

# What we are working on.

Bert Granberg  
March 2015 NGAC Meeting



**The State of Utah's  
Map Technology Office  
- Since 1984 -**

# Utah's State Geographic Information Database

**Overview**  
Utah's State Geographic Information Database (SGID) is the central clearing house for all digital mapping (GIS) information (Utah Code 63F-1-507). It includes both data and services for use by state agencies, partnering organizations, and others.

**SGID Datasets**  
Use the right-side menu to explore datasets, organized loosely by topic category, obtain detailed information about Utah GIS data layers, and to download files or access services.

**Popular Datasets**  
Aerial Photography  
Addresses (3)  
Aerial Photography (12)  
Bioscience (4)  
Boundary Data (13)  
Cadastral (5)  
Climate and Weather (3)  
Demographic (3)  
Economy (3)  
Elevation and Terrain Data

**SGID Data Services**  
Online Base Maps  
Fast and free online map service featuring local data.  
SGID Image Server  
Utah aerial photography without download data.  
SGID ArcSDE Database Serv  
Direct connect to AGRC's ArcSDE for the most current data.  
SGID Raster Discovery App  
Download aerial photography, contour lines and USGS topographic in Utah Raster Discovery App.  
Download SGID Data Via FTP

**Supporting NextGen 9-1-1: Statewide GIS Map Layers**

Coordinate data and the government's 911 service are essential to the success of the 911 system. The 911 system requires high-precision geospatial data to support the location of emergency services. This document provides a comprehensive overview of the data layers used in the 911 system, including:

- Address Databases with Core Address Features
- Highway Agencies, Addressing and Maps
- Aerial Photography
- Address Points & Development Areas
- Call Plans, Address Features
- National Cadastral & Mosaic
- Local and Regional
- Common place points (point of interest)
- Municipal and County boundaries
- Demographic Data
- Geographic Information Systems
- Public and Commercial
- Cadastral Data Maps
- Other: Schools, shopping centers, government offices, halls and buildings, other non-emergency facilities, etc.

**911 9-1-1 Requirements:**  
 - Emergency Response Service Databases  
 - Interoperability Service Databases  
 - GIS Data Maintenance Requirements

# Mapping Apps, Analysis & Web Services

**STATE OF UTAH BROADBAND PROJECT ECONOMIC DEVELOPMENT MAP**

Current Location: Click on the map to get info about the current location.

Address: [Input field]  
Zip or City: [Input field]  
First Address: [Input field]

Search for place names: [Search field]

Layers:  
 - Broadband  
 - Fiber  
 - All Non-Mobile Broadband (Includes Fiber, DSL, Cable, and Fixed Wireless)  
 - Utilities  
 - National Gas Service Areas  
 - Electric Utility Territory  
 - Local Exchange Areas  
 - Cellular Water  
 - Transportation  
 - Heavy Rail  
 - Light/Commuter Rail  
 - Airports  
 - Major Road Buffer

Mobile App Interface:  
 - Home, Report, Help  
 - Sign in to select:  
 - Gender: Male, Female, Other  
 - Occupation: [Dropdown]  
 - Age Group: Teen, Young Adult, Adult, Unknown  
 - Report Location: [Map view]

# News & Coordination Across Organizations

**Utah AGRC**  
 High resolution (0.1) LIDAR data and surface models for Wasatch Front urban area (2013-14) now available.  
 #Utahmap  
 Use the #Utahmap twitter hashtag to stay up to date on all mapping and GIS news throughout Utah.  
 Data Resources  
 Aerial photography  
 High Resolution Imagery, National Agriculture Imagery Program (NAIP), Digital Ortho Quarter-Scale (DOQ) and instructions for accessing imagery.  
 SGID data and downloads  
 Catalog of available mapping/GIS data, including description and usage information, and download links.  
 Base map services in ArcMap  
 AGRC provides several multi-scale base map service options that deliver pre-rendered base map files to your ArcMap session or to web app developers.  
 USGS scanned topographic maps (DRGs)  
 The SGID contains a complete statewide coverage of scanned standard series USGS topographic maps, also known as digital raster graphics (DRGs).

**Utah SGID Statewide Roads Data Layer Updates 11/2/2015**  
 Jan 12, 2015  
 Updates were made recently to the SGID's transportation theme feature class that resides on the Utah SGID ArcSDE database server. The updated Roads data is also available as shapefiles and file geodatabase files for download on the SGID FTP site. Geocoding services and ArcGIS Server Applications & Web Services are now using the updated CGMVA Transportation Branch Address layer.

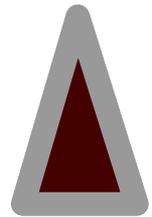
**Utah Statewide Recreation Database**  
 Dec 24, 2014  
 The Governor's Office of Economic Development's Outdoor Recreation Office has partnered with AGRC on a project to build a statewide trails database. A statewide trails database and map will offer something unique that few other states have and will aid Utahns and visitors alike with access to more areas of the state. Phase 1 of

**TURN GPS Network for High Precision Measurement**

The collage includes:  
 - A map of Utah showing a dense network of GPS stations labeled with codes like UTWE, UTGR, etc.  
 - Two people operating a surveying instrument on a tripod.  
 - A yellow tractor in a field.  
 - A tractor with a guidance system in a field.  
 - An irrigation system in a field.

