

RESOURCE STEWARDSHIP COORDINATION

ANNUAL REPORT 2015



STATE OF UTAH GOVERNMENT
WORKING TOWARD CLEAN AIR



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FY15 SUMMARY OF SUPPORTED EFFORTS & ACCOMPLISHMENTS

- *Coordinated First Winter State of Utah Agency Travelwise Challenge resulting in 14,546 non-single-occupancy vehicle trips recorded and 79.9 lbs of emissions saved.*
- *Created State Agency Stewardship Playbook and Plan Template, a guide to help all agency initiate goals, implement strategies, and measure outcomes of stewardship.*
- *State contract for GREENbike Bike Share Membership employee discount.*
- *Established network of stewardship liaisons within State of Utah entities*
- *Consolidation of stewardship best practices into shared resource*
- *Provided Statewide Eco Pass Program support for agency employees. Program data collected shows 600,000 transit trips annually on UTA system.*
- *Coordinated quarterly agency education opportunities. Past topics include teleworking, funding resources, barriers to alternative forms of transportation, general air quality sources, State Fleet and the State Building Energy Efficiency Program.*

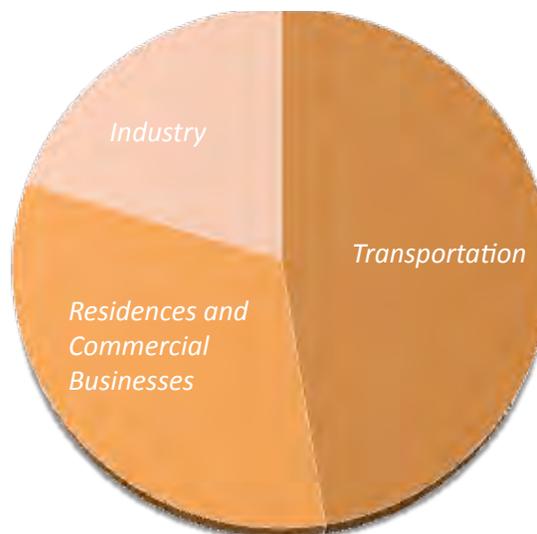
1. EXECUTIVE SUMMARY

The initiative to coordinate resource stewardship efforts in the State of Utah government has been established in the Department of Administrative Services according to 63A-1-116 of the Utah Code. Chamonix Larsen was appointed to serve as the Coordinator of Resource Stewardship, a position created in the 2014 General Session and is tasked to:

- Help state entities share and implement best practices and stewardship measures to improve air quality and
- Make an annual report to the Business and Labor, and the Natural Resources Agriculture and Environment committees.

Currently, the top source of air pollution in Utah is from transportation related emissions; building and industry related emissions are also major contributors. Many state agencies are strategically located along established transit lines and provide amenities for the public and state employees to use transit, walk, ride bicycles. State institutions have worked with transit authorities to create services for many staff, faculties, and students in the transit service area. State entities are also implementing best practices to improve air quality, such as teleworking, offering Eco passes, expanding bicycle amenities, and working with the State Building Energy Efficiency Program to install clean energy generation and building efficiency upgrades. There remain, however, many good opportunities and strategies that can be implemented into state government operations to improve air quality.

During the first year of the Resource Stewardship program the Coordinator has created network of State of Utah Agency and Institution Stewardship Liaisons. She has also helped establish activities, forums and resources to help ensure that best practices and initiatives can be shared across agencies for broader implementation.



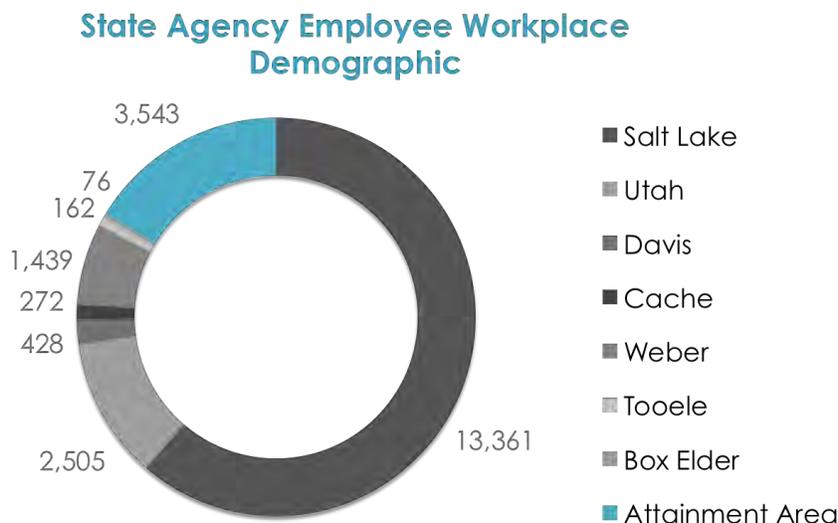
WASATCH FRONT TYPICAL EMISSIONS SOURCES

STATE AGENCY & INSTITUTION SUPPORT

The Resource Stewardship Coordinator will help increase stewardship efforts in state government. The following are examples how the coordinator can support state entities:

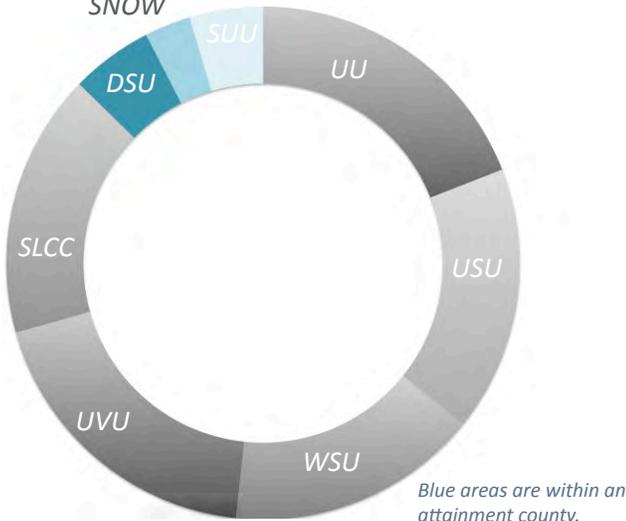
- *Facilitate a stewardship planning process using the State Agency Stewardship Playbook and Plan Template*
- *Assist with grant applications that can support stewardship*
- *Highlight and promote accomplishments and best practices*
- *Help plan an event, find a speaker, or plan content for an educational effort*
- *Facilitate communication & relationships between agency or institution, Administrative Services, or other government service agencies like Technology & Transportation.*
- *Facilitate a new state contract that relates to a stewardship strategy*
- *Research and help gather data about the effectiveness of a strategy or idea*
- *Communicating and speaking about efforts to the community.*

Stewardship Coordination planning for fiscal year 2016 will continue to support state entities to reduce the overall emissions from government related work. Stewardship Coordination has gathered information about many agencies' best practices. Highlights are detailed in this report, have been documented, and have been shared through the newsletters, discussion forums, and on-line.



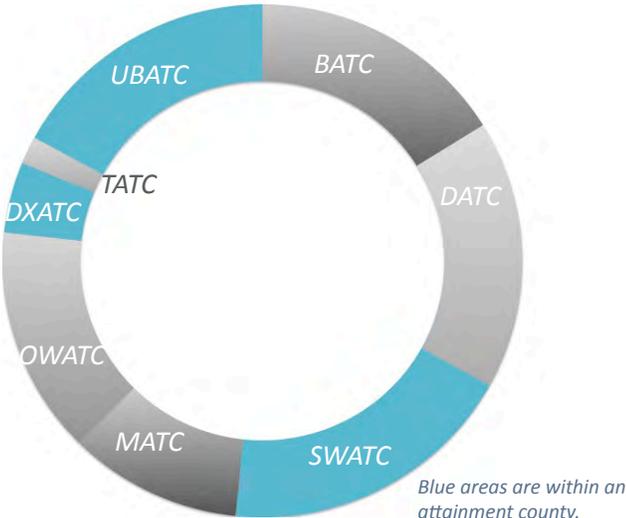
2. ESTABLISHING STEWARDSHIP COORDINATION

AIR QUALITY AND STUDENT ENROLLMENT
SNOW



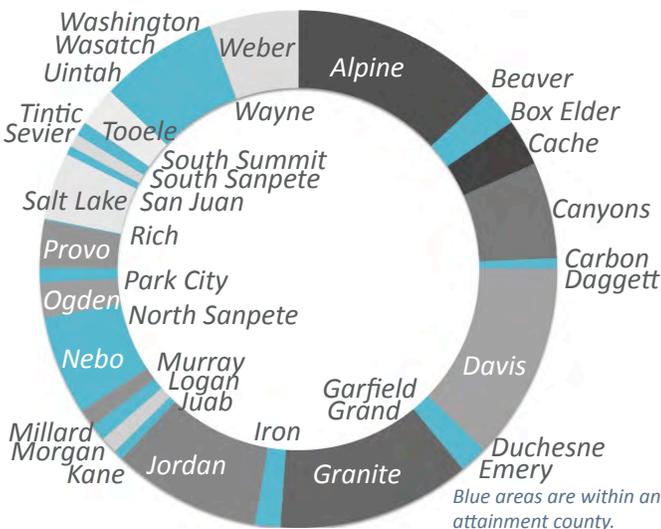
Blue areas are within an attainment county.

