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Talmage Daley/Scott Murdock

# NORTH SALT LAKE UTAH STUDY

# North Salt Lake Utah Study



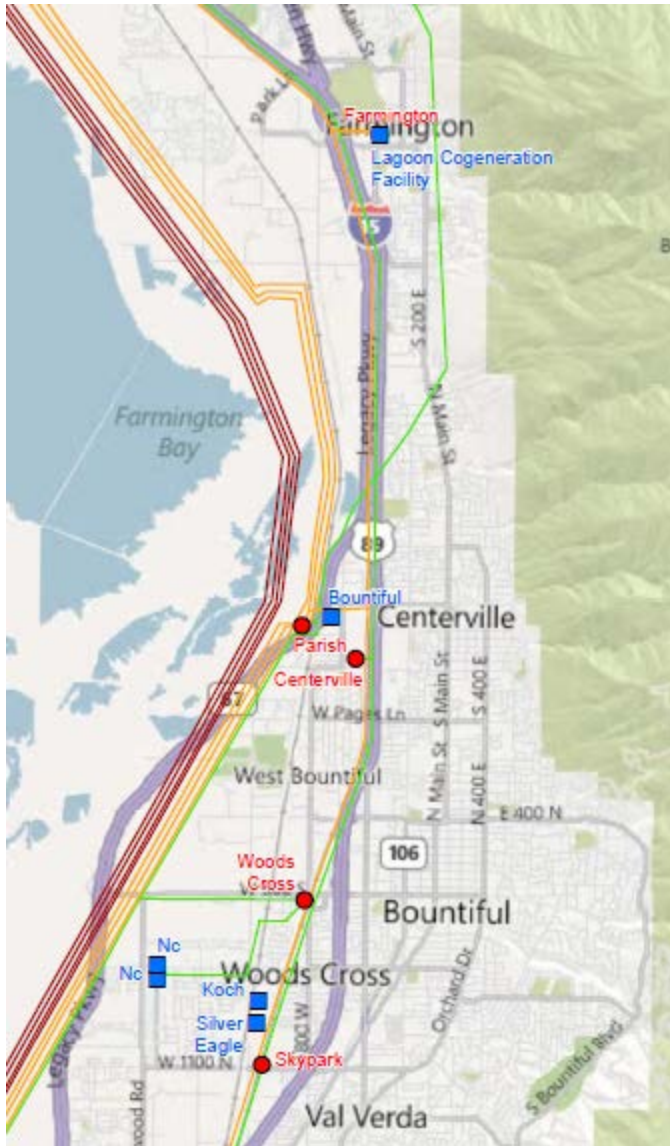
- Kaysville (Municipality)
- Farmington
- Centerville
- Bountiful (Municipality)
- West Bountiful
- Woods Cross
- North Salt Lake
- Rose Park (SLC)

# North Salt Lake Utah Study

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- Covers ~ 70 square miles of area in Salt Lake and Davis Counties.
- 4 Source Substations – Terminal, Gadsby, Parrish, Syracuse
- 1 Alt. (46 kV) Source at Jordan (Rose Park)
- 2 Alt (46 kV) Sources at Syracuse & Riverdale (North)
- 1 Alt. (138 kV) Source at Syracuse
- There are 24 substations out of which 12 are customer substations.
- Sub-Transmission voltages include 46 kV and 138 kV.