## *Defining/Formalizing Logical Roles/Responsibilities...*

- gData Integration & QC & Feedback
- Platform
- Coordination
- Mentoring
- Large Area
  - Data Collection: Imagery Elevation, Wx
  - Services, Apps
- Other Contracting



**S T A T E**

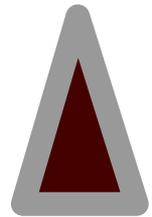


**L O C A L**

- Local and Frequent gData Collection
  - Parcels, Roads, Addresses, Boundaries
- Support to Local Govt & Services

# *Defining/Formalizing Logical Roles/Responsibilities...*

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**S T A T E**

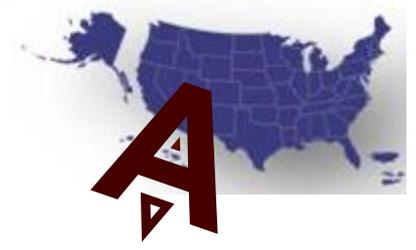


**L O C A L**

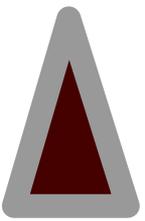
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**L O C A T L E**

# Defining/Formalizing Logical Roles/Responsibilities...



- gData Integration & QC & Feedback
- Platform
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  - Data Collection: Imagery Elevation, Wx
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## STATE



## LOCAL

- Local and Frequent gData Collection
  - Parcels, Roads, Addresses, Boundaries
- Support to Local Govt & Services



# LOCATE

# In-/Out- Reach...

for each  
Layer  
Theme:

Status/Update Freq

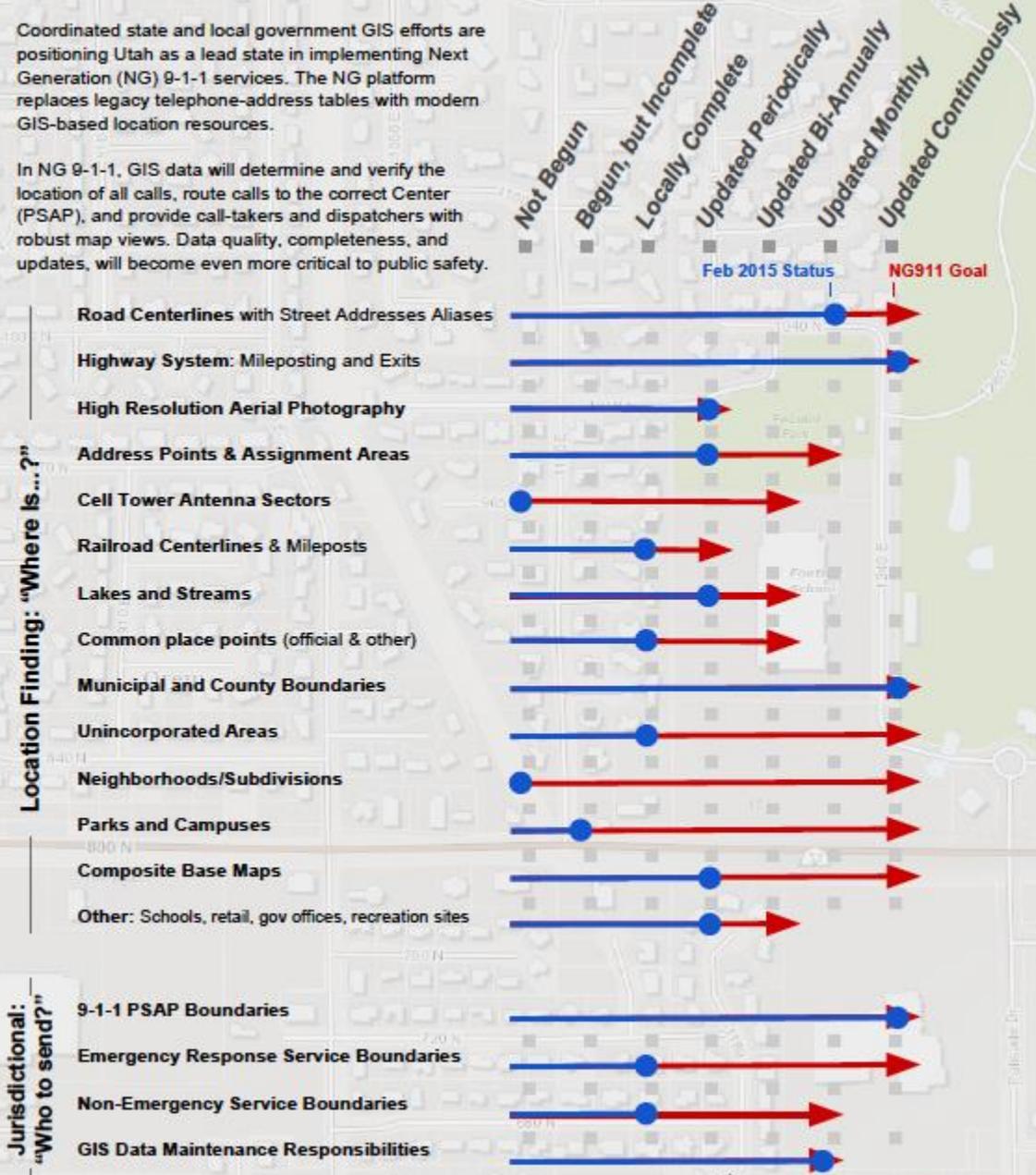
Current

Goal

## Supporting NextGen 9-1-1: Statewide GIS Map Layers

Coordinated state and local government GIS efforts are positioning Utah as a lead state in implementing Next Generation (NG) 9-1-1 services. The NG platform replaces legacy telephone-address tables with modern GIS-based location resources.

In NG 9-1-1, GIS data will determine and verify the location of all calls, route calls to the correct Center (PSAP), and provide call-takers and dispatchers with robust map views. Data quality, completeness, and updates, will become even more critical to public safety.