STATE HIGHER EDUCATION ENROLLMENT



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STATE COLLEGE OF APPLIED TECHNOLOGY ENROLLMENT



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PUBLIC SCHOOL ENROLLMENT

Creating an effective vision, mission, goals and structure for resource stewardship coordination were major tasks and accomplishments for the primary year of the initiative.

The vision of Resource Stewardship is a state government workforce that contributes to a healthier Utah, and the mission is to be an integral support to agencies and increase the implementation of best practices and stewardship measures to improve air quality.

The values that guide efforts of Resource Stewardship are health, stewardship, knowledge, transparency communication, and efficacy.

The vision, mission and values are critical to a new program, and will keep efforts on track as goals evolve and opportunities arise.

PROTECTING THE PUBLIC, PROTECTING ORGANIZATIONAL ASSETS: WHY STEWARDSHIP IN STATE GOVERNMENT?

Improving air quality can benefit Utahns. More specifically, protecting the health and wellness of the people who work for, or are being trained and educated by state entities is one way to safeguard the operational success of Utah communities and the State as an organization. The State of Utah government is the largest employer in Utah; 83.7% of state employees work in a counties prone to unhealthy episodic air pollution. These counties are designated as non-attainment areas or areas that can experience pollution levels above the standard levels designated appropriate for human health. Public K-12 education and State of Utah Higher Education are also primarily operating in counties designated as non-attainment areas. Of the students attending public schools and institutions, 75.6% of K-12, 87.3% of higher education are enrolled in schools located in non-attainment counties.

Even though air pollution is not an issue everyday, strategies to benefit air quality, specifically behavioral strategies, are more likely to be used when they are the most convenient, and the most common practice or behavior. Also air pollution

Stewardship
Liaisons

Eco Pass
Coordinators

Energy
Managers

Air Quality
Experts

Communication
Support &
Planning

Program
Implementation

Stewardship
Management &
Responsibility

Strategy Building
& Metrics

STEWARDSHIP NETWORKS

builds up overtime, and strategies can help reduce the number of yellow air days, or the days that have moderate air pollution.

State government's increasing awareness and implementation of strategies to improve air quality helps protect against the inherent risk to the health of the people who will serve and operate government now and in the future.

PAST PERFORMANCE

Agencies completed reports as part of a legislative request in House Bill 168 from 2013 found in the Utah Code 63G-17-202. Air quality mitigation report and plan to communicate their past performance regarding stewardship efforts. Air quality mitigation report and plan. Data from these reports helped inform the direction and speed for setting goals stewardship coordination. Each agency has been working at an independent pace regarding stewardship efforts. Scale, culture, mission and leadership differences in each agency have impacted the overall initiative. The summary of the reports can be found in the document Air Quality Mitigation Efforts and Future Plans of Government Entities: A Summary of Agency Reports from HB 168 and is available at the following link: <http://le.utah.gov/interim/2013/PDF/00003311.pdf>

STRATEGIC PLANNING

In order to guide the Stewardship Coordination a strategic plan was created and refined using the Best Practices for Good Management booklet prepared by the Office of the Legislative Auditor General. The Resource Stewardship Coordination Strategic Plan can be found in the appendix.

ORGANIZING EFFORTS

Best practices can be implemented more quickly if the original case study or pilot comes from a trusted entity or common peer. To increase trust and peer relationship strength several efforts were initiated by the Resource Stewardship Coordinator.

Networks

Peer building and sharing of best practices requires intergovernmental relationships that help shed light and avoid inefficiencies from silo-ed efforts. A network of liaisons from state agencies and institutions has been

RESOURCE STEWARDSHIP COORDINATION GOALS

Goal 1 : Increase the knowledge of state employees about air quality and resource stewardship.

Goal 2 : Provide agencies with better access to information about best practices and stewardship measures.

Goal 3 : Develop (and support the development of) networks that can provide opportunities to share best practices and stewardship strategies.

Goal 4 : Provide support for agencies planning, engaging or participating in activities that advance resource stewardship.

Goal 5 : Improve the transparency and communication of government efforts, best practices, and resource stewardship measures to the

RESOURCE STEWARDSHIP COORDINATION GOALS (CONT.)

legislative brand and the Governor's Office.

Goal 6 : Support and align with Department Goals for operational efficiency, quality workforce, security, communication, and customer service.

Goal 7 : Support and align with Governor's Cornerstone priorities of education, energy, economic development, and self-determination.

identified and engaged to inform about programs, efforts, grants and other resources to aid in stewardship efforts for state agencies, higher education, as well as topically networks such as Eco Pass Coordinators and bicycle advocates.

Forums

Forums and focus groups are tools to engage entities on a specific issue. Focus groups were held this year to discuss issues regarding connections to transit amenities (first-and-last mile issues), and bicycle infrastructure at state agencies. Partners from the transit authority and bike advocacy community were invited to participate to offer expertise.

Communication of Best Practices

Outreach for resource stewardship related information has been established in the form of quarterly newsletters. Newsletters one through three were distributed to resource stewardship liaisons and other entities that are able to share the information with larger groups and leaders. Topical memos, blog authorship, presentations to organizations, and social media (twitter) were also used to share best practices and information.

Workshops for agencies were coordinated to help agencies learn about general air quality impacts, state fleet, teleworking, Eco Pass data management, bicycle safety and equipment, grants and energy efficiency funding resources.

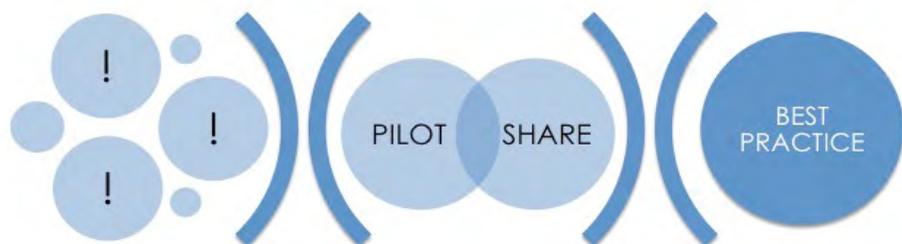
State Entity Stewardship Playbook

Opportunity is a haughty goddess, who wastes no time with those who are unprepared.

- George Clason

Having a plan and being ready ensures that an organization can continually find the resources that will be impactful. In a case of limited resources, planning is key to being successful when in a competitive grant application process, or when budgets are looking for projects that offer the highest value. During the first quarter meeting in fiscal year 2016, the concept and structure for a Resource Stewardship Playbook was presented to Agency Stewardship Liaisons. The Playbook gives each agency a method for structuring initiatives and strategies that support increase stewardship and cleaner air. The Playbook has four functions: 1) to give a common structure for tracking initiatives, 2) to provide facilitation guidance developing a stewardship plan, 3) to establish some common recommendations, and 4) to inspire agencies to learn from others ideas.

The Playbook can be found in appendix.



PROCESS TO BUILD A BEST PRACTICE

SUPPORTING DATA AND METRICS

Air Quality Metric

To effectively support state entities in targeting and achieving goals for air quality, a metric is needed to assess the success of a strategy. An ultimate goal to reduce air pollution emissions is benefited by a “yardstick” that helps agencies turn data from efforts that may be difficult to quantify into a meaningful assessment. Working in partnership with the Division of Air Quality, metrics that help convert accessible data into a measure of air pollution will help state entities to demonstrate the effectiveness of a measure. Our biggest contributors to air pollution, fuel and energy use, can be targeted first. The metric calculations are recommended to be used by agencies so that results can be compared and aggregated.

Overtime, factors may change for any part of the calculation. The UTA bus system may become cleaner than it is today and have an increased effect on the benefits of using transit. Electricity may transition to a cleaner source of generation and may reduce pollutants as well. Using and keeping track of both input data, such as fuel use and kilowatt hours consumed, and emissions factors, allows a state entity to see if benefits are the result of a strategy or a market/industry shift.

