to public schools...and document a “Safe Route to School” plan clearly showing recommended pedestrian and bicycle routes to schools”**

-  Years 1 - 4
-  Phase 1 volume off-set mitigation
-  Elevate Lemmon Drive 2 ft above BFE
-  Widen Lemmon Drive from Fleetwood To Deodar
-  Construct intersection at Lemmon/Deodar
-  Construct Deodar to Industrial Park access
-  Extend Deodar as 2 lane local road
-  Construct 4-way intersection with stop control
-  Construct Lear Blvd to western boundary
-  Extend Lear Blvd as fire lane to existing terminus
-  Lemmon/Patrician traffic signal
-  Construct sewer main conection to RSWRF
-  Construct south warehouse driveway access
- EXISTING SS**
-  FORCE MAIN
- LIFT STATION**
-  EXISTING
-  PROPOSED - COR
-  PROJECT AREA



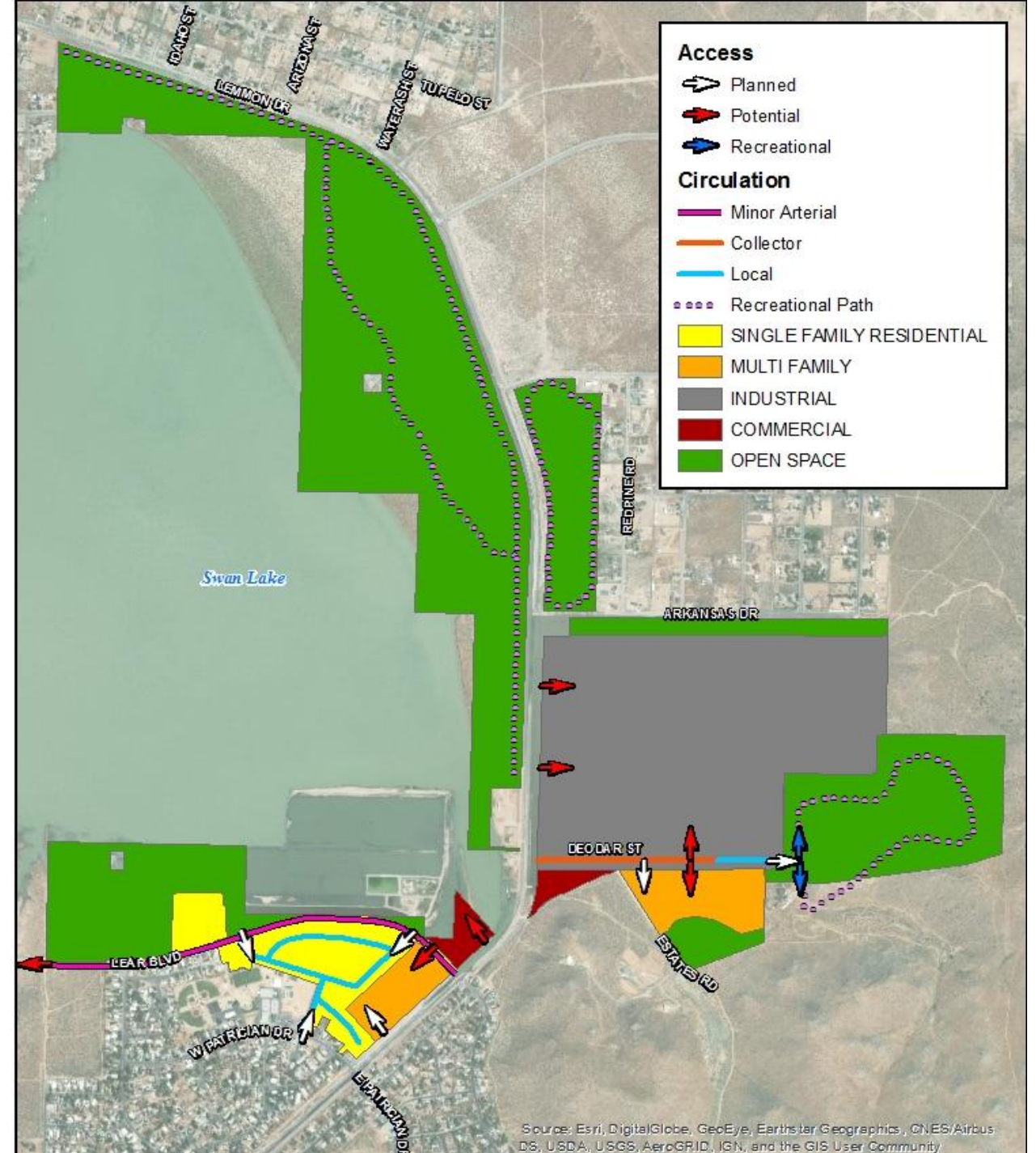
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, AeroGRID, IGN, and the GIS User Community