# Maps on the Hill 2015

Dec 5, 2014

Maps on the Hill, supported by the Utah Geographic Information Council (UGIC) and AGRC, will be held on January 28, 2015. This event, in its fourth year, is a good opportunity for students and professionals to share maps, mapping tools, and mapping projects with elected officials, fellow practitioners, and the public.



#### Who should participate:

Individuals: Anybody who makes a map through their work or education.

Organizations: An organization that has worked on multiple mapping projects.

#### Maps on the Hill Event:

The map display event will be held the first Wednesday of the 2015 Legislative session, in the Capitol Rotunda from 10:30 am – 1:30 pm, with set-up time beginning at 9:30am. We request that at least one participant is present to discuss each map entry throughout the display event.

#### Display Types:

You can present hardcopy maps, interactive digital maps (you'll need to provide a means to show it on a computer), or both.

The focus of the event is interesting maps or map technology projects that are applicable to a wide audience. While displays can be on any appropriate topic, presentations that may be of interest to decision makers are strongly encouraged. Marketing of specific product and services is discouraged.

What We're Up To

loading tweets...

Navigate to:

- › Data
- › Locations Services
- › SGID Blog
- › Developer
- › Featured
- › GPS-surveyor
- › Home
- › Mapping Spotlight
- › Uncategorized

# MAPS ON THE HILL

Discover. Manage. Communicate.



Map Book 2015



## 80 Pages Map Gallery Book

- User Submitted Directly to GDoc (Slides)
- Most of Exhibitors Submitted 1 or 2 Page
- Printed Copies to Legislators, Key Staffers

### Where is excavation occurring? Does this indicate economic growth?

Blue Stakes of Utah is the utility notification center for Utah and the organization to "Call Before You Dig." In 2014, Blue Stakes received over 320,000 requests to have utility lines located and marked throughout the state.

Excavation activity was reported on less than 4% of Utah's land area, the vast majority took place in populated urban areas, with the notable exceptions of the oil & gas fields in Uintah, Duchesne and San Juan Counties.

Please visit the Blue Stakes display table to view an interactive density map. See how much excavation took place in your area of interest!

James Wingate  
Blue Stakes of Utah  
jwingate@bluestakes.org

### Understanding Water Use in Utah and the Nation

Geographic water data help us understand who, what, where, when, why, and how

Public datasets help us recognize trends, patterns, and behaviors in water use, especially when coupled with geography.

This information is used for education, outreach, management, engineering, research, conservation, policy, and planning.

Quick facts:

- U.S. use lowest since 1965
- Utah withdraws 5 billion gallons per day
- Utah ranks 2nd in highest domestic use (indoor and outdoor)
- Utah's largest use: agricultural irrigation (70-80%)
- Next largest: public supply (15%)

Robert B. Gandy  
Nansen, Allen & Lopez, Inc.  
rgandy@nansenalopez.com

### Utah County - Oil & Gas Wells

### Utah's Sage Grouse Management Areas (SGMA's)

#### Protecting and Improving High Quality Habitat

The State of Utah is working to eliminate threats facing sage-grouse populations while balancing the economic and social needs of the residents of Utah. These actions are necessary to help negate the need for the listing of the species under the provisions of the federal Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (FWS) is bound by a court decree to make a final decision by the end of 2015.



# UMIP. Steering Committee Identified Priorities

Align with Governor's SUCCESS Initiative (25%)

DEQ, DNR, UDOT, State Lands, AG, SHPO...

- and then....DPS, EcDev, Workforce, MPO's, Counties, etc

1. High Resolution Aerial Photography
2. Live Data Sharing via Map Services
3. State Stewardship of the PLSS
  - a. Integration with Public Lands Boundaries
4. Mobile Field Platform Collaboration

# UTAH MAPPING & INFORMATION PARTNERSHIP

## PURPOSE

The Utah Mapping & Information Partnership (UMIP) is a collaborative project between 14 state agencies, local governments, and other public-sector partners to provide:

- High-resolution statewide mapping imagery

- Information sharing where data from UMIP partners can be viewed as layers in a single, map-based system to support improved management, communication, and decision making

## BENEFITS

Quality of mapping imagery

- Imagery will have 43 times greater resolution of what is currently available through State applications and will match quality of private sector applications (e.g. Google Earth)
- High-resolution imagery and improvements to the Public Lands Survey System will greatly improve the foundation on which other public-sector mapping applications are built

UMIP will provide tools to:

- **Business** to help identify and prioritize risks for natural resource and other economic development projects, increasing the speed and decreasing the cost of doing business in Utah
- **Government** to provide tools to make government more efficient and responsive, and to provide appropriate and productive regulation
- **Public** to improve quality of various public-sector functions like public safety, emergency response, surveying, assessing, and sharing information about public assets (e.g. public lands, outdoor recreation opportunities, etc.)

Public data in a single portal

- Public data currently held by multiple agencies will be viewed as layers in a single, map-based application facilitating better and faster decision-making processes for business, local government, and state government
- UMIP will improve the flow of data to ensure information gets where it is needed

## EXAMPLE

To drill a new oil or gas well in Utah, a business must consider a number of important public issues managed by various agencies:

- Dept. of Environmental Quality → Air quality, water quality, hazardous waste, environmental remediation
- Dept. of Natural Resources → Division of Oil, Gas & Mining permitting, endangered species, water resources
- Trust Lands Administration (SITLA) → State land holdings, split-estate leases
- Dept. of Transportation → Rights-of-way, transportation corridors and infrastructure
- Dept. of Agriculture & Food → Farming/grazing impacts, conservation of agricultural lands