SURVEY

Not all strategies fit all state entities or employee, staff or student populations. Each state entity may have a different trigger that makes a strategy successful. Teleworking, for obvious reasons, is not an option for grounds maintenance crews. Each state entity can share best practices, but will likely tailor each strategy to fit their mission. Resource Stewardship Coordination created a survey tool that agencies can use to assess the practices that may be most beneficial to dedicate resources.

The survey has been shared with the agency liaisons and the resulting data is anticipated in late fall 2016. Data will be used to show where investments in resources and infrastructure can be most effective.

3. BEST PRACTICES FOR AGENCIES IN 2016

Each agency within state government has a significant degree of autonomy over internal policies. Legislation and Executive Orders enforce and support the creation of good statewide policies for stewardship or specific programs, such as the Order setting maximum idling times for state fleet vehicles or the legislation that helped create the CARROT grant program. But there are things that every agency can consider. **The Resource Stewardship Coordinator used the past reports and topics drawn from discussions with agencies liaisons to develop a slate of best practices and/or operational opportunities for agencies for the 2016 fiscal year.** These common best practices have been piloted through other agencies, and are more likely to be able to be accomplished in the short term. Extension Recommendations will help an agency transition initial efforts into next steps now and in future years.

BEST PRACTICE 1 : INITIATE AGENCY RESOURCE STEWARDSHIP PLAN

- Assemble a group to work over the course of time appropriate to the agency mission and size to develop an Agency Resource Stewardship Plan. The group should have awareness of agency operations and have leadership abilities or connections to leadership to be able to assess the strategies that can be most effective relative to the agency's mission and available resources now and in the future.
- Provide the group with the Agency Resource Stewardship Plan Template, and metrics and data gathering tools to guide the process.
- Set a time line for completion of the Agency Resource Stewardship Plan.

Extension Recommendation: Hold a meeting with all employees to present the Plan.

BEST PRACTICE 2 : CLARIFY AVAILABILITY OF MULTI-MODAL TRANSPORTATION AMENITIES

Inventory transportation amenities available to visitors and employees traveling to the facility(ies) housing your agency operations.

- Ensure that agency website and meeting invitations to a facility include information

about multi-modal options. In addition to the traditional provision of information about vehicle parking, an agency can offer information about the availability of bicycle parking, electric vehicle charging parking stalls, transit routes and pathways for pedestrians or cyclists from transit stations or stops.

- Ensure transit stations, vehicle and bicycle parking amenities and pathways (if not obvious) are shown on the agency facility map.
- Support the collection of data about employee needs and understanding of transportation amenities.

Extension Recommendation: Set a goal to improve multi-modal amenities for employees or the public who may visit the agency. Example: MASOB on-site bicycle repair station for employee and public use.

BEST PRACTICE 3 : IDLING EDUCATION AND SIGNAGE

- Ensure that existing employees are knowledgeable about the Governor's Executive Order on Idling Reductions.
- Ensure new employees are educated about idling, the Governor's Executive Order on Idling during their orientation.
- Post signage at places around the facility(ies) housing your agency operations. (This may require coordination with Facilities Management)

Extension Recommendation: If applicable to your agency, set goals to reduce emissions from idling equipment such as snow plows, etc.

BEST PRACTICE 4 : ECO PASS AWARENESS

- Make it clear to all employees in your department who the agency's Eco Pass Coordinator is, and if needed invite UTA to provide additional training to the Eco Pass Coordinator so they are aware of current procedures and benefits associated with the pass (many coordinators attended a group training offered by UTA held in January and the meeting will be repeated again in 2016).
- Incorporate information about the Eco Pass program into new employee orientation.

Information can include the availability of the pass, the rules of using the pass, transit routes to the workplace or other relevant locations such as other agencies or amenities near the workplace.

- Hold an annual meeting with employees to allow existing employee to learn about the Eco Pass program and to document any ideas or issues related to routing etc. (UTA can play a role to facilitate this meeting).

Extension Recommendation: Identify an Eco Pass ambassador (might be your Eco Pass Coordinator) to offer to help new employees initiate a transit trip, essentially be a "first trip" companion.

BEST PRACTICE 5 : TELEWORKING AND TELECONFERENCING

- Evaluate the effectiveness of teleworking in your agency either as an existing program or as a new program.
- Revisit your agency teleworking policy, and/or review other agency teleworking policies to ensure that it is current.
- Identify opportunities to enhance teleworking policies or tools and strategies associated with teleworking policies.
- Educate and increase the awareness of available opportunities and tools to increase the effectiveness and use of teleconferencing solutions to meeting.

Extension Recommendation: Pilot a work and management strategy to increase the amount of teleworking or teleconferencing, especially during yellow and red air days.

BEST PRACTICE 6 : RESOURCE STEWARDSHIP EDUCATION

- Hold educational opportunities to help employees increase their awareness and/or skills that relate to improving resource stewardship. Examples could be conducting a training on effective teleworking or teleconferencing, general education on causes of air pollution or the health effects of air pollution, energy conservation strategies at work and tools and tips for making clear air transit and transportation more convenient. (Suggested frequency is quarterly. Education could be internal to your agency, or with a

group of co-located agencies, or as an on-line webinar/conference)

Extension Recommendation: Create a video recording of your educational opportunity to become part of an on-line Resource Stewardship Education Library.

BEST PRACTICE 7: AGENCY ENERGY STEWARDSHIP

- Work with the State Building Energy Efficiency Program (SBEEP) to ensure the agency effectively meets requirements of 63-A-5701 that requires the following:
 - Designation of a staff member that is responsible for coordinating energy efficiency efforts within the agency,
 - Providing energy consumption and costs to the State Building Energy Efficiency Program, and
 - Provide current strategies for improving energy efficiency and reducing energy costs and well as upcoming goals and strategies for improving energy efficiency and reducing energy costs.
- Educate employees about the energy and cost savings from conservation at work.

Extension Recommendation: Initiate energy efficiency upgrade, conservation campaign, or pilot a conservation strategy to target a specific issue like use of space heaters, computers and lighting on when not needed etc.

4. STATE EFFORTS TO IMPROVE STEWARDSHIP

State of Utah Agencies can use common systems and support services. Often services are created and provided through a partnership between the department-in-need and the Department of Administrative Services. The Division of Fleet, the Division of Facilities Construction and Management and the Division of Purchasing are all housed in the Department of Administrative Services, where they support other agencies to meet their mission. They can help the agency improve their impact on air quality. The following are some of the ways this is being accomplished.

Fleet Operations uses the following SUCCESS metric to ensure that emissions influence decisions made, and are balanced against operating expenses and quality.

$$Q * T / OE$$

“Q” is quality and is always 100%

“T” is the percent improvement in average vehicle g/mi emissions

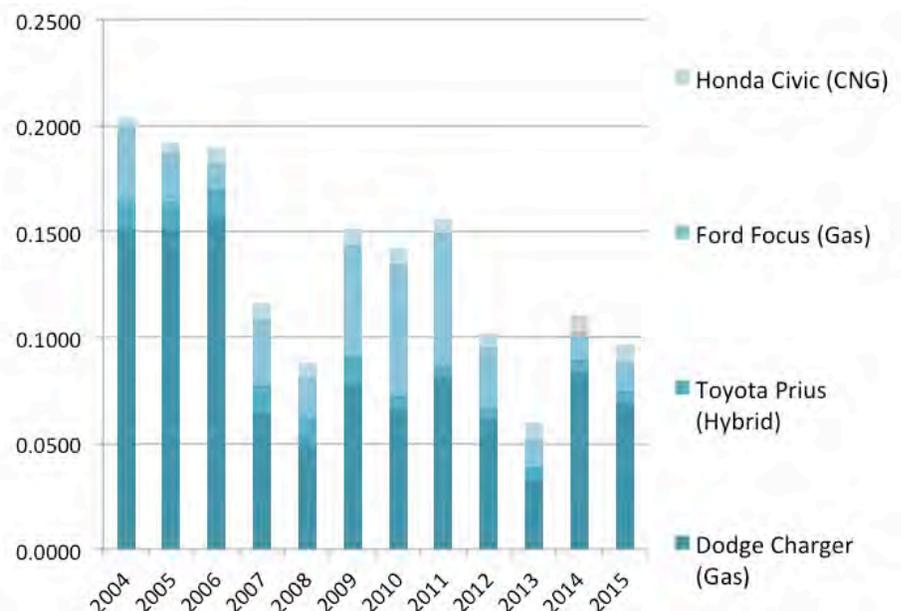
“OE” is the operating cost over a quarter