# MASTER PLAN POLICY ANALYSIS

***CD-3 “City should encourage PUD zoning when they provide open space, protect sensitive environmental resources and scenic vistas”***

- ❖ As proposed, PUD provides ~300 acres of open space (over 60%), much of which is floodplain. With elevation of Lemmon Dr and proposed volumetric mitigation, sensitive environmental resources will be enhanced through additional stormwater capacity.
- ❖ Current floodplain isn't working in its natural state...project has opportunity to make it better while preserving the open space.





# MASTER PLAN POLICY ANALYSIS

***CD-6 “The hours of operation and general activity level of development should be sensitive to surrounding land uses, particularly residential uses. Businesses with 24 hour operations are generally discouraged adjacent to residential uses.”***

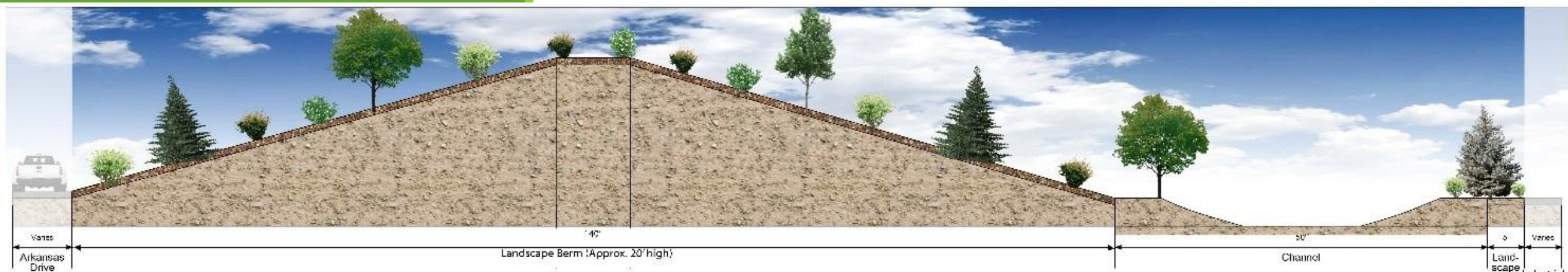
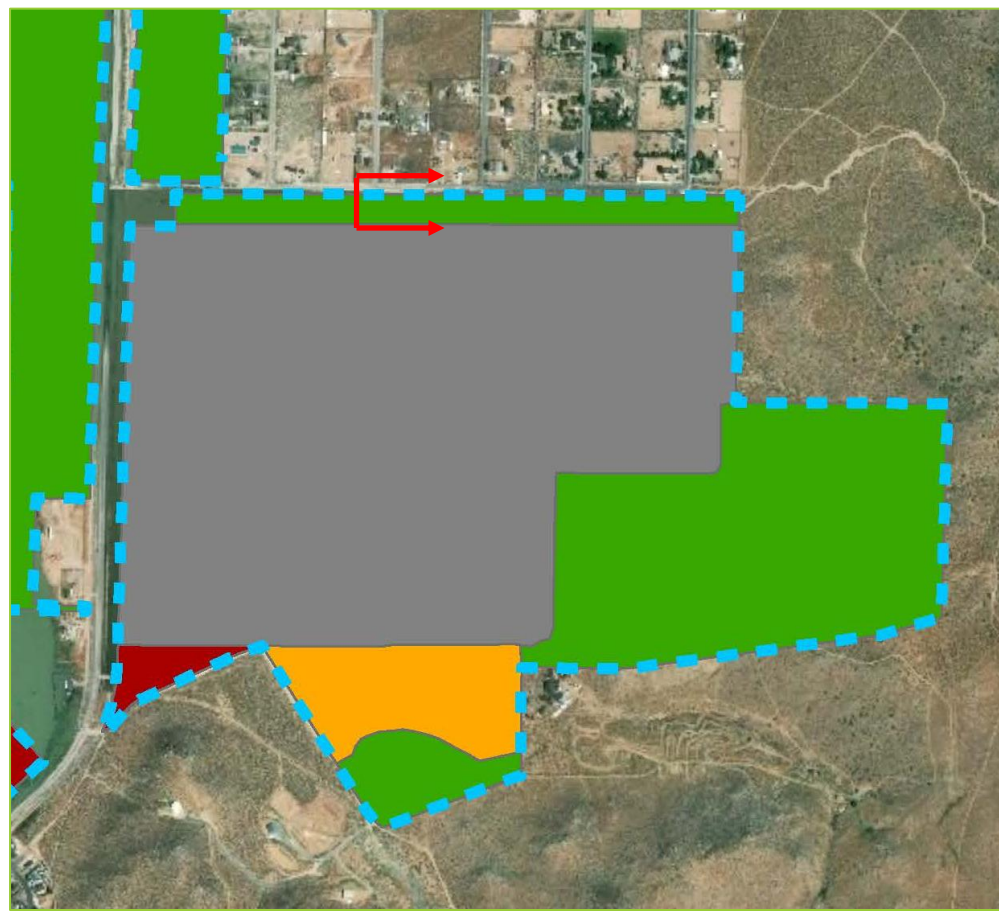
- ❖ Hours of operation addressed in Handbook
- ❖ Handbook includes specific limitations to address after hour deliveries and pick-ups
- ❖ Handbook includes specific design requirements to minimize impacts on adjacent areas such as noise mitigation through the large berm along the north boundary; dock doors facing away from residential uses, noise muffling technology, etc.