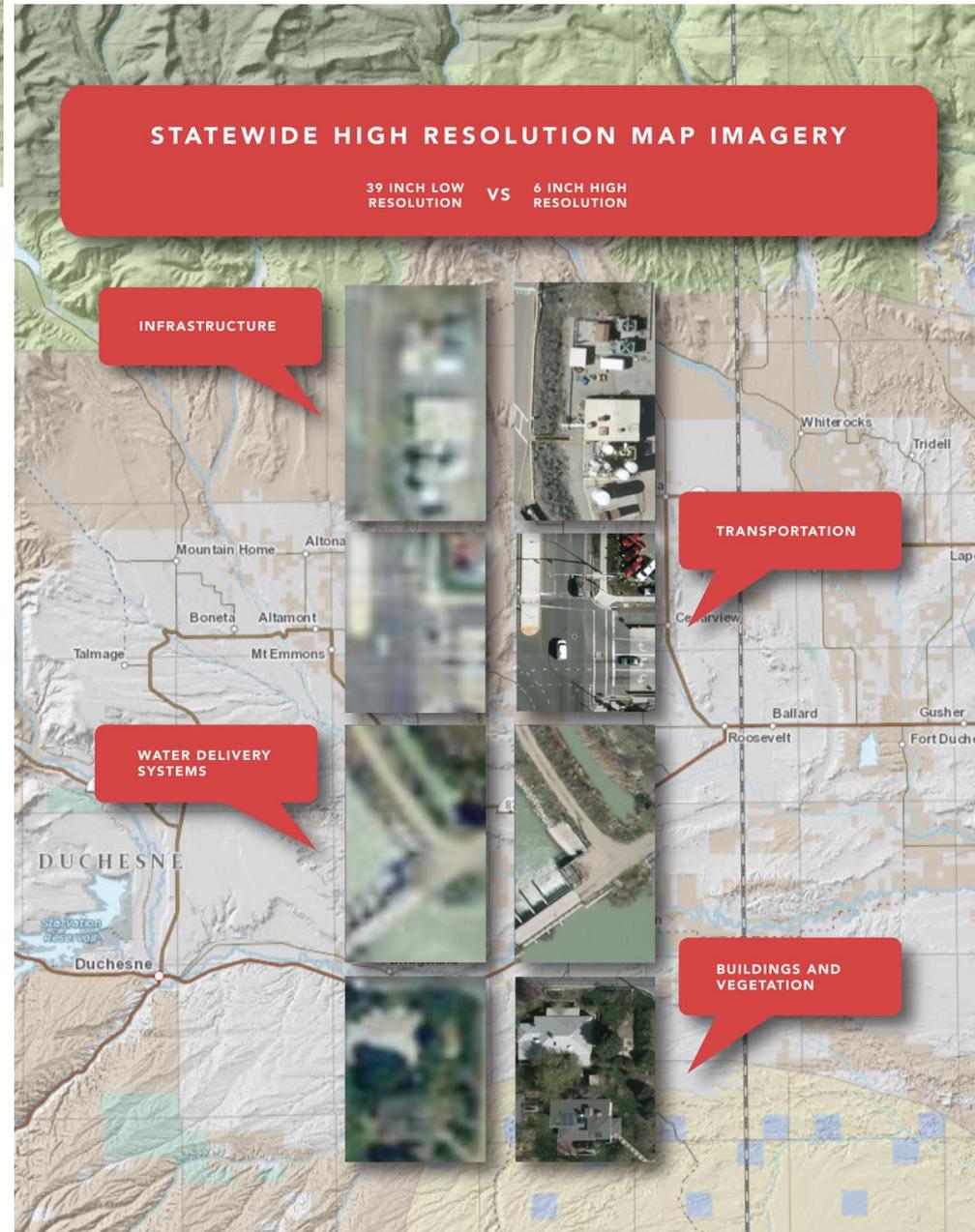
- Dept. of Heritage & Arts → Cultural resource protection, State Historic Preservation Office
- Local Government → Private property, taxes, zoning

High-resolution imagery and data sharing from UMIP partners will help businesses efficiently identify location-based risks, facilitating decision making and allowing for decreased time in moving from planning, to permitting, to production

UMIP will also greatly enhance the tools available to state agencies, local governments, and other public-sector partners to provide quality service and oversight, facilitating private investment while protecting the environment and quality of life for Utah's citizens