TRANSPORTATION STRATEGIES

STATE FLEET EMISSIONS REDUCTION STRATEGIES

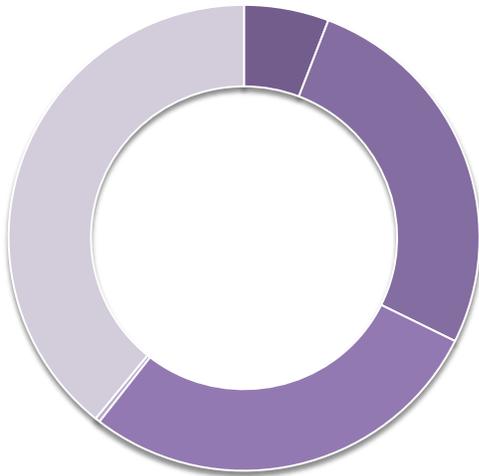
The Division of Fleet has established a criteria that factors air pollution into the acquisition requirement of new fleet vehicles. A sample of typical fleet cars shows the variability of pollution relative to the combination of model type, technology and age. This criteria is based on actual certification data for the specific vehicle, and combined with total cost of ownership factors, allows technology to advance and change, while the standards for fleet remain connected to a measure of pollution reducing criteria.

“...NOx + NMOG [is] a combined measurement gathered by the EPA in certification testing to determine the Tier and Bin rating for a vehicle model and engine combination. For the purposes of capturing smog-creating pollutants, the division decided to measure NOx + NMOG (g/mi) because the combination is a standard measurement for the EPA and both components are readily available once an engine family



NOx + NMOG EMISSIONS TEST DATA COMPARISON FOR VEHICLE MODEL AND YEAR

Eco Pass Transit Trips



- Express Bus
- Front Runner
- Regular Bus
- Streetcar
- Trax



number has been obtained. The simplicity of this measurement does not mean that it is inadequate; this combined measure represents the majority of smog-causing pollutants.” - Division of Fleet Operations Emissions SUCCESS Equation White Paper.

An alternative strategy to purchasing vehicles is also being implemented to transition to a cleaner fleet. Fleet can reduce emissions by reducing the number older fleet cars that have higher emissions per mile that other cars that a state agency employee can use. Newer cars typically have a better emissions rating. Fleet operations is piloting a public-private partnership that uses a rental car service to provide vehicles when conducting state business. The rental agencies offers the opportunity to provide cars that are less than two years old and therefore will typically have a lower emissions rating, and will become even more so as higher tiered cars enter the market. Analytics from the rental partner also allows the fleet to be scaled appropriately based on need. Older, higher-polluting cars are not needed to be kept in the fleet for the rarer occurrence when demand for vehicles spikes. This pilot model may help remove many older vehicles from the Fleet completely.

Preventive maintenance compliance also ensures an energy efficient and reliable fleet. Coordinating with agency contacts, the Division of Fleet Operations sends notice of when vehicles are coming due for their preventive maintenance. Once a vehicle has reached the prescribed maintenance interval, Fleet Operations makes contact again, until the work is completed.

ECO PASS PROGRAM

Through a state contract with the Utah Transit Authority (UTA), state employees working in the transit system service area are provided transit passes to use during the workday and on personal time. In fiscal year 2016, each agency agreed to cover a proportionate amount of the cost of the overall contract with UTA based on active-pass use. Cost per pass compared to market rates are significantly lower in this agreement, and provide employees with the ability to decrease the financial burdens associated with commuting as well as some fuel costs for work related transportation needs. The state maintains a steady average over **50,000 trips on transit per month** despite dips in gasoline prices in the past year. The use of trains as a mode of transit has trended upwards over other forms of mass transit.

Eco Pass coordination and distribution is executed at the agency level. Resource Stewardship Coordination has supported agencies by holding trainings for Eco Pass Agency Coordinators. Also the Coordinator has helped by being a liaison for the UTA account, service, and planning representatives, and has worked with those representative to help each agency coordinate billing allocations with UTA, and track and obtain better access to ridership data.

STATE OPERATIONS SITE SELECTION

State agencies have been strategically locating operations adjacent to transit corridors. This enables state employees to use more forms of transportation to commute to work, to get to another agency, or to travel to a business center. The public is also able to use transit when they need to visit or be served at a state entity. Agencies can, and do, use transit-proximity as a selection criteria for leases and land purchases. Agencies can increase the importance of that criteria when needed. The North Temple Trax Line is a good example of a place where locating operations and facilities on a transit corridor has enabled employees to use transit more often.

EMPLOYEE ENGAGEMENT

A partnership between State Agency Stewardship Liaisons, the Department of Transportation and Resource Stewardship Coordination helped to establish the [State of Utah Agencies Winter TravelWise Challenge](#). The challenge was strategically held during the winter inversion season and invited all State of Utah Agencies to form employee teams and to track their single-occupancy-trips (a trip taken in a car where the driver is the only vehicle occupant) saved over several weeks. Agencies were encouraged to create a fun competitive environment to get employees to modify their behavior to help create cleaner air.

BUILDING EFFICIENCY STRATEGIES

In addition to prioritizing transit oriented locations, the State of Utah Division of Facilities Construction and Management sets and enforces standards for construction and improvement that support better air quality. The following are examples of efforts and programs that other entities can use as best practices for improving air quality

ENERGY EFFICIENCY IMPROVEMENTS

Since 2006 over 250 capital improvement projects have been completed that increase energy savings, and reduce energy consumption and related emissions. A \$2.4 million revolving loan supports many of these projects when upgrades have a six-year-or-less simple payback. **The average return on investment of these projects is over 30%.**

HIGH PERFORMANCE BUILDING STANDARD

The State of Utah Division of Facilities sets and enforces standards for new construction that require buildings to be designed and constructed to exceed the currently adopted energy code by twenty percent using life-cycle cost effective measures. These measures range from standard increases in lighting efficiency over code to more specific measure such as high efficiency fume hoods in a lab facility. Measures currently installed are calculated by the division to save more than \$100 million over the life of the facilities in avoided utility costs.