***Site Design Objective #1 – Each plan for development should be based on a thorough analysis of the site in order to fully understand the developments relation to the physical environment. The site analysis should include such opportunities and constraints as topography, views, vegetation, drainage, solar path, winter winds, summer breezes, access and adjacent built environments.***

- ❖ Project approach has considered all opportunities and constraints identified above and the handbook as provided, includes specific design requirements to mitigate for development.

# Compatibility

- ❖ Separated from existing residential with 200' Open Space Buffer
  - Per Master Plan - “...features such as separation by open space and extensive landscape buffering...can mitigate proximity”
  - Open Space Buffer minimum 10' tall landscaped berm along entire length with drainage channel
  - Noise study did not find that buffer was required
- ❖ Nearest building separated from Open Space by over 100'





# MASTER PLAN POLICY ANALYSIS

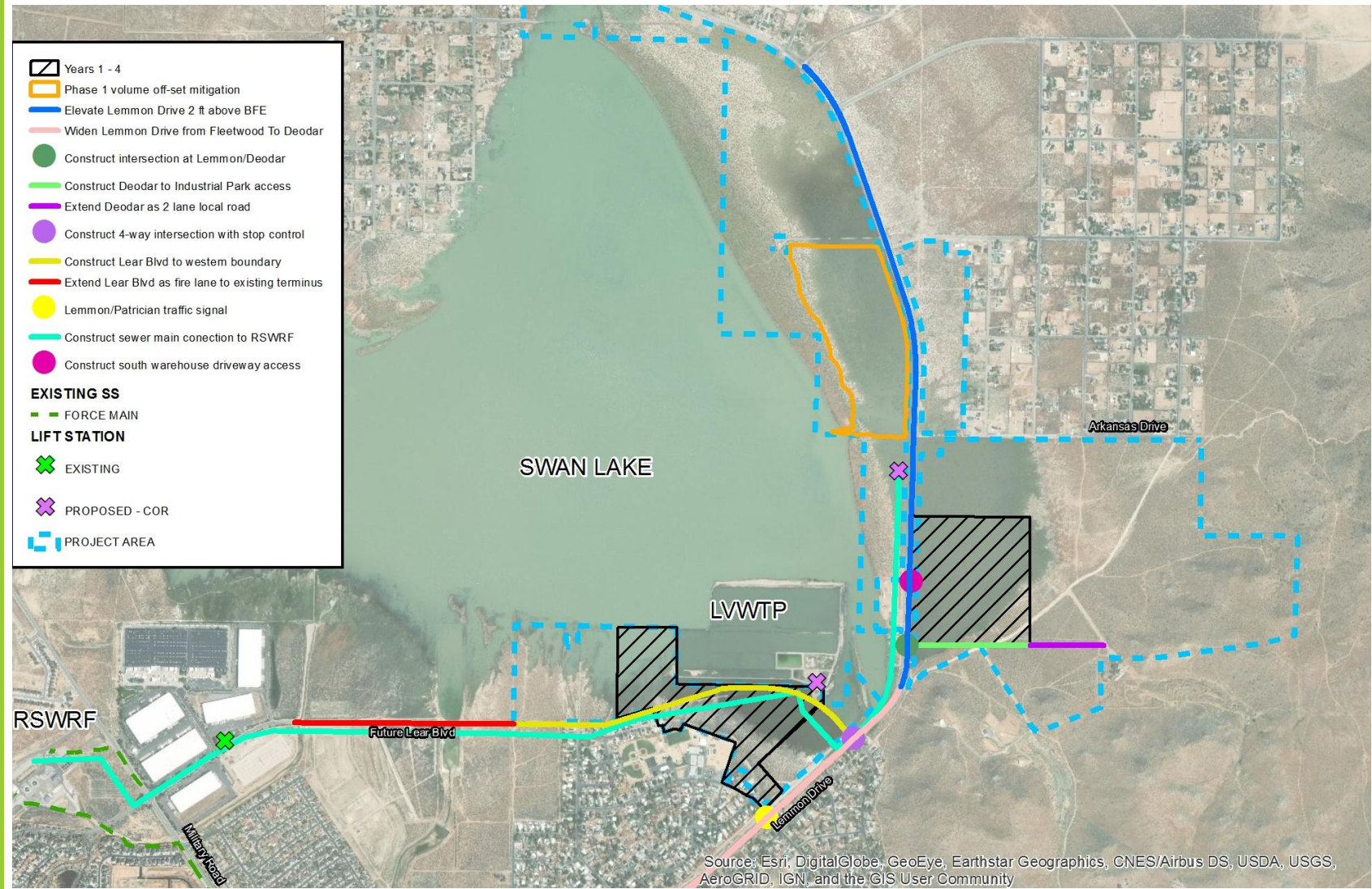
***SD-3 Signs should be designed as an element of the building they advertise and be of appropriate scale to the building and surrounding neighborhood.***

- ❖ PUD Handbook includes signage standards consistent with Reno Code
- ❖ Limits freestanding signage in commercial areas to 15 feet in height

Development phased over 10 – 15 year period

### ❖ Phase 1 (Years 1 – 4)

- SFR & 25% of Industrial
- Major roadway network improvements
- Signal at Patrician
- Flashing Pedestrian crossing sign at Deodar
- Sewer infrastructure
- 41% of volume off-set mitigation



