2015-2040 RTP

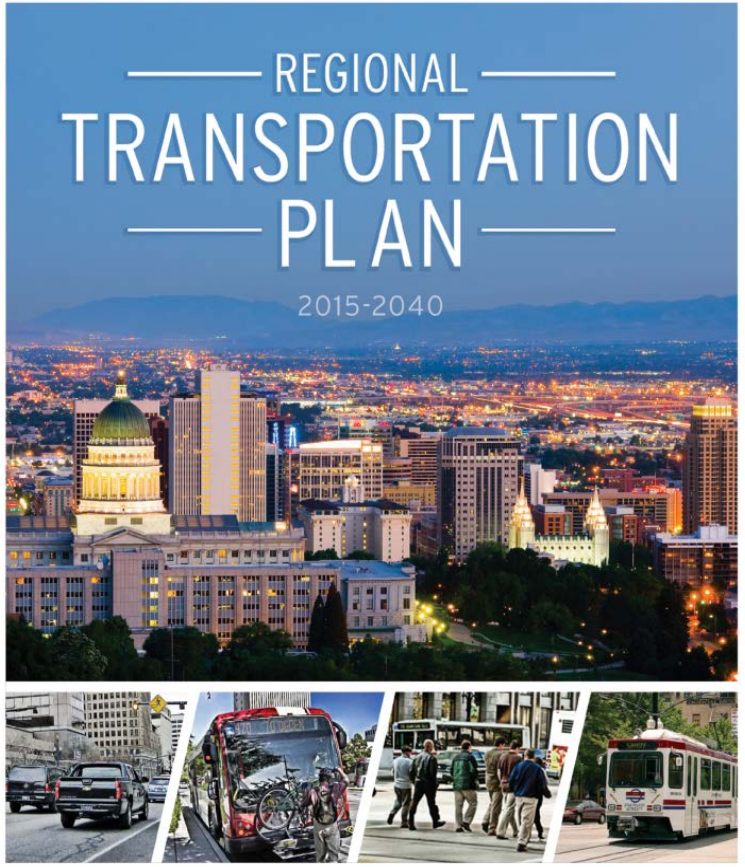
Recommendation for Approval of Amendment #3

January 19, 2017

WASATCH FRONT REGIONAL COUNCIL

RTP And Amendment Process Overview

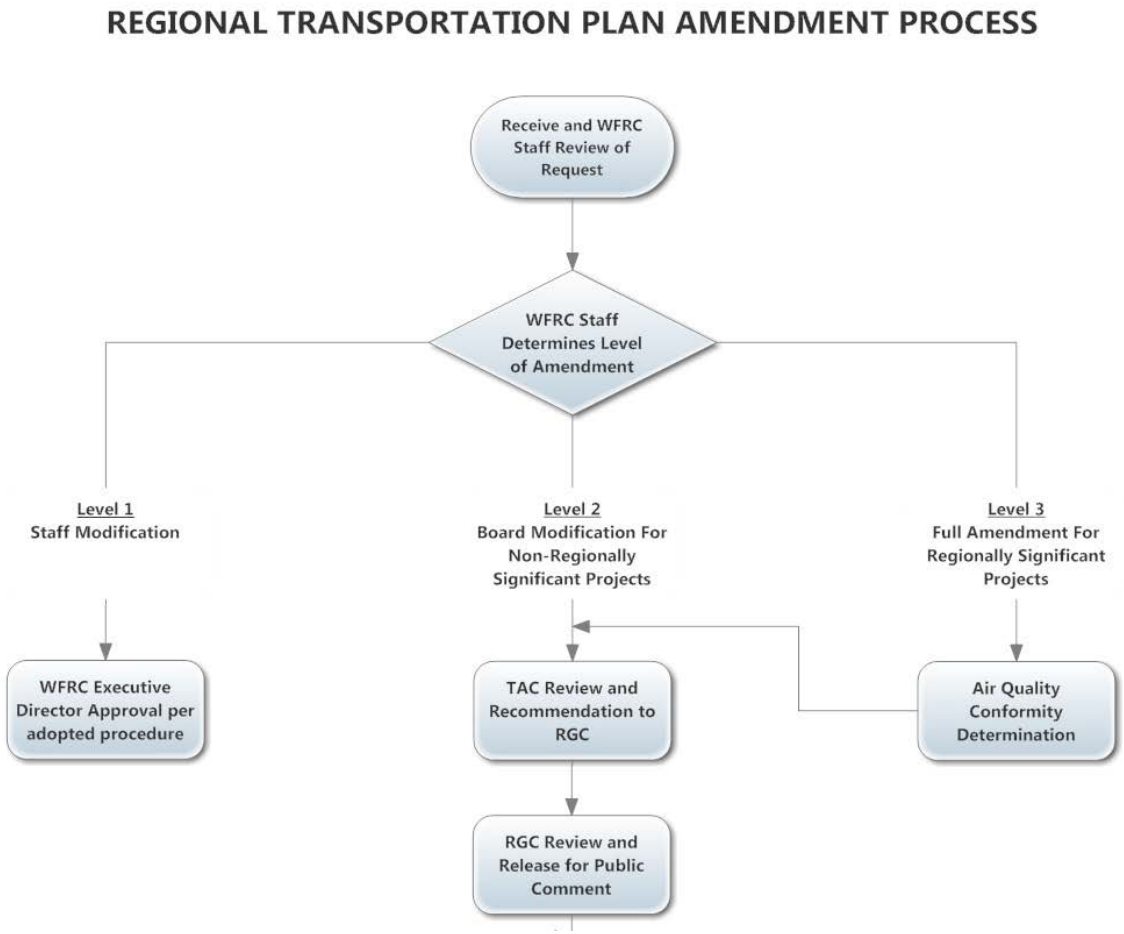
- RTP is updated every four years
  - Recently adopted May 2015
- Periodic adjustments are needed between adoption cycles
- WFRC's RTP amendment process
  - Financial constraints
  - Public review and input
  - Modeling and Air quality conformity
- Proposed requests reviewed annually beginning in March



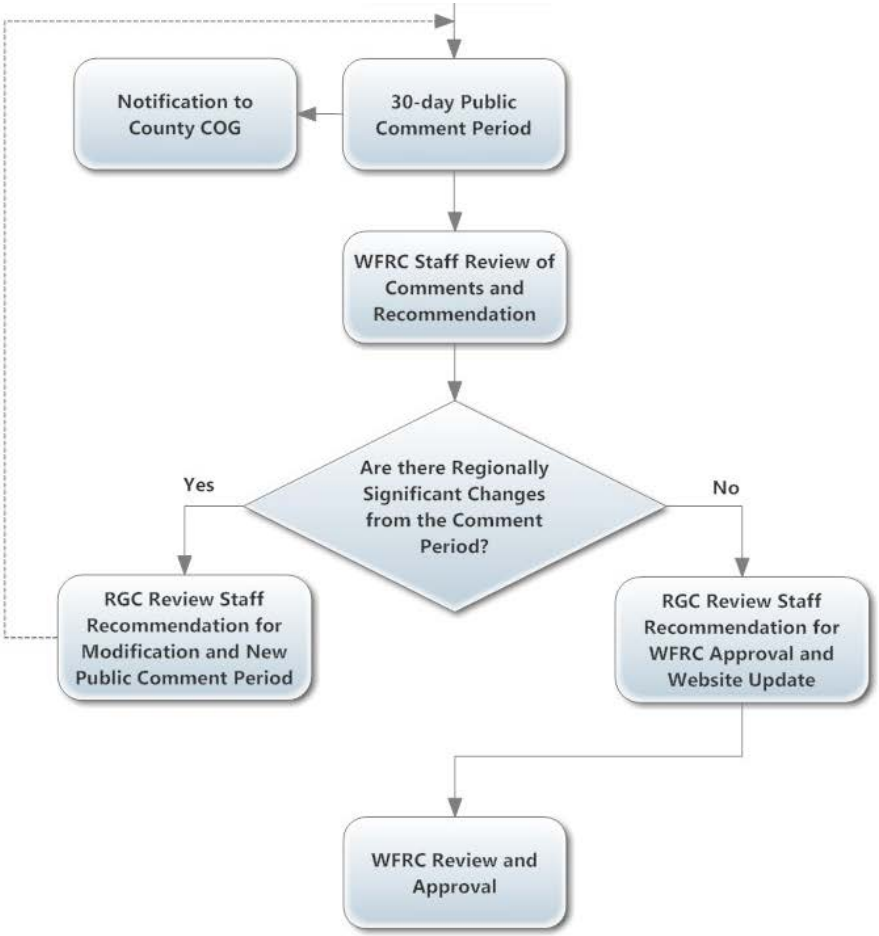
WASATCH FRONT REGIONAL COUNCIL

WASATCH FRONT REGIONAL COUNCIL

RTP And Amendment Process Overview



RTP And Amendment Process Overview



Bangerter Highway Interchange at 6200 South

Request: Utah Department of Transportation

Scope:

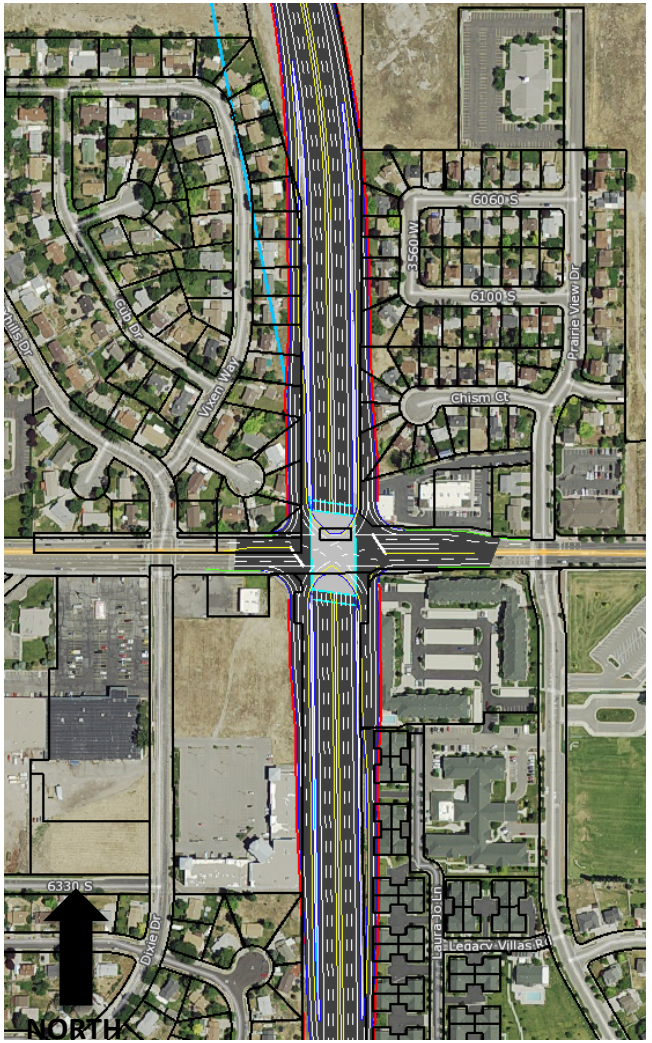
- Bangerter Highway Interchange at 6200 South
  - New Construction; Phase 3 to 1

Benefits:

- Provide better traffic flow along Bangerter Highway
- Moving towards a consistent grade separated facility from 5400 South to I-15
- Thorough review of active transportation crossing through interchange

Total Cost: $64.0 Million

Funding Source: Requesting TIF



Bangerter Highway Interchange at 12600 South

Request: Utah Department of Transportation

Scope:

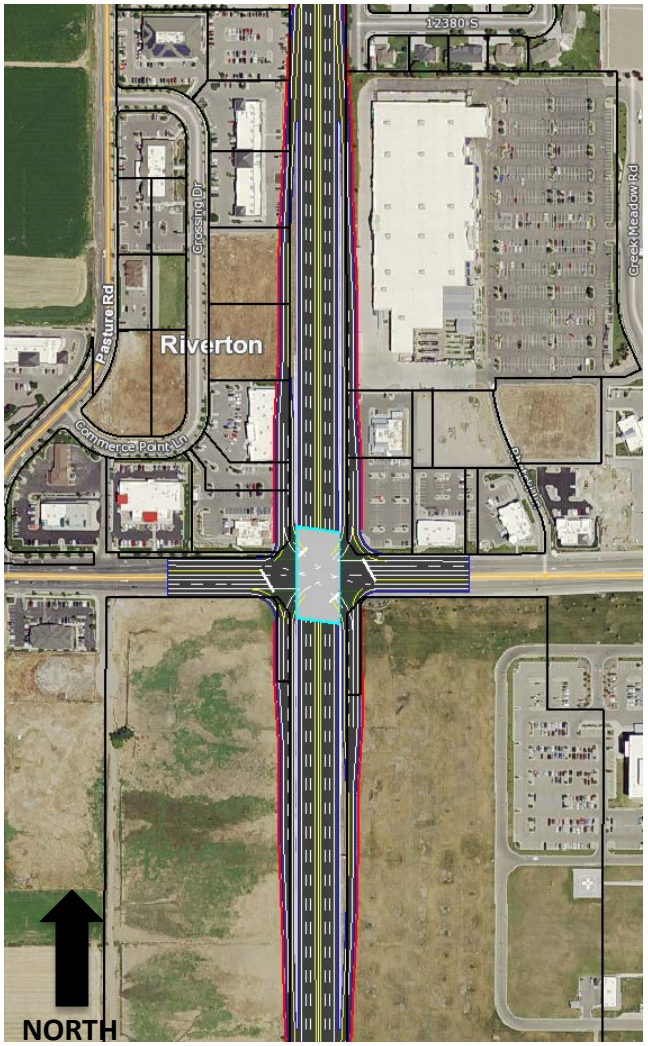
- Bangerter Highway Interchange at 12600 South
  - New Construction; Phase 2 to 1

Benefits:

- Provide better traffic flow along Bangerter Highway
- Moving towards a consistent grade separated facility from 5400 South to I-15
- Thorough review of active transportation crossing through interchange

Total Cost: $49.2 Million

Funding Source: Requesting TIF



Bangerter Highway Interchange at 9800 South

Request: Utah Department of Transportation

Scope:

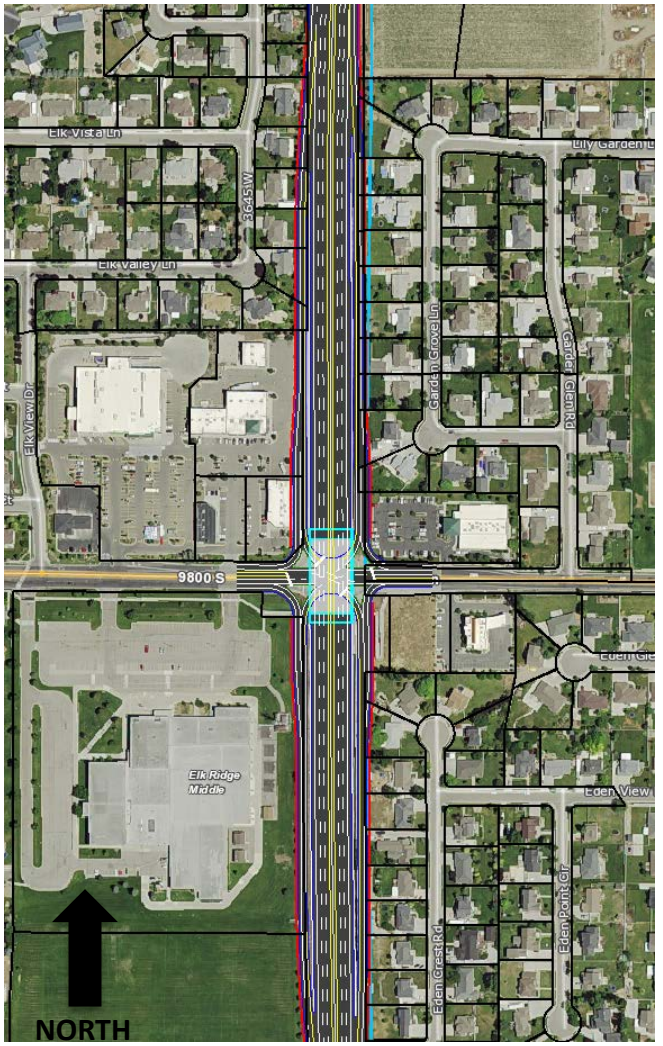
- Bangerter Highway Interchange at 9800 South
  - New Construction; Phase 2 to 1

Benefits:

- Provide better traffic flow along Bangerter Highway
- Moving towards a consistent grade separated facility from 5400 South to I-15
- Thorough review of active transportation crossing through interchange

Total Cost: $43.1 Million

Funding Source: Requesting TIF



I-80 from I-215 East to Lambs Canyon

Request: Utah Department of Transportation

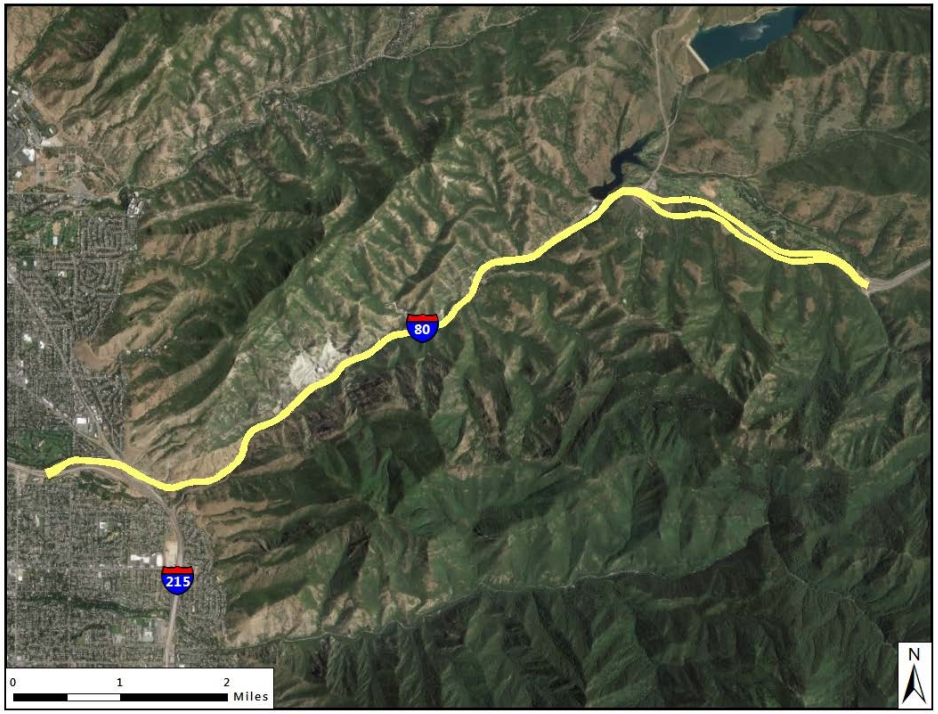
Scope:

- This project is a widening project in the east bound direction in Parleys Canyon on I-80 from I-215 on the east to Lambs Canyon.
- New Construction; Phase 1 to 2

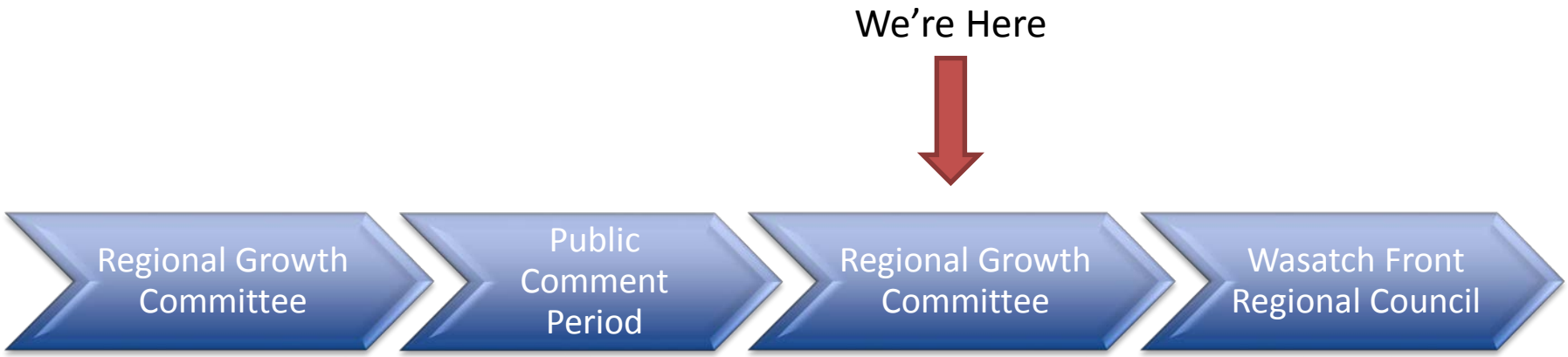
Benefits:

- Project would provide an additional uphill passing lane from I-215 East Belt interchange up to Lambs Canyon.
- Project may require the widening of several bridges and increased rock fall mitigation.

Cost: $44.9 million



Next Steps



December 15, 2016	Dec. 16, 2016 to Jan. 15, 2017	January 19, 2017	January 26, 2017
• Motion to Release to Public Comment	• Salt Lake COM December 15	• Review Comments • Motion to Council	• Approval

2015-2040 RTP

Recommendation for Approval of Amendment #3

January 19, 2017

WASATCH FRONT REGIONAL COUNCIL

Wasatch Choice 2050 Goals: Access to Opportunity

Regional Growth Committee

January 19, 2017

WASATCH FRONT REGIONAL COUNCIL

Wasatch Choice 2050 Goals:

What do we want?

Livable and healthy communities

Access to economic and educational opportunities

Manageable and reliable traffic conditions

Quality transportation choices

Safe, user friendly streets

Clean air

Housing choices and affordable living expenses

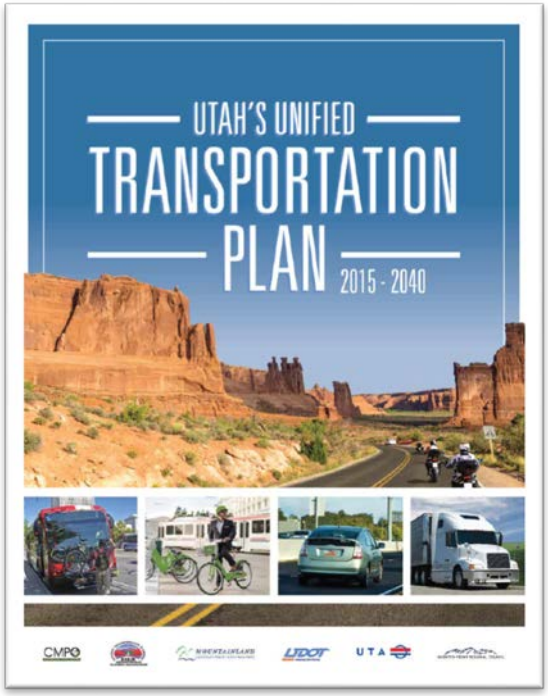
Fiscally responsible communities and infrastructure

Sustainable environment, including water, agricultural, and other natural resources

Ample parks, open spaces, and recreational opportunities

Access to economic and educational opportunities

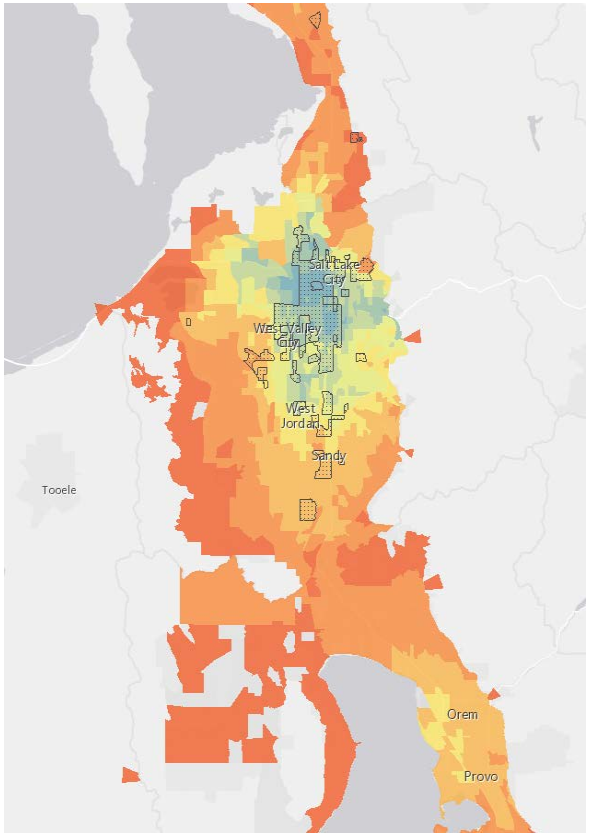
An approach utilized by our partners



WASATCH FRONT CENTRAL
CORRIDOR STUDY
2050

Access to Opportunity:

How many valued destinations can be reached in a reasonable period of time

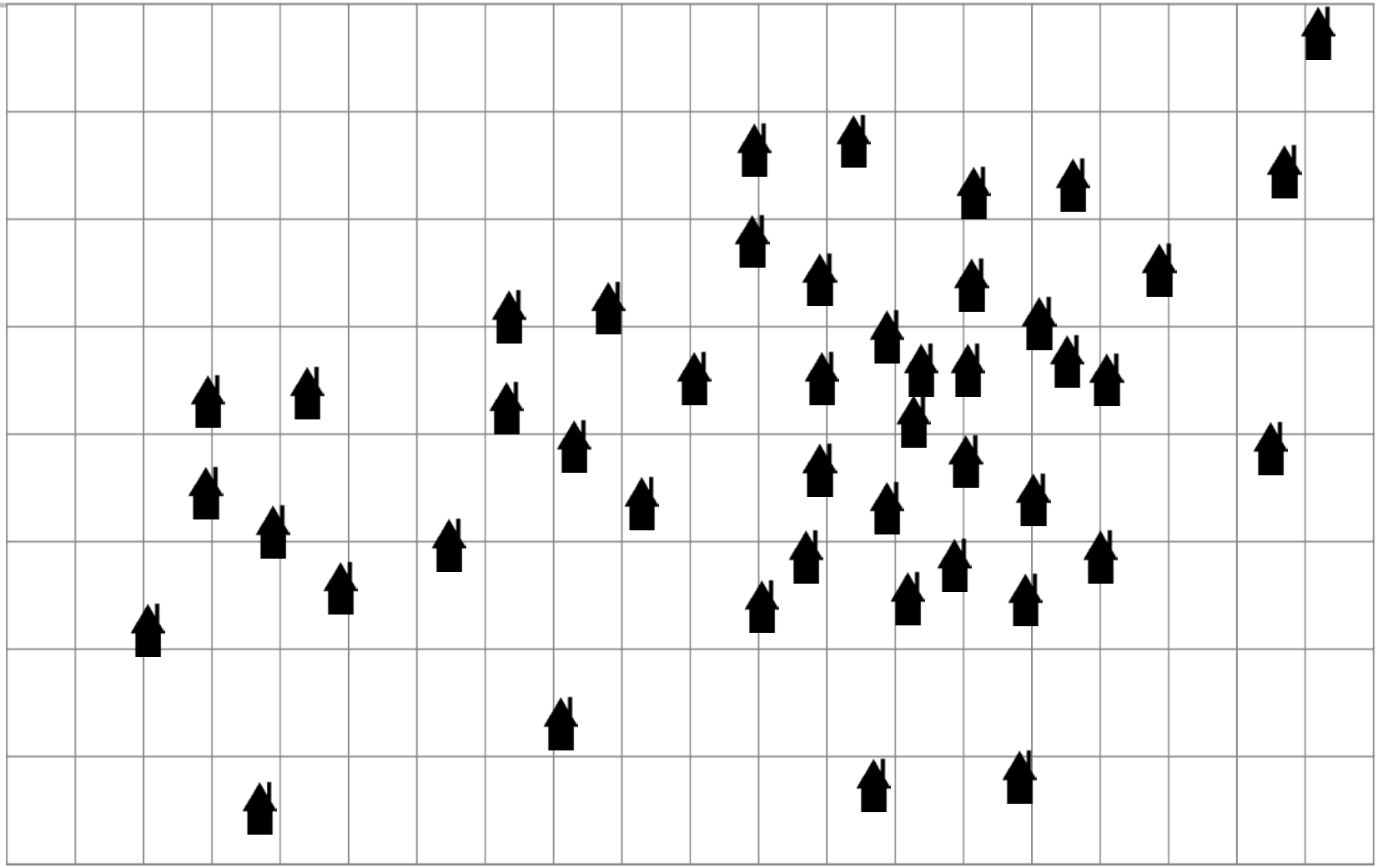


Examples:

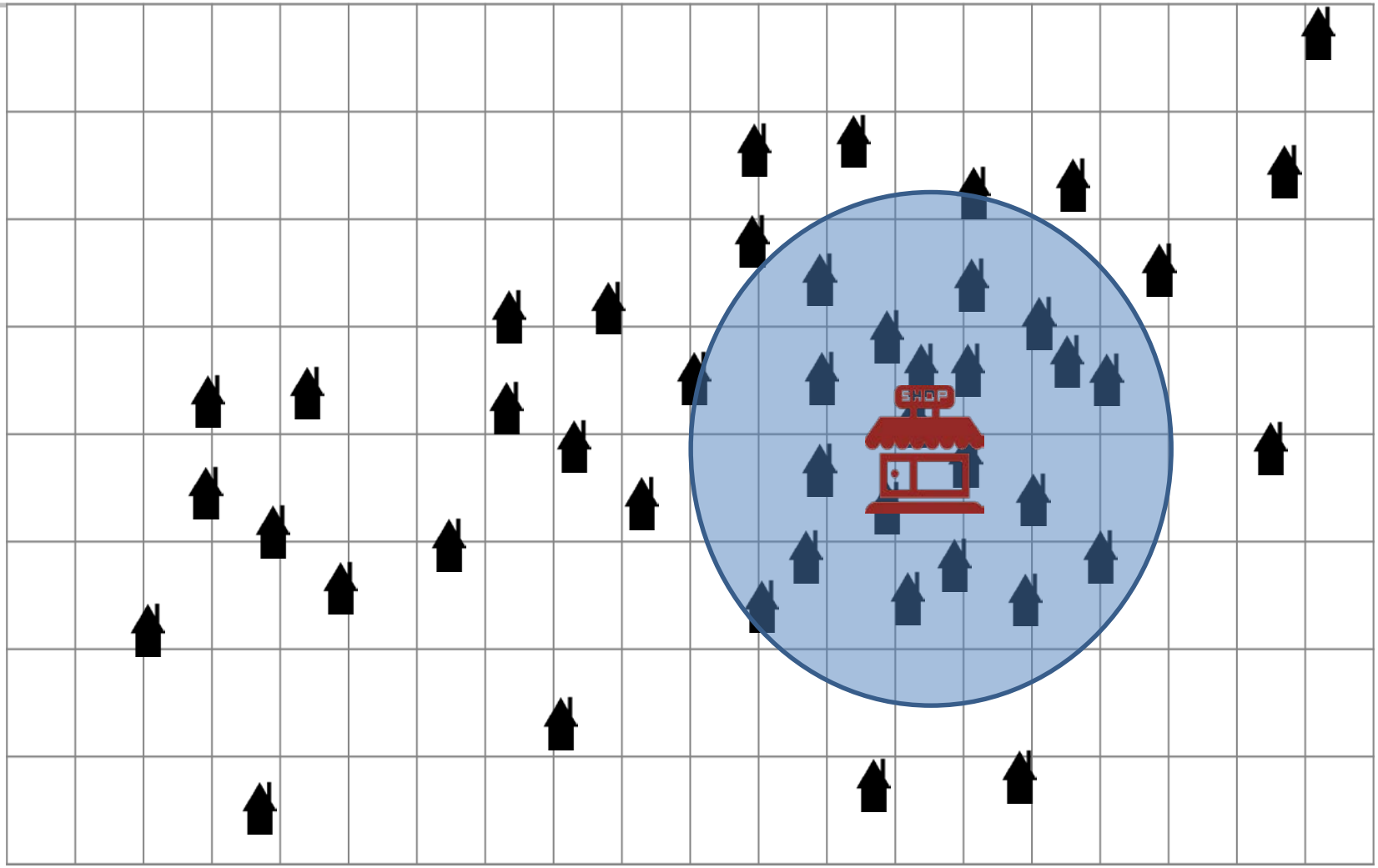
"How many job opportunities are within 30 minutes?"

"If I locate my firm there, how many skilled laborers are within 30 minutes?"

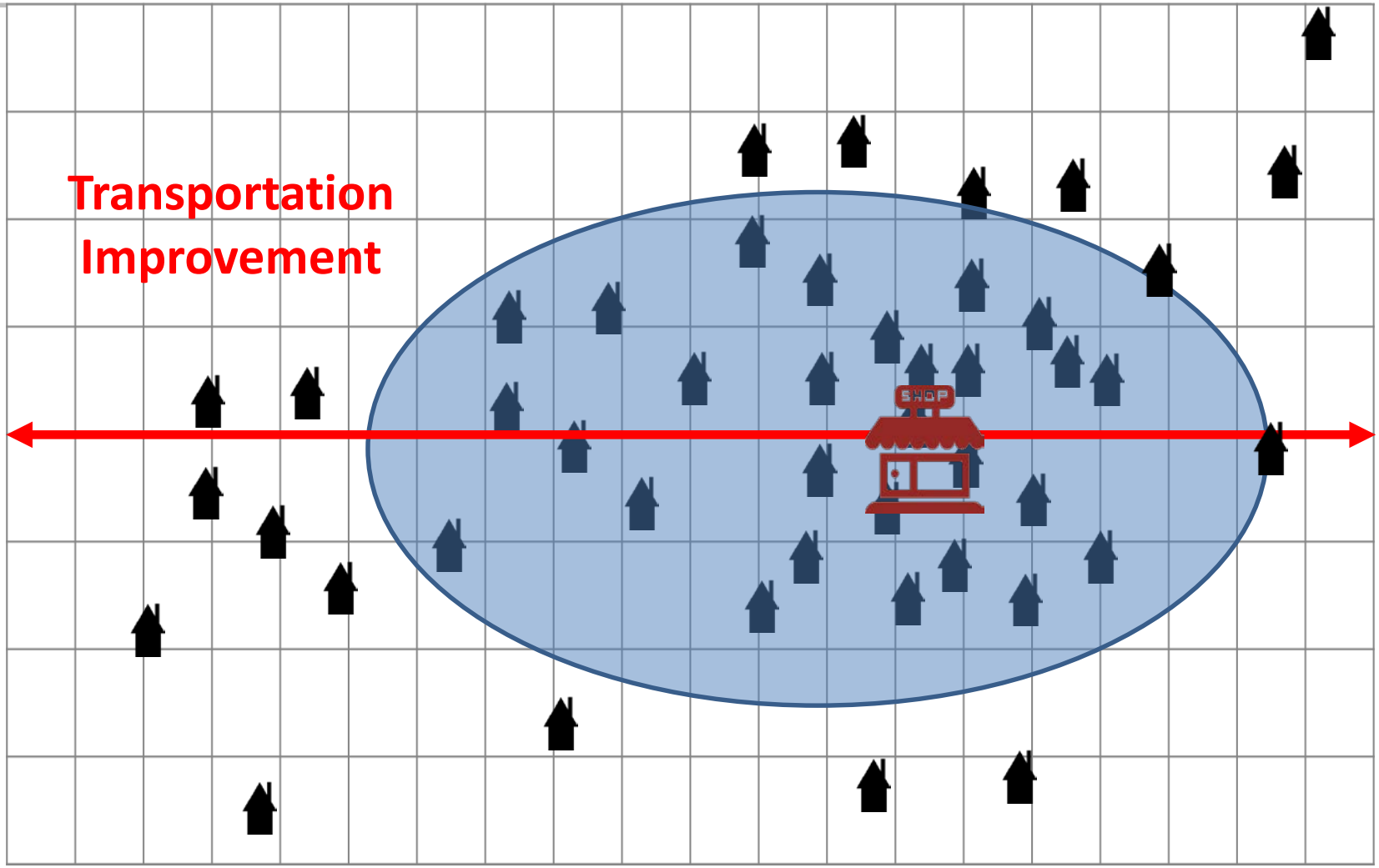
Potential Workforce



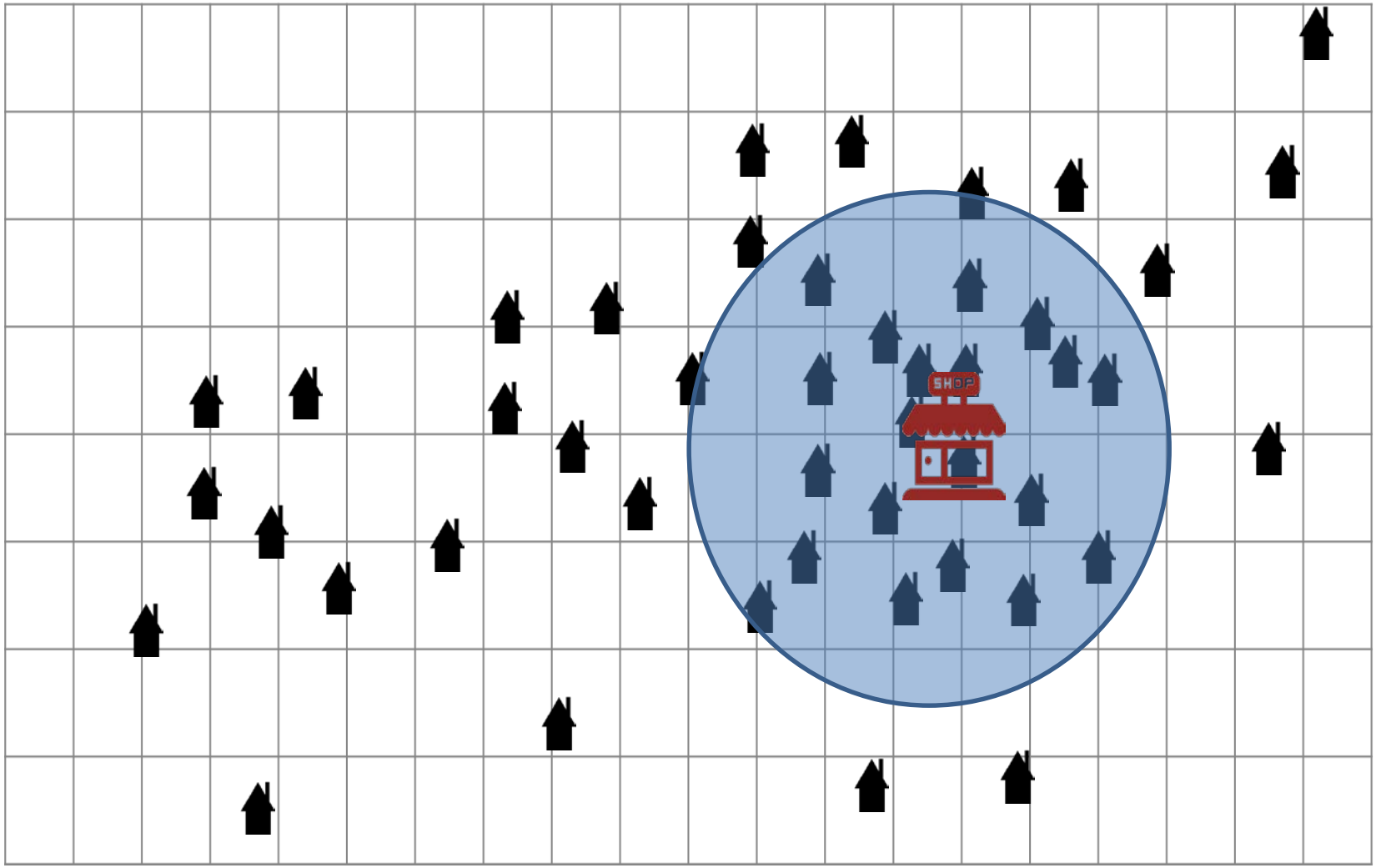
Labor access within 30 minutes



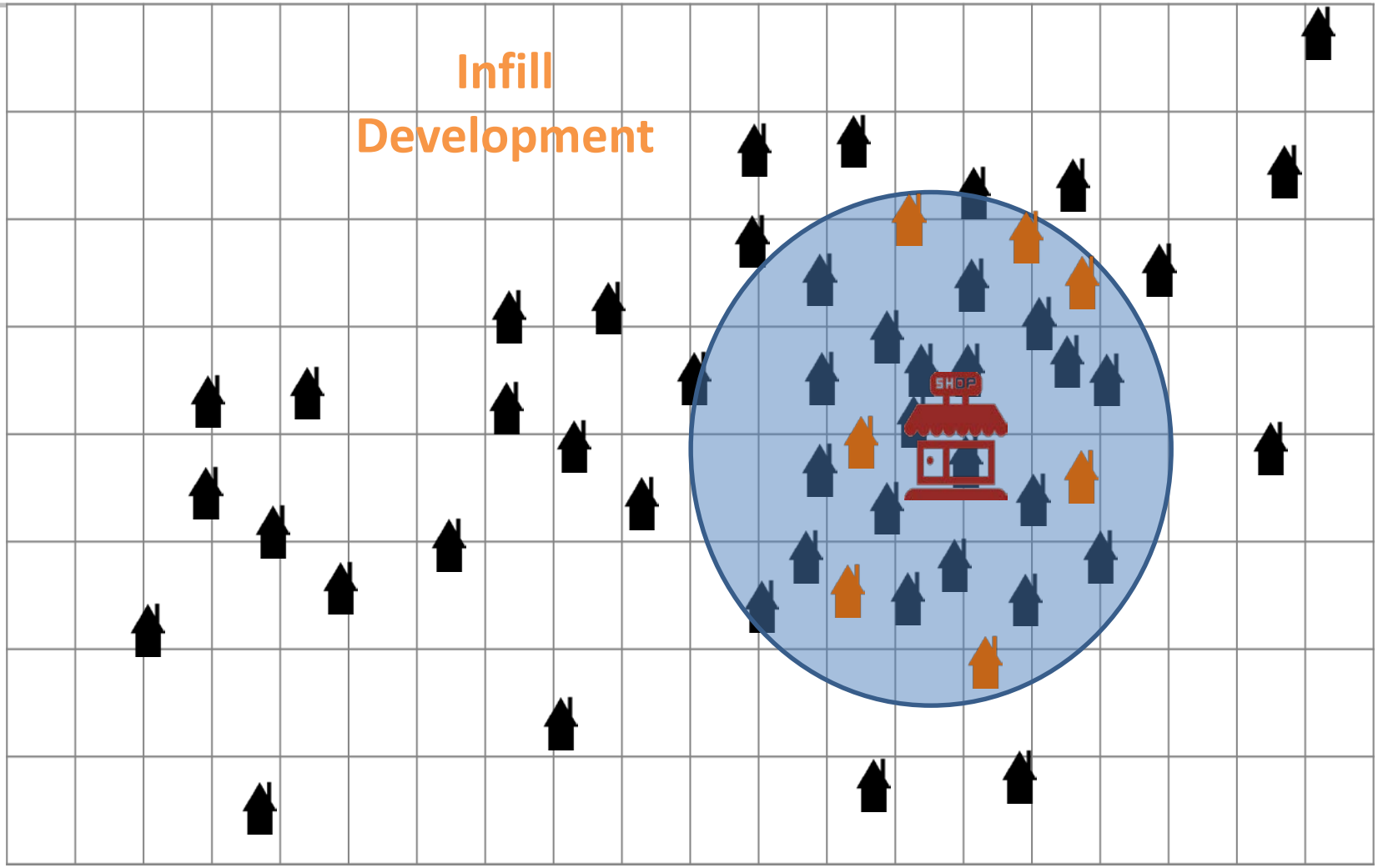
Labor access within 30 minutes



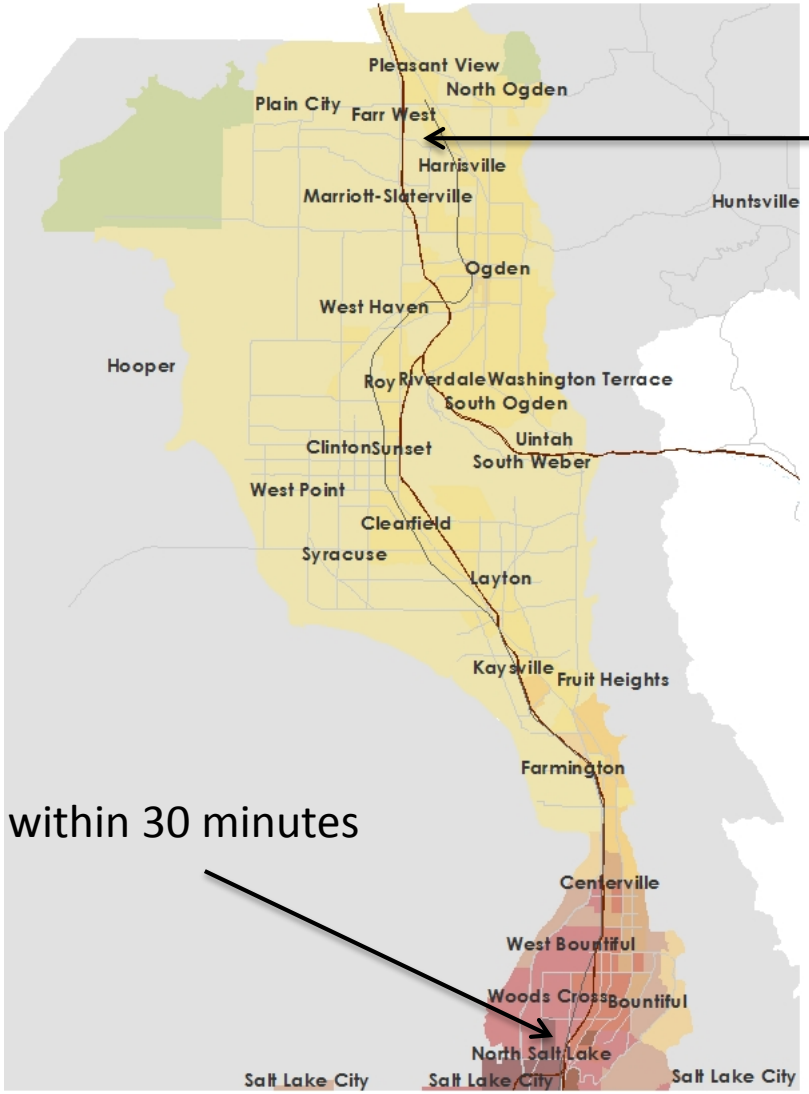
Labor access within 30 minutes



Labor access within 30 minutes



Analyzing Access



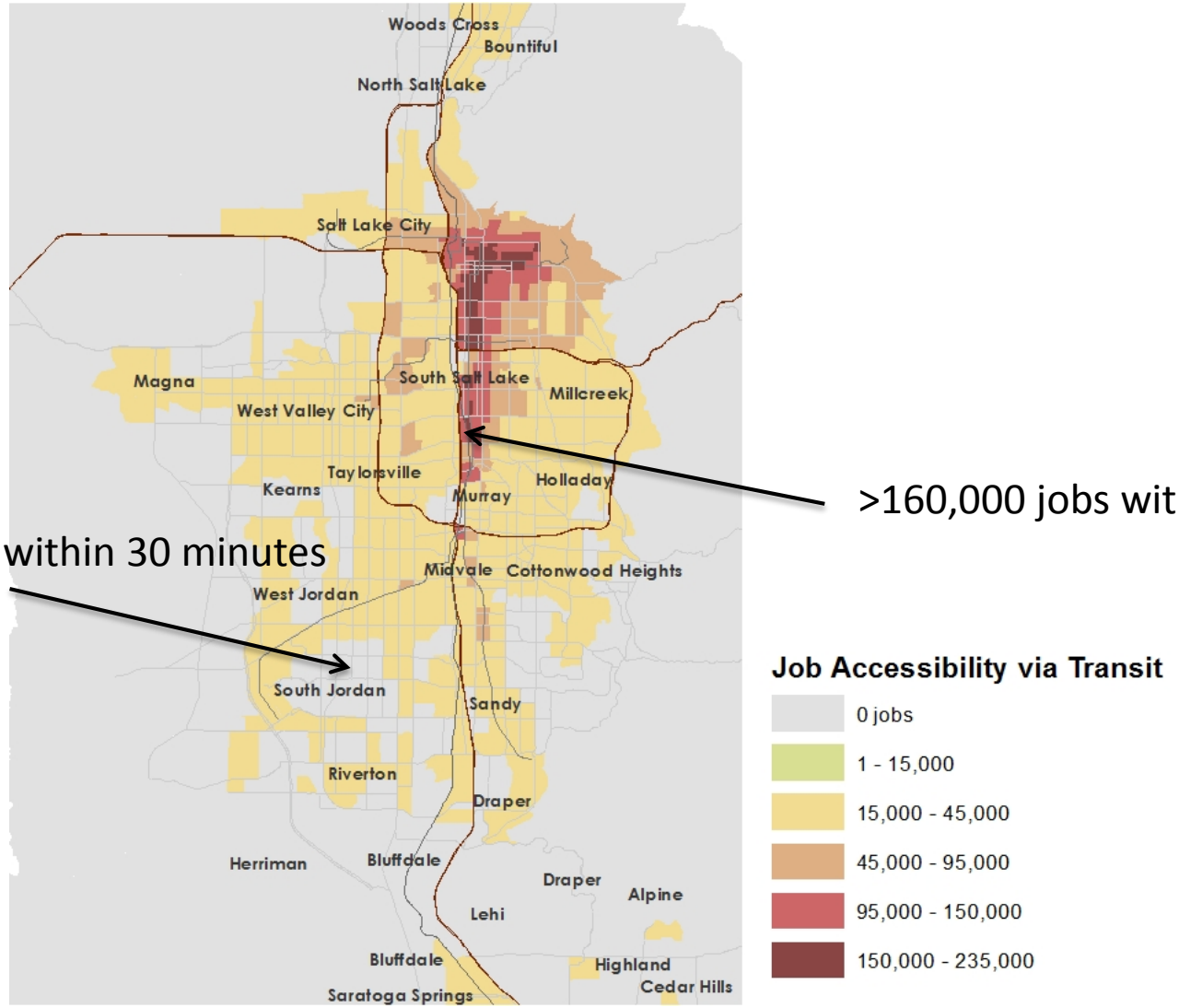
130,000 jobs within 30 minutes

>760,000 jobs within 30 minutes

Job Accessibility via Auto

- 0
- 1 - 150,000
- 150,000 - 300,000
- 300,000 - 450,000
- 450,000 - 600,000
- 600,000 - 750,000
- 750,000 - 900,000

Analyzing Access: by Transit

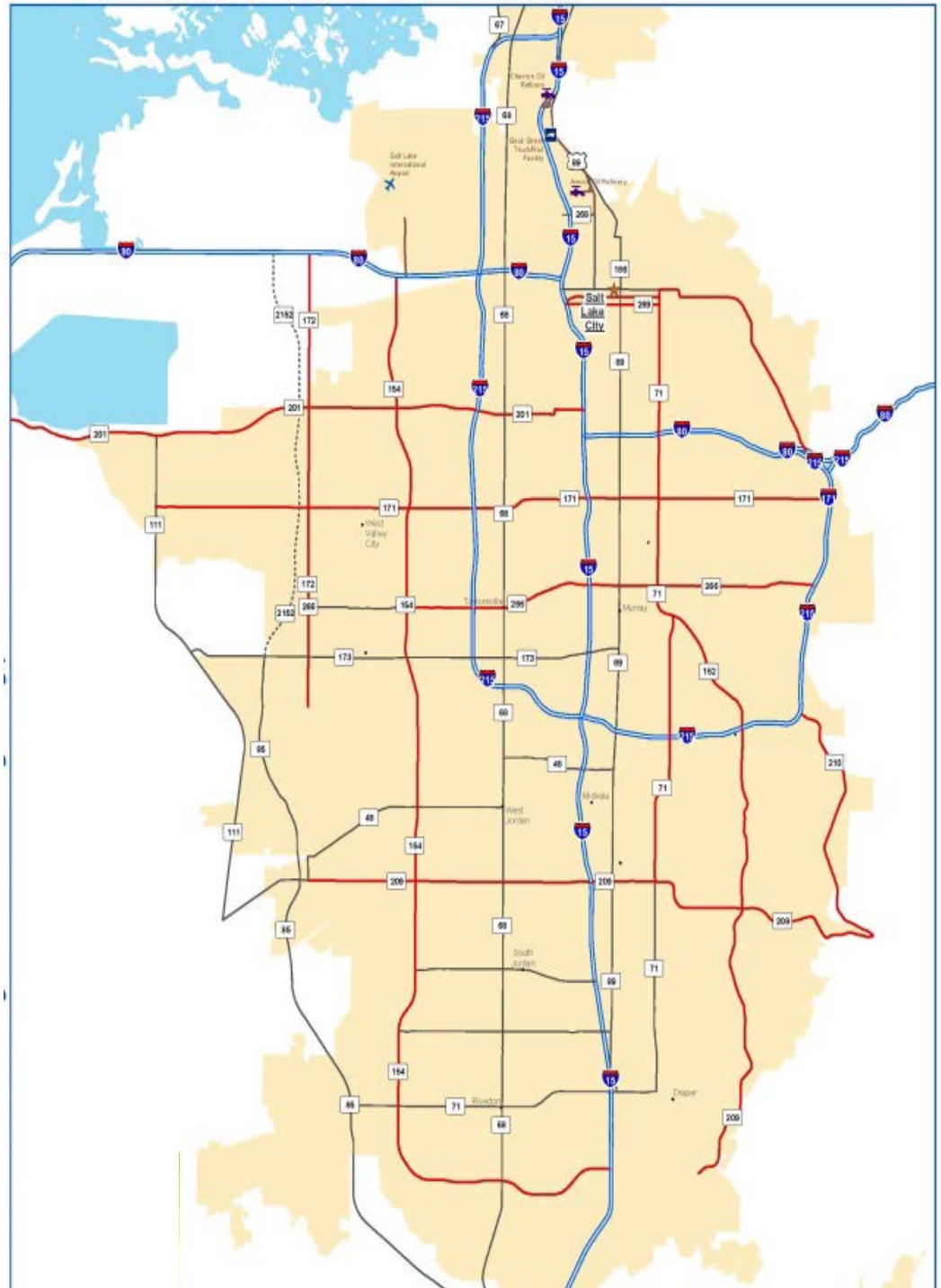


>160,000 jobs within 30 minutes

< 15,000 jobs within 30 minutes

Access to Opportunity helps answer “where”

Which areas would have their job access increased the most by transportation?



