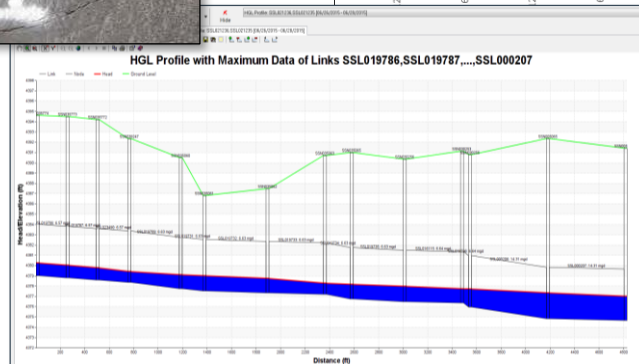
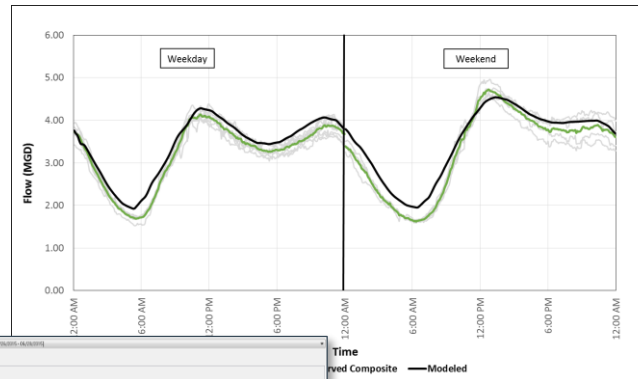


# Sewer Model Update

## Sparks City Council

December 12, 2016



# Living Model Approach

1. Utilize technology and best available data
2. System capacity
3. Development / redevelopment questions
4. Capital improvement projects (CIP)



# Flow Metering

## Metering Locations

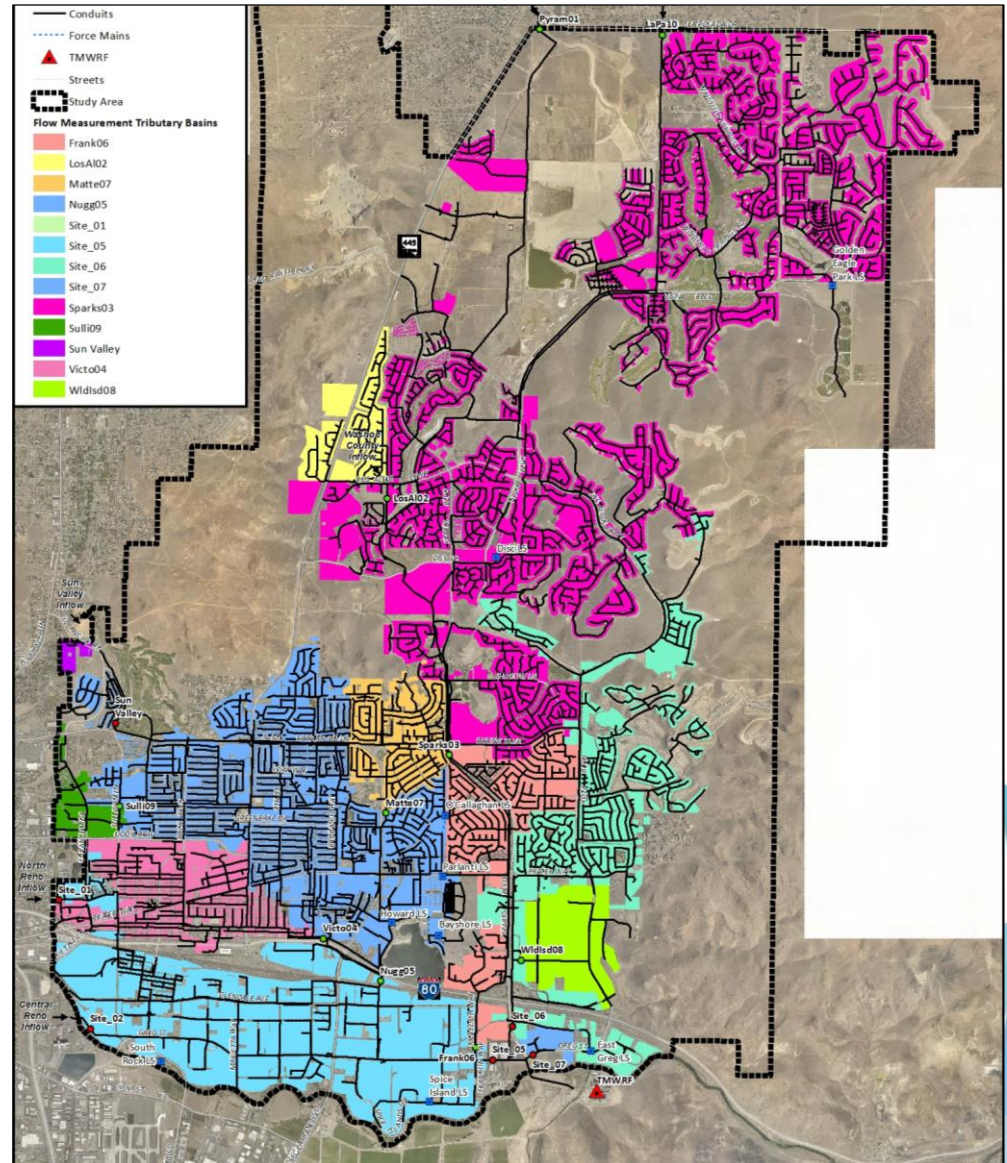
10 temporary

(6/18-7/1 of 2015)