# STATEWIDE HIGH RESOLUTION MAP IMAGERY

39 INCH LOW RESOLUTION VS 6 INCH HIGH RESOLUTION





UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY



Utah Governor's Office of Economic Development  
BUSINESS • TOURISM • FILM

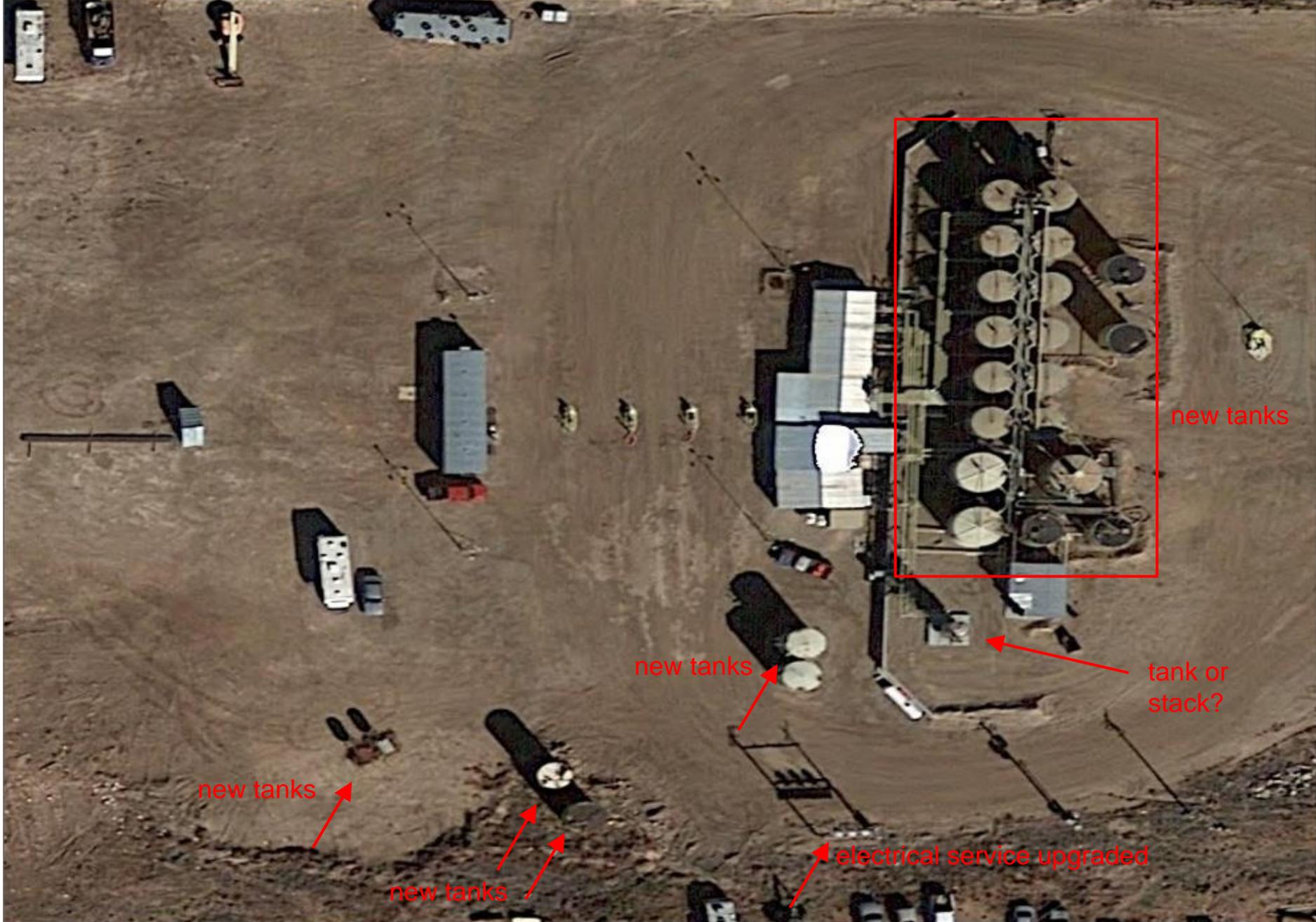


- 7 Executive Branch Departments
- 2 Independent State Agencies
- 2 Regional Government Agencies
- 3 Counties

NAIP 2009, 100 cm (39"), Statewide



Google 2013/4, 15 cm (6"), Statewide Coverage



new tanks

new tanks

tank or stack?

new tanks

new tanks

electrical service upgraded

# Utah Lt. Governor announces details of Mapping and Information Partnership



STATE

## Utah Mapping Partnership Aims to Build Live Data-Sharing Framework

The Mapping and Information Partnership also is working to focus the state's GIS solutions in important areas such as air quality, transportation, and water supply and resources, to name a few.

BY JESSICA HUGHES / FEBRUARY 19, 2015



Evaporative ponds outside of Canyonlands National Park, Utah, pulled from that state's new high-resolution aerial photography, which is more than 40 times more detailed than previous imagery programs, will help the state make better, faster decisions.

28  
 21  
 21

A new partnership in Utah is looking to take geospatial understanding to the next level.

With new high-resolution imagery, the 14-entity Utah Mapping and Information Partnership -- which consists of state, regional and local government organizations -- plans to share its digital maps throughout government and with the public. Last year, the partnership was formed to use geospatial data to improve the flow of data and decision-making in the state, and to save government time and money.

"The Utah Mapping and Information Partnership represents proactive government," said Wade Kloos, GIS director for the Department of Natural Resources. Kloos added that the partnership is also working to focus the state's GIS solutions in important areas such as air quality, transportation, and water supply and resources, to name a few.

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- Gail Collins, *The New York Times*  
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ANNAPOLIS STAY 3 NIGHTS OR MORE AND GET UP TO 20% OFF THIRD NIGHT'S A CHARM LOEWS ANNAPOLIS HOTEL BOOK NOW

Utah agencies partner to share high-resolution map information

By Katie McKellar Deseret News Published: Sunday, Feb. 1 2015 3:25 p.m. MST Updated: Sunday, Feb. 1 2015 3:25 p.m. MST

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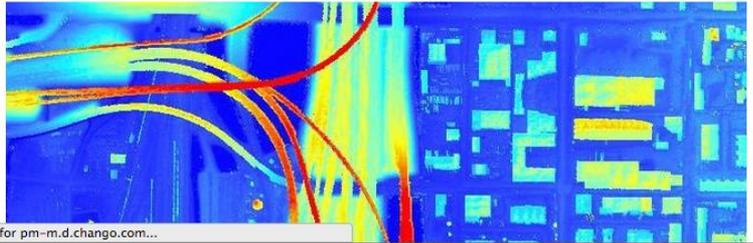
New technology to Utah information that will facilitate decision-making improve management government and across the state. Matt Gade, Deseret Enlarge photo»

