

<b>Project</b>	<b>Actionable Item</b>	<b>Type of Action</b>
CAMx Snow Cover Treatment	Models to update the development of a future State Implementation Plan (SIP)	SIP
CAMx Snow Cover Treatment	Updates to the model to improve ozone prediction	Information
Chemistry Mechanisms at Low Temperatures	Help DAQ evaluate impact of oil and gas emissions on wintertime ozone formation in the Uinta Basin	Information
Chemistry Mechanisms at Low Temperatures	Cost-benefit analysis for new regulations	Information
Exeptional Events Modeling	Inventory development for fugitive dust sources	Information
Exeptional Events Modeling	Rule Development for fugitive dust sources	Rules
Exeptional Events Modeling	Technical Support Document	SIP
Great Salt Lake Ambient Hydrochloric Acid Study	Rule Development for cost-effective Controls	Rules
Great Salt Lake Ambient Hydrochloric Acid Study	SIP development to assure cost-effective controls	SIP
Great Salt Lake Summer Ozone Study	Improve numerical forecasts and simulations of ozone concentrations to capture the factors affecting ozone concentrations.	Information
Great Salt Lake Summer Ozone Study	Improve emissions inventories of ozone precursors	Information
Great Salt Lake Summer Ozone Study	Develop modeling capabilities to resolve both the local and regional circulations and simulate the generation of ozone through the various possible pathways identified in the study.	Information
Great Salt Lake Summer Ozone Study	Use information to identify ozone-control strategies and rulemaking for upcoming Ozone State Implementation Plans (SIPs) along the Wasatch Front	SIP
Great Salt Lake Summer Ozone Study	Summer outreach and Ucair has used this information.	Public Outreach
Key Drivers of Ozone Formation Along the Wasatch Front	Rule Development for cost-effective Controls	Rules
Key Drivers of Ozone Formation Along the Wasatch Front	SIP development to assure cost-effective controls	SIP
Modeling of 3 Wintertime Episodes	SIP development to assure cost-effective controls	SIP
Non-Combustion Formaldehyde Study	Accurate projections of emissions	Information
Non-Combustion Formaldehyde Study	Rule Development	Rules
Non-Combustion Formaldehyde Study	Permit controls	Permitting
Northern Utah Wood Burning Survey	Survey data will be used in future analyses on wood-burning activity in order to determine the contribution of wood smoke emissions to PM2.5 levels in Northern Utah	Additional Study

Salt Lake Valley Winter PM2.5 Study	Improved air-quality model to better reproduce pollutant build-up near the ground	Information
Salt Lake Valley Winter PM2.5 Study	Model improvement to test proposed regulations	Information
Salt Lake Valley Winter PM2.5 Study	More Accurate Information for cost-benefit analysis of new rules.	Information
Salt Lake Valley Winter PM2.5 Study	Using information for Sip tech basis, technical support document	SIP
Storage Tank Emissions Pilot Project (STEPP)	Develop a new leak detection and repair (LDAR) program to help operators reduce VOC emissions from leaking equipment.	Reduction Strategy
Storage Tank Emissions Pilot Project (STEPP)	Rule Requirements	Rules
Storage Tank Emissions Pilot Project (STEPP)	Permit Requirements	Permitting
Toxics Study I	Public notification of Air Quality conditions for Hazardous Air Particles	Public Outreach
Toxics Study I	Led to asking for funding, and additional study	Additional Study
Toxics Study II	Characterized the spatial distribution of Air Toxics	Information
Toxics Study II	Widely Distributed Information	Public Outreach
Toxics Study III	Inventory and source identification of Air Toxics that will inform federal regulation development	Information
Toxics Study III	Widely Distributed Information	Public Outreach
Toxics Study IV	Report in Progress. Identification of Sources and Controls to reduce Air Toxics.	Information
Toxics Study IV	Widely Distributed Information	Public Outreach
Uinta Basin Winter Ozone Studies	Better understanding of complex chemistry and meteorology that drives ozone formation in the Uinta Basin	Information
Uinta Basin Winter Ozone Studies	Impliment targeted controls	Reduction Strategy
Uinta Basin Winter Ozone Studies	Permitting of additional oil and gas sources	Permitting
Uinta Basin Winter Ozone Studies	Quality information due to now being a non-attainment area.	Information
Uinta Basin Winter Ozone Studies	Four new rules for the Oil and Gas Industry	Rules
Uinta Basin Winter Ozone Studies	Identify further areas for study	Additional Study
Uinta Basin Winter Ozone Studies	Institute new Permit-by-Rule program to improve emissions inventories	Permitting
Ulend Program	Use Leak information to develop effective rules	Rules
Ulend Program	Use Leak information to develop effective control strategies	Reduction Strategy
Underground Petroleum Storage Tank Financial Viability Study	Findings of the study resulted in Rep. Eliason sponsoring H.B. 138 in the 2014 General Session.	Legislation
Utah Lake Water Quality Study	Develop protective Utah Pollutant Discharge Elimination System (UPDES) permits for wastewater and storm water discharges to Utah Lake.	Reduction Strategy