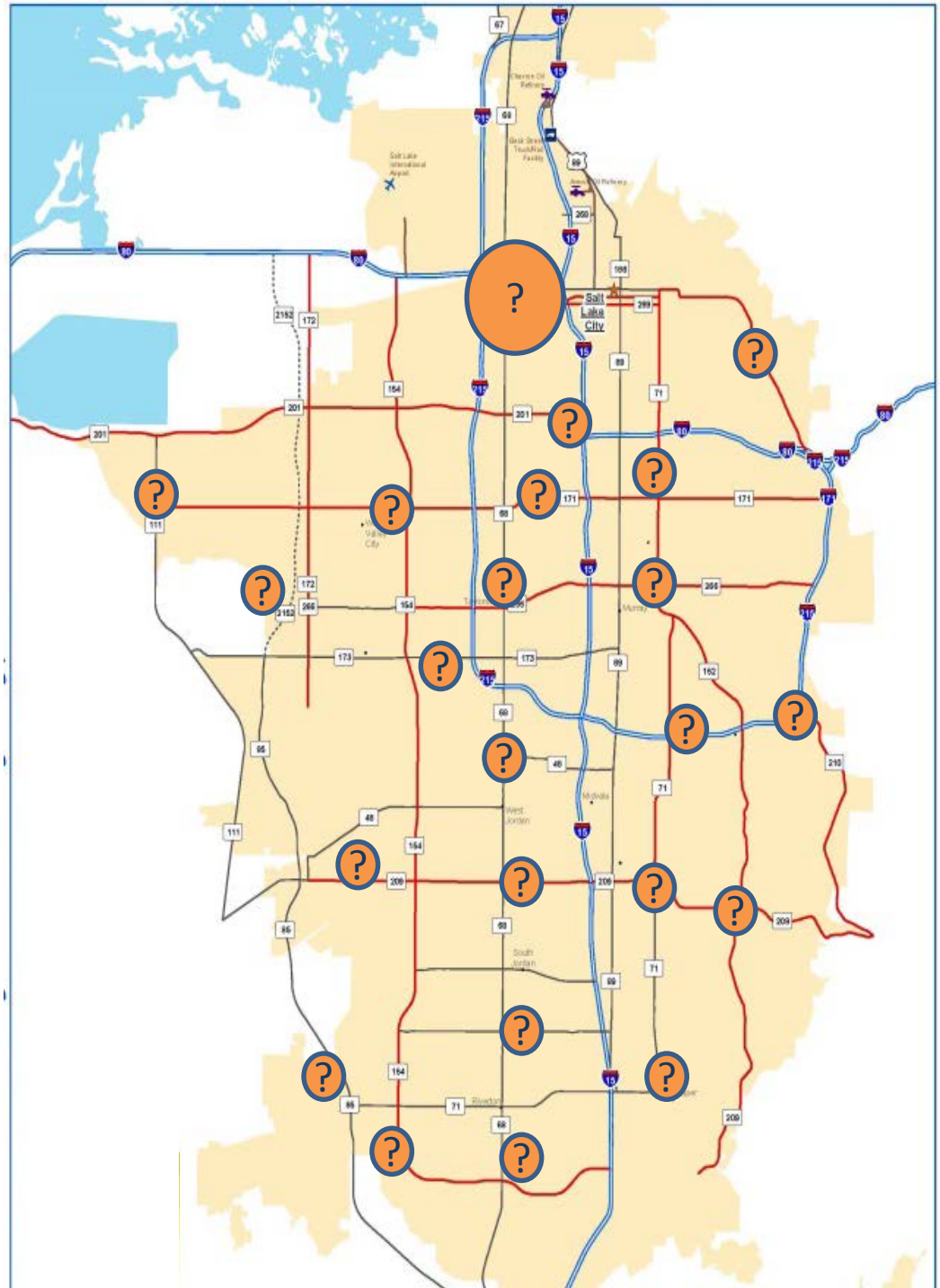
Access to Opportunity helps answer “where to locate what”

Affordable Housing:
Which TODs are the most effective?

Business recruitment:
Which locations are more accessible to labor?

Community College:
How can we maximize student access without a car?

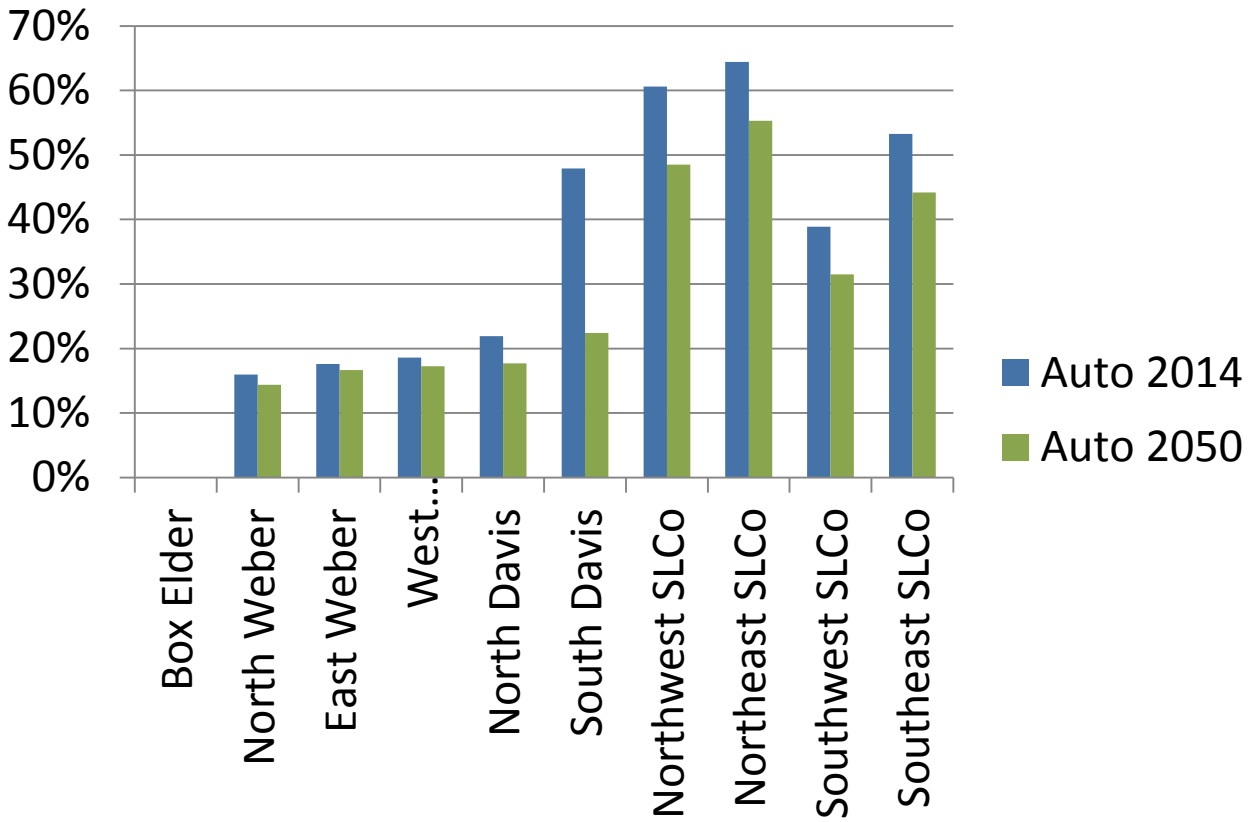
Community Services:
Where are the strategic locations?



Comparing Subareas

Access to economic and educational opportunities

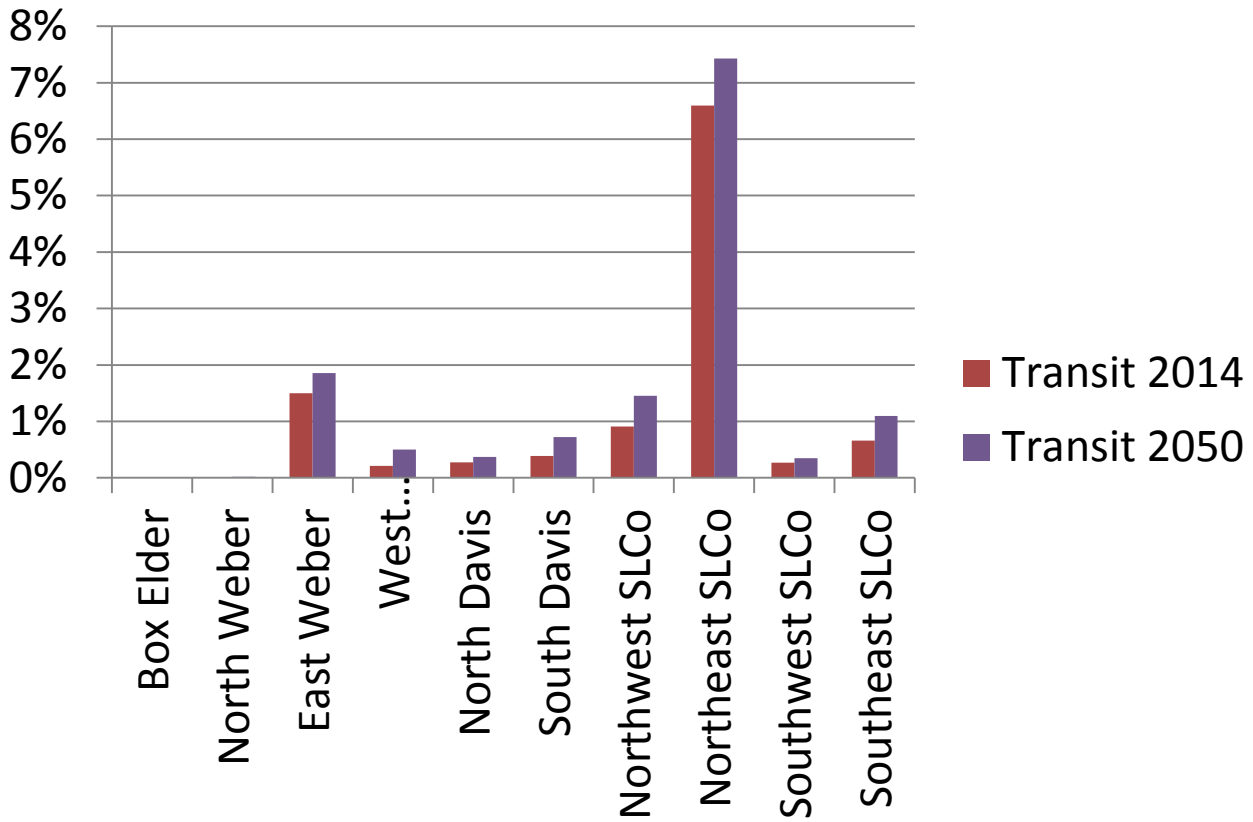
Region's jobs accessible within 30 minutes by car



Comparing Subareas

Access to economic and educational opportunities

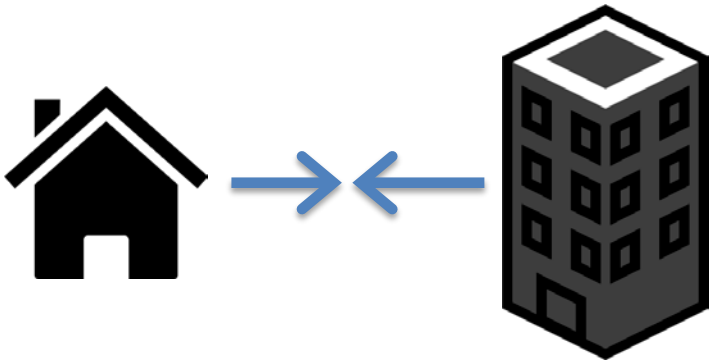
Region's jobs accessible within 30 minutes by transit



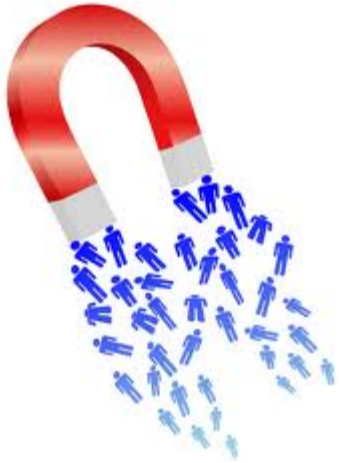
Methods to increase ATO

Better speed

Reduce necessary travel distance

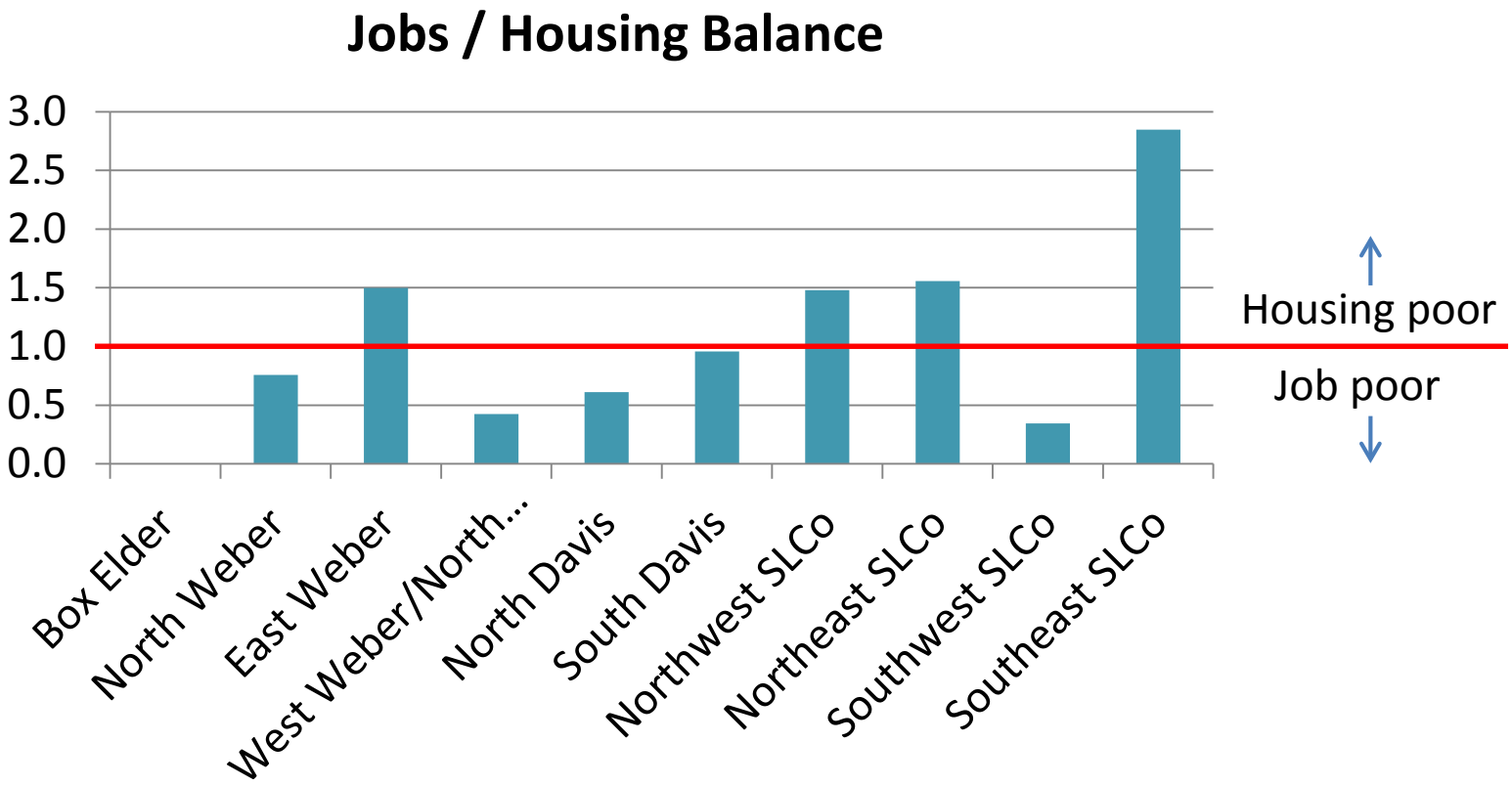


Bring growth near transportation

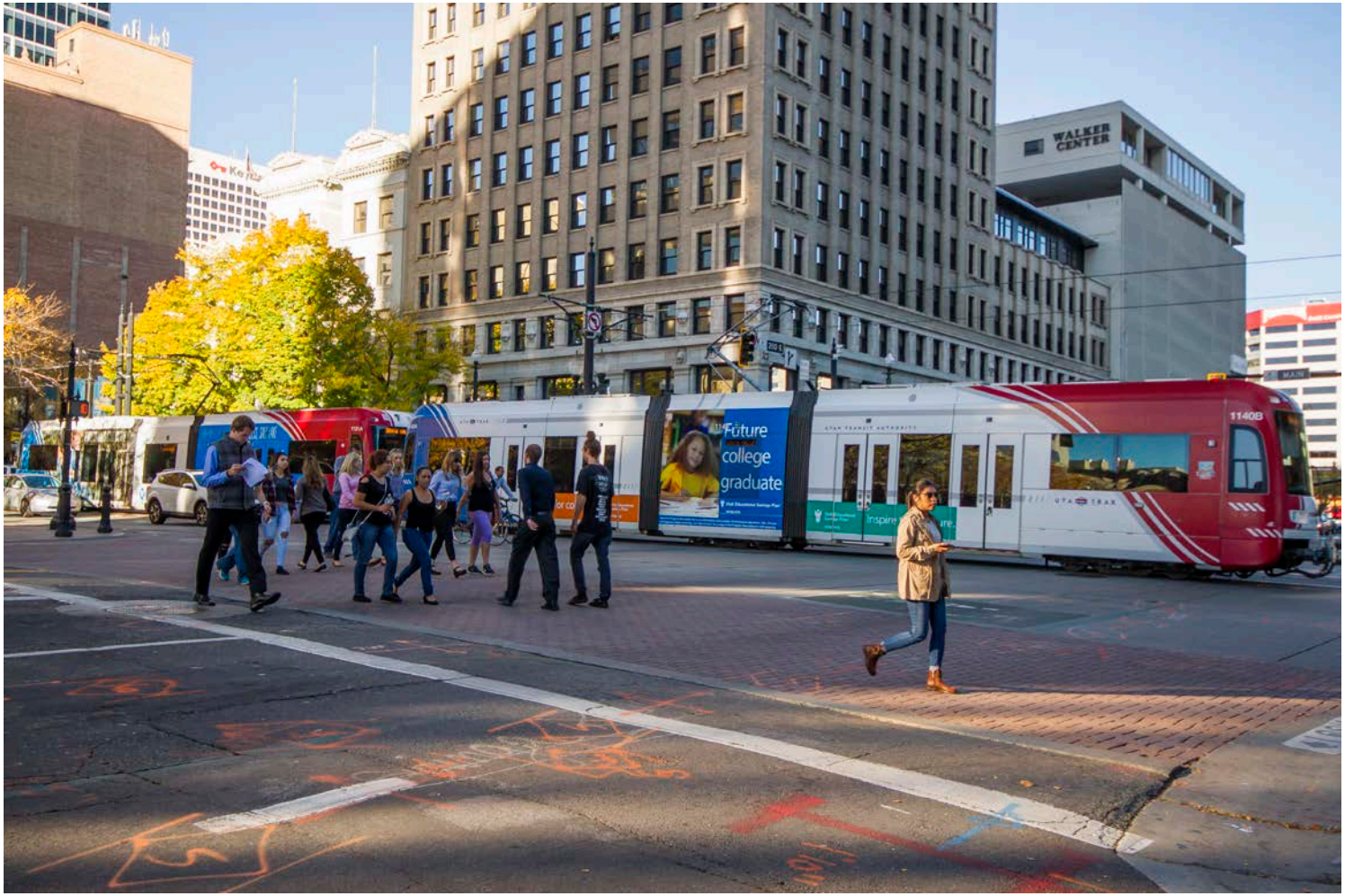


Comparing Subareas

Comparing Subareas



Do those that need access the most have it?

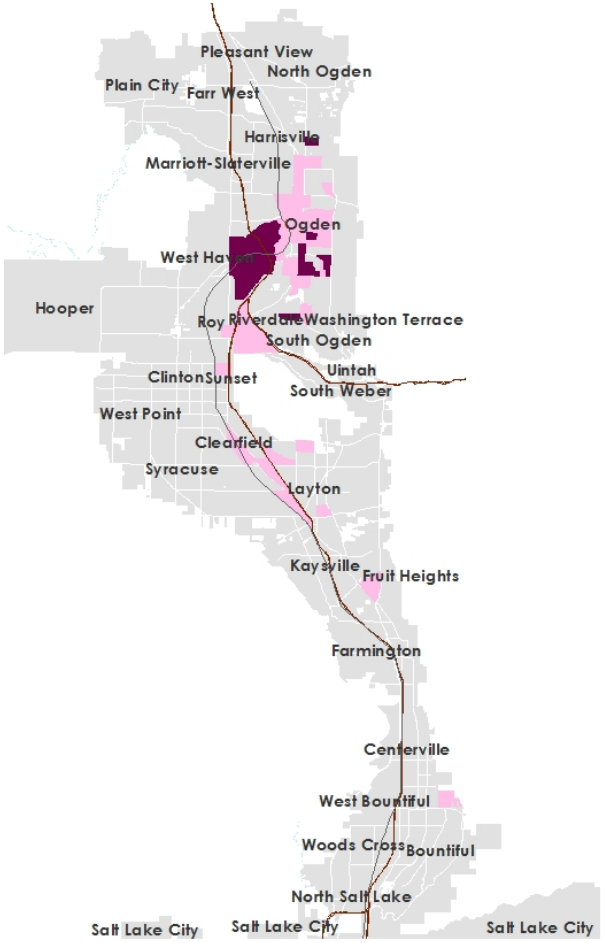


A definition of Vulnerable Communities?

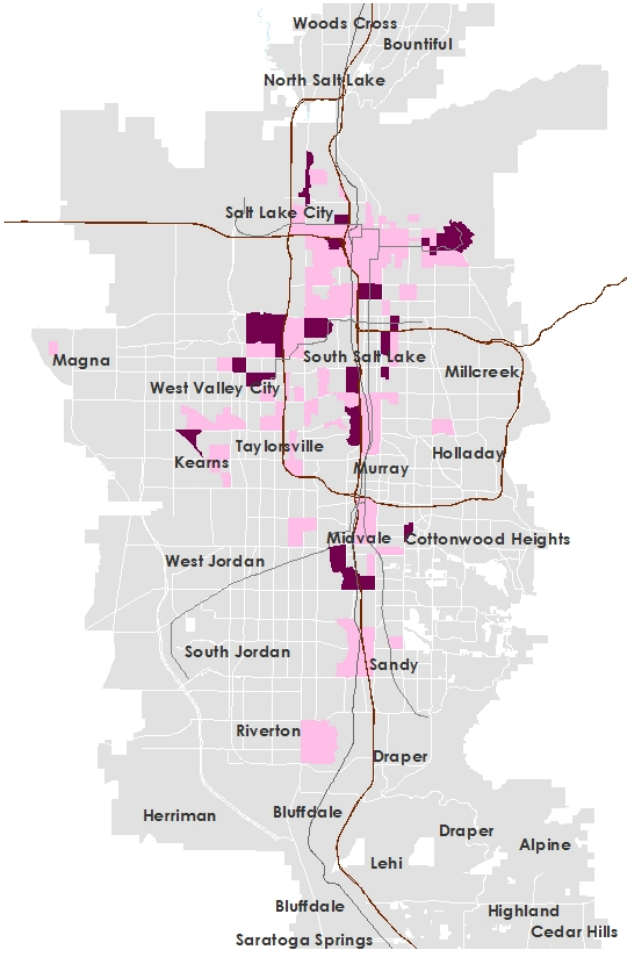
(1) low-income households

(2) minority, zero-car households

Where are Vulnerable Communities?



Ogden – Layton Urbanized Area



Salt Lake City – West Valley City Urbanized Area

Why focus on Vulnerable Communities?