What You May Have Missed Young adults putting off marriage, treating

Bounty MORE REVIEWS than other leading paper towels

Utah agencies partner to share high-resolution map information

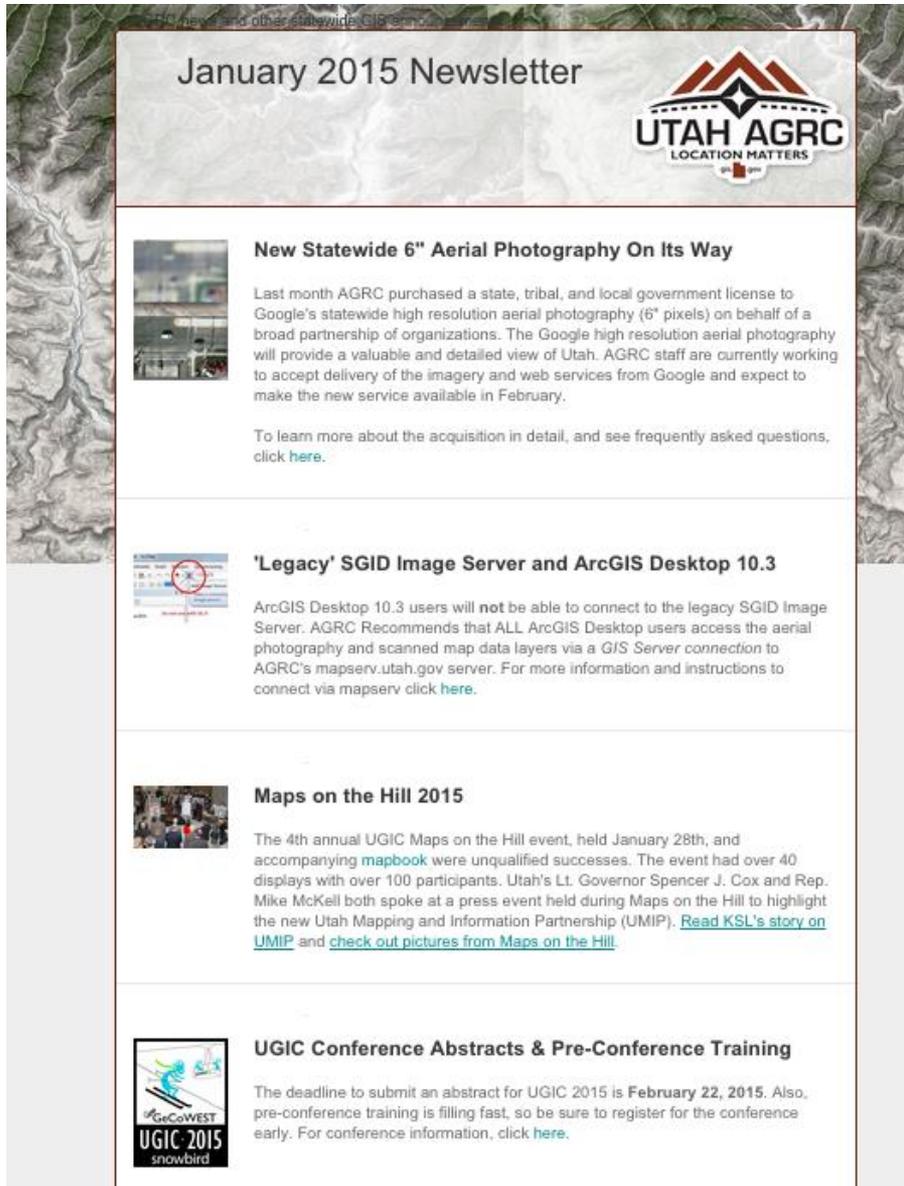
By Katie McKellar February 1st, 2015 @ 4:20pm



# Who Am I?



# A: the MailChimp...AGRC's newsletter platform...



AGRC news and other statewide GIS announcements

## January 2015 Newsletter



### New Statewide 6" Aerial Photography On Its Way

Last month AGRC purchased a state, tribal, and local government license to Google's statewide high resolution aerial photography (6" pixels) on behalf of a broad partnership of organizations. The Google high resolution aerial photography will provide a valuable and detailed view of Utah. AGRC staff are currently working to accept delivery of the imagery and web services from Google and expect to make the new service available in February.

To learn more about the acquisition in detail, and see frequently asked questions, click [here](#).

### 'Legacy' SGID Image Server and ArcGIS Desktop 10.3

ArcGIS Desktop 10.3 users will **not** be able to connect to the legacy SGID Image Server. AGRC Recommends that ALL ArcGIS Desktop users access the aerial photography and scanned map data layers via a *GIS Server connection* to AGRC's mapserv.utah.gov server. For more information and instructions to connect via mapserv click [here](#).

### Maps on the Hill 2015

The 4th annual UGIC Maps on the Hill event, held January 28th, and accompanying [mapbook](#) were unqualified successes. The event had over 40 displays with over 100 participants. Utah's Lt. Governor Spencer J. Cox and Rep. Mike McKell both spoke at a press event held during Maps on the Hill to highlight the new Utah Mapping and Information Partnership (UMIP). [Read KSL's story on UMIP](#) and [check out pictures from Maps on the Hill](#).

### UGIC Conference Abstracts & Pre-Conference Training

The deadline to submit an abstract for UGIC 2015 is **February 22, 2015**. Also, pre-conference training is filling fast, so be sure to register for the conference early. For conference information, click [here](#).



## Utah Broadband Atlas



The Utah Broadband Project, a partnership since 2010 between the Public Service Commission, GOED, and AGRC as part of the NTIA State Broadband Initiative, just released its Utah Broadband Atlas. The atlas gives an detailed overview of the many facets of Utah's broadband landscape. The atlas also summarizes the mapping and data resources, compiled by the Utah Broadband Project, that are publicly available. Click [here](#) to learn more and view the atlas.