State of Utah Winter Travelwise Challenge Impacts

**Total Non-SOV Trips:
14,016**

Miles Avoided: 266,404.9

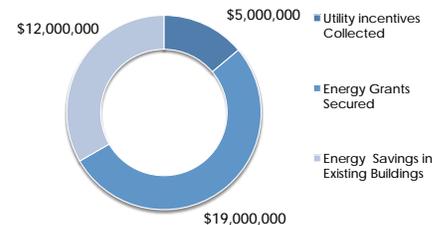
CO₂ Saved: 77.1 tons

Money Saved: \$87,275.54

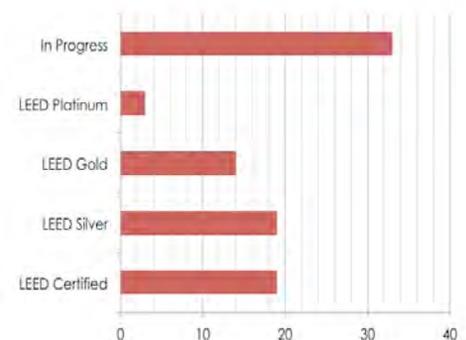
Calories Burned: 340,016



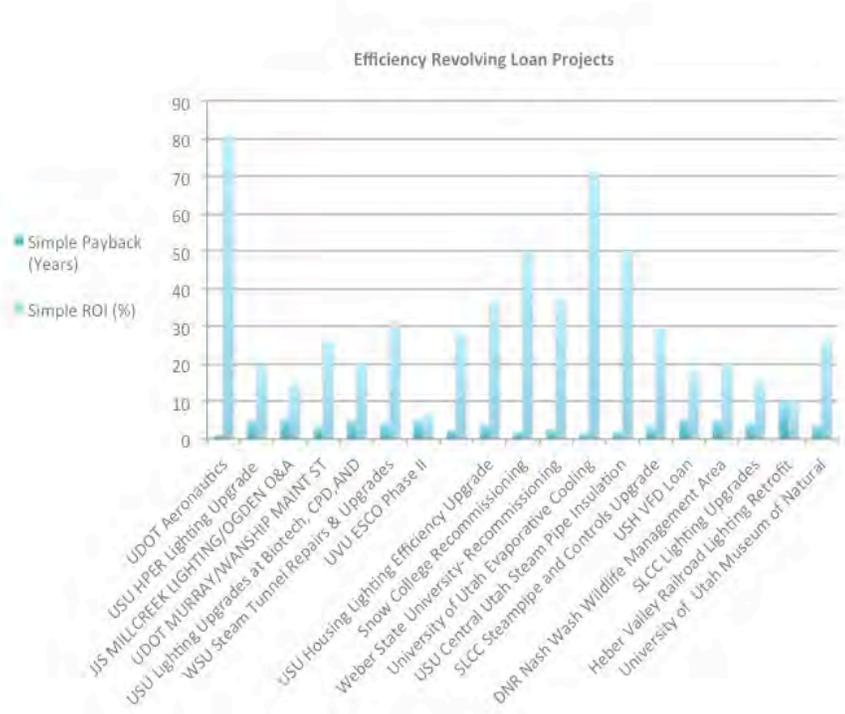
BUILDING METERING INVESTMENTS



ENERGY PROJECT SAVINGS, GRANTS AND INCENTIVES



STATE HIGH PERFORMANCE PROJECTS TOTALS



Buildings also are designed, constructed, and tested to reduce air infiltration in this program. As buildings are constructed there are many opportunities to resolve air infiltration problems at the most cost-effective point in a building’s lifetime. A rigorous envelope design and construction process reduces the total cost of ownership of the building. These practices are leading the country in a performance-based method that shows how accountability in design and construction can lead to improved energy performance, occupant comfort, cost savings, and reduced emissions.

CLEAN ENERGY DEVELOPMENT

Solar energy can help reduce air pollution emissions by providing power for electric vehicles or by offsetting the building energy demand from a grid that generates energy with methods that have emissions. The Division of Facilities Construction and Management has piloted, and continues to successfully use a power purchase agreement structure that helps expand the ability of state operations to obtain power from a clean energy source. This structure allows an entity, in this case a state entity, to work with a private provider to build an on-site generation system. The system is operated and maintained by the provider, and the state is able to purchase the power at a predetermined price for a predetermined amount of time. **This allows the state to reduce impacts to the volatility of energy prices, and do so using a clean energy source.** The Museum of Natural History Solar Array was the first project to use this model. It was approximately 300 KW in size. Current projects using this method are targeting one to two megawatts in size.



Between 2011-2015, the Division of Facilities supported 20 solar photo voltaic projects resulting in 5.17 MW installed and output of 7.9 million kWh per year.

An Additional 5.27 MW is being developed to provide solar energy to various State of Utah Agencies and Institutions in 2016.

Other projects have been able to obtain grants to make owning solar cost-effective. Rocky Mountain Power and the Department of Defense have awarded state projects funding because of their ability to show viable projects. The viability stems from the creation of effective project management teams and their upfront leg-work to be ready for opportunities. The constructed solar energy generating capacity has helped remove just under twenty-four thousand pounds of emissions annually.

BENCHMARKING AND METERING

All programs can better demonstrate savings with effective data and comparison tools. Agencies are required by statute to provide information about building energy use and strategies for improvement. The State is beginning an initiative to ensure all buildings over 3000 sf are metered or sub-metered (campus application). The State Building Energy Efficiency Program is actively helping clarify building energy performance, and to track all state facilities in the Energy Star Portfolio Manager program.



OPERATIONS AND PROCUREMENT STRATEGIES

The State Division of Purchasing has been a support to air quality initiatives and will continue to be an effective vehicle to support strategy implementation at the best price. Some of the ways purchasing have supported stewardship are as follows:

- Maintaining a search-able database for more than one hundred energy efficient and environmentally preferred contracts on-line at <http://purchasing.utah.gov/purchasing/statecontractsearch.html>
- Supporting requests for information (RFI's) to gather resources, such as bike vendors and educators, or energy benchmarking automation technology
- Establishing a state contract for the employee purchase of discounted memberships to GREENbike, a bike share program available in downtown Salt Lake City supplying point to point bicycle transportation.
- Supporting procurement strategies to help capture the value decision-making based on total cost of ownership, such as the state cooperative contract for energy performance contractors.

STATUTES AND EXECUTIVE ORDERS SUPPORTING STEWARDSHIP IN STATE GOVERNMENT

The State has created legislation, rules, orders and declarations that apply to state government operations and support resource stewardship. Below are some examples.

IDLE FREE EXECUTIVE ORDER AND DECLARATION

Governor Herbert's Office has been a supporter of the strategy of idle-free behavior. Idle-free actions are low-cost and something many citizens can do to curb transportation related pollution from emissions. The Governor has formally supported idle-free in the following two ways:

- ***Governor's Executive Order EO/005/2012: Automotive Idling Reduction*** (<http://www.rules.utah.gov/execdoks/2012/ExecDoc152817.htm>)
- ***Governor's Declaration of Idle Free September and the 2015-2015 Idle-Free Winter Season***

WATER CONSERVATION

There is an increasing awareness of the connection between energy use and water use. As such it is relevant to report that in 2015 Governor Herbert issued an Executive Order 2015-4 that increased the State's operation efforts to conserve water in State of Utah Facilities and to make water conservation part of the criteria for lease agreement valuation. The link to the Order is <http://www.rules.utah.gov/execdoks/2015/ExecDoc156361.htm>

STATE BUILDING ENERGY EFFICIENCY

State code section 63-A-5701 requires state agencies to do the following: designate a staff member that is responsible for coordinating energy efficiency efforts within the agency; provide energy consumption and costs to the State Building Energy Efficiency Program; and provide current strategies for improving energy efficiency, and reducing energy costs, well as providing upcoming goals and strategies for improving energy efficiency and reducing energy costs

AGENCY & INSTITUTION EFFORTS

Many agencies offer programs that extend beyond state government operations and help the public and businesses improve air quality. Below are highlights of some of the successful programs that are a resource to Utah.

DEPARTMENT OF TRANSPORTATION

Travelwise is a program used by entities to track trips that reduce pollution and congestion. The tool is used by the Clear the Air

IDLE FREE ZONE



Creating a "culture of clean air" is greatly impacted by motivational strategies to get people excited about the strategies. Effective motivational efforts commonly used were:

FUN

People and teams that have fun will do things better, even when faced with a challenge. Division level competing created healthy rivalry. One agency, for example challenged divisions to see who could get all of their employees to use transit during a travel competition.

LEADERSHIP

Leadership must tell people it matters. Agencies who asked supervisors to reach out to their teams got many involved in clean air efforts.

RECOGNITION.

A nod from someone who matters can go along way. Some agencies did this by offering an opportunity to connect with leadership, or an award letter commending their work.

TRAVELWise™
Keys to Success



— UTAH —
ELECTRIC
— VEHICLES —



Challenge and was used by the first State of Utah Agencies Winter Travelwise Challenge to create healthy competition for clean air.

Road Respect is another Department of Transportation program that helps increase safety and reduce injuries common to cyclists and motorist when using the same roadways

OFFICE OF ENERGY DEVELOPMENT

Utah Drives Electric is an on-line resource page, created by the Office of Energy Development, found at <http://utahelectricvehicles.org/> The intended audience is consumers interested in the total cost of ownership, the emissions impacts, and availability of infrastructure supporting electric vehicle ownership.

Commercial PACE is a program that the Office of Energy Development is supporting through program administration. The program helps businesses invest in energy efficiency upgrades; first costs of upgrades come from municipal bonds and are re-paid via a property assessment that can match the energy savings. This program helps owners invest in efficiency in the short term, and gives them confidence in the investment even if the time period for ownership is uncertain. Information can be found at <http://energy.utah.gov/utah-pace/>

WORKFORCE SERVICES

The Air Assist Program, a Workforce Services partnership with the Department of Environmental Quality andUCAIR (found at www.ucair.org), is a grant to help businesses make changes that reduce air pollution. The business is able to use less of their own revenue and are better able to retain existing employees and employee compensation in the face of changes to emissions requirements.

DEPARTMENT OF ENVIRONMENTAL QUALITY

CARROT is a grant program that is used to help businesses and residents reduce emissions. The program helps fund equipment exchanges and/or modifications to engines to reduce emissions, such as grounds equipment. Information can be found at <http://www.carrot.deq.utah.gov/>

The Department has also provided community amenities and education opportunities. A bike repair station was installed at the Multi-Agency State Office Building. The station has tools and air to help cyclists maintain their bicycles. It also has QR code links to on-line videos that help novice cyclists learn to perform tasks such as change a tire tube. The Department also hosted a **Clean Air Fair** during Clean Air Month to educate the public and employees, and to support a workplace culture of clean air. Employees and visitors were able to connect with community resources, and try strategies such as electric bicycling.