The New York Times

TheUpshot

Importance of Place

Transportation Emerges as Crucial to Escaping Poverty

MAY 7, 2015

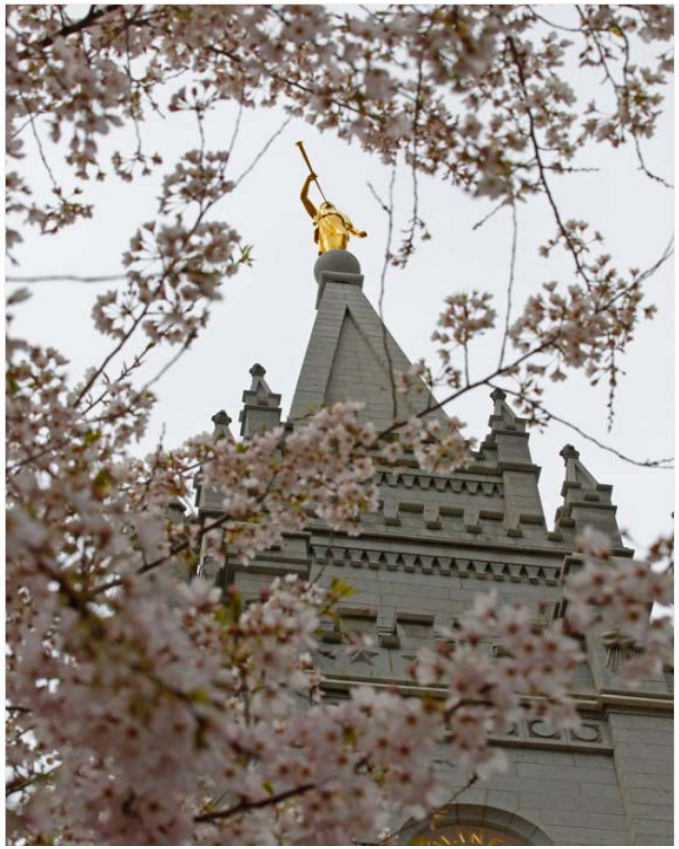
Mikayla Bouchard

James Baker was pedaling to work along a slick, snow-covered road in Frederick County, Md., when a traffic light changed abruptly. He braked and skidded to the ground, unhurt but making a

"The relationship between transportation and social mobility is stronger than that between mobility and crime, elementary-school test scores or the percentage of two-parent families in a community"

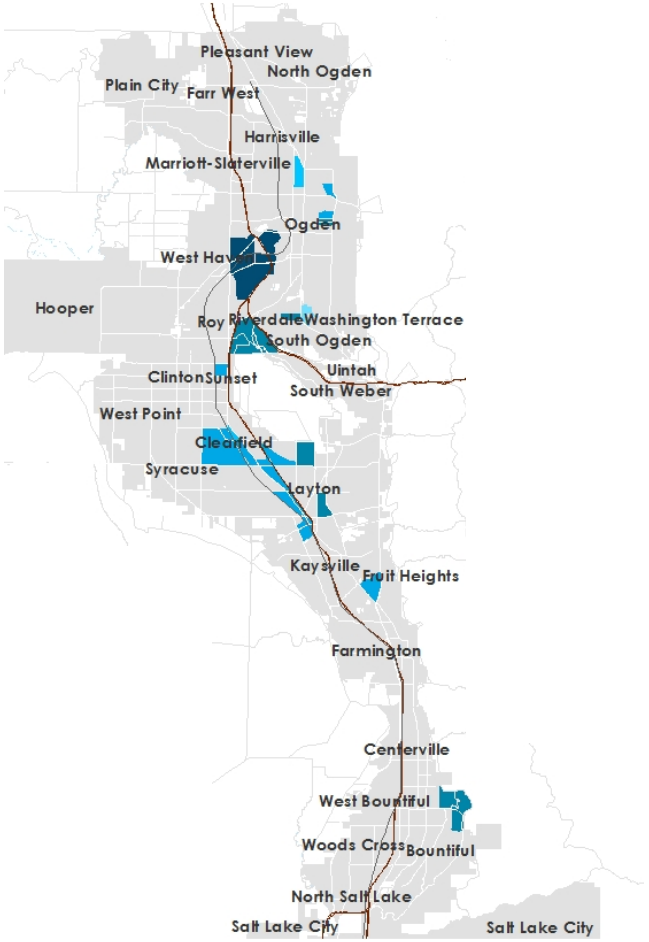
Why Low-Income Kids Thrive in Salt Lake City

This small Western metro has some of the best rates of upward mobility in the country. Can the city sustain that as it grows and diversifies?

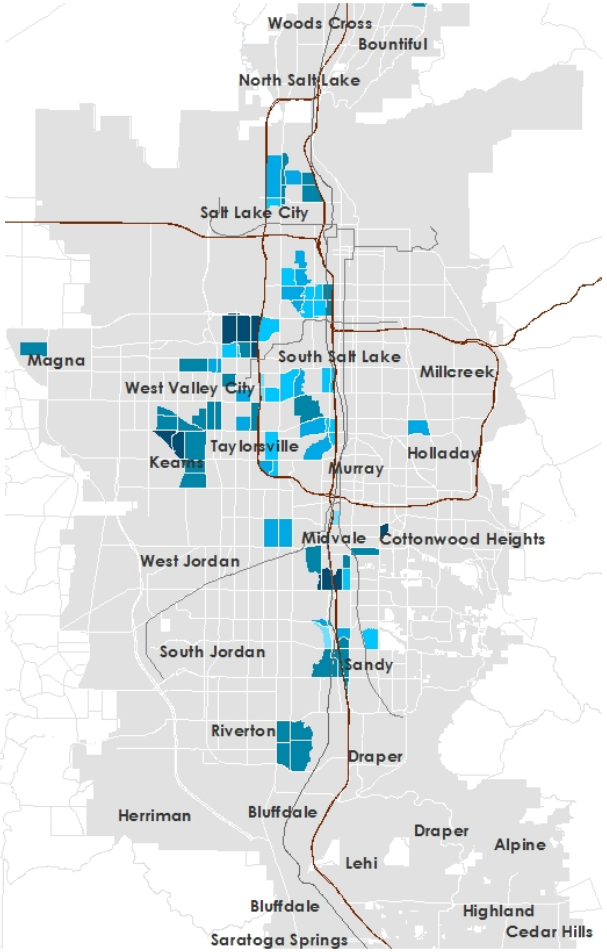


How accessible are jobs for Vulnerable Communities currently?

Low job accessibility and vulnerable communities



Ogden – Layton Urbanized Area

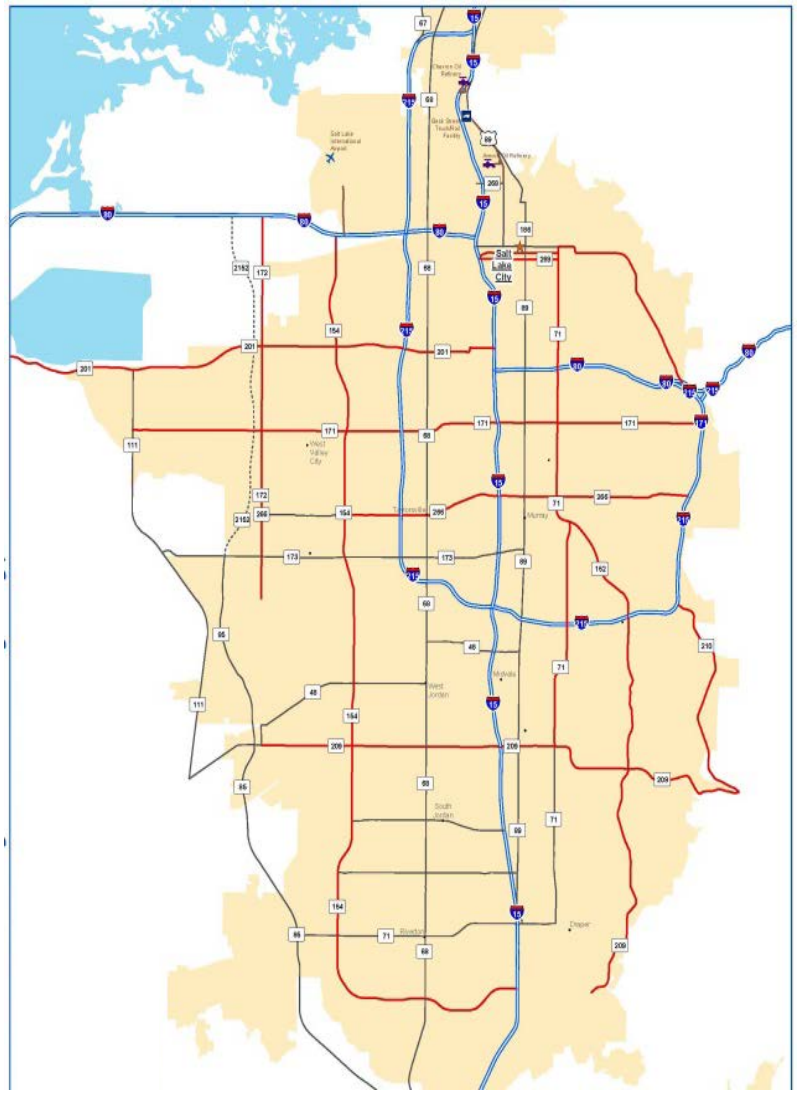


Salt Lake City – West Valley City Urbanized Area

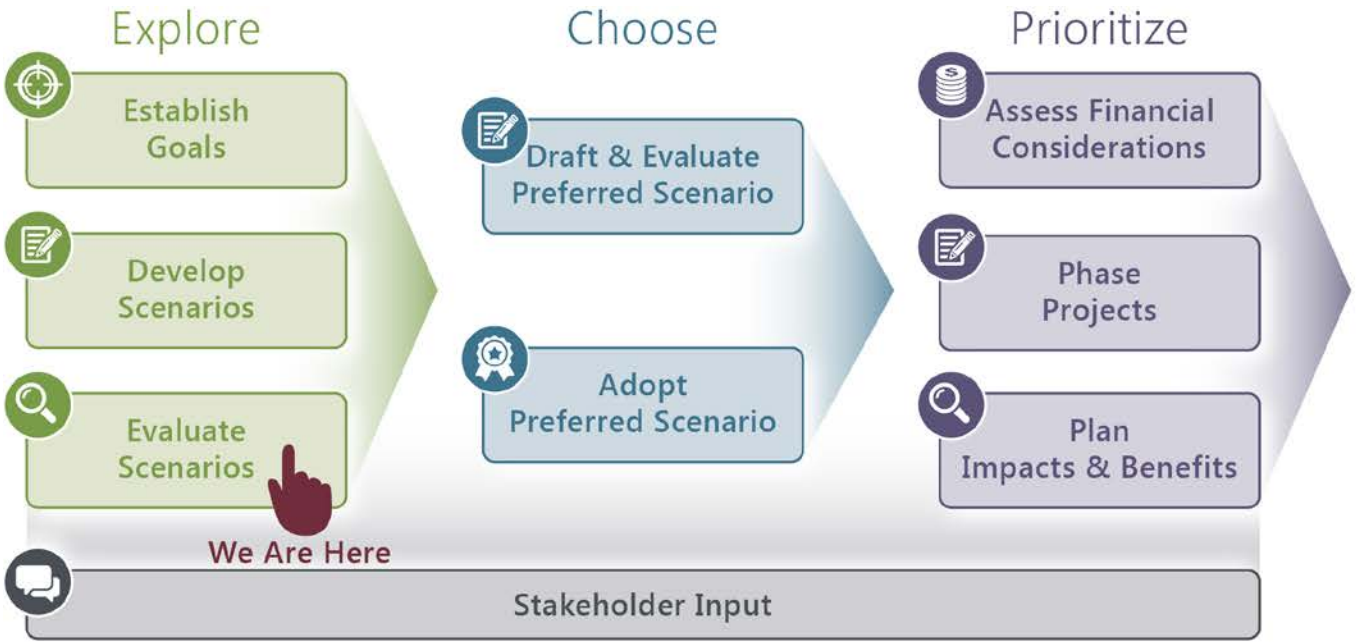
How does this affect decision-making?

Access to Opportunity helps answer “where” for transportation

Which areas would have their job access increased the most by transportation?



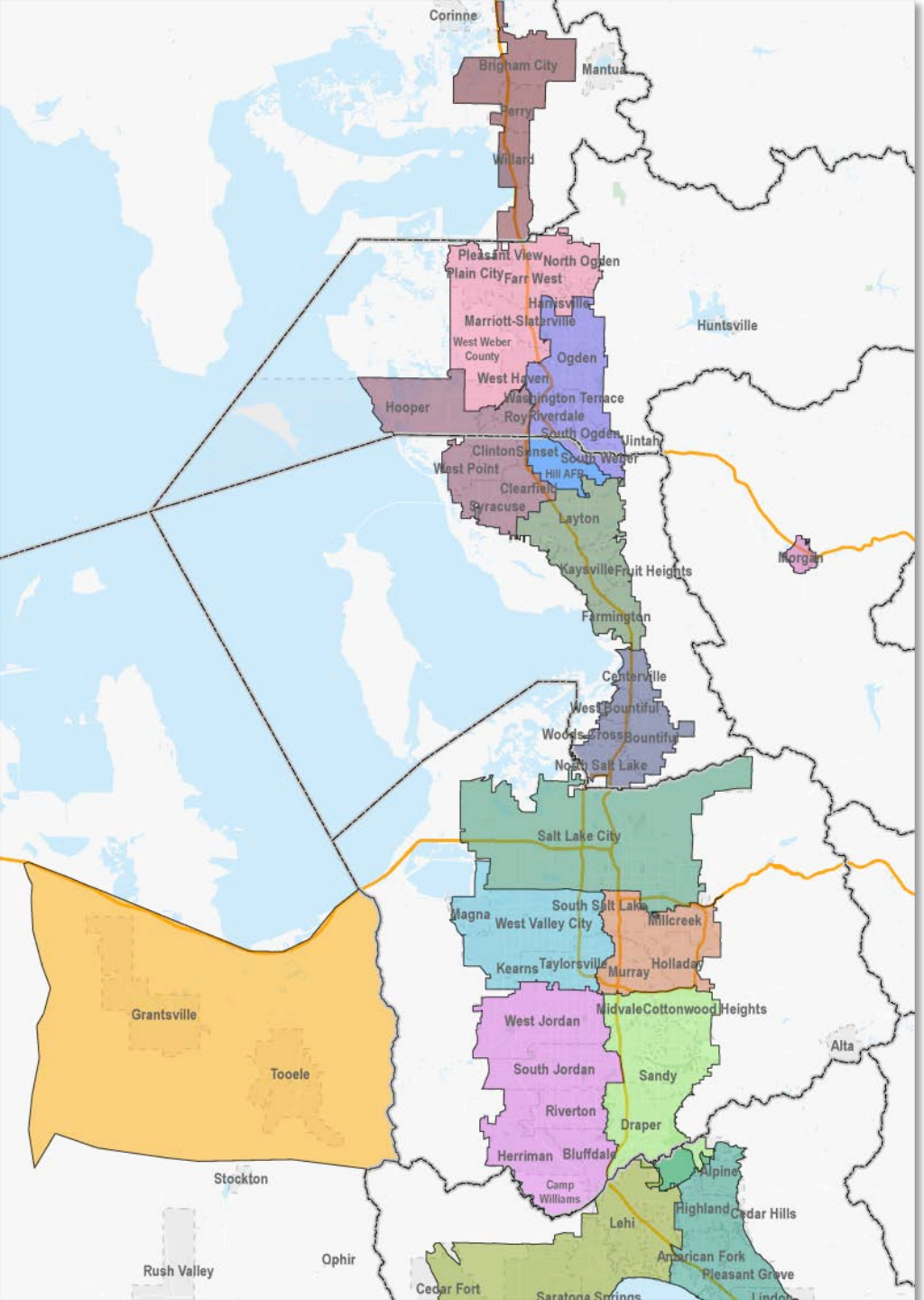
Wasatch Choice 2050 Process



REGIONAL TRANSPORTATION PLAN
2019 - 2050

The Regional Transportation Plan is an element of

WASATCH CHOICE 2050



Scenario Workshops

February 23 – March 30, 2017

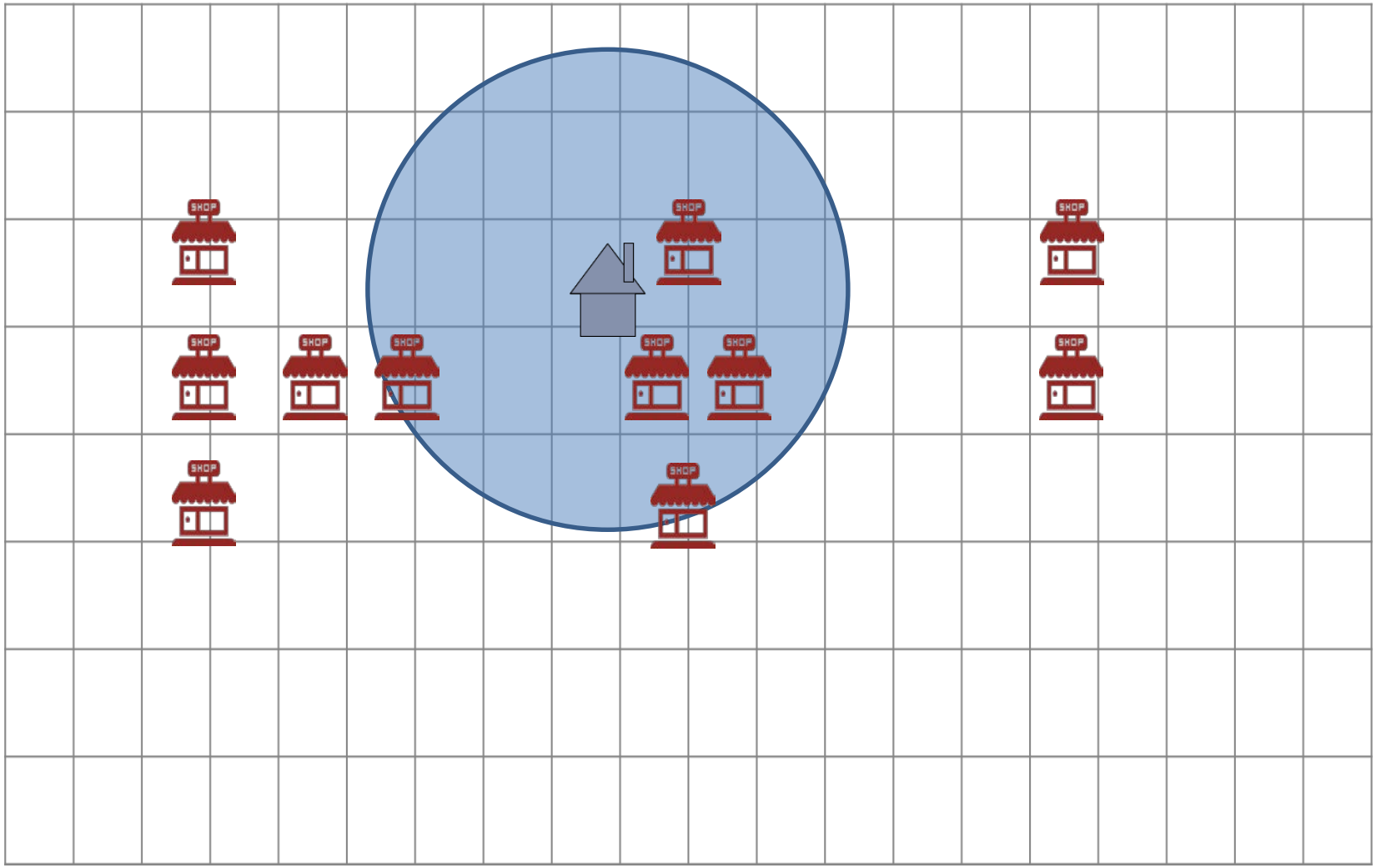
Wasatch Choice 2050 Goals: Access to Opportunity

Regional Growth Committee

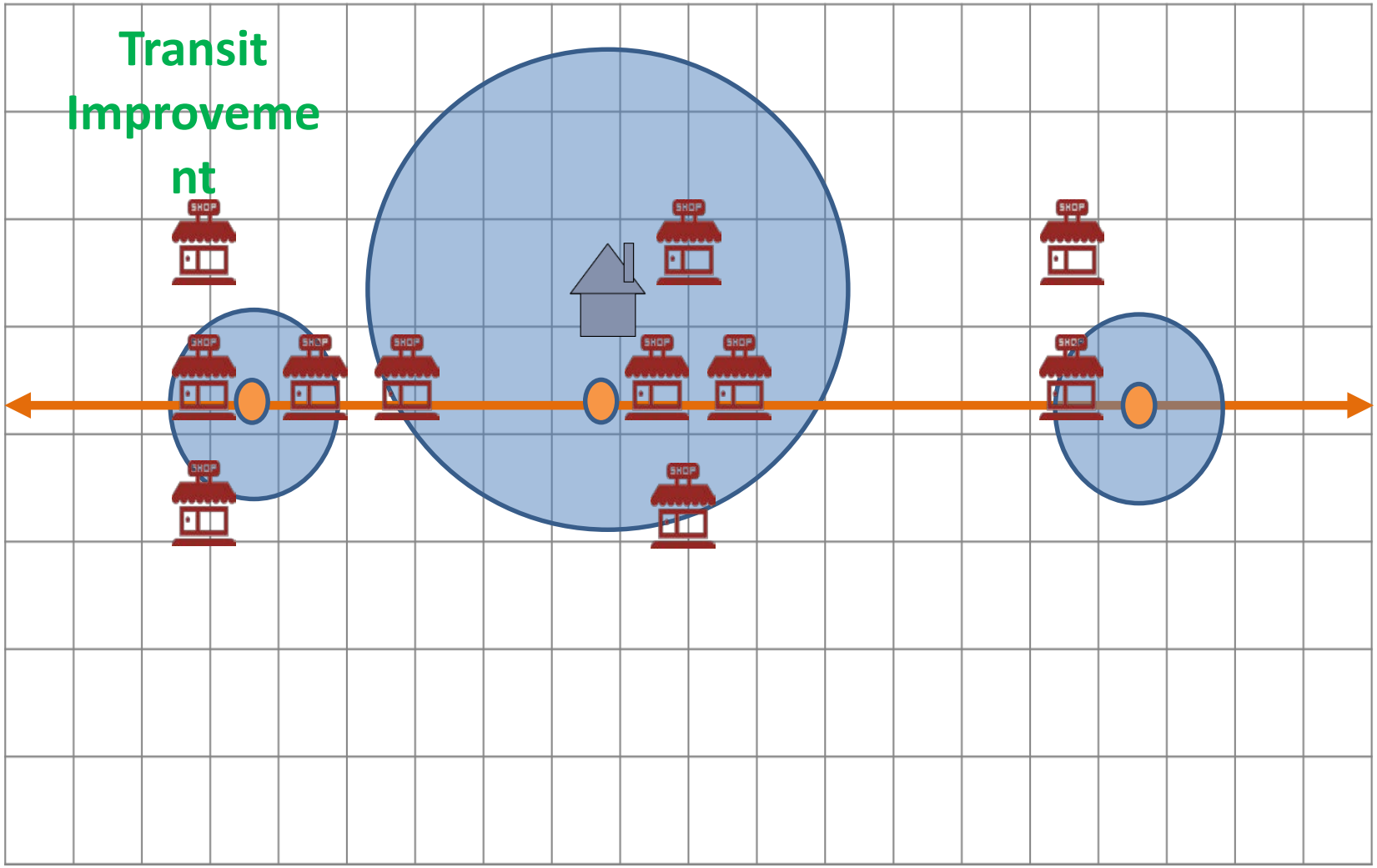
January 19, 2017

WASATCH FRONT REGIONAL COUNCIL

Job access within 20 minutes



Job access within 20 minutes



Access to Opportunity lens identified that one TOD was more valuable than the ot

UTA TOD

LIVING CONNECTED

UTABACKGROUND

- The Utah State **Legislature** and **FTA** have allowed UTA to enter into joint development agreements

- UTA presently holds more than **390 Acres** of real estate within 1/2 mile of fixed transit stations

- Development of this real estate will lead to a **healthier** and more **equitable economy** along the Wasatch Front

TODGOALS

The **UTA Board of Trustees** has identified **goals** to guide our involvement with transit-oriented development.