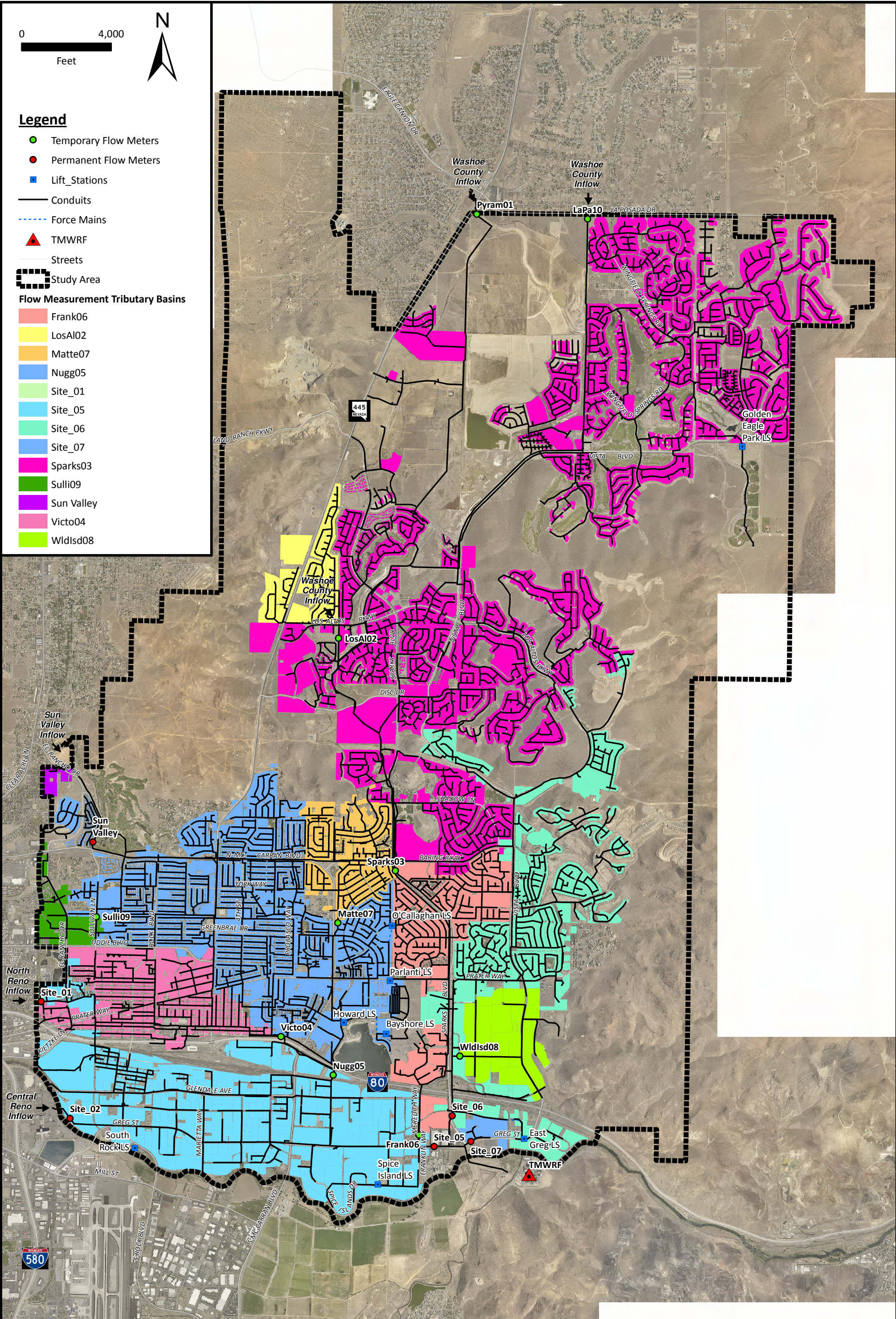
6 permanent



TMWA water meter records









# Existing System

## Existing Condition

215 miles

65% of system

11 land uses

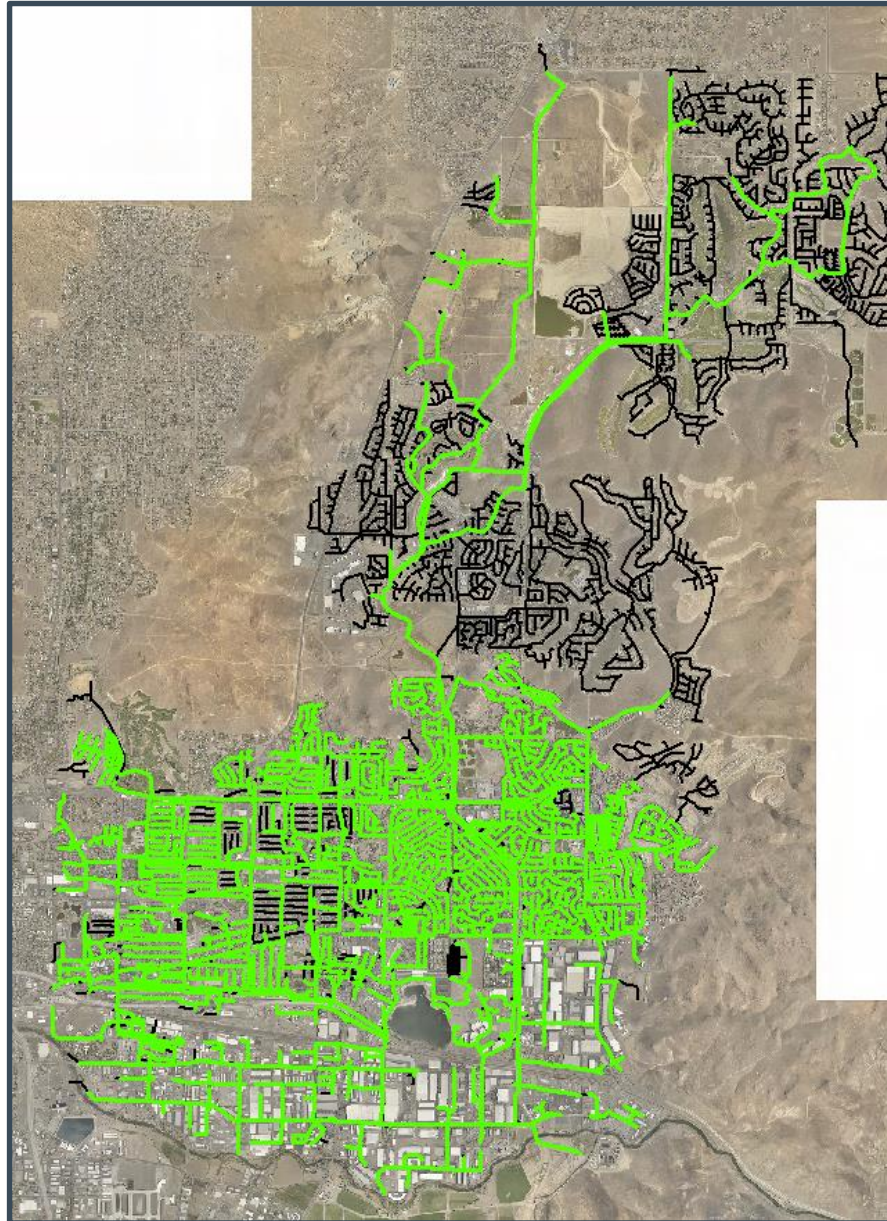
39,000 res. DU

8,957 ac non-res.