PUBLIC EDUCATION (K-12)

Utah Retrofitting and Replacement of School Buses Project is a partnership with the Utah State Legislature, the Governor's Office, local



school districts, the Utah Division of Air Quality (UDAQ), county and municipal governments, and non-profit organizations, the Utah State Office of Education (USOE) assisted in securing federal grant funding for **retrofitting over 1,200 school buses and the replacement of twenty-seven school buses**. UDAQ attributed the following significant air quality contributions to the success of the project:

Retrofit Emissions Reductions

- *Particulate Matter 309.82 tons over the life of the fleet*
- *Hydrocarbons 854.30 tons over the life of the fleet*
- *Carbon Monoxide 4,693.78 tons over the life of the fleet*



Replacement Emissions Reductions

- *Nitrogen Oxide 844.86 tons over the life of the fleet*
- *Particulate Matter 33.83 tons over the life of the fleet*
- *Hydrocarbons 43.55 tons over the life of the fleet*
- *Carbon Monoxide 285.06 tons over the life of the fleet*

The Office of Education played a significant role in providing leadership and coordination between the school districts and UDAQ, but recognition for success should be focused on pupil transportation supervisors and bus shop supervisors who directly supported the projects.



School Bus Idling Reduction: Starting in 2008, in partnership with the Utah State Legislature, The Governor's Office, Utah Clean Cities Coalition, The National Energy Foundation and all Utah School Districts, the Utah State Office of Education put a school bus idling reduction program in place. In the past eight years, the Office of Education has reported that this program has reduced consumption of over 675,000 gallons of fuel for a combined savings to school districts of over \$1.7 million. Through the program, there has also been a reduction of several tons of harmful particulate matter to benefit Utah's air quality throughout the state.



The success of the program has been used as a model for other states and has been presented at three national conferences of significant importance. The Environmental Protection Agency National Clean Diesel 10 Conference in Washington DC on October 19, 2010, the National Association of State Directors of Pupil Transportation Services Conference in Portland Oregon on November 1, 2010, and the U.S. Department of Energy Clean Cities Stakeholder Summit on June 28, 2011.



The Utah State Office of Education played a significant role in providing leadership and coordination in developing and implementing the curriculum, but recognition for the success of the program should be focused on pupil transportation supervisors, bus shop supervisors,

certified instructors, and school bus drivers who directly supported the success of the program.

Elementary School Idle-Free Annual Campaign: In 2009 State Superintendent of Public Instruction, Larry K. Shumway sent a letter to each of our elementary school principals encouraging them to work with Utah Clean Cities to be a part of Idle-Free Awareness activities during the month of September. Each of the years since, Governor Gary R. Herbert joined with Utah mayors in declaring September as Idle Free Awareness Month, and encouraged others to join with our school bus drivers and school children in reducing idling where possible. Over 300 of our elementary schools have participated in working with Utah Clean Cities Coalition to educate students and the public about the benefits of reducing idling.

HIGHER EDUCATION IN PUBLIC INSTITUTIONS

Higher education institutions are actively working on many efforts that support resource stewardship. Institutions lead in building efficiency and in supporting student efforts to reduce emissions from travel. Below are some highlights of innovative programs and efforts initiated.

The University of Utah created and published ***Improving the Air We Breathe: Emissions Mitigation Strategies for the University of Utah*** to guide activities and set goals for improving their impact on clean air. The plan comprises goals and activities that the University can accomplish in a relatively short period of time. The document can be found at the following link: <http://sustainability.utah.edu/documents/2015-UofU-Air-Quality-Task-Force-Report.pdf>

The University of Utah and Utah State University have entered into contracts with Enterprise, Inc. for car sharing and social-media-based carpool matching via a on-line tool **Zimride**. The tool is available to students of the institutions. Brigham Young University made the tool available to their students prior and helped show how the tool could be successful with Utah higher education populations.

The University of Utah piloted a **Community Solar** program where panels could be purchased by local residents at a bulk price to make the clean energy more affordable. A program in Logan and at Weber State University have been initiated and are modeled using some of the best practices from programs like the one piloted at the University of Utah.

Utah State University established **Aggie Blue Bikes** so a student can check out a bicycle to use for the semester to reduce car trips in and around campus. Tandem bikes are also available for daily use. Bike maintenance is also supported.

Weber State University has incorporated **electric bicycles into their campus service vehicle fleet** so that facility staff employees can reduce vehicle trips made to service other parts of campus.

SUMMARY

Unique opportunities to improve air quality are part of many State of Utah Agencies and Institutions.

Each effort and attempt to better air quality in Utah offers lessons learned for education and networks of thinkers and doers.

Historical air quality data showing that improvements have been made overtime to Utah's air quality is a good indicator that the State is capable of change and of solving difficult problems.

The strategies highlighted in this report can be tools for establishing best practices for improved resource stewardship and health in Utah. Future stewardship coordination projects aim to enhance the access to information about innovative ideas and projects.

5. APPENDIX

TABLE OF CONTENTS

- *Resource Stewardship Strategic Plan*
- *State Entity Resource Stewardship Playbook*

Resource Stewardship Coordination Strategic Plan Summary

Vision: A State Government Workforce that Contributes to a Healthier Utah

Mission: To be an integral support to agencies and increase the implementation of best practices and stewardship measures to improve air quality in state government.

Goal 1

Increase the knowledge of state employees about air quality and resource stewardship.

Goal 2

Provide agencies with better access to information about best practices and stewardship measures.

Goal 3

Develop (and support the development of) networks that can provide opportunities to share best practices and stewardship strategies.

Goal 4

Provide support for agencies planning, engaging or participating in activities that advance resource stewardship.

Goal 5

Improve the transparency and communication of government efforts, best practices, and resource stewardship measures to the legislative brand and the Governor's Office.

Goal 6

Support and align with Department Goals for operational efficiency, quality workforce, security, communication, and customer service.

Goal 7

Support and align with Governor's Cornerstone priorities of education, energy, economic development, and self-determination.

Resource Stewardship Coordination Strategic Plan

Vision: A State Government Workforce that Contributes to a Healthier Utah

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Goal 1

Increase the knowledge of state employees about air quality and resource stewardship.

Objectives:

- Increase the number of educational opportunities to reach 100% of the state employee workforce

Strategies:

- Identify support and services, or provide directly, educational opportunities and tools to agencies and institutions
- Plan education forums for learning

Metrics for Evaluation of Strategies:

- Number of employees reached by educational opportunities. (100% is a year long term goal).

Goal 2

Provide agencies with better access to information about best practices and stewardship measures.

Objectives:

- Make best practice information available to employees, agencies and institutions in ways that are accessible, searchable, and useful.

Strategies:

- Create an online center to store, categorize and make available to the public, resources for best practices and stewardship measures.
- Provide quarterly newsletter to educate about stewardship measures, and to highlight & summarize best practices, events, and case studies.
- Provide forums for sharing best practices and peer building among agencies

Metrics for Evaluation of Strategies:

- Completion of online resource center. (year 2 goal)
- Publication of newsletters. (annual goal)

Goal 3

Develop (and support the development of) networks that can provide opportunities to share best practices and stewardship strategies.

Objectives:

Establish an active network(s) of liaisons in state agencies and institutions to help share and implement best practices and stewardship measures.

Strategies:

- Identify overarching stewardship liaisons for state agencies and institutions, engage them, and support & provide ways for liaisons to connect and share information.
- Identify and connect experts into networks (& support existing networks intended) to engage a specific stewardship issue or set of stewardship issues.

Metrics for Evaluation of Strategies:

- Number of agencies with an active liaison (annual goal)
- Number of opportunities provided for liaisons to engage (annual goal)

Goal 4

Provide support for agencies planning, engaging or participating in activities that advance resource stewardship.

Objectives:

- Help agencies apply for grants and other funding resources.
- Participate in, plan, and document activities held to advance resource stewardship.

Strategies:

- Identify and share information about grants and funding resources, coordinate efforts for grant writing efforts, assist in preparing applications, assist in building relationships with grant offering entities.

Metrics for Evaluation of Strategies:

- Number of activities supported (annual goal)
- Number of grant applications supported (annual goal)

Goal 5

Improve the transparency and communication of government efforts, best practices, and resource stewardship measures to the public and the legislative branch of state government.

Objectives:

- Establish a format and method for annual reporting to the legislative branch
- Establish online resources and outreach strategies for communication to the public
- Develop communication plan for initiatives

Strategies:

- Provide an annual report to the Business and Labor and the Natural Resources, Agriculture and Environment Legislative Interim Committees using a consistent format so that statewide activity and efforts can be understood at the agency and aggregated level.
- Create an online resource center to help agencies use common metrics and tools to communicate clear impacts of air quality strategies.