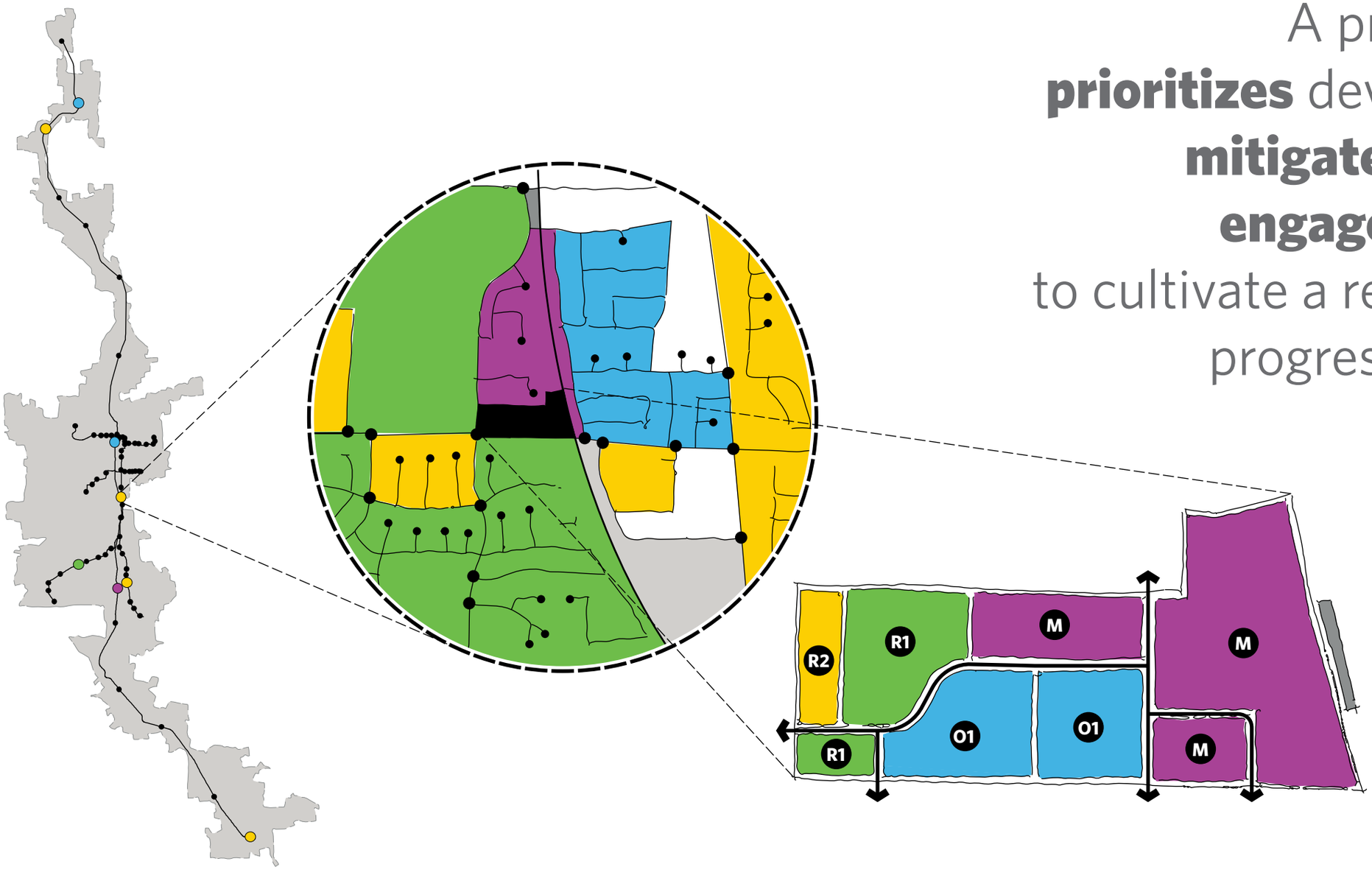
- Improve Transit **Ridership**
- Support Regional **Vision**
- Stimulate **Economy**
- Encourage **Sustainability**
- Integrate **All Modes** of transportation
- Open opportunities for **Affordable Housing**
- Maintain **Transparency**
- Capture **Value**

POLICY FRAMEWORK

PLANNING IMPLEMENTATION MGMT

PLANNINGSTAGE

A process that
prioritizes development,
mitigates risk, and
engages markets
to cultivate a realistic and
progressive vision



System Plan ▸ Station Area ▸ Concept Plan ▸ RFP ▸ Master Plan ▸ Site Plan ▸ Financial Plan ▸ Const. Mgmt ▸ Prop Mgmt

SELECTION CRITERIA

Land Availability

Land ownership, environmental constraints, and parking demand

Connectivity

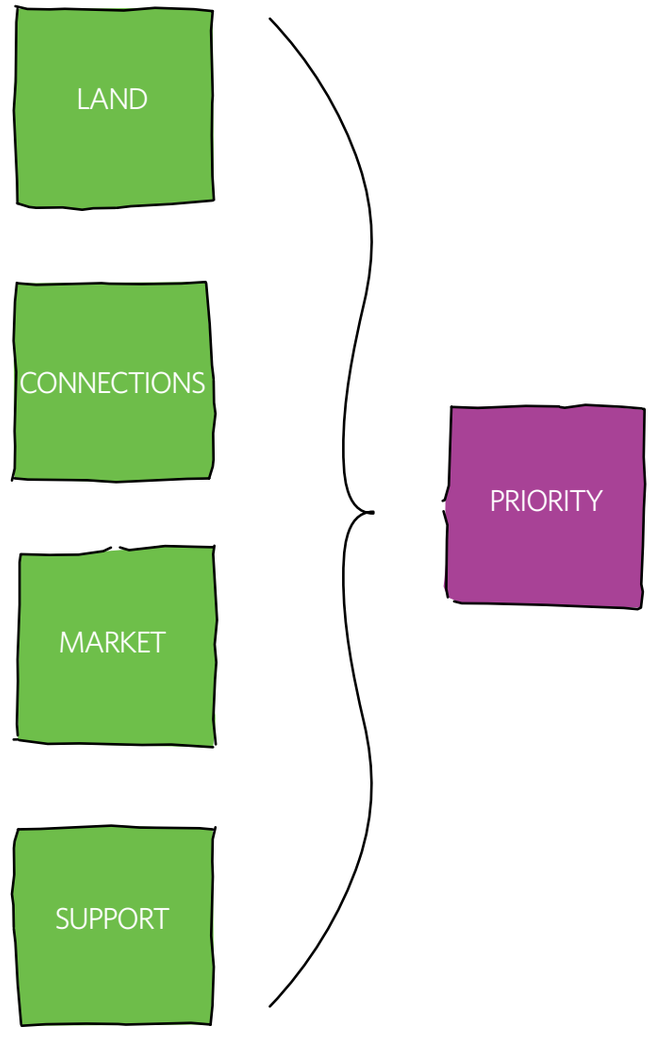
Transit service, multi-modal connections, and access

Market Strength

Socioeconomic context and key market indicators

Public **Support**

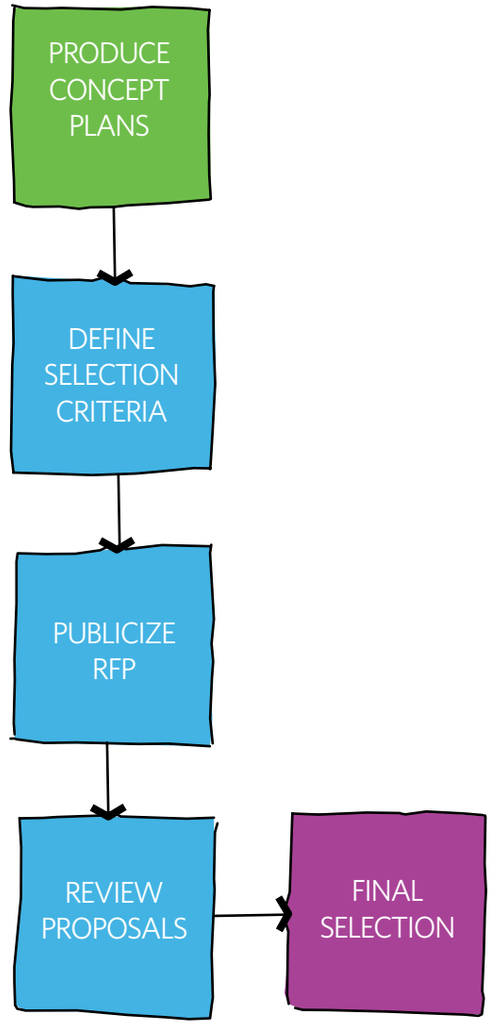
TOD-Supportive zoning, political support, and public finance



System Plan ▸ Station Area ▸ Concept Plan ▸ RFP ▸ Master Plan ▸ Site Plan ▸ Financial Plan ▸ Const. Mgmt ▸ Prop Mgmt

RFP PROCESS

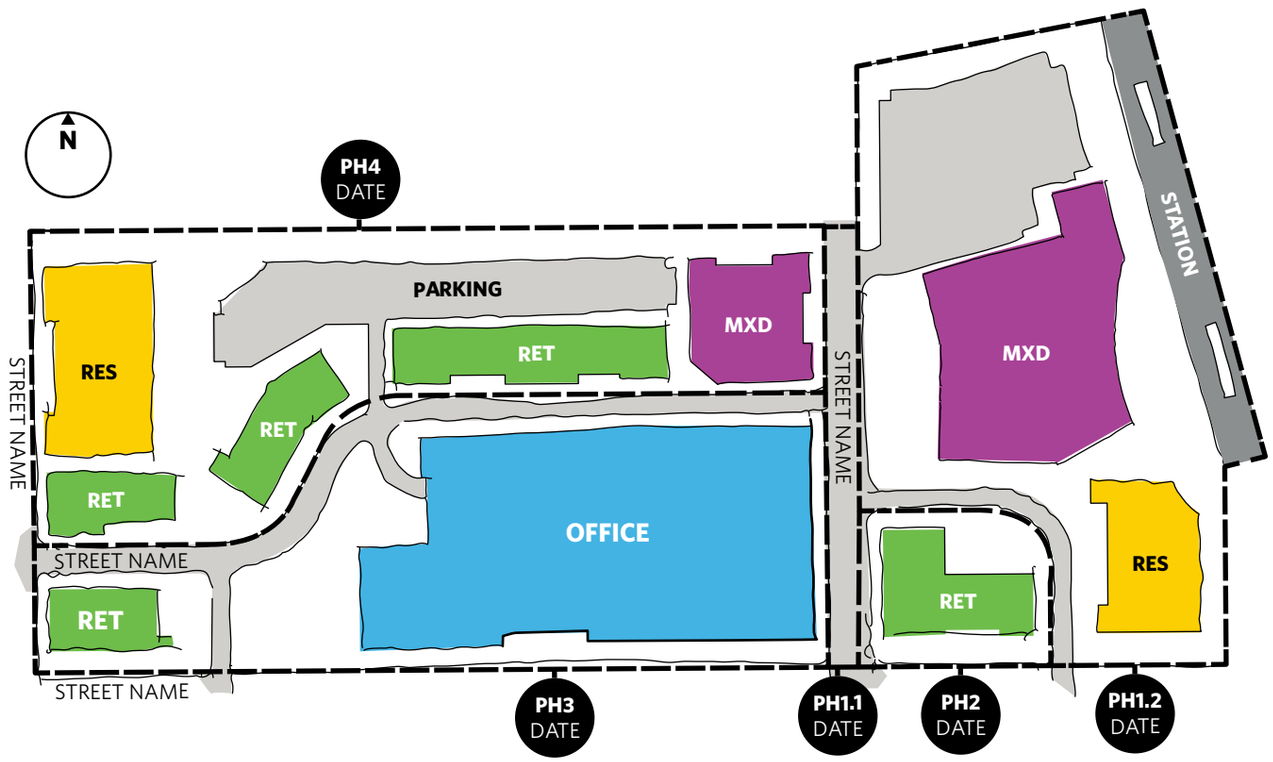
Facilitates the **transparent** identification and **selection** of development partners who are best suited to carry out a planned vision



System Plan ▸ Station Area ▸ Concept Plan ▸ **RFP** ▸ Master Plan ▸ Site Plan ▸ Financial Plan ▸ Const. Mgmt ▸ Prop Mgmt

MASTERPLANNING

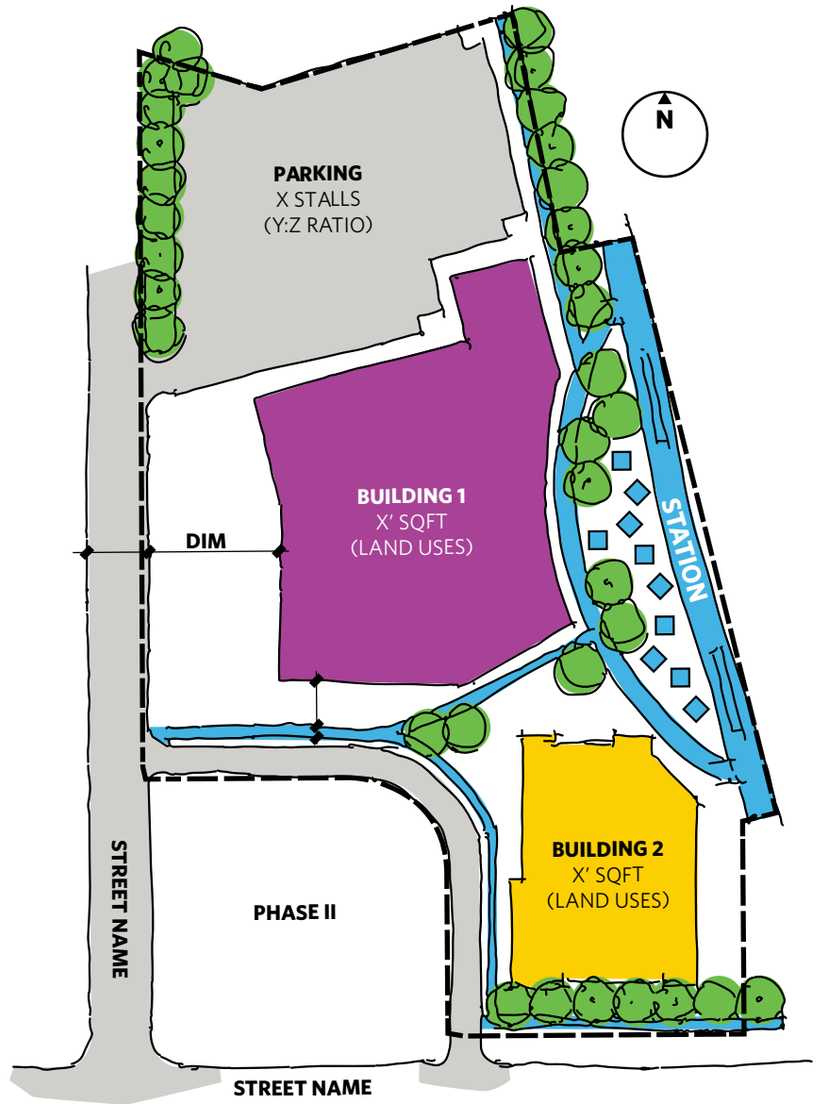
Provides an overview of **what** will be included in a specific TOD project, and **when** it will happen



System Plan ▸ Station Area ▸ Concept Plan ▸ RFP ▸ **Master Plan** ▸ Site Plan ▸ Financial Plan ▸ Const. Mgmt ▸ Prop Mgmt

SITEPLANNING

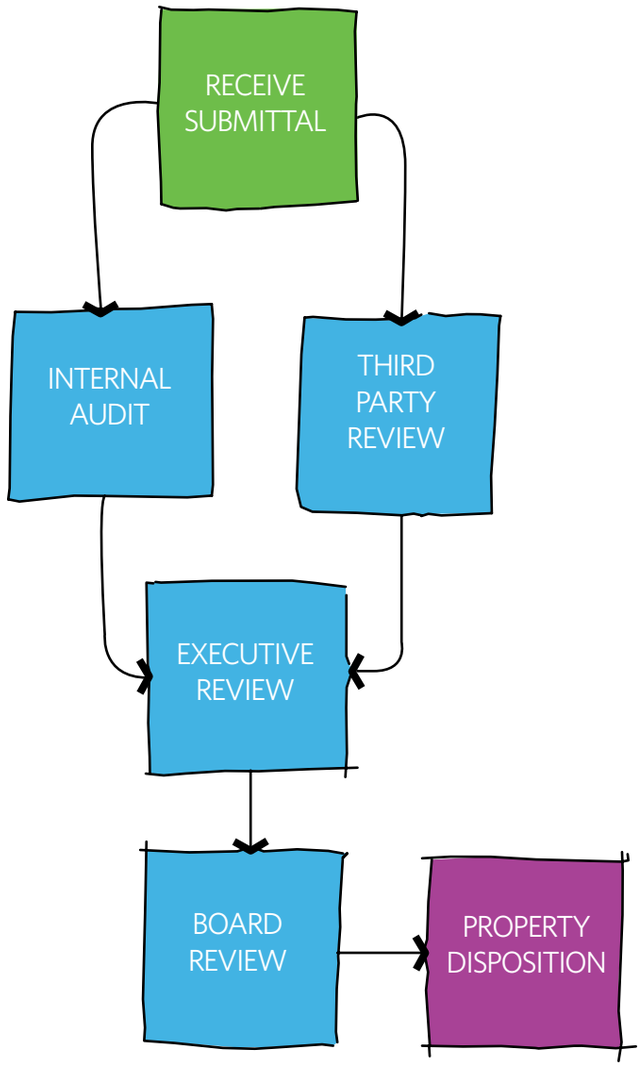
Prepares a **single phase** of a Master Plan for municipal review and **construction**



System Plan ▸ Station Area ▸ Concept Plan ▸ RFP ▸ Master Plan ▸ **Site Plan** ▸ Financial Plan ▸ Const. Mgmt ▸ Prop Mgmt

FINANCIALPLAN

Mitigates potential ethical and financial **risks** associated with a single phase of a master plan, and ensures that the proposed development is viable per market standards



System Plan ▸ Station Area ▸ Concept Plan ▸ RFP ▸ Master Plan ▸ Site Plan ▸ **Financial Plan** ▸ Const. Mgmt ▸ Prop Mgmt

MANAGEMENTSTAGE

Coordinate **construction**
and **property management**
in order to reduce the
associated **risks**

System Plan ▸ Station Area ▸ Concept Plan ▸ RFP ▸ Master Plan ▸ Site Plan ▸ Financial Plan ▸ Const. Mgmt ▸ Prop Mgmt

• QUESTIONS/COMMENTS •

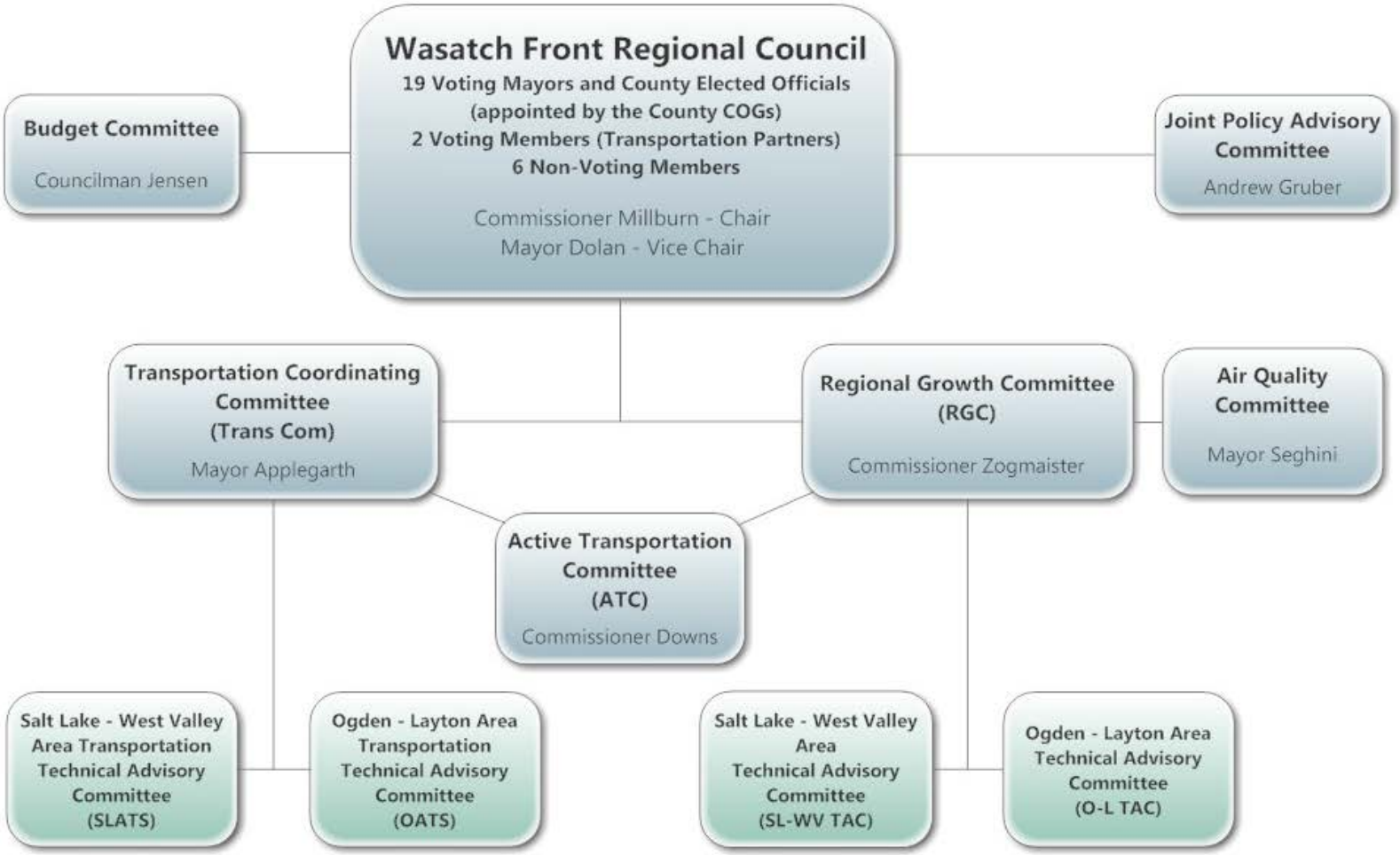
STR

RGC Priorities for 2017

January 19, 2017

WASATCH FRONT REGIONAL COUNCIL

WFRC Committee Structure (from 2014)



Role of RGC

- Guide Wasatch Choice 2050 and the Regional Transportation Plan
- Inform performance-based planning activities
- Explore air quality issues

RGC priorities?

- Wasatch Choice 2050 and Regional Transportation Plan
- Special topics? E.g.,
  - Implication of an aging population
  - Shifts in transportation technology
  - Implications of land use market shifts, including online retail
- Studies? E.g.,
  - First/ Last Mile TIGER project
  - Transportation and Land Use Connection projects
  - Utah Street Connectivity Study
- Other?

RGC Priorities for 2017

January 19, 2017

WASATCH FRONT REGIONAL COUNCIL

Utah's Air Quality

Bryce Bird
Department of Environmental Quality
Division of Air Quality

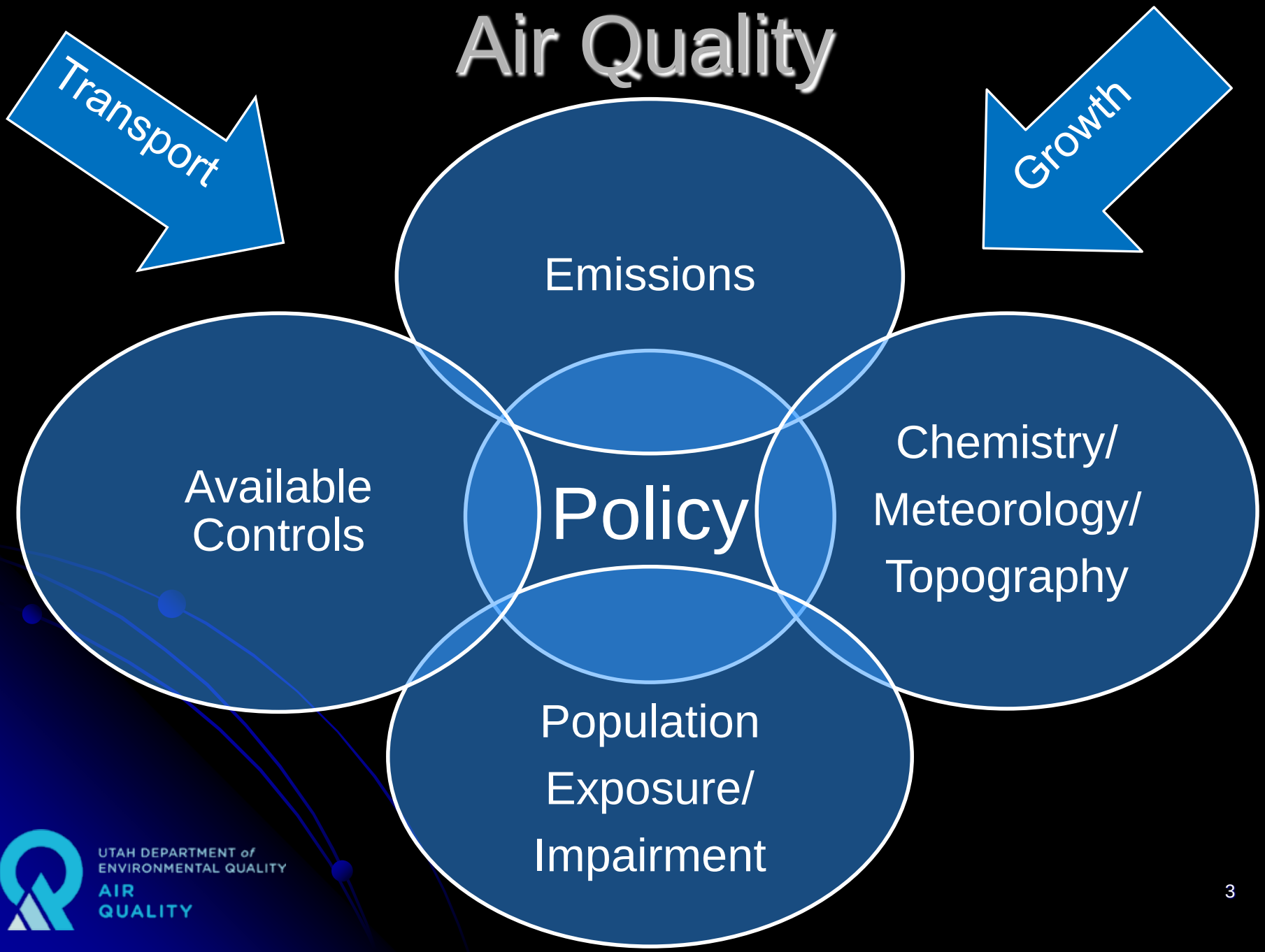
bbird@utah.gov

801-536-4000

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
AIR QUALITY

Utah experiences good air quality, except for about 5% of days on average when we exceed current federal health standards