## Buildout Condition

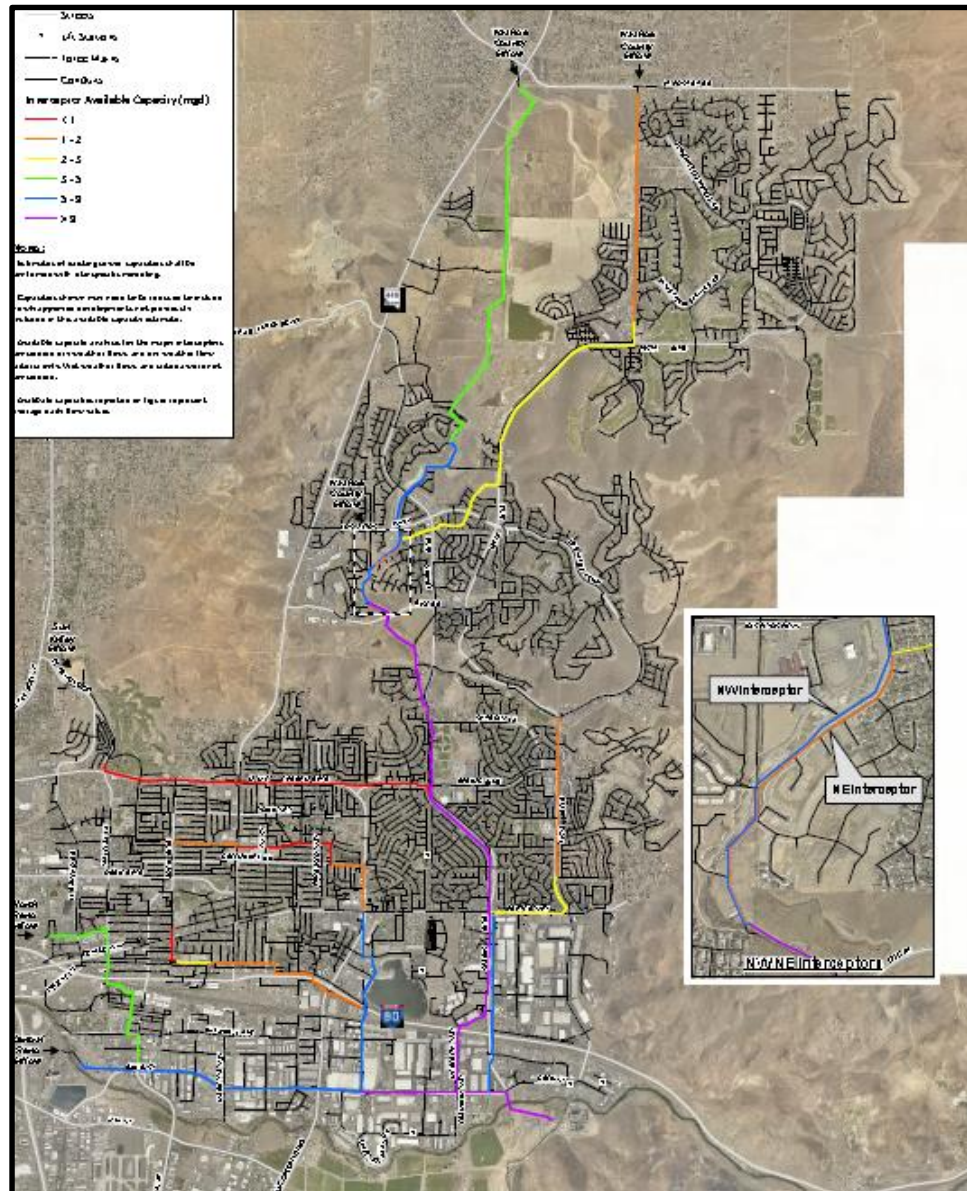
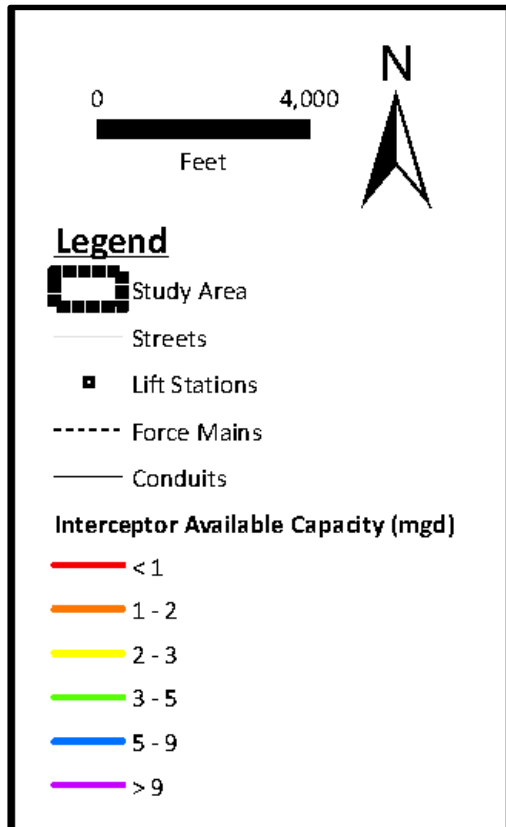
+18,500 res. DU

+1,900 ac non-res.