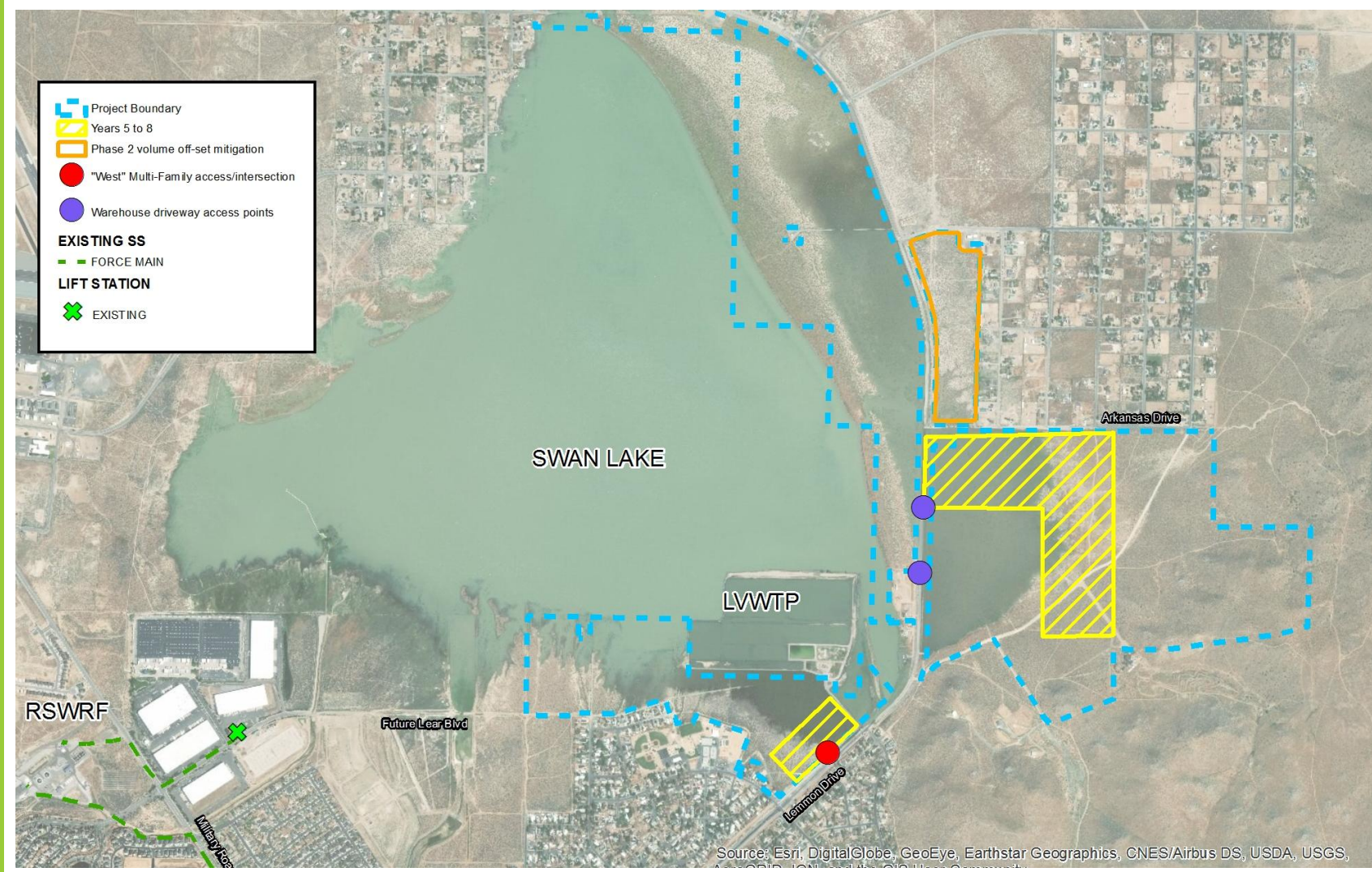
# Phasing Plan



# Development phased over 10 – 15 year period

- ❖ Phase 1 (Years 1 – 4)
  - SFR & 25% of Industrial
  - Major roadway network improvements
  - Signal at Patrician
  - Flashing Pedestrian crossing sign at Deodar
  - Sewer infrastructure
  - 41% of volume off-set mitigation

- ❖ Phase 2 (Years 5 – 8)
  - 50% MF & 50% Industrial
  - 41% volume off-set mitigation
  - Access improvements