Air Quality



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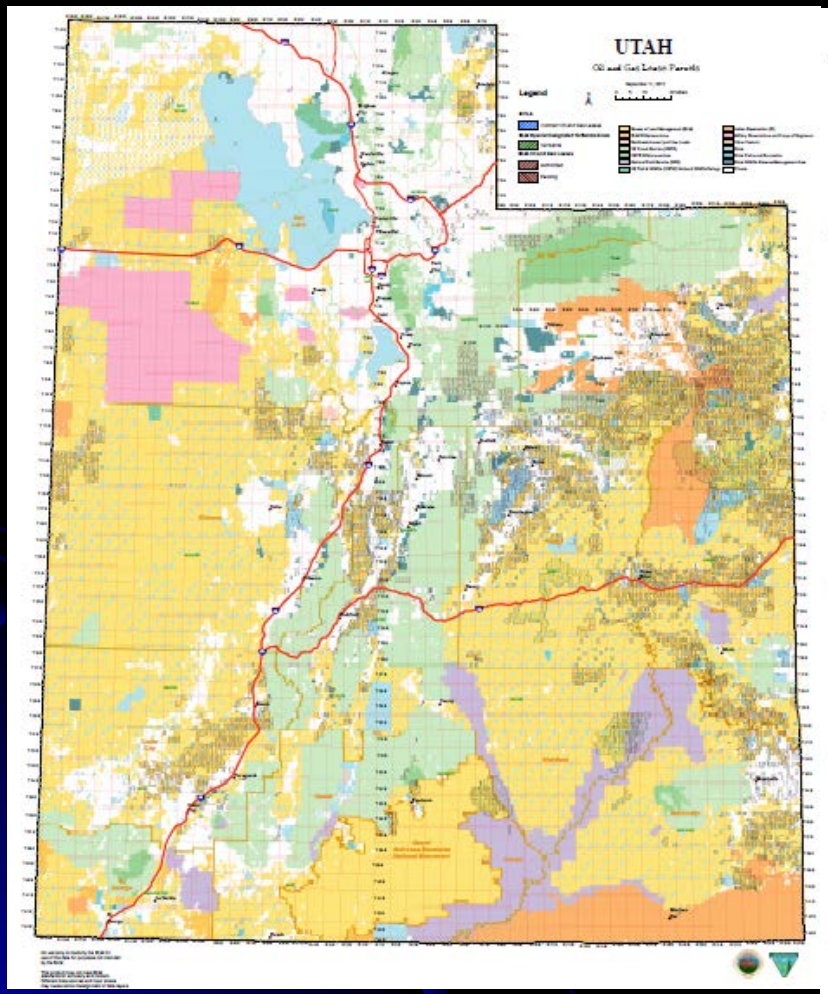
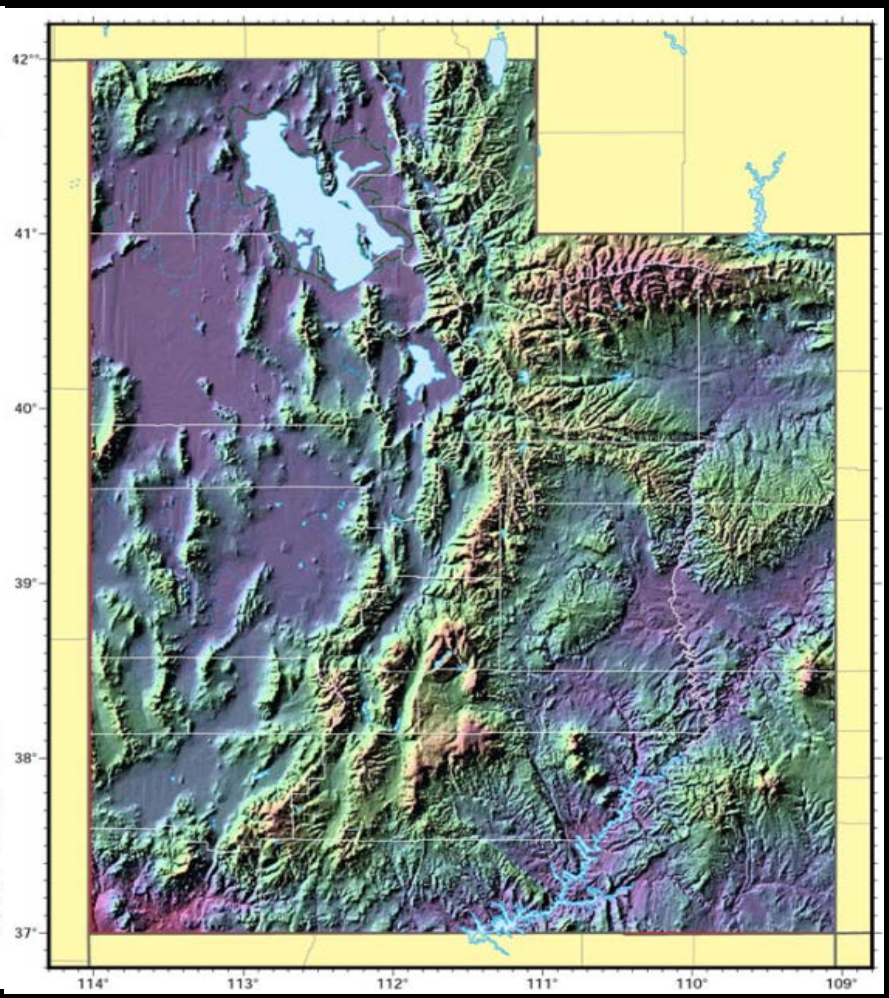
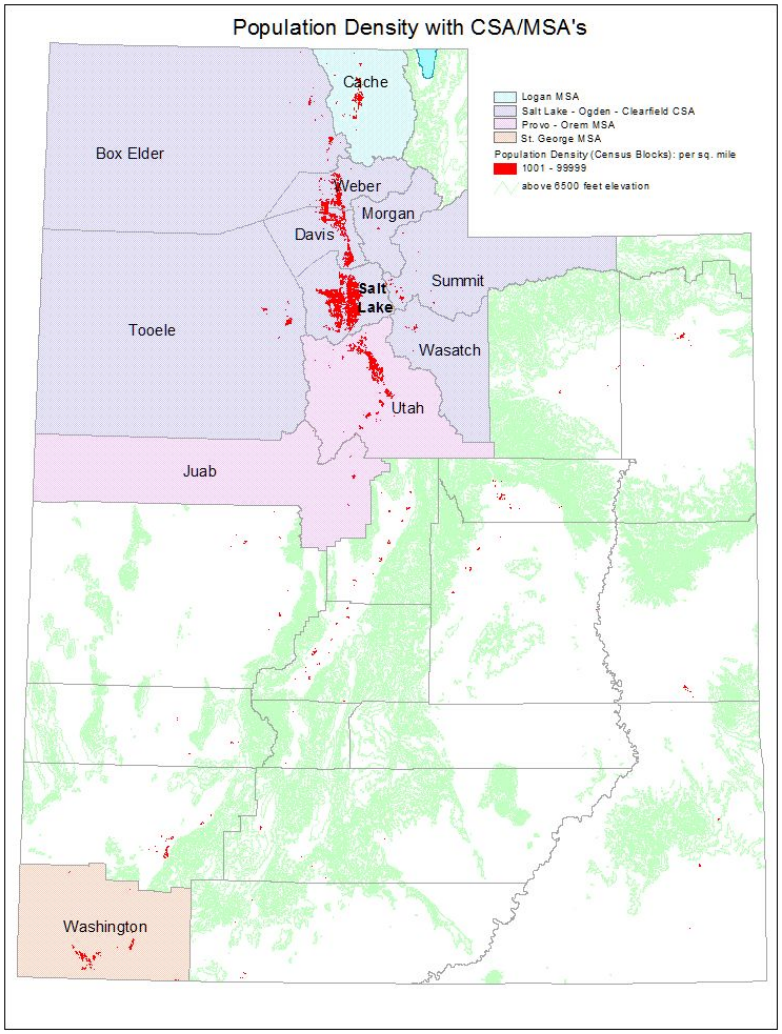
Land Ownership and Topography





Results in Concentrated Population and Associated Pollution



Urbanites: Nine of 10 Utahns live on 1 percent of state's land
Census » Utah is among most urban states in nation.

By Lee Davidson The Salt Lake Tribune

First Published Mar 26 2012 04:14 pm • Last Updated Mar 27 2012 11:42 am

Nine of every 10 Utahns now live in urban areas — and crowd together onto just 1.1 percent of the state's land mass, according to 2010 Census data released Monday.

That makes Utah the eighth most-urbanized state in the nation. It is more urban than such states as New York, Illinois and Connecticut.

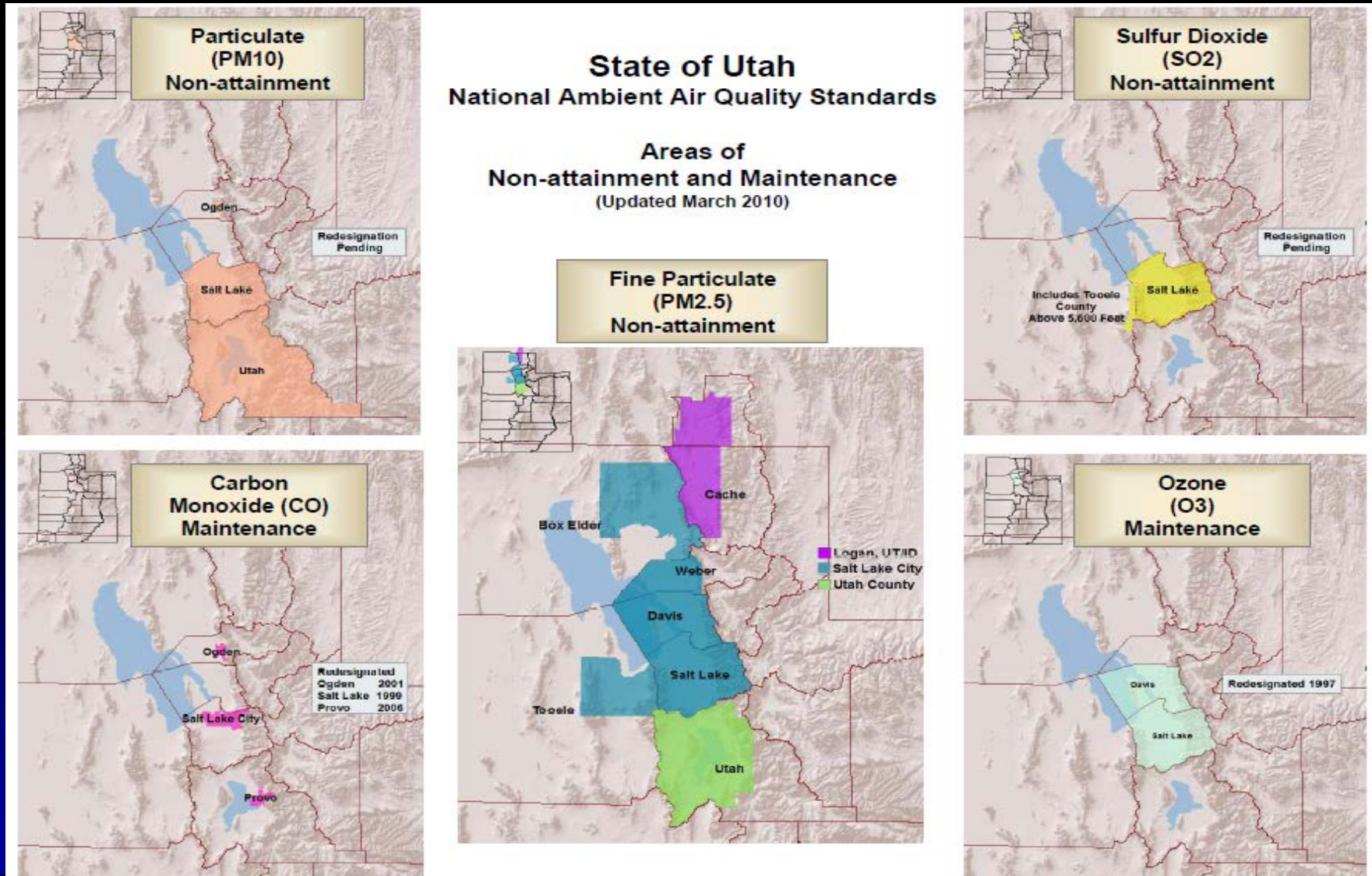
http://www.sltrib.com/sltrib/politics/53794385-90/areas-census-concentration-front.html.csp

National Ambient Air Quality Standards

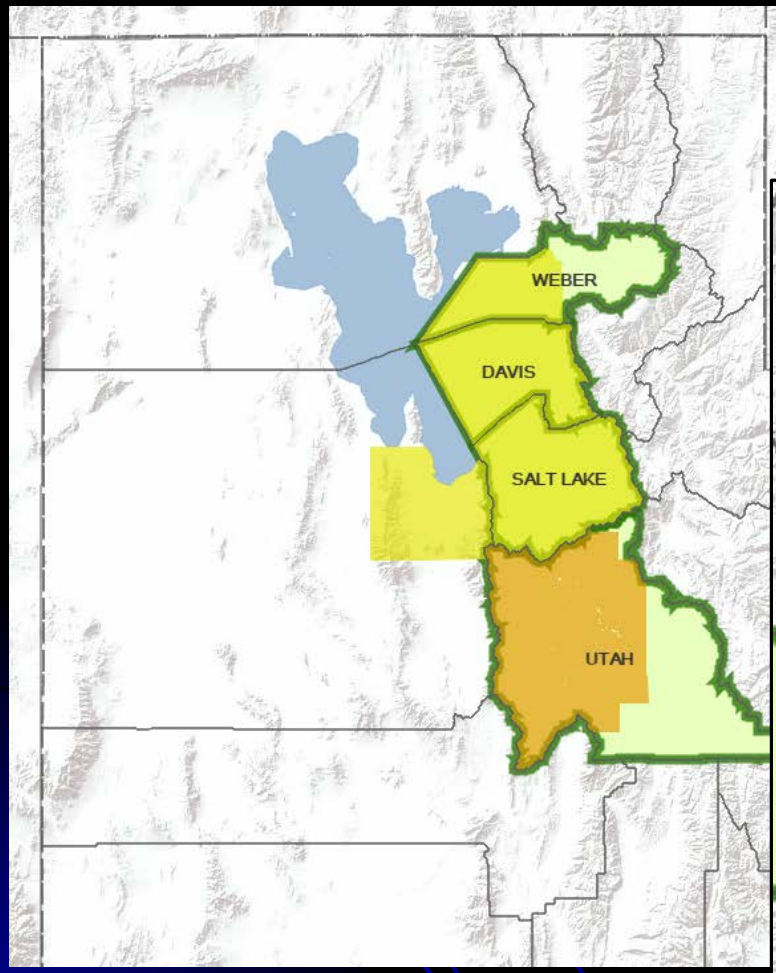
Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		primary and secondary	Rolling 3 month period	0.15 µg/m3 (1)	Not to be exceeded
Nitrogen Dioxide (NO2)		primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	1 year	53 ppb (2)	Annual Mean
Ozone (O3)		primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	PM2.5	primary	1 year	12.0 µg/m^3	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m^3	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
	PM10	primary and secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO2)		primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

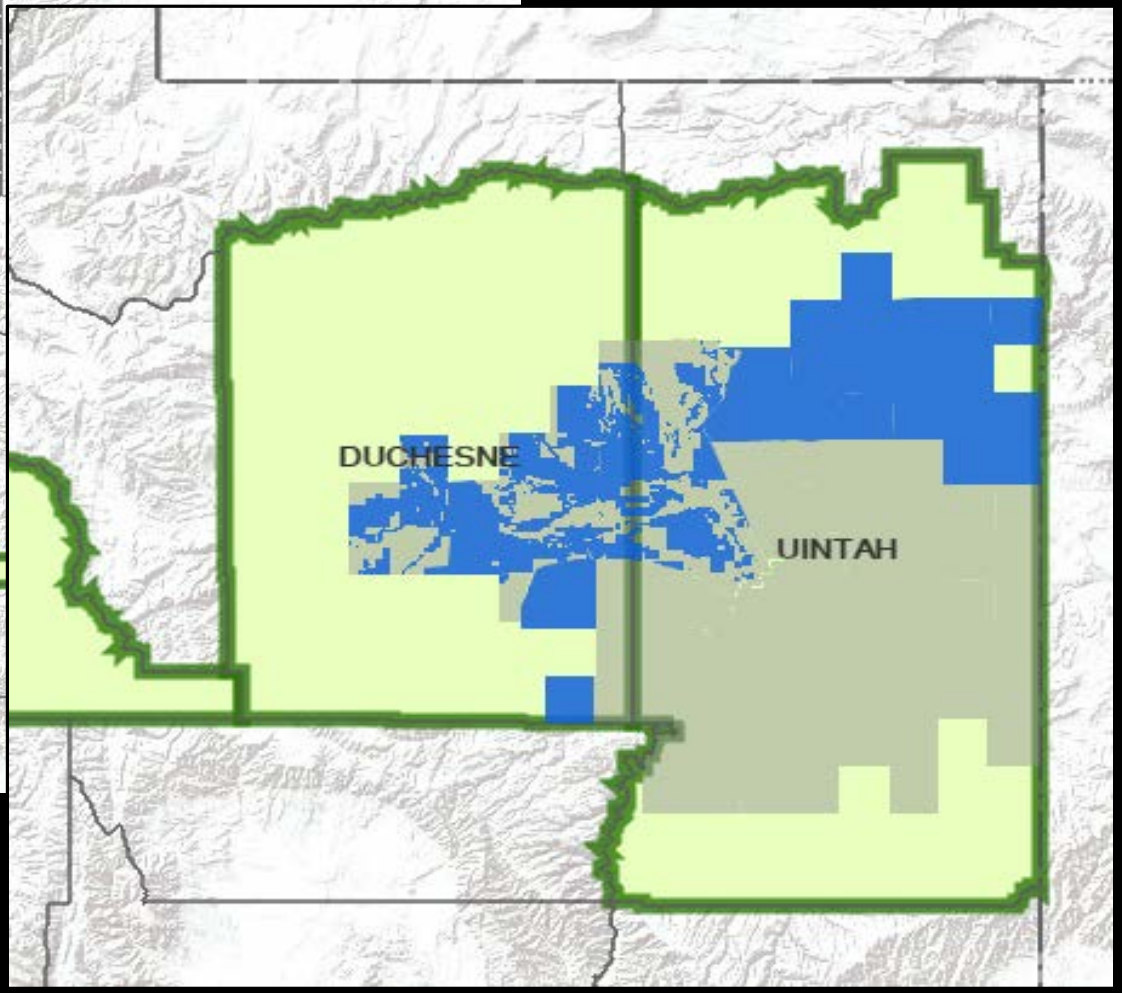
Revised 2006 2008 2010 2012 2015

Non-attainment and Maintenance Areas



Staff Review of Area Recommendations for the 2015 Ozone Standard





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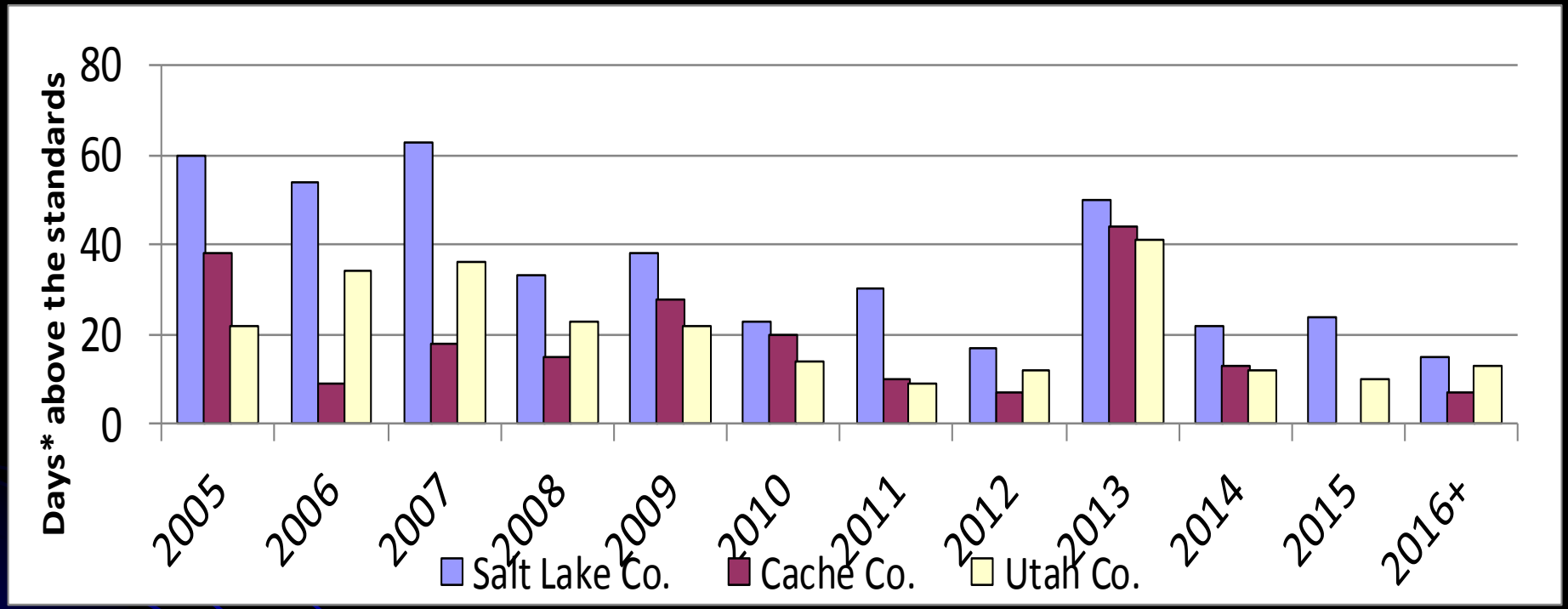
AIR QUALITY

Number of Days That Are and Those That Would Have Been Above the Current Federal Standards
Salt Lake, Cache, and Utah County Areas

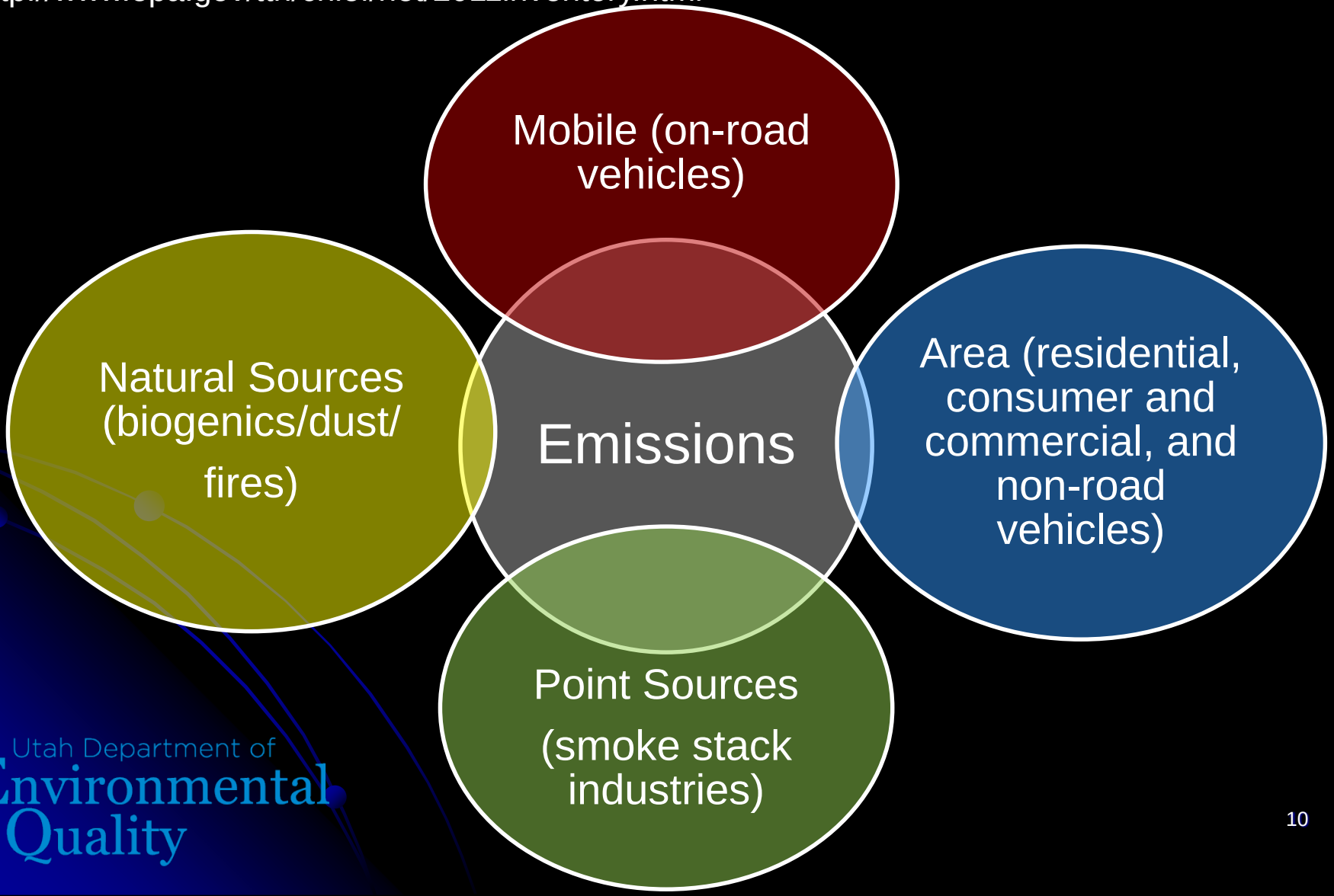


* Days with monitored values above the level of the ***current*** National Ambient Air Quality Standards combined for PM2.5 and ozone (PM2.5 standard revised in 2006, ozone standard revised in 2015) + pending final quality assurance

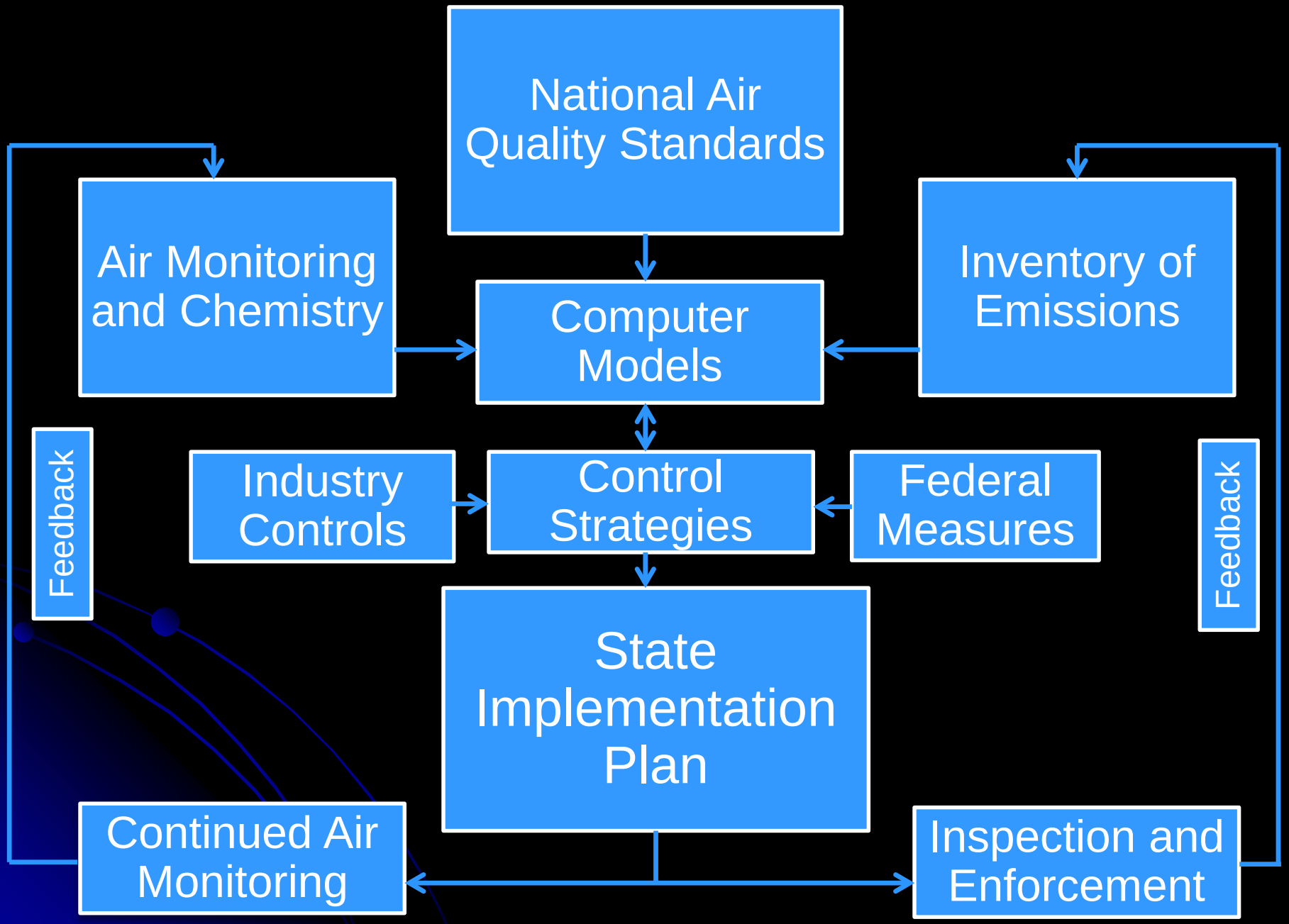
UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
AIR QUALITY