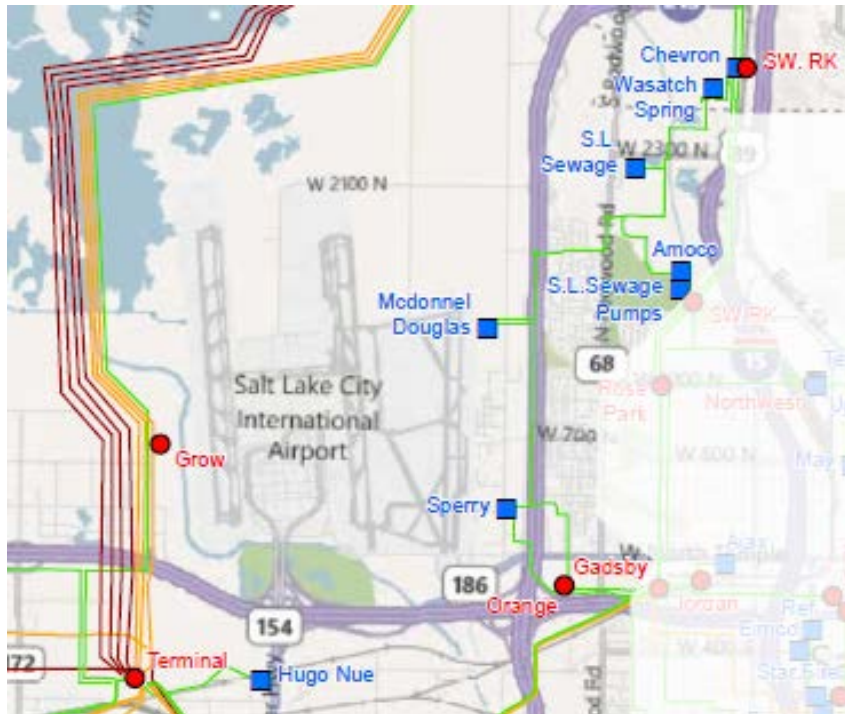
# Parrish Sub



- Serves Farmington, Centerville, West Bountiful, Bountiful City, Woods Cross and the surrounding area.
- Woods Cross serves northern portion of refinery customers.
- Served by 138 kV from Terminal to the south and Walnut Grove (Syracuse) to the north or alternately Shick and provides for area subs at 46 kV & 138 kV.



# Grow, Orange and Wasatch Springs Substations



- Grow served by Terminal 46 & 138 kV lines to Parrish.
- Grow serves SLC International Airport and area commercial loads.
- Gadsby 46 kV line serves customer subs in the area.
- Completes 46 kV loop to Wasatch Springs, adding reliability for refinery customers.

# Load Growth

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## – Base System Loads

- ▶ Summer 2012: 356.5 MW
- ▶ Winter 2012-2013: 274.7 MW

## – Growth

- ▶ Summer: 1.9%
- ▶ Winter: 1.7%

## – Projected System Loads

- ▶ Summer 2016: 373.3 MW
- ▶ Winter 2016-17: 279.1 MW

# North Salt Lake Utah Study

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## – Area Distribution Capacity

- ▶ Summer: 360.5 MVA
- ▶ Winter: 432.4 MVA

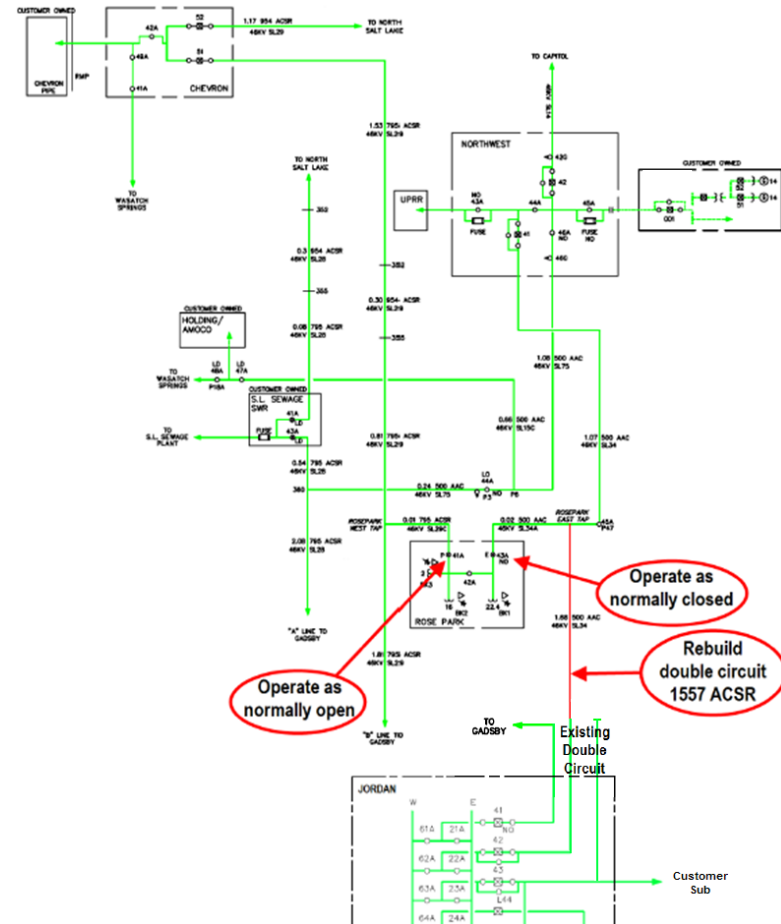
## – Area Utilization

- ▶ Summer 2011: 72.9%
- ▶ Summer 2012: 62.7%
- ▶ Winter 2011-2012: 38.02%
- ▶ Winter 2012-2013: 37.44%