Utah Lake Water Quality Study	Identify voluntary load reductions from other sources (e.g., agricultural, septic, forest, natural) and lake treatments that should be subsidized with public funding.	Information
Utah Lake Water Quality Study	Aim to protect public health and the environment, provide regulatory certainty, allocate public financing resources, and integrate water quality decisions with other agency management objectives (e.g., recreation, fishery, and water management).	Information
Utah Winter Fine Particulate Study	Conduct additional studies to determine whether ammonia-reduction or nitrogen oxides-reduction control strategies would be most beneficial for the Salt Lake and Utah Valleys	Additional Study
Utah Winter Fine Particulate Study	Use data to improve modeling and test the effects of proposed regulations	Information
Utah Winter Fine Particulate Study	Pursue future research/field studies to help reduce scientific uncertainties, improve modeling, and identify appropriate control technologies	Additional Study
Utah Winter Fine Particulate Study	Technical Support Document	SIP
Vehicle Cold Start Emissions	Cold start public education and outreach campaigns	Public Outreach
Vehicle Cold Start Emissions	Technical Support Document	SIP
Wasatch Front Wood Burning Emissions	Determined how important wood-burning is to elevated PM2.5 Levels.	Information
Wasatch Front Wood Burning Emissions	Analyzed impact of a program to encourage people to replace older stoves and fireplaces with EPA certified and other low-emission devices in their homes	Information
Wasatch Front Wood Burning Emissions	Technical Support Document	SIP
Wasatch Front Wood Burning Emissions	Helped develop more effective control regulations that target significant contributors to PM 2.5. Wood Burning Patrols.	Reduction Strategy
Wasatch Front Wood Burning Emissions	Created the rule for woodburning	Rules
Water Use Data Study	Metering Equipment alternatives and Analysis Report, April 2017	Information
Water Use Data Study	Staff determined statewide standards are not appropriate and recommended system specific strategy recommended in December 2017 Audit Update.	Information
Water Use Data Study	Led to H.B. 303 in the 2018 General Session	Legislation
Well Emissions Decline Study	Identify the most cost-effective emissions regulations to help maintain regulatory ozone standards while minimizing the economic impact on the oil and gas industry. Quantifies actual reduction.	Information
Well Emissions Decline Study	Examine the impacts from continued oil and gas permitting in the Uinta Basin	Information

Well Emissions Decline Study	Issue permits based on decline study findings to strike an appropriate balance between oil and gas facility emissions and well development	Permitting
West Valley Toxics	Inventory and source identification of Air Toxics that will inform federal regulation development	Information
Winter Atmospheric Modeling Improvements	Improved modeling of wintertime events	Information
Winter Atmospheric Modeling Improvements	Ability to capture effects in a model	Information
Winter Atmospheric Modeling Improvements	Technical Support Document	SIP
Winter Atmospheric Modeling Improvements	Information for cost-benefit analysis	Information