Sources of Air Pollution

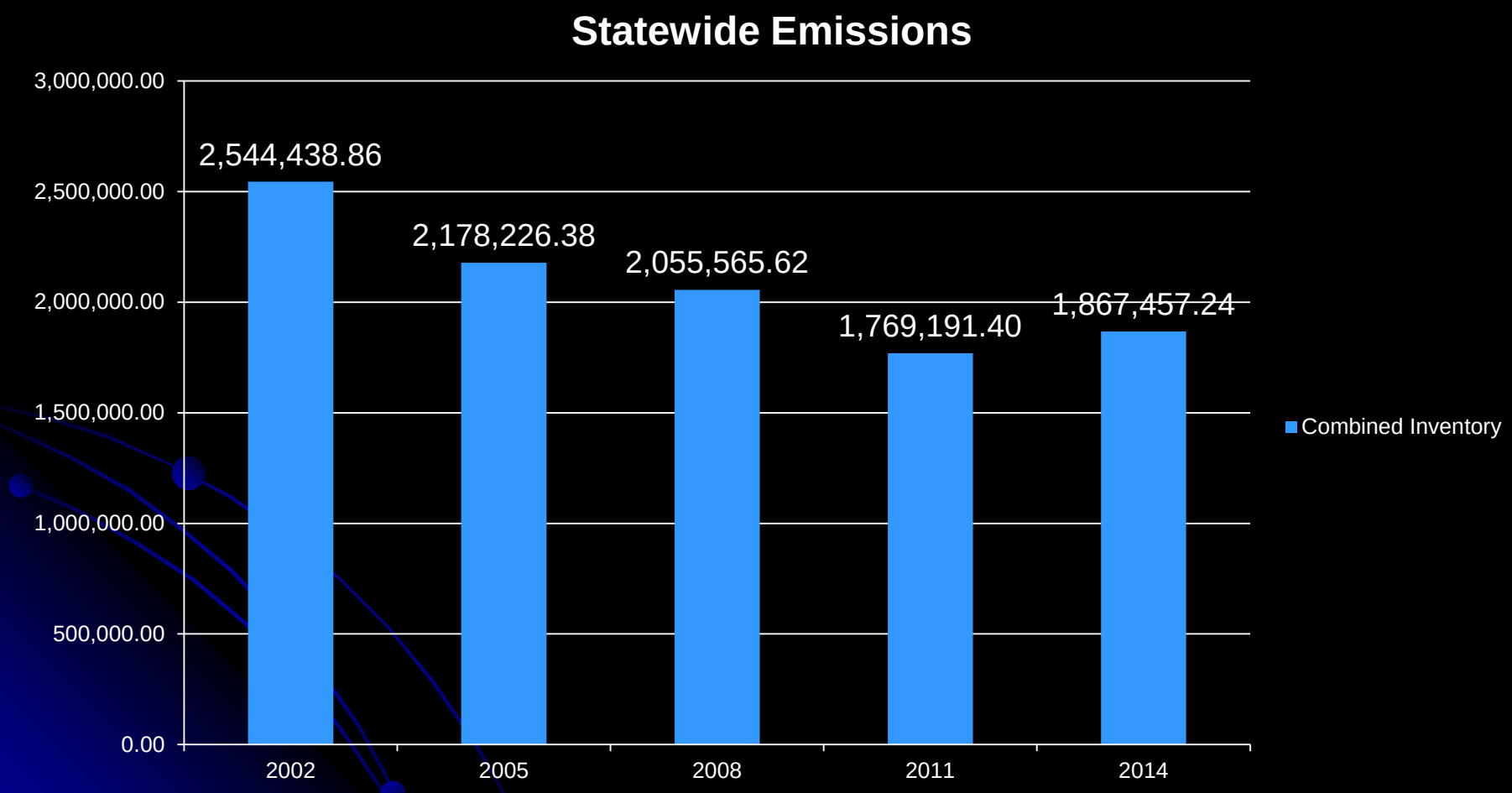
http://www.airquality.utah.gov/Planning/Emission-Inventory/Available_inventory.htm
http://www.epa.gov/ttn/chief/net/2011inventory.html



Utah Department of Environmental Quality


National Air Quality Standards
Air Monitoring and Chemistry
Computer Models
Inventory of Emissions
Feedback
Industry Controls
Control Strategies
Federal Measures
Feedback
State Implementation Plan
Continued Air Monitoring
Inspection and Enforcement

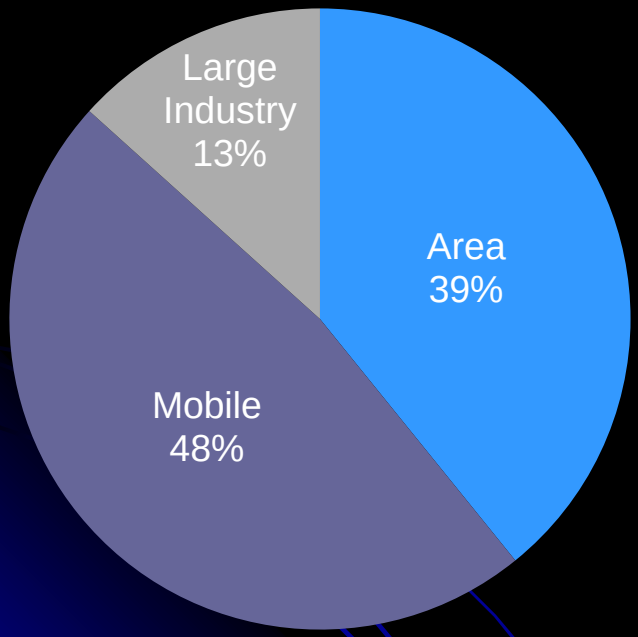
Utah Summary of State Air Emissions
Total Tons Emitted

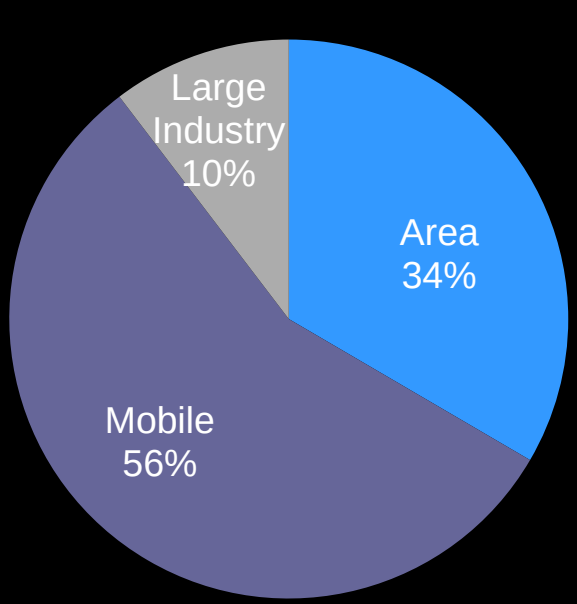


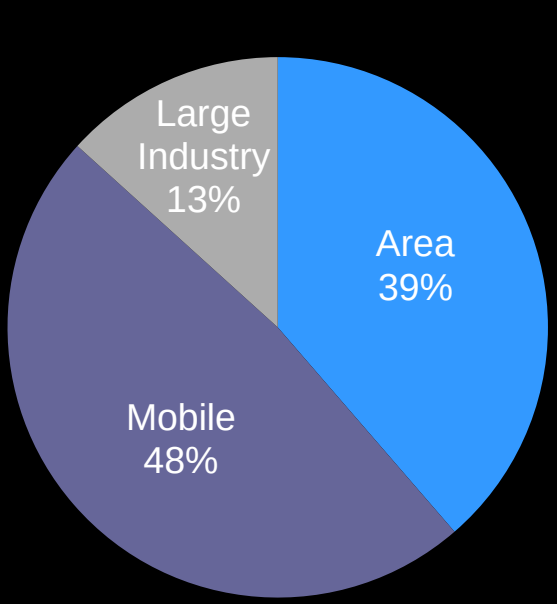
http://www.deq.utah.gov/ProgramsServices/programs/air/emissionsinventories/inventories/index.htm

Wasatch Front Counties: Utah, Salt Lake, Davis and Weber

- **Average Winter Day**
- **NO_x, VOC, SO_2 and Direct $PM_{2.5}$ (most important contributors)**







Tons/Day

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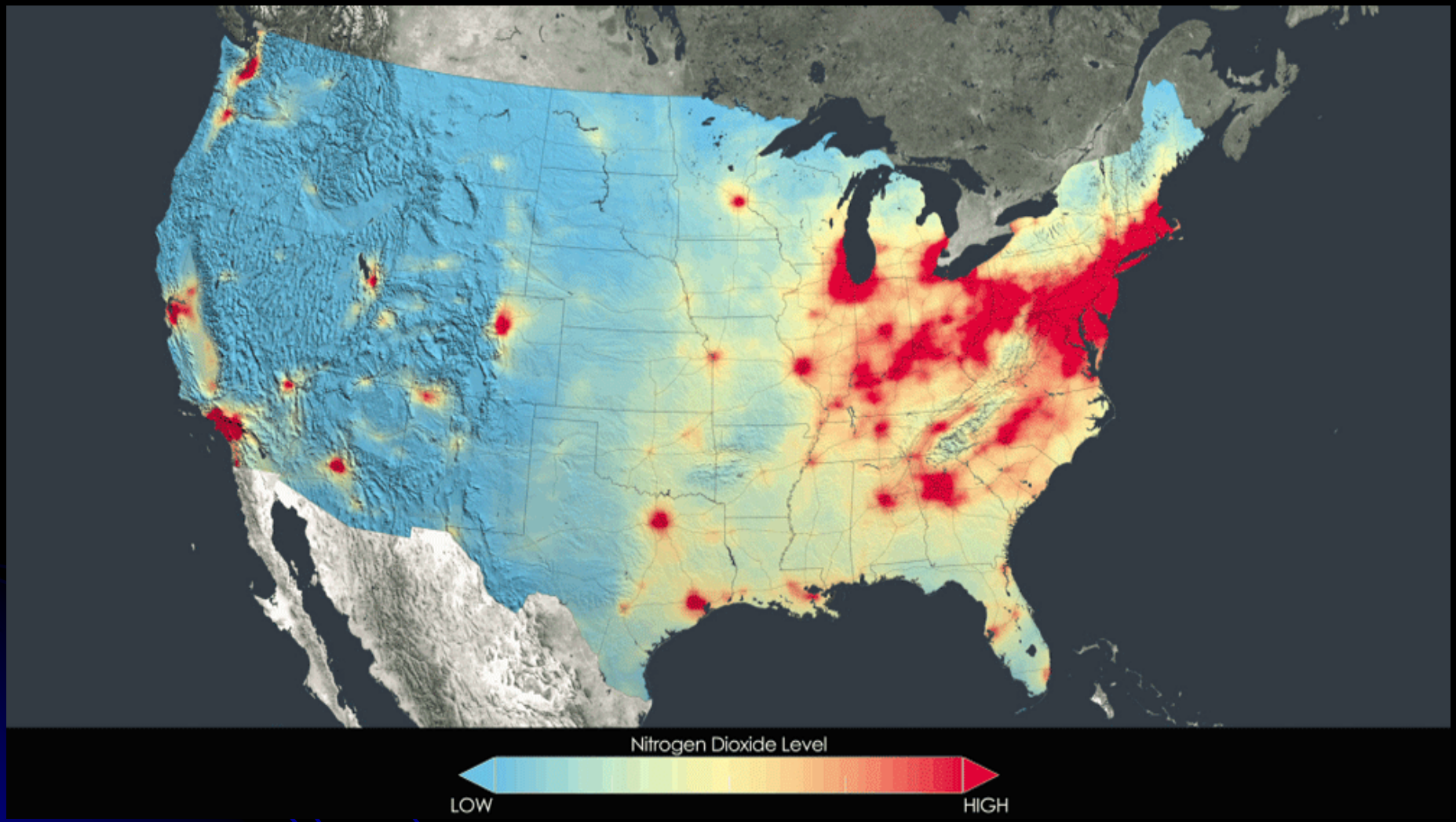
AIR QUALITY

Nitrogen Dioxide Pollution Levels



2005

2011

Utah gave EPA its SIPs for Utah's non-attainament areas in 2014.

These were Moderate Area SIPs

- Each nonattainment area had until December 31, 2015 to monitor attainment of the 24-hr health standard.
- None of the three areas was able to do so.

By law, this means that **EPA will re-classify** our nonattainment areas from Moderate to Serious.

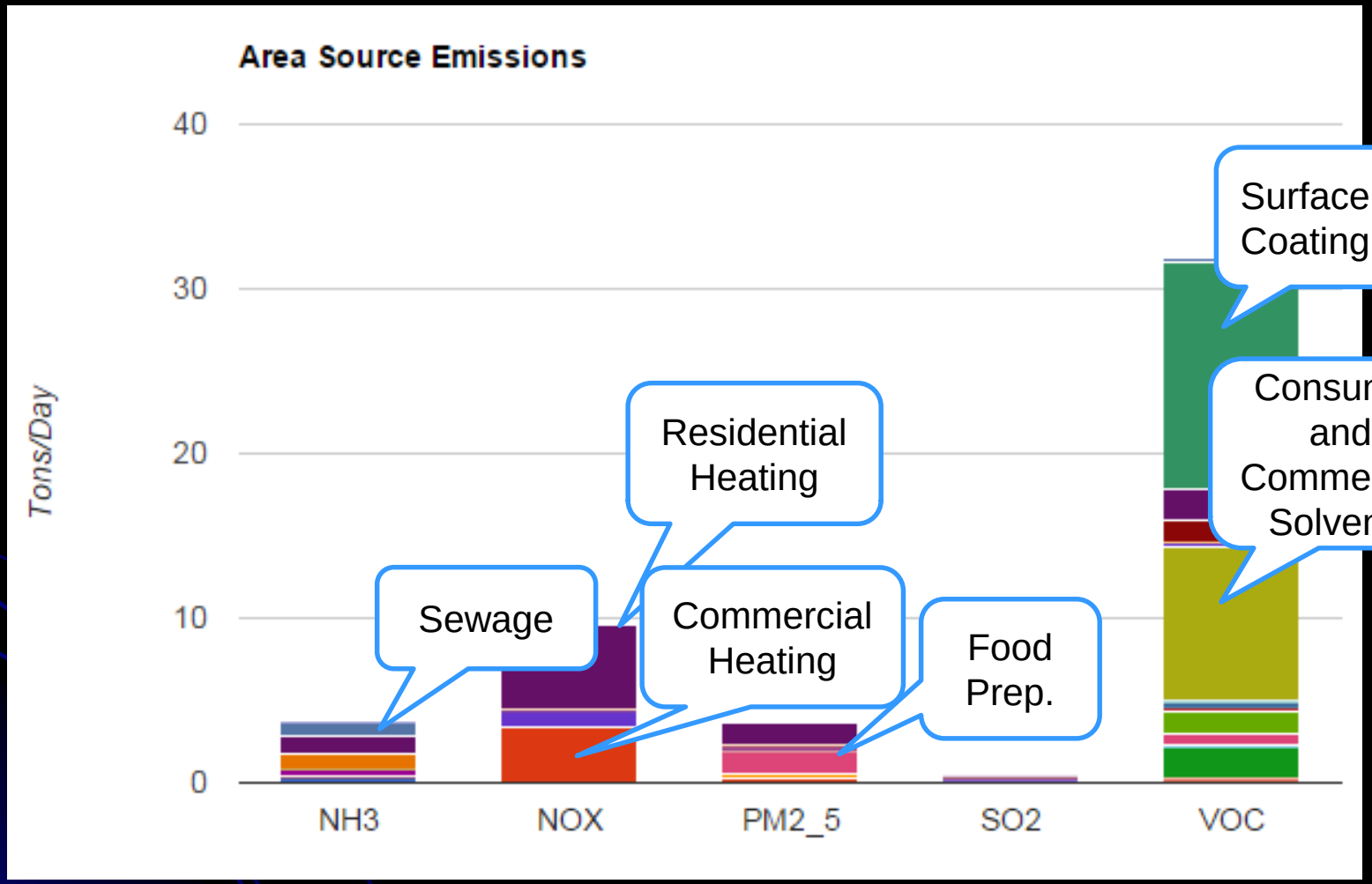
- Utah will now have to give EPA another plan for each area.

Major Sources:
SIP and NNSR Requirements

PM2.5	State Implementation Plan (SIP)		New Source Review (NSR)
	Moderate Area	Serious Area	Within a **Serious PM2.5** Nonattainment **Area**
"Point Source"	*** 100 tpy**	*** 70 tpy**	*** 70 tons per year (tpy) = "Major Source"**
Must Meet:	Source-specific **RACT** Review	Source-specific **BACT** Review	**BACT and Offsetting Requirements** …where "Significance" for **"Major Modification"** determination is set at: 10 tpy for direct PM2.5 40 tpy for SO2, NOx, and VOC For Ammonia – to be defined in SIP
Then Meet:	**Unless Not Able to Demonstrate Attainment by December 31, 2019**		
		Most Stringent Measures (MSM)	
PM2.5 Precursors	SO2, NOx, and VOC	SO2, NOx, VOC, and Ammonia (NH3)	SO2, NOx, VOC, and Ammonia (NH3)

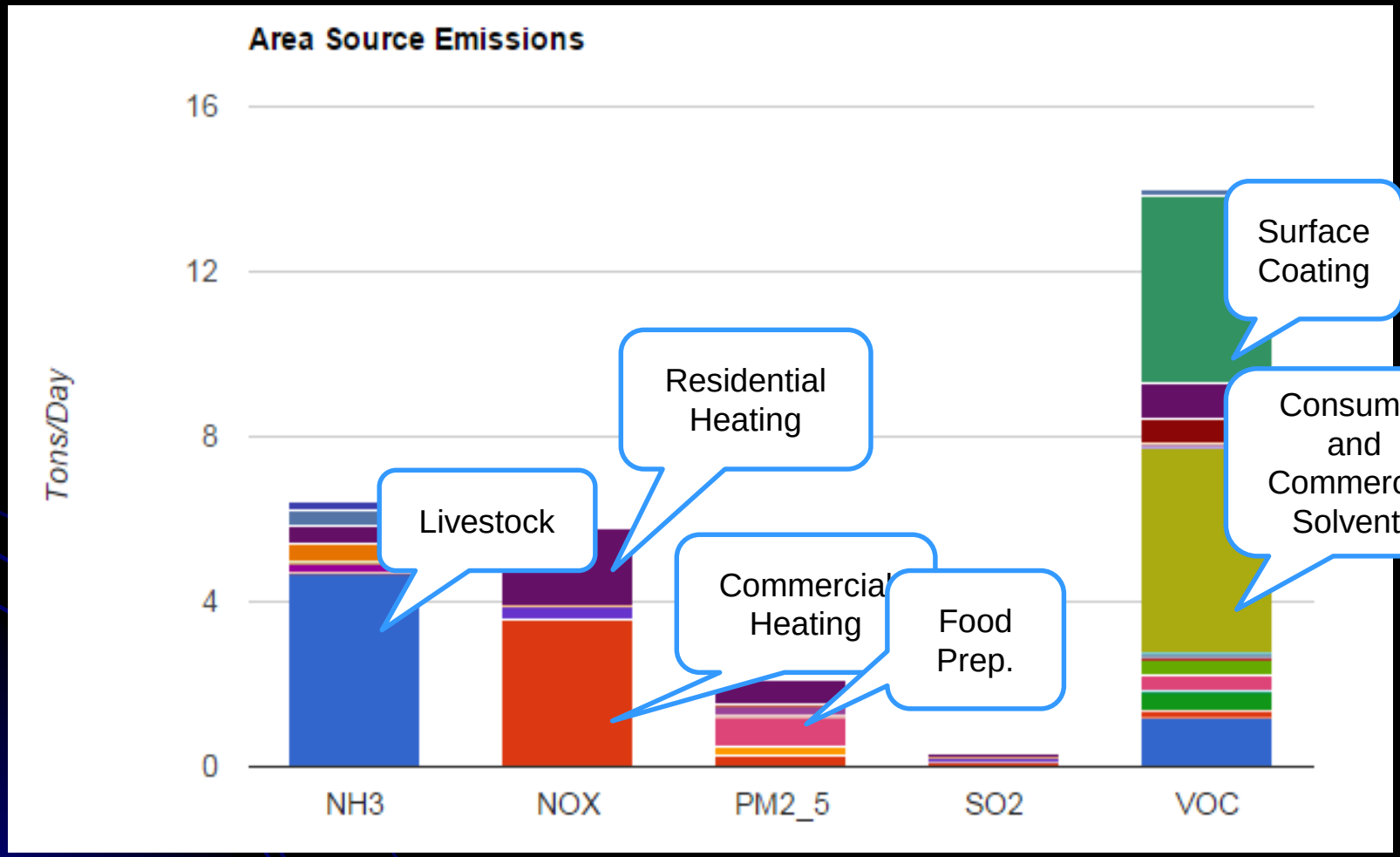
* For PM2.5 or any PM2.5 Plan Precursor

SL County Area Source Emissions



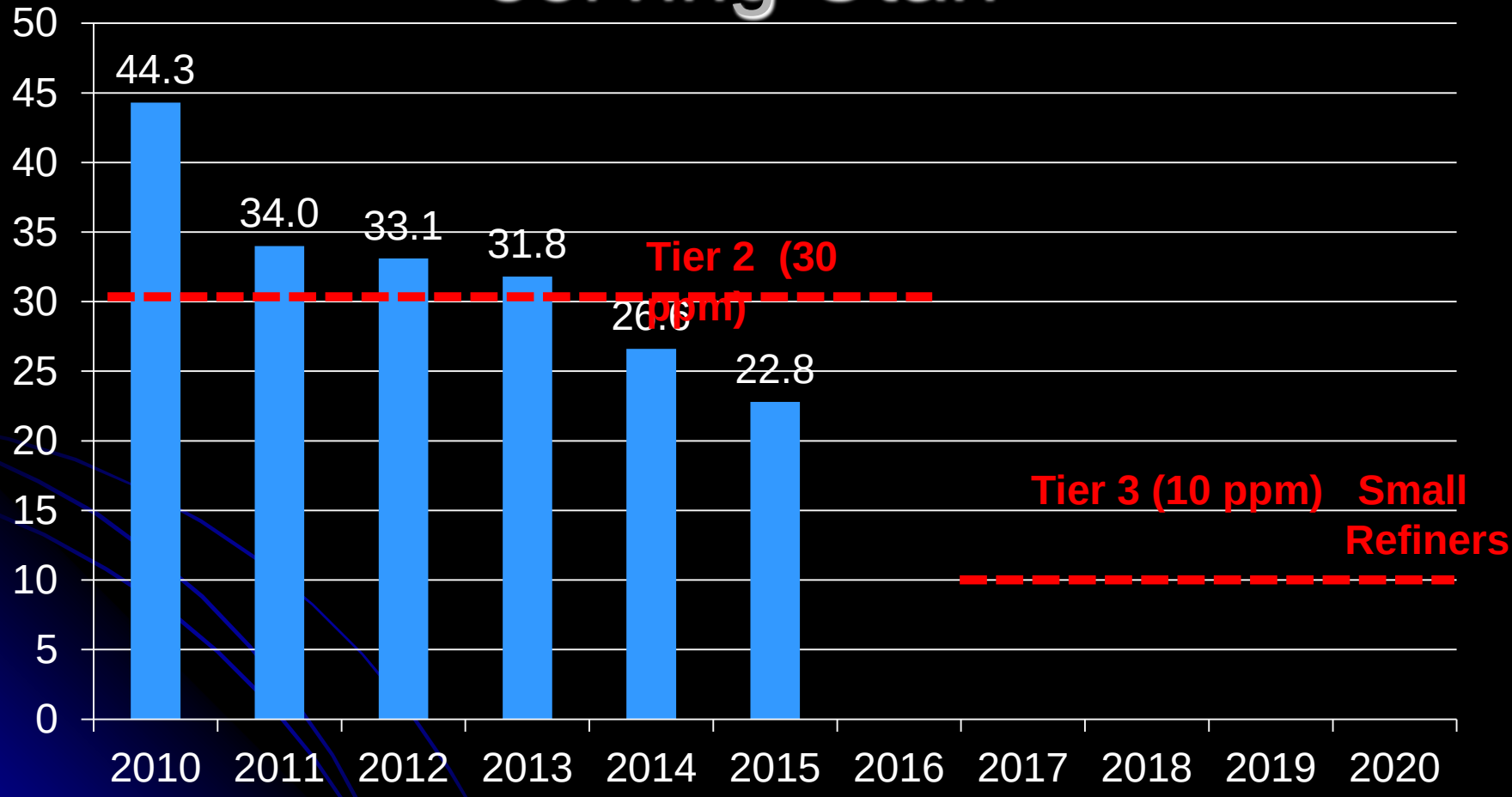
Download emissions data at:
http://www.deq.utah.gov/Pollutants/P/pm/pm25/dataexplorer/index.htm