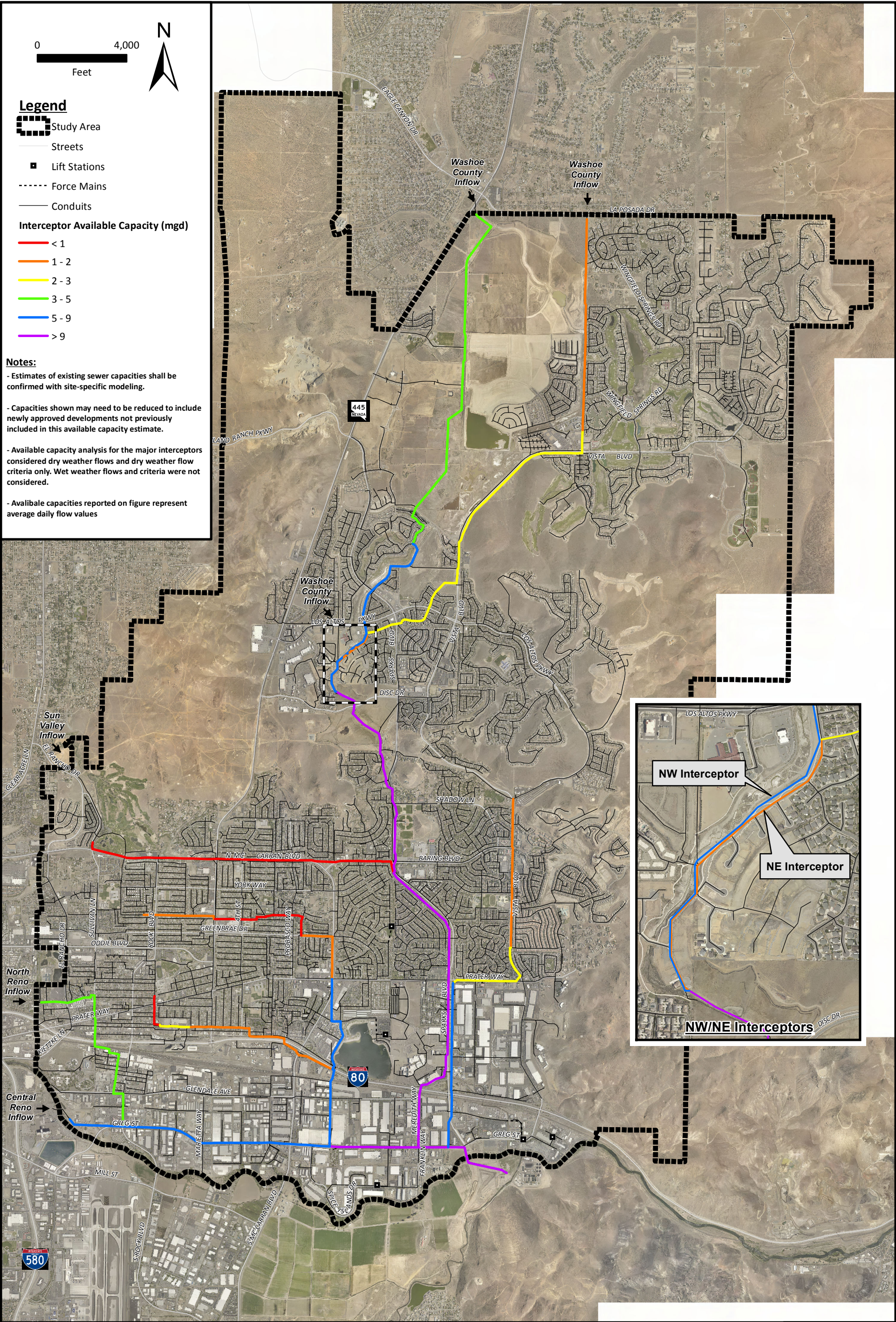




# Existing System Capacity



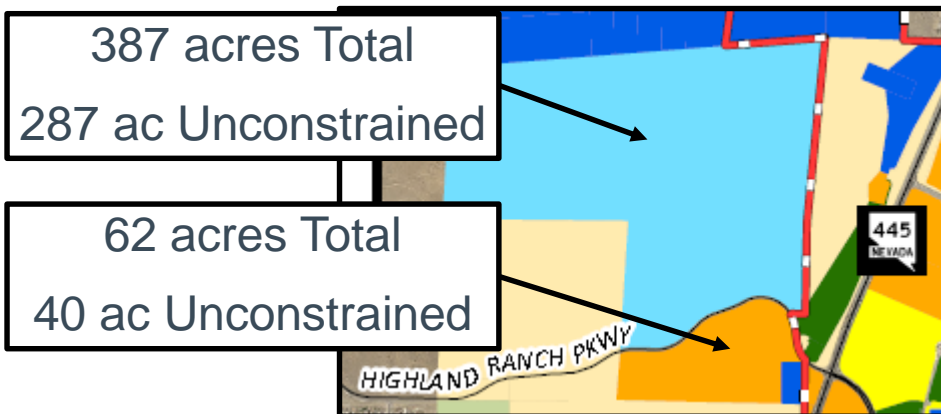