Metrics for Evaluation of Strategies:

- Completion and presentation of the report to the committees (annual goal)
- Completion of the online resource center tools (year 2 goal)

Goal 6

Support and align with Department Goals for operational efficiency, quality workforce, security, communication, and customer service.

Objectives:

- Provide guidance and facilitation to help agencies and institutions establish air quality plans
- Establish a format and method for agencies to develop stewardship plans in a consistent way
- Bolster and support efforts to reduce emissions by the Divisions within DAS
- Develop a communication plan for initiatives

Strategies:

- Create online methods for collected and creating agency plans that can be used for both reporting and as a means to share strategies and measurable outcomes.

Metrics for Evaluation of Strategies:

- Number of agencies that complete plans (year 2 goal)
- Progress of related Division goals supporting emissions reductions (year 5 goal)
- Completion of communication plan (year 2 goal)

Goal 7

Support and align with Governor's Cornerstone priorities of education, energy, economic development, and self-determination

Objectives:

- Increase the expertise of the state employee workforce to better implement best practices and stewardship measures
- Support the better communication between economic development activities and the activities of the state as they pertain to resource stewardship

Strategies:

- Identify and support training efforts for employees with specific roles and duties that impact emissions from government operations
- Coordinate education and relationship building activities to ensure state operations support, wherever possible, regional planning and infrastructure that helps improve air quality.

Metrics for Evaluation of Strategies:

- Number of employees trained (annual goal)

Goal Status Tracking Template

Goal XX: Stated Goal					
Objective 1: Stated objective					
Strategy Action Steps	How Will Work Be Done	When Will Work Be Completed	Resourced Needed	How will Success Be Measured	Status
a.					

State of Utah Resource Stewardship Playbook

Initiating Government Excellence in Stewardship

Version 1

August 2015

Government's Role in Stewardship

State Government is one largest organizations in Utah. Our opportunities to have positive effects, and improve the overall stewardship of resources is substantial. Stewardship effectiveness requires an understanding of the impacts of our work, and the impacts of the services we provide, both positive and negative. This playbook helps state agencies organize and assess these impacts, but more importantly helps agencies to be prepared to move forward implementing best practices and measures to improve stewardship of our resources. Healthy and clean air is a particularly important resource to Utahns; this playbook has a focus to provide resources for stewardship of clean air.

Why a playbook?

Each agency of the State of Utah has a unique and specific mission, various staff sizes, hierarchical structures, and geographical locations of services. As a result, each agency will approach solutions in slightly different ways. **A playbook is a flexible structure to help create a plan to aid in implementing solutions**, and will help compare opportunities, share strategy impacts, and establish a best practice. The **outcome of using the playbook is a agency plan** that can help guide efforts with maintained focus overtime, withstanding effects of attrition.

Why is this Playbook Printed?

As stewardship coordination efforts evolve this playbook will be made available in a dynamic way, online. An online platform will allow agencies to store plans, share best practices and results from piloted activities, and search for strategies, case studies and contacts for pilots and future stewardship activities.

As this is the first year of the Resource Stewardship program this document will help guide agencies in taking initial steps, provide feedback about the process, so that the online resource can be created to best benefit agencies.

Components of the Playbook

1. Getting the Most Out Resource Stewardship Coordination
2. State Agency Stewardship Policy Opportunities
3. State Entity Stewardship Plan Template
4. Strategy and Resource Library Summary

Getting the Most out of Your Resource Stewardship Coordinator

What is a Resource Steward Coordinator?

Many entities and businesses have a positions similar to a Resource Stewardship Coordinator, and are commonly titled Sustainability Coordinator. In the State of Utah government, the Stewardship Coordinator's role has a particular focus to help state entities implement best practices and stewardship measures to improve air quality. There are many ways a coordinator can help you do this. Most important to understand is, however, that the coordinator can best help you if you provide a clear idea of what you need or want to accomplish. The Resource Stewardship Coordinator Strategic Plan has set goals to do this, and is found on the following pages. This is a dynamic document that will evolve in response to leadership goals and your agency needs.

The Role of the Coordinator

As your coordinator, I encourage you to think of me as part of your staff. I am here to help you meet your mission as it relates to environmental stewardship and health. I am here to help you find best practices that can work for your agency and help you implement them. I work in the backbone of state government in the Department of Administrative Services. That means I have connections to the services you use everyday, like the State Fleet, Facilities Management, Purchasing etc. As a new program that has been given a broad task, I want to work with you to make sure I serve agencies needs. This section of the playbook will help you understand how I am to be a resource to you and your agency.

To give you ideas of how I will work with agencies, here are ten examples of things I can do to help you increase your efforts toward stewardship.

1. Facilitate your agency stewardship planning process
2. Connect your agency to grants that can support implementing your ideas
3. Highlight and promote your accomplishments and best practices
4. Help you plan an event, find a speaker, or plan content for an educational effort
5. Facilitate communication & relationships between your agency, Administrative Services, or other government service agencies like Technology & Transportation.
6. Facilitate a new state contract that relates to a stewardship strategy
7. Research and help gather data about the effectiveness of a strategy or idea
8. Help you craft a policy
9. Help an agency connect to an outside entity like UTA to discuss services or issues

Resource Stewardship Coordination Strategic Plan Summary

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State of Utah Agency Policy Opportunities

Each agency within state government has a significant degree of autonomy over internal policies. Legislation and Executive Orders has and will support the creation of good statewide policies for stewardship, such as the policy for vehicle idling reduction or the creation of the CARROT grant program. There are significant opportunities that, depending on the operational mission, size of agency, geographical location, and available resources, will be specific to an agency. **The following are policy and operational opportunities that the Stewardship Coordinator recommends for consideration by each agency for the 2016 fiscal year.**

Recommendations are often best practices that have been piloted through other agencies, and are more likely to be able to be accomplished in the short term. Extension Recommendations are those that will help you transition initial efforts into next steps and future years.

Recommendation 1 : Initiate Agency Resource Stewardship Plan

- Assemble a group to work over the course of time appropriate to the agency mission and size to develop an Agency Resource Stewardship plan. The group should have awareness of agency operation and have leadership abilities or connections to leadership to be able to assess the strategies that can be most effective relative to the agency's mission and available resources now and in the future
- Provide the group with the [Agency Resource Stewardship Plan Template](#) and [metrics and data gathering tools](#) to guide the process.
- Set a timeline for completion of the Agency Resource Stewardship Plan

Extension Recommendation: Hold a meeting with all employees to present the plan.

Recommendation 2 : Clarify Availability of Multi-modal Transportation Amenities

- Inventory transportation amenities available to visitors and employees traveling to the facility(ies) housing your agency operations.
- Ensure that website and meeting invitations to your facility include information about multi-modal options. In addition to traditionally providing information about vehicle parking, an agency can offer information about the availability of bicycle parking, electric vehicle charging parking stalls, transit routes and pathways for pedestrians or cyclists from transit stations or stops.
- Ensure transit stations, vehicle and bicycle parking amenities and pathways (if not obvious) are show on the facility map.
- Support the collection of data about employee needs and understanding of transportation amenities.

Extension Recommendation: Set a goal to improve multi-modal amenities for employees or the public who may visit the agency. Example: MASOB on-site bicycle repair station for employee and public use.

Recommendation 3 : Idling Education and Signage

- Ensure that existing employees are reminded of the Governor's Executive Order on Idling Reductions
- Ensure new employees are educated about idling, the Governor's Executive Order on Idling during their orientation

- Post signage at places around the facility(ies) housing your agency operations. (This may require coordination with Facilities Management)

Extension Recommendation: If applicable to your agency, set goals to reduce emissions from idling equipment such as snow plows, etc.

Recommendation 4 : Eco Pass Awareness

- Make it clear to all employees in your department who is the person acting as the agency's Eco Pass Coordinator and if needed invite UTA to provide additional training to the Eco Pass Coordinator so they are aware of current procedures and benefits associated with the pass (many coordinators attended a group training offered by UTA held in January and the meeting will be repeated again in 2016)
- Incorporate information about the Eco Pass program into new employee orientation. Information can include the availability of the pass, the rules of using the pass, transit routes to the workplace or other relevant locations such as other agencies or amenities near the workplace.
- Hold an annual meeting with employees to allow existing employee to learn about the Eco Pass program and to document any ideas or issues related to routing etc. (UTA can play a role to facilitate this meeting)

Extension Recommendation: Identify an Eco Pass ambassador (might be your Eco Pass Coordinator) to offer to help new employees initiate a transit trip, essentially be a "first trip" buddy.