## Mobile Drive Test Results



The Utah Broadband Project recently released maps and GIS data summarizing the 2011 and 2013 mobile drive test data collection points to road segments of near uniform size (0.5 miles). To see the maps and learn more about the unique approach to summarizing observations by road segments, click [here](#).

## GIS Around the Web

[Google Street View Python Add-in for ArcMap](#): This add-in allows ArcMap users to click on a road and the Google Street View imagery for that location will appear in your default browser

If you have a map or other item you'd like spotlighted in our newsletter, contact Jessie at [jpechmann@utah.gov](mailto:jpechmann@utah.gov).

## SGID Data Updates

<b>Transportation:</b> Roads, bus routes/stops <b>Recreation:</b> Trails <b>Location:</b> Address System Quadrants	<b>Boundaries:</b> Zipcodes <b>County Parcels:</b> Salt Lake, Utah, Washington, Davis	<b>Bioscience:</b> Watershed Restoration <b>Society:</b> Schools	UDOT mileposts, routes, and reference points updated monthly. Land Ownership & DOGM Oil and Gas Resources are updated weekly.
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## Calendar of Events

<b>Feb 11</b> Salt Lake Users Group Meeting	<b>May 11-15</b> UGIC/GeCo West Conference	<b>July 20-24</b> ESRI User Conference
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# AGRC Newsletter January 2015

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### Newsletter

\* indicates required

Email Address \*

First Name \*

Last Name \*

Please select update that interest you

- Data Updates
- Info for Developers
- General Utah Map News

**Open rate**

**51.8%**

**Click rate**

**23.2%**



List average ..... 44.5%

List average ..... 15.0%

Industry average (Government) ..... 20.8%

Industry average (Government) ..... 3.2%

<b>279</b> Opened	<b>125</b> Clicked	<b>17</b> Bounced	<b>1</b> Unsubscribed
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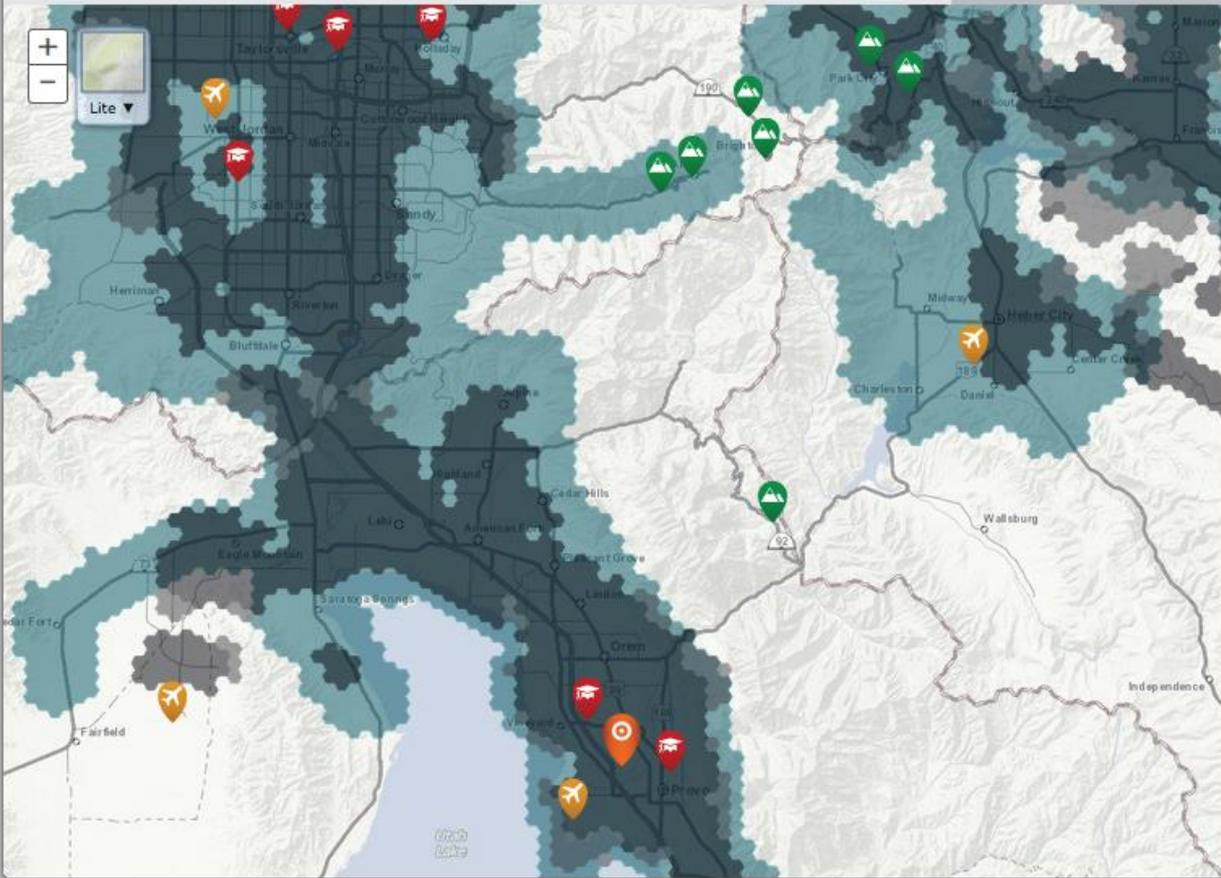
# STATE OF UTAH BROADBAND PROJECT ECONOMIC DEVELOPMENT MAP

**SURE SITES** Ask An Expert!

### Current Location

1198 N 1850 W  
Provo, UT 84604  
Utah County

[Get Summary](#)



street address

zip or city

[Find Address](#)