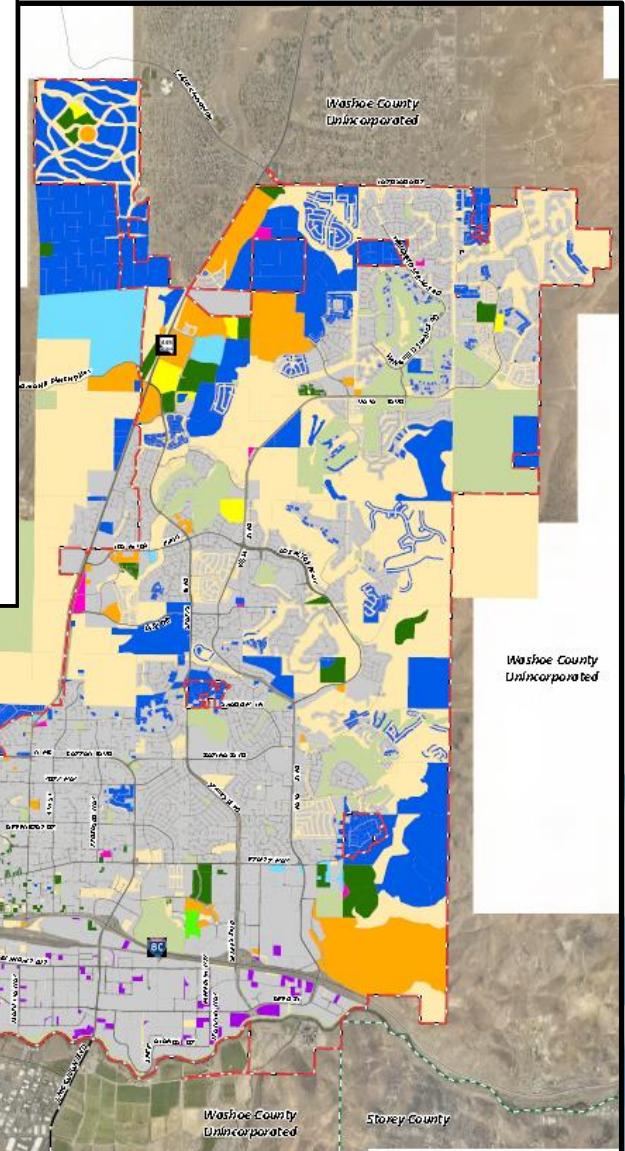
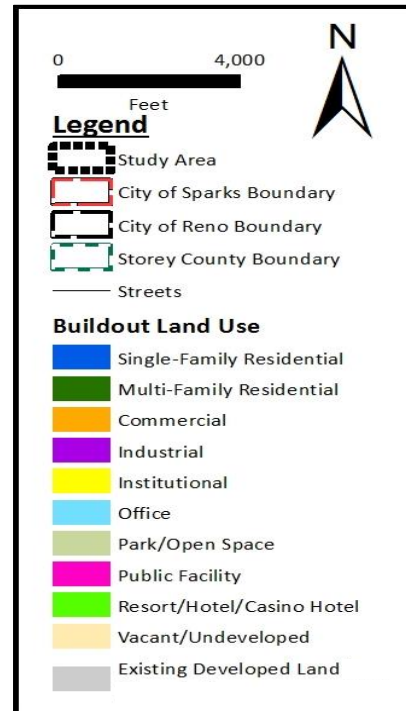