Utah County Area Source Emissions



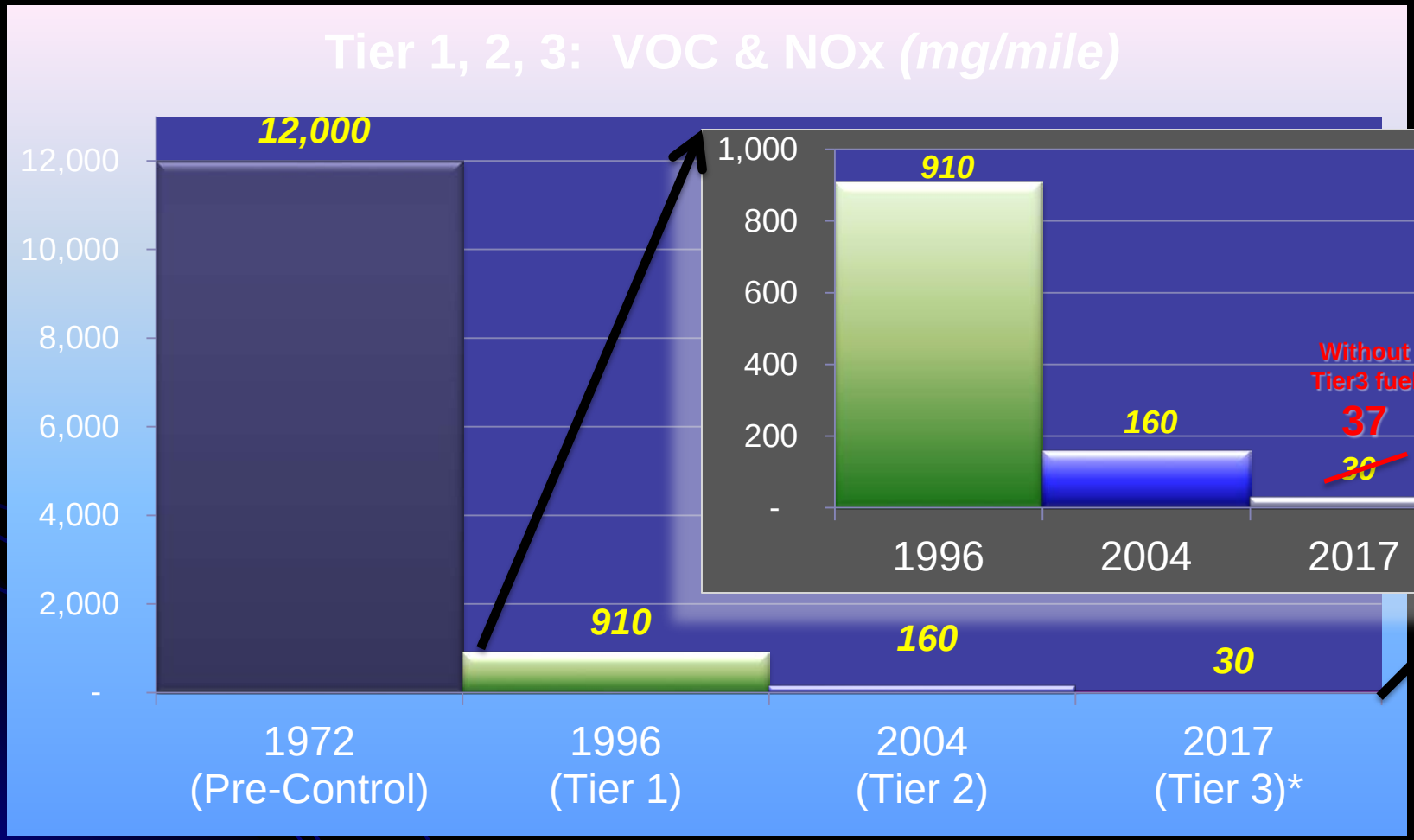
Download emissions data at:
http://www.deq.utah.gov/Pollutants/P/pm/pm25/dataexplorer/index.htm

Tier 3 Volume-weighted average fuel sulfur levels from refineries serving Utah



Source: EPA

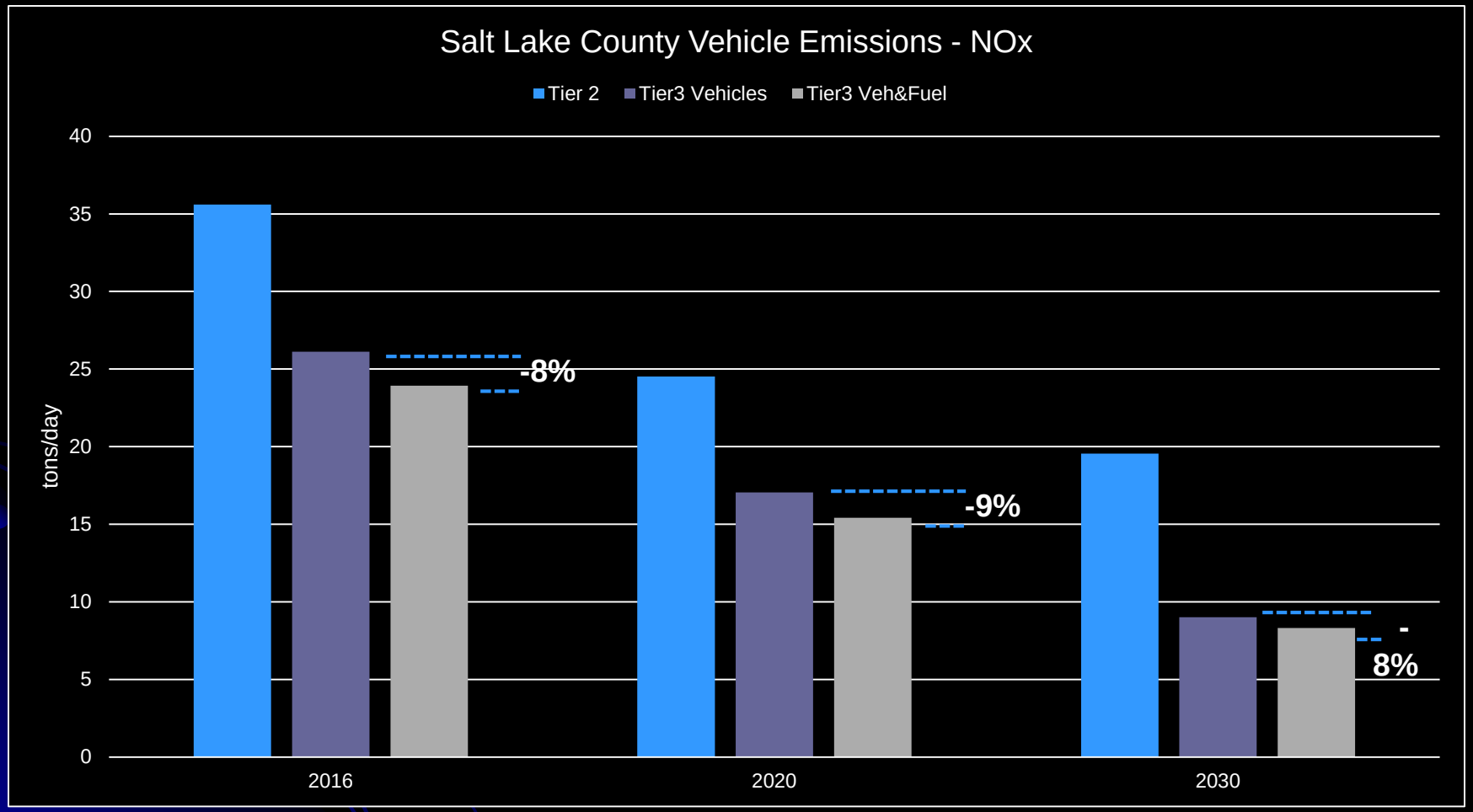
Vehicle Emission Standards



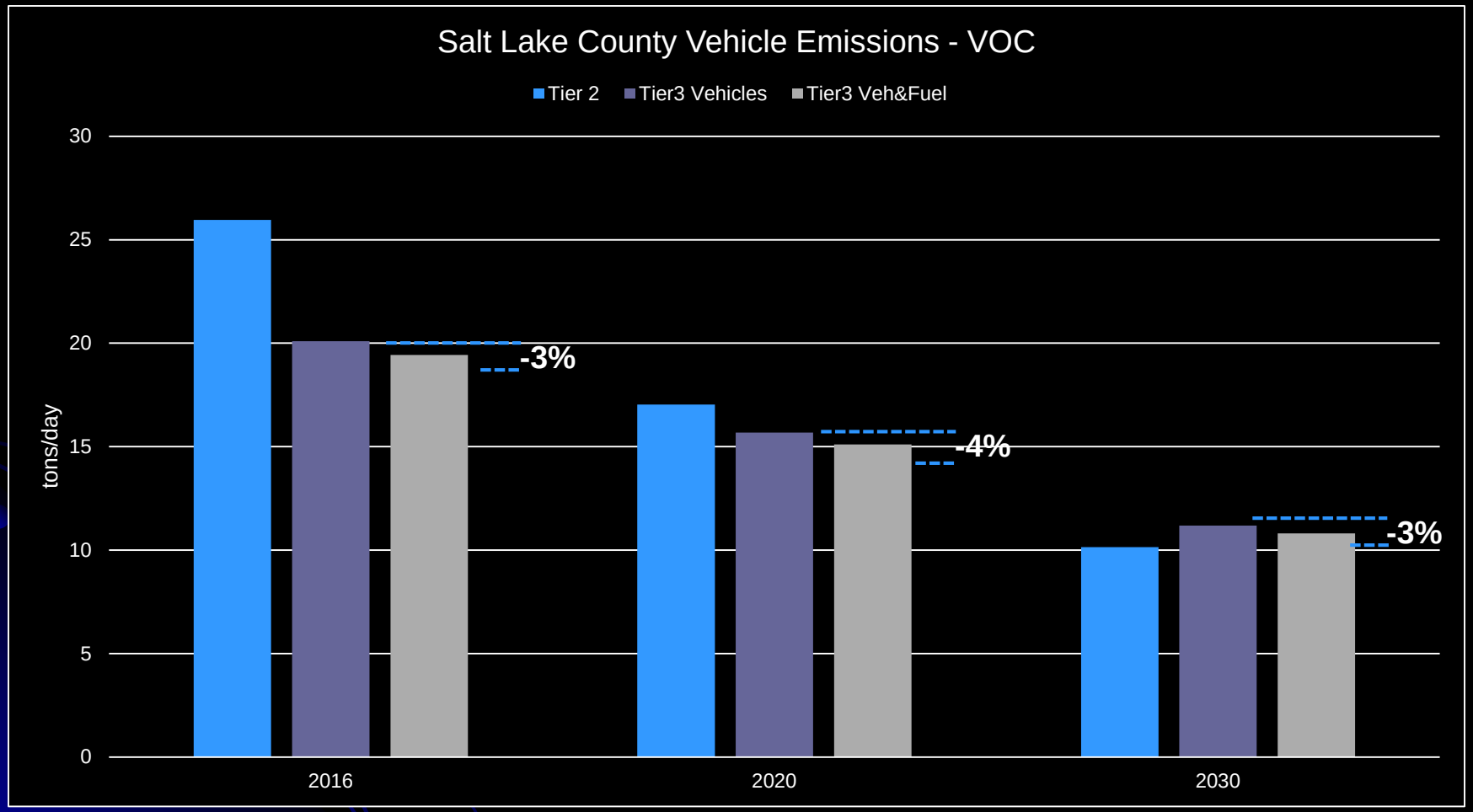
*30mg/mile is comparable to a Honda Civic CNG.

Utah is not guaranteed to receive Tier 3 fuel.

Tier 3 NOx Reductions



Tier 3 VOC Reductions



Winter Air Chemistry Study

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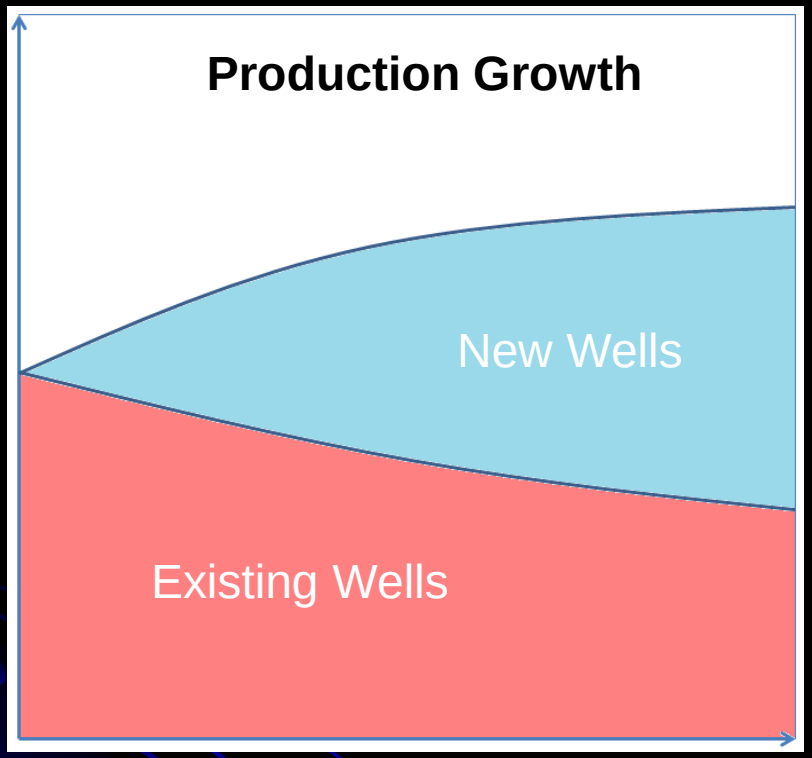
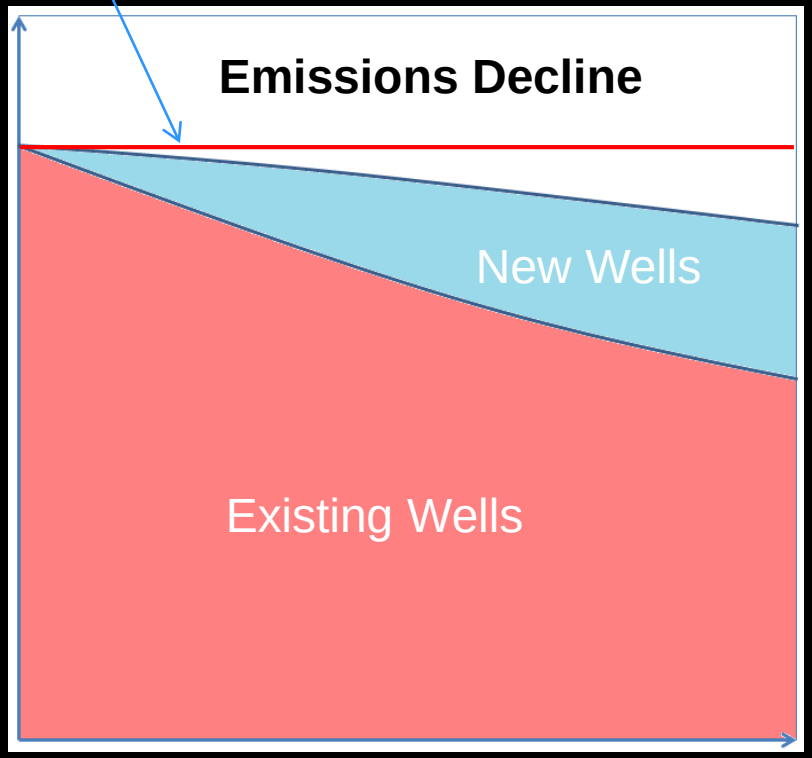
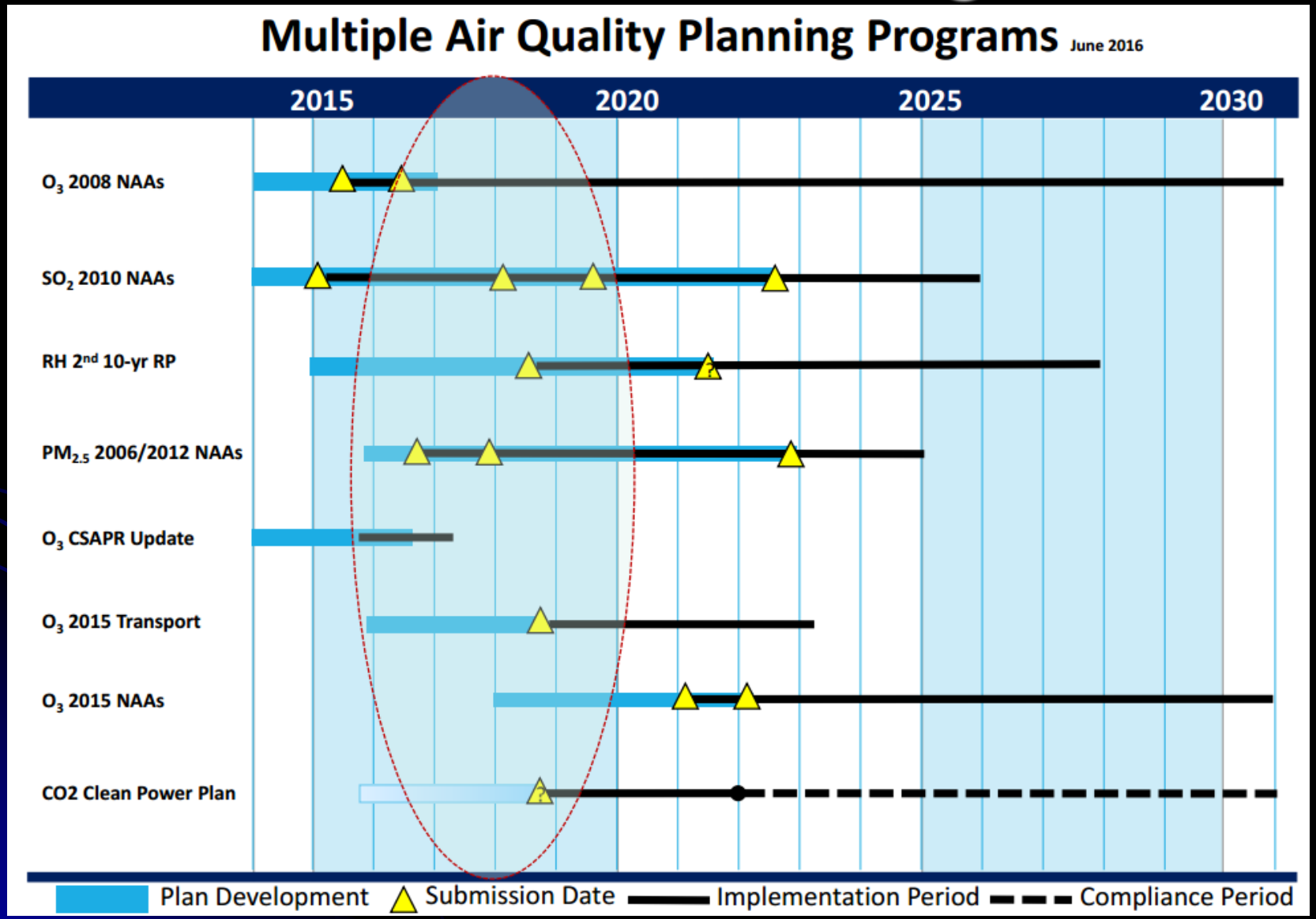




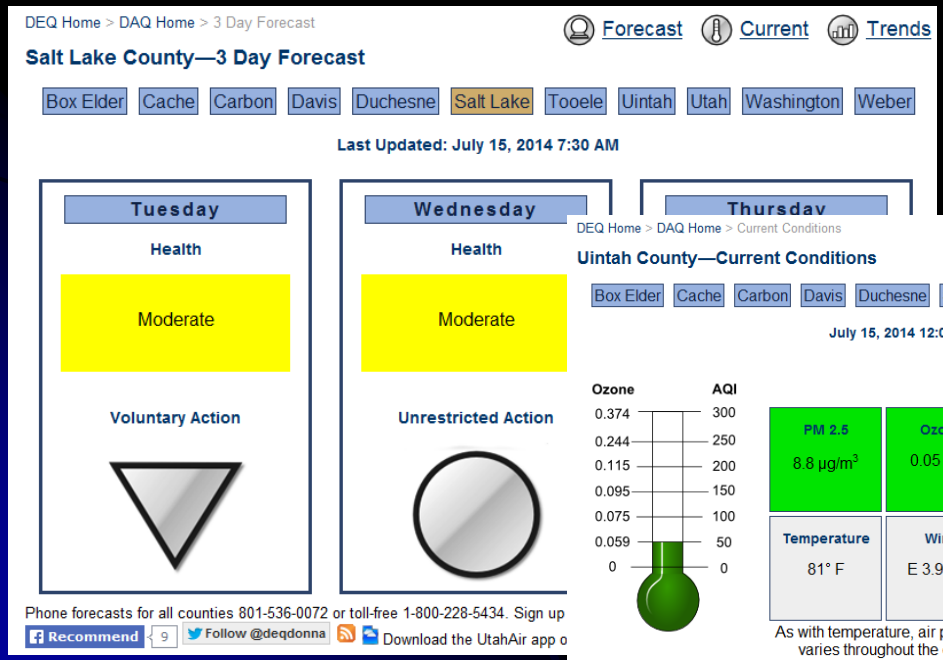
** Using growth and decline factors to project VOC emissions from oil and gas production*, Journal of the Air & Waste Management Association Volume 65, Issue 1, 2015

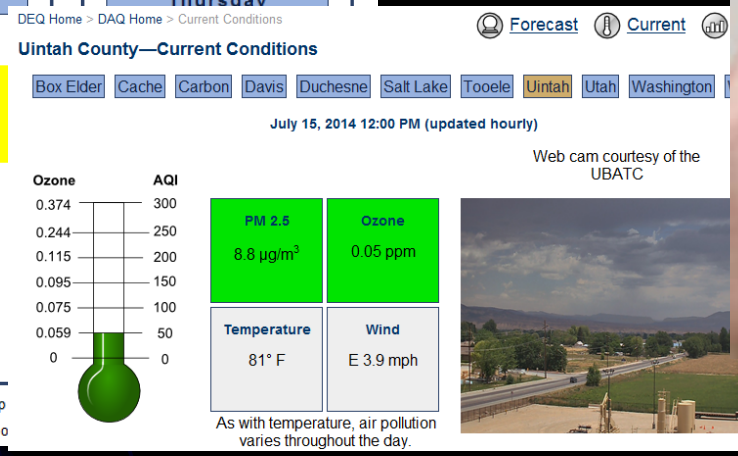
Workload Challenges

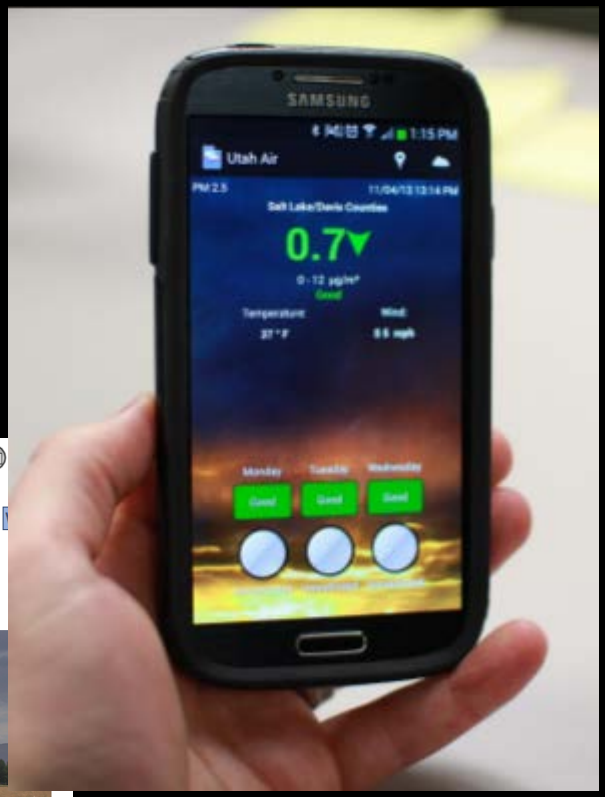


Three Day Forecast and App

- Notify the Public of:
  - Forecast Air Quality Conditions to allow the Public to Plan Activities
  - Public Health Advisories
- Air Pollution Alert and Action Days

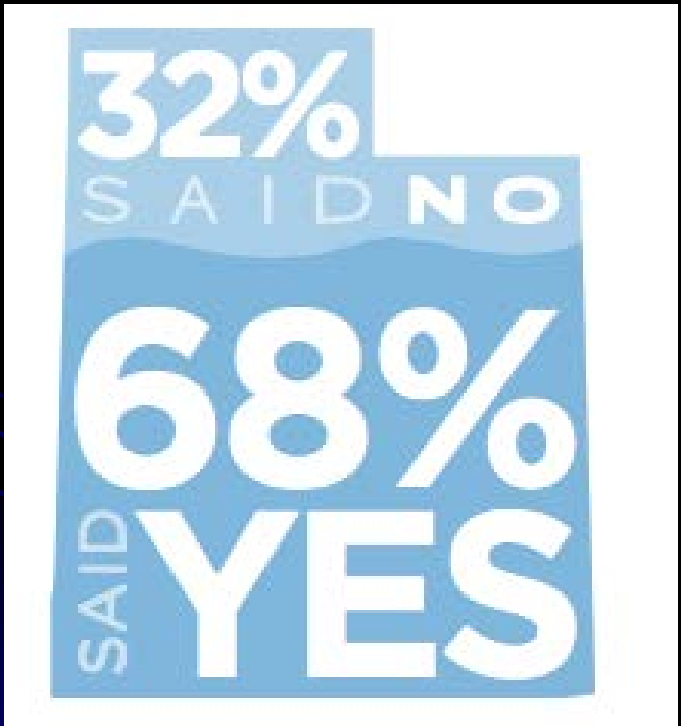






Education – Results

Have you changed any of your personal behavior to help improve Utah's air quality?



Which of the following air quality strategies have you tried in the past two months in order to help improve Utah's air quality?

- 65% Lowered Thermostat
- 64% Stopped Idling Vehicle
- 38% Carpooled
- 38% Reduced Wood Burning
- 34% Used Public Transit
- 21% Other
- 14% None

Questions?
www.deq.utah.gov
www.airquality.utah.gov
UTAH DEPARTMENT of
ENVIRONMENTAL QUALITY
AIR
QUALITY