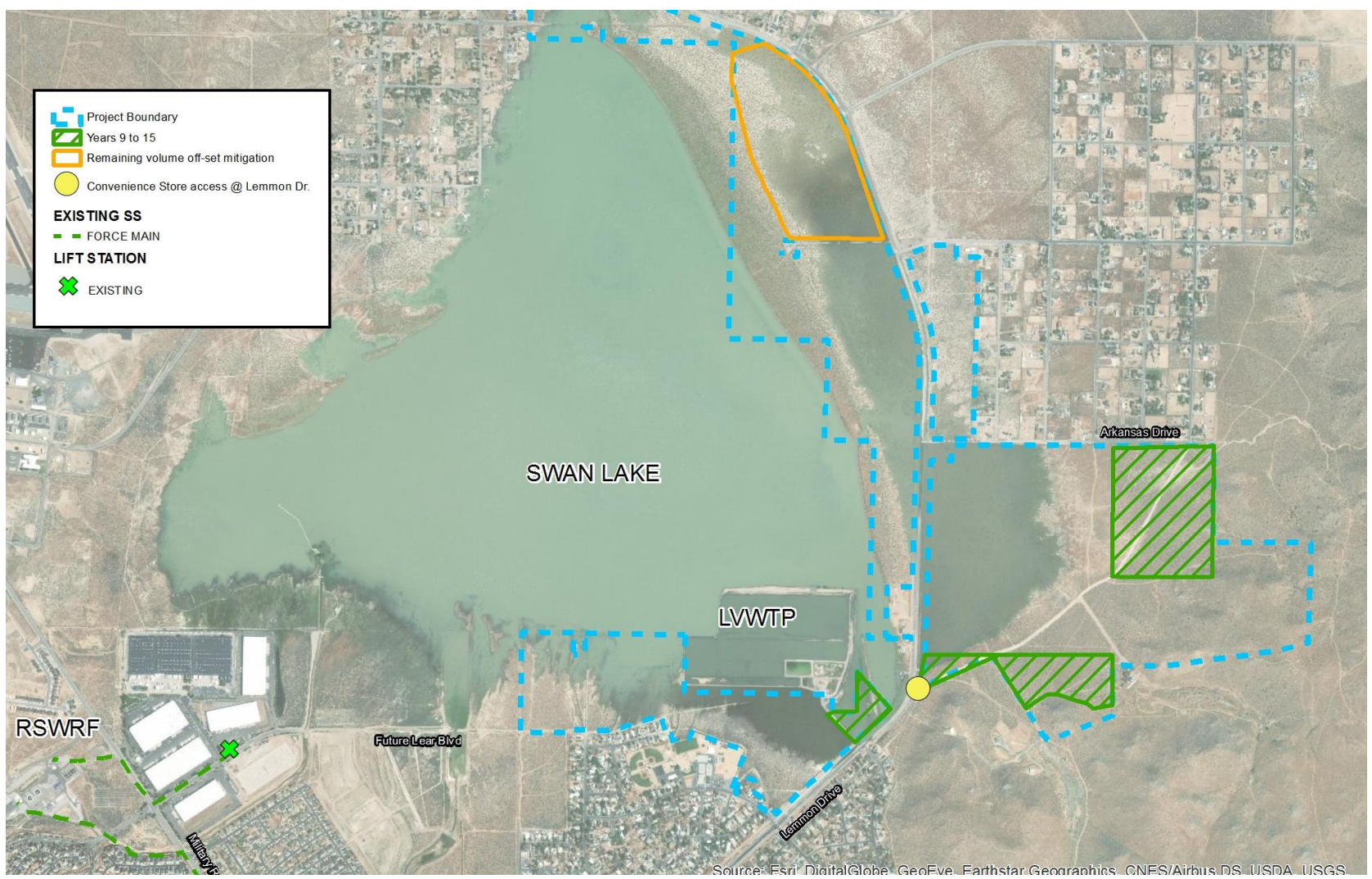


# Phasing Plan



# Development phased over 10 – 15 year period

- ❖ Phase 1 (Years 1 -4)
  - SFR & 25% of Industrial
  - Major roadway network improvements
  - Signal at Patrician
  - Flashing Pedestrian crossing at Deodar
  - Sewer infrastructure
  - 41% of volume off-set mitigation
  
- ❖ Phase 2 (Years 5 – 8)
  - 50% MF & 50% Industrial
  - 41% volume off-set mitigation
  - Access improvements
  
- ❖ Phase 3 (Years 9 – 15)
  - 100% Commercial, remaining Industrial, remaining MF
  - 41% volume off-set mitigation
  - Access improvements



# Phasing Plan



- ❖ Creates opportunity for families to live and work close, reducing congestion in area
- ❖ Establishes mix of housing type/size identified as needed in Region
- ❖ Establishes opportunity for regional solution to floodplain mitigation while preserving ~300 acres of open space
- ❖ Will generate ~\$9.76 million in revenue to City's General Fund; ~\$6.23 million in surplus revenue to City's Street Fund
- ❖ Over \$20 million in RTC & other impact fees
- ❖ Elevating Lemmon Dr above flood level prevents future road closures during flood events; provides continued emergency access
- ❖ Traffic signal at Lemmon/Patrician mitigates traffic/pedestrian conflicts; ensures Safe Route to School
- ❖ Connection of Lear Blvd provides quicker emergency response times

## Regional Benefits