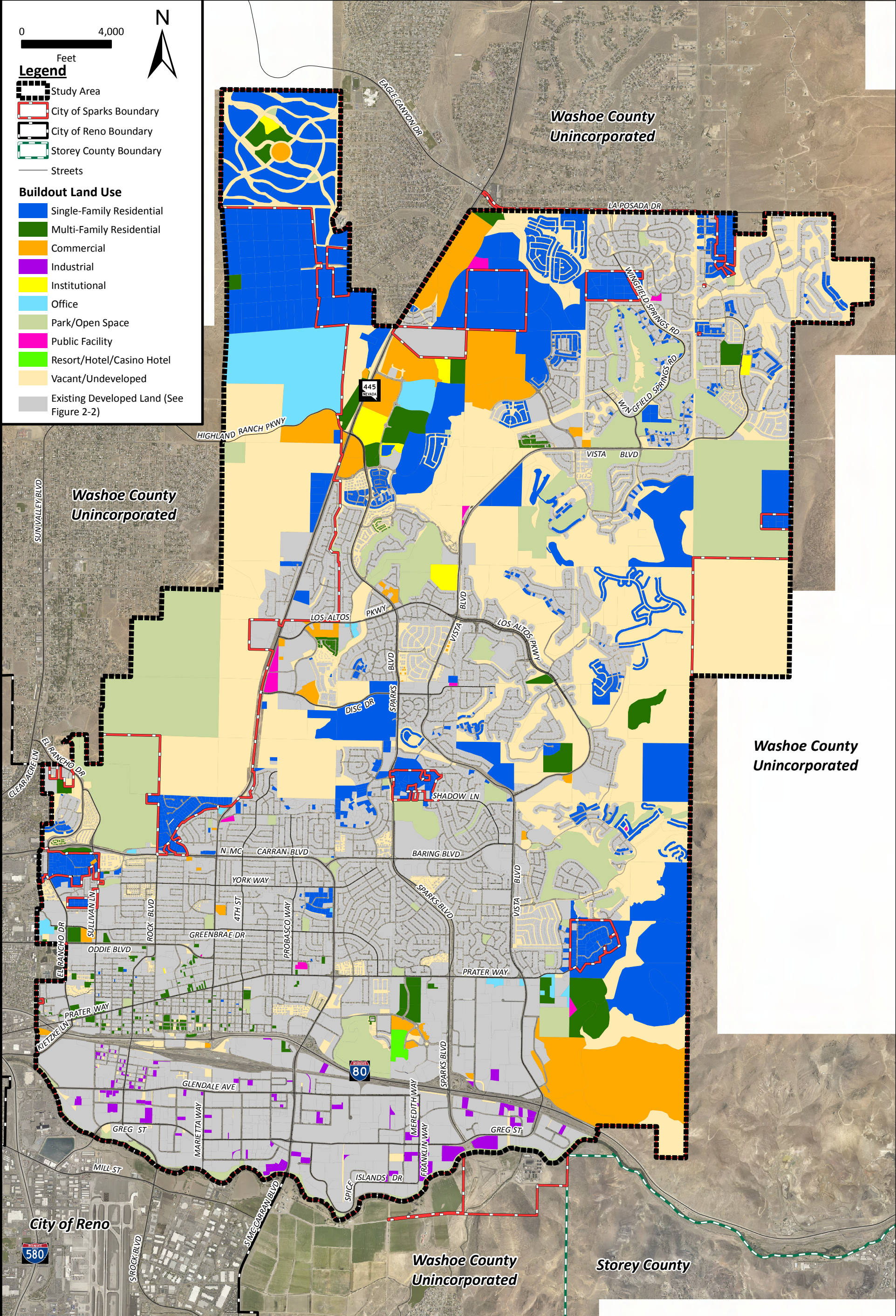


# Dynamic Results

1. Identify impacts
2. Quick and informed decisions
3. Sustainable approach

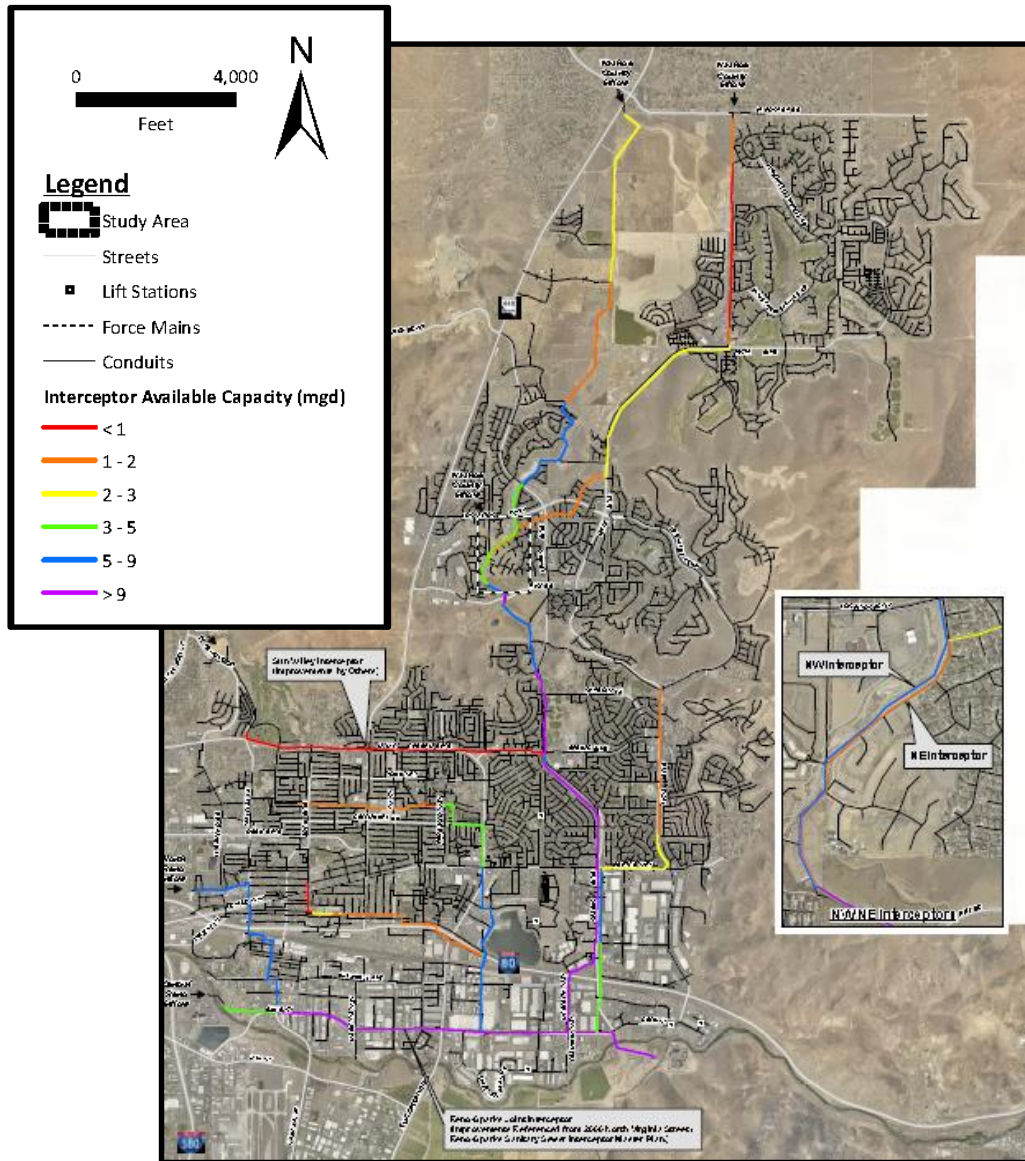








# Buildout System Capacity



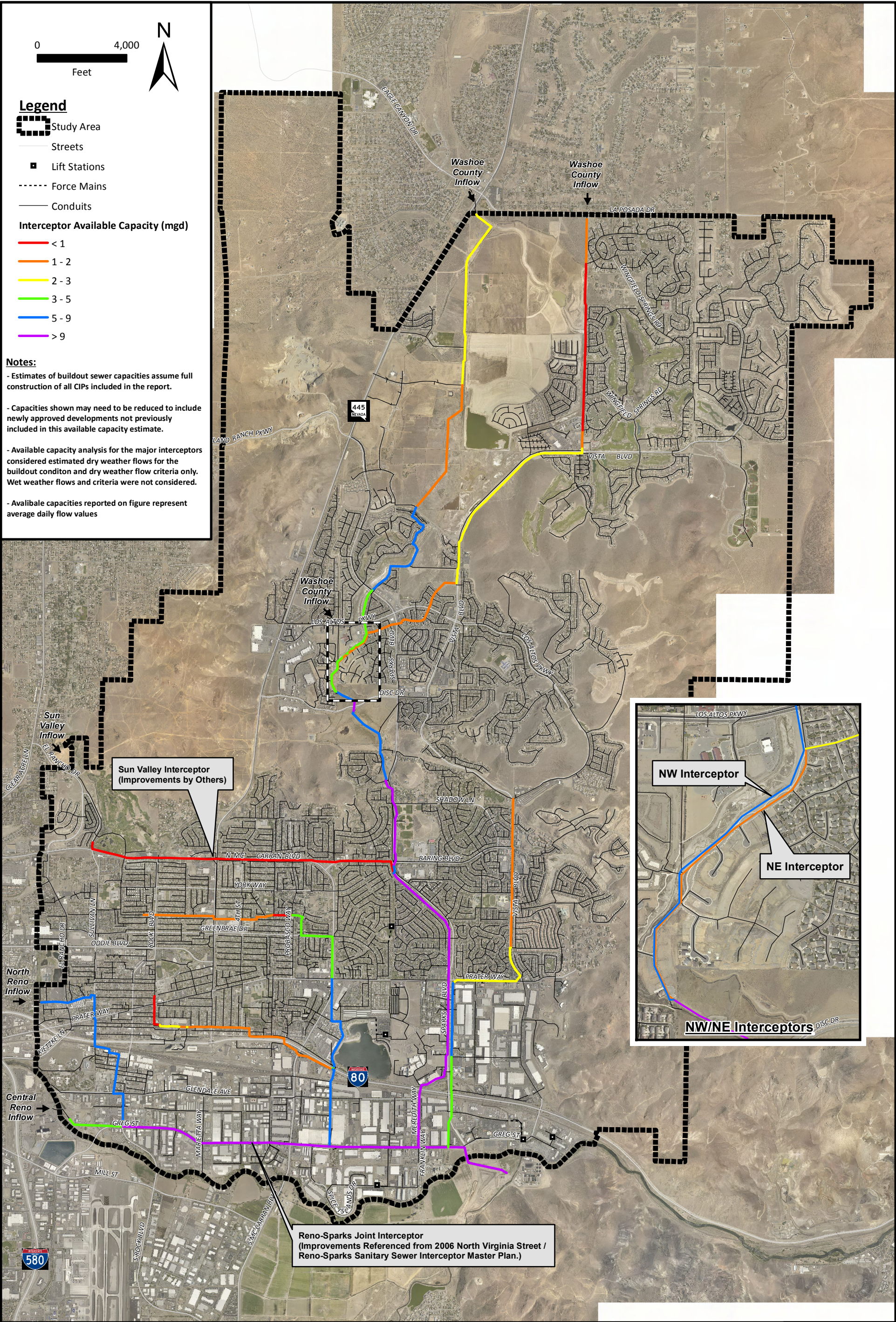
Note: Estimates of buildout sewer capacities assume full construction of all CIPs

Results	Budget
Existing CIPs	\$10.2M
Future CIPs	\$6.4M
Total CIPs	\$16.6M

## CIP Development

- Capacity issues
- Priority
  - d/D ratio
  - Dry or wet weather
  - Short term or long term
- Trigger
  - Existing problem
  - Development & redevelopment
  - Septic Conversion







# Wastewater Flow Projections

## Study Area Wastewater Flow Projections

Jurisdiction	Estimated Wastewater Generation (mgd)	
	Existing	Buildout
Washoe County	0.63	2.29
Sun Valley	0.94	2.10
City of Sparks	7.86	11.96
Total	9.43	16.35



**Truckee Meadows Water  
Reclamation Facility**

- Current Total Contribution to TMWRF from Sparks system is 9.43 mgd
- Sparks share of TMWRF capacity is 14.58 mgd
- Capacity Agreements:  
Washoe County = 2.29 mgd  
Sun Valley = 2.10 mgd
- We estimate at the end of the Consensus Forecast Period Sparks Contribution to TMWRF will be 13 mgd or less.
- The model estimates that at buildout Sparks will require 16.35 mgd of treatment capacity at TMWRF



# Summary

- Sewer capacity is two components – hydraulic (pipe) and treatment
  - Related but require unique solutions
- Our sewer model will provide a powerful, dynamic planning tool for land use and Capital Project decisions
- Ability to update with land use changes