# N-1 System Improvements

- Jordan to Rose Park 46 kV Line Rebuild and Transfer
  - Line currently overloads on N-1 during peak.
  - Constructed double-circuit 1557 ACSR.
  - Relieves various outage concerns.
  - Estimated cost: \$2,000,000

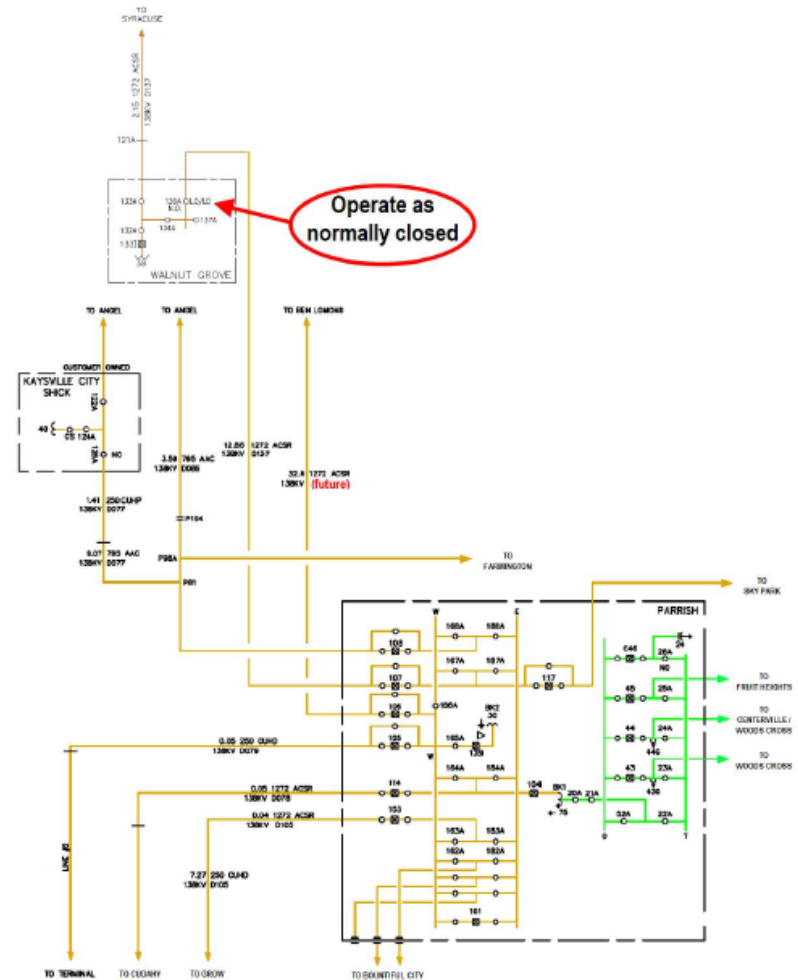




# N-1 System Improvements

## Walnut Grove – Parrish Normally Closed:

- Switch 136A at Walnut Grove closed prior to Summer 2012.
- Alleviates overload issues upon outage of any of three 138 kV lines serving Parrish from Terminal.
- In service by May 1, 2012



# Construction Schedule Summary

## Construction Schedule Summary

	<u>Cost **</u>
<u>2012 CONSTRUCTION</u>	
No Scheduled Work	\$0
2012 Total	\$0
<u>2013 CONSTRUCTION – In service before May 1, 2013</u>	
Distribution Transfer (1.9 MW), Centerville to Parrish	\$0
2013 Total	\$0
<u>2014 CONSTRUCTION</u>	
No Scheduled Work	\$0
2014 Total	\$0
<u>2015 CONSTRUCTION – In service before May 1, 2015</u>	
Rebuild line 138 kV double circuit, Jordan to Rose Park ET, and Rose Park transfer.	\$2,000,000
2015 Total	\$2,000,000
<u>2016 CONSTRUCTION</u>	
No Scheduled Work	\$0
2016 Total	\$0
<b>Study Period Total Costs</b>	<b><u>Grand Total</u>      <u>\$2,000,000</u></b>

\*\* All costs estimated to ± 50%

# North Salt Lake Utah Area Study

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- Any Questions or Comments?