**Broadband**

**Fiber**

**All Non-Mobile Broadband (Includes Fiber, DSL, Cable, and Fixed Wireless)**

**Utilities**

**Natural Gas Service Areas**

**Electric Utility Territory**

**Local Exchange Areas**

**Culinary Water**

**None**

**Transportation**

**Heavy Rail**

**Light/Commuter Rail**

**Airports**

**Major Roads Buffer**

**Workforce**

Print

Location Summary Report

1198 N 1650 W  
Provo, UT 84604  
Utah County

**BROADBAND**

**UTILITIES**

Local Exchange Areas

Provider	Web Site
Centurylink	<a href="http://www.centurylink.com/">http://www.centurylink.com/</a>

Electric Utility Territory

Provider	Web Site
Provo City Power	<a href="http://secura.provocitypower.com">http://secura.provocitypower.com</a>

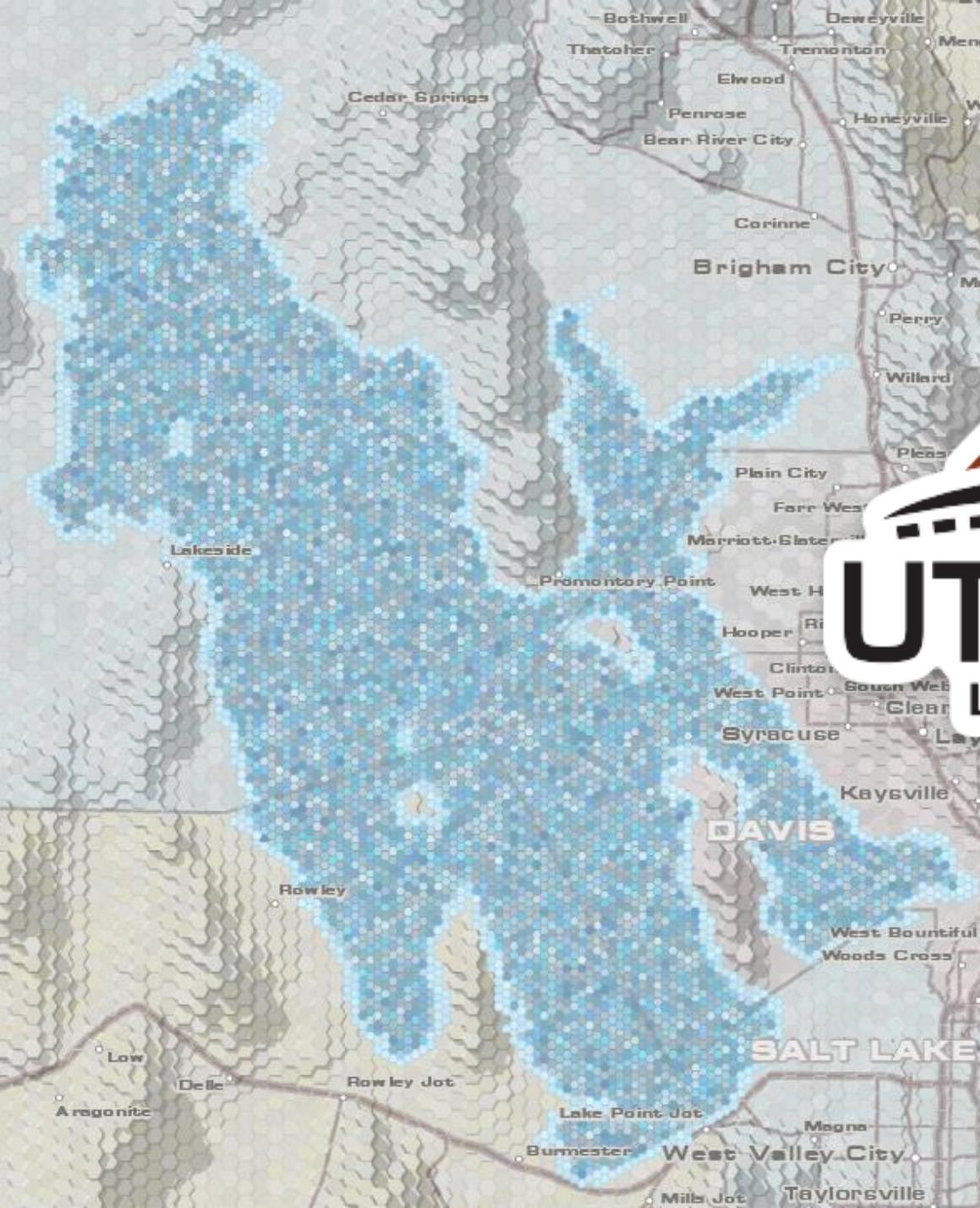
Natural gas service: [Questar Gas \(https://www.questargas.com/\)](https://www.questargas.com/)

**TRANSPORTATION**

**WORKFORCE**

Higher Education Schools

Name	Drive Time
Brigham Young University	< .5 hour(s)
Utah Valley University	< .5 hour(s)
Western Governors University	< 1 hour(s)
Salt Lake Skill Center	< 1 hour(s)
Salt Lake Community College	< 1 hour(s)
University Of Utah	< 1 hour(s)
Westminster College	< 1 hour(s)
Stevens Henager College	< 1 hour(s)
Lds Business College	< 1 hour(s)
South City Campus	< 1 hour(s)
Tooele Applied Technology College	< 1.5 hour(s)
Ogden-Weber Atc	< 1.5 hour(s)



Bert Granberg  
[bgranberg@utah.gov](mailto:bgranberg@utah.gov)

STATE

LOCAL



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