Recommendation 5 : Teleworking and Teleconferencing

- Evaluate the effectiveness of teleworking in your agency either as an existing program or as a new program.
- Revisit your agency teleworking policy, and/or review other agency teleworking policies to ensure that it is current
- Identify opportunities to enhance teleworking policies or tools and strategies associated with teleworking policies.
- Educate and increase the awareness of available opportunities and tools to increase the effectiveness and use of teleconferencing solutions to meeting.

Extension Recommendation: Pilot a work and management strategy to increase the amount amount of teleworking or teleworking, especially during yellow and red air days.

Recommendation 6 : Resource Stewardship Education

- Hold educational opportunities to help employees increase their awareness and/or skills that relate to improving resource stewardship. Examples could be conducting a training on effective teleworking or teleconferencing, general education on causes of air pollution or the health effects of air pollution, energy conservation strategies at work and tools and tips for making clear air transit and transportation more convenient. (Suggested frequency is quarterly. Education could be internal to your agency, or with a group of co-located agencies, or as an online webinar/conference)

Extension Recommendation: Create a video recording of your educational opportunity to become part of an online Resource Stewardship Education Library.

Recommendation 7: Agency Energy Stewardship

- Work the the State Building Energy Efficiency Program (SBEEP) to ensure the agency effectively meets requirements of 63A-5-701 that requires the following:
 1. Designation of a staff member that is responsible for coordinating energy efficiency efforts within the agency
 2. Providing energy consumption and costs to SBEEP
 3. Provide current strategies for improving energy efficiency and reducing energy costs and well as upcoming goals and strategies for improving energy efficiency and reducing energy costs
- Educate employees about the energy and cost savings from conservation at work

Extension Recommendation: Initiate energy efficiency upgrade, conservation campaign, or pilot a conservation strategy to target a specific issue like use of space heaters, computers and lighting on when not needed etc.

State Entity Stewardship Plan Template

A. Executive Directors Statement: *Statement should communicate how resource stewardship relates to the agency's mission*

B. Summary of Areas of Impact on Resource Stewardship from Agency Operations:

Where are we now? Categories relate to activities impacting air quality but could be expanded to include activities affecting waste management and water conservation.

1. Mobile sources and metrics (i.e. vehicle emissions; this could be the result of commutes, use of fleet or other work related travel, deliveries or waste removal trips by agency or vendor)
2. Point sources and metrics (i.e. power plants, waste incineration, building energy use is here as a demand for power and kWh or EUI)
3. Area sources (VOC's, paints, cleaners, boilers, wood burning, non-road machinery, lawn mowers, gas cans).
4. Indirect sources (water use in buildings, demand for products and supplies, services that could be performed online)

C. Measurable Goals for Improving Resource Stewardship

Where do we want to go? Include existing goals as well as new goals.

1. Mobile source goals (e.g. decrease work travel non-sov trips or mileage by 25%)
2. Point source goals (e.g. increase building efficiency by 5% per year)
3. Areas source goals (e.g. reduce VOC emissions by 50%)
4. Indirect source goals (e.g. increase online services use by 5% over in person)
5. Other stewardship goals

D. Strategies to Improve Air Quality and Reduce Emissions:

How are we going to get there? Below are suggested categories to help facilitate future sorting and searching of best practices by all agencies. Include new and existing strategies.

1. Behavioral (e.g. employees use mass transit for work related travel)
2. Policies (e.g. include anti-idling in vendor contracts)
3. Incentives (e.g. cash incentive for commendable effort in travel challenge)
4. Educational (e.g. winter bike safety training)
5. Operational (e.g. consolidate printers to one efficient print station)

Strategy and Resource Library (shared google drive)

<https://drive.google.com/a/utah.gov/folderview?id=0B7TykOCtuKLSZXMzT0pCR2JtWUU&usp=sharing>

Google Drive contains a shared folder entitled *Resource Stewardship Shared Resources* that every liaison should have access to open. Collected strategies are categorized into the following areas to help share best practices and resources to achieve agency goals. This resource library will eventually be converted to an web page resource center. The components of the shared library are as follows:

Agency Stewardship Liaisons

Contains templates and guidance to help liaisons with organizational efforts of setting goals and implementing best practices including metrics for calculating emissions and survey tools for establishing priorities.

Agency Stewardship Plans

A location where agency stewardship plans can be saved.

Contacts

Contains lists of stewardship contacts, such as the rosters for agency liaisons, eco pass coordinators and energy managers.

Eco Pass Coordinators

Contains information to help eco pass coordinators keep the eco pass program updated.

Stewardship Related Executive Orders & Legislation

Contains stewardship related executive orders and information about bills passed or proposed regarding air quality

Strategies and Tools

Contains resources about funding, best practices, services related to stewardship. For example: The sub-folder Mobile Emissions strategies comprises information about vanpool costs, bike share, transit promotions and the Clear the Air Challenge.

Strategy Idea List for Air Emissions Reductions

This list comprises ideas for consideration. Not all strategies are current best practices, some are strategies that can be used in a pilot model to vet the viability of the effectiveness.

Mobile Source Strategies

- Add Eco Pass and alternative transportation option information to new employee orientation
- Develop teleworking program or flexible schedules
- Educate employees about Guaranteed-Ride-Home program for UTA Eco Pass holders
- Participate in a Winter Travel Challenge during the inversion season
- Educate about executive order on idling reduction
- Post signage messaging driver to turn off engines instead of idling
- Coordinate with UTA to supply transit passes to planned events
- Provide information about services that help make repairs to smoking vehicles
- Support workplace carpool matching
- Support building of infrastructure for clean fuel distributions
- Support Clean-Air vehicles via preferred parking
- Coordinate scheduling to reduce congestion and infrastructure needs
- Establish transit standard for real estate leases and land purchases
- Establish vendor preferences if services or delivery of services are superior at reducing emissions
- Include Anti-Idling Policy in contracts with vendors
- Identify supply chain and operational improvements to combine delivery or reduce product needs to reduce delivery quantities to agency
- Create interagency option to contract for vanpool services with another agency.
- Create interagency option to purchase telecommuting tools shared by multiple agencies.
- Enhance transportation services to mass transit station such as the Intermodal Hub
- Expand active transportation infrastructure (bike repair, bike parking, pedestrian connections)
- Expand electric vehicle (EV) charging infrastructure
- Develop a marketing campaign for online services
- Create an agency trip reduction plan that eliminates 10-20% of vehicle trips during the inversion season.
- Implement parking fees or rate increases
- Curtail use of high emissions equipment for equipment that has emissions-reduction capabilities
- Transition to shuttle vehicles with reduced tailpipe emissions
- Include air quality emissions as a factor in all vehicle purchases
- Support clean fuel vehicles: discounted parking
- Convert department-owned fleet vehicles to lease to get rid of older high emitting vehicles

- Provide self-pay personal vehicle rental for employees to use on lunch breaks for errands or emergencies
- Enhance inter agency shuttling system, bike paths and and routing
- Set up a cash-out or incentive option for those who opt out of parking space (annual or during events like legislative session/winter travel challenge)

Area Source Strategies

- Set up high energy saving, consolidated printing services
- Create policy for equipment purchases to include energy use or emissions in decision-making
- Exchange high emitting outdoor maintenance equipment for lower emissions equipment.
- Incorporate air pollution emissions in boiler replacement decision making.
- Develop best management practices for custodial products
- Develop best practices for remodel & maintenance materials
- Education to employees to avoid refueling vehicles before and during “Red-Air Days” in order to reduce VOCs diffusing into the air.

Point Source Strategies

- Incentivize energy reductions
- Adjust temperature setpoints
- Establish a workplace energy conservation program

Leadership and Policy

- building acquisition energy standard
- Optimization of central plant operation
- Campus-wide energy and utility strategic plan
- Energy standard for renovations
- Fully fund the Better Buildings Challenge or other benchmarking effort
- Implement new energy standard for new construction

Stewardship Education

- Use various media or communication outlets to inform and educate its employees on air quality best practices, in particular regarding times preceding and during red-air quality days. This includes development of an early warning system using emails, blogs, mobile apps, signs on major roadways, door hangers, mailers, etc.
- Create and/or expand targeted behavior change and awareness campaigns; develop campaigns by topic.
- Classroom Instruction: Develop a model similar to the Energy Department’s “Safe Kids” program to instruct in classrooms on the importance of air quality. Examples of such programs include demonstrations and displays within the facility and merit badge training with Boy Scouts of America.
- Support additional monitoring equipment for air quality
- Bike education for parents and children