



STATE OF OREGON EXECUTIVE BUILDING

**Department of
Administrative
Services**

2018 Department of Administrative Services Sustainability Plan

Sustainability Board Review Draft

August 9, 2018



DAS DEPARTMENT OF
ADMINISTRATIVE
SERVICES
SUSTAINABILITY PROGRAM

DAS
DEPARTMENT OF
ADMINISTRATIVE
SERVICES



Message from the director

DAS works to effectively implement the policy and financial decisions made by the Governor and the Oregon Legislature, in addition to setting and monitoring standards of accountability to ensure that state government uses tax dollars productively. As both a central service provider and a policy leader, DAS is uniquely positioned to address the three legs of sustainability – environmental, community and fiscal/economic – while also leading by example for other agencies.

With our central role in state government, DAS sustainability efforts are focused on both the effects of DAS' internal operations as well as our delivery of external services and statewide policy across the enterprise. Primarily, these efforts focus on the sustainable management of the state's real and personal property assets, technology and the procurement of goods used daily by agencies as they deliver services to Oregonians. In addition, statewide policies provide agencies with guidelines and tools to reach sustainability goals. To emphasize the importance of sustainability to our core operations and services, in 2018 I approved our new DAS Strategic Plan, which includes among its key goals that DAS agency operations demonstrate commitment to sustainability and energy efficiency.

This document is a framework, identifying specific goals and strategies DAS will employ over both the near term (1-5 years), as well as long-term aspirations. These goals and strategies touch on virtually all aspects of our operations and programs, helping us to remain a resilient, thriving agency that acts as a steward of our resources, people and community. We look forward to sharing our progress with you.

Sincerely,

Katy Coba, Director
Department of Administrative Services





Table of contents

Introduction	2
Plan development process.....	4
The DAS sustainability dashboard	5
Relationship to relevant policies and Executive Orders	6
Goals and priority strategies.....	7
Sustaining the sustainability – management system	16
Appendices: Phase 1 report.....	17

Acknowledgements to DAS staff

This Plan reflects the innovative ideas, energy and inspiration of an estimated 200+ DAS staff members. From staff events to surveys and focus groups, staff helped chart the course for DAS sustainability. Thanks go out to:

- Staff who participated in the 12 focus groups across the agency to contribute what they are doing now, and where the challenges and opportunities lie with respect to sustainability.
- The over 120 staff who attended three “pop-up” events in April 2018 to share current DAS sustainability efforts and collect staff ideas of where we want to go.
- The members of the DAS Sustainability Plan Steering Committee, who contributed their time to help craft goals and prioritize strategies.
- The DAS Sustainability Team, volunteers with a passion for sustainability who reviewed and commented on Plan components.
- Other staff who shared their views through the DASH internal agency web site, and through sustainability surveys.



Introduction

What is sustainability?

Sustainability is an often-heard word in Oregon state government, yet to define it can be challenging. The Oregon Sustainability Act (ORS 184.421) defines sustainability as:

Using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives.



In other words, how can we at DAS be good stewards of the environment today so that future generations can have a healthy environment? What can we do to ensure that decisions we make today that impact the economy and fiscal health incorporate long-term considerations? How can we support “community” – both the community of DAS staff and our state communities – now and in the future?

The benefits of sustainability

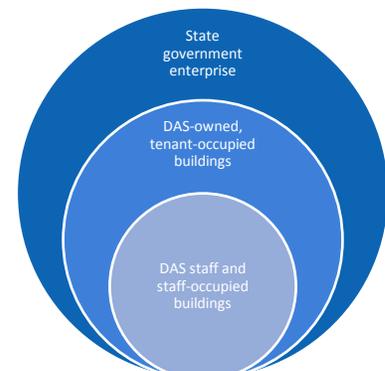
As a public agency, DAS is committed to protecting Oregon’s resources and benefitting its people. Sustainability helps public agencies be more efficient with taxpayer dollars, adapt to a changing future, be a good steward of natural resources and support a talented and diverse workforce.

There are other benefits from sustainability, particularly from a business perspective. The global business management consulting firm AT Kearney’s 2009 report *Green Winners* noted in 16 of 18 industry sectors examined, companies recognized as sustainability leaders outperformed industry peers over a six-month period during the 2008 economic crisis, and they were more protected from value erosion. Stock prices of 99 sustainability-oriented companies outperformed industry averages by 15 percent over the six-month period. A 2010 survey of chief executive officers (CEOs) by management consulting firm Accenture— among the most extensive corporate surveys ever conducted on the topic of sustainability—found that more than 93 percent of CEOs surveyed see sustainability as crucial to business success.

What it means for DAS

As stated in the new 2018 DAS Strategic Plan, among the agency’s key goals is to demonstrate commitment to sustainability and energy efficiency in agency operations.

Due to the unique responsibilities of DAS, it has influences at multiple levels of state government – its own staff, tenants and tenant-occupied buildings and the entire state government enterprise. Integrating sustainability into DAS operations and programs results in many benefits across these levels. Being more efficient and conserving energy reduces energy costs as well as greenhouse gas (GHG) emissions, while being wise with our water use will prepare DAS for more frequent drought in the future. Making our fleet more fuel efficient will save on fuel costs per mile, and reduce carbon emissions. Sustainability can also help us make good fiscal decisions and support Oregon’s economy, while also supporting a healthy, resilient and diverse workforce. Finally, practicing sustainability also helps DAS





comply with statewide policy and executive orders, support the Governor’s sustainability priorities and lead other agencies by example.

Plan development process

This Plan was developed with both a “bottom up” and “top down” approach involving engagement of an estimated 200+ DAS staff in the process. This initial effort included data collection and analysis, focus group discussions, staff events, steering committee and sustainability team input and executive team guidance.

Phase 1 Report

A foundation of this Plan is the Phase 1 Report (Appendix 1), which includes an extensive review of DAS sustainability-related data, benchmarking DAS performance against other peer agencies and organizations, reference material for goal setting and compilation of ideas from all staff engagement.

Focus groups

DAS sustainability staff held one-hour focus groups across 12 DAS staff functional areas to discuss current sustainability activities, challenges and opportunities:

- Procurement
- Surplus property
- Publishing and distribution
- Information technology
- Operations and maintenance
- Planning and construction
- Custodial
- Chief human services office
- Real estate
- Fleet and parking
- Budget and finance
- Communication



Staff events

Over 120 DAS staff attended three April 2018 Earth Month pop-up events to learn about sustainability and share their ideas. The resulting “wall of ideas” included many suggestions for DAS sustainability initiatives. Other ideas were submitted through the DAS Sustainability Team, and on the agency’s “DASH” internal web site.

Sustainability survey results

Several DAS staff participated in an enterprise-wide sustainability survey project developed by the Oregon Sustainability Board to gauge priorities, opportunities and challenges with respect to sustainability. In October 2017, Phase 1 of the survey went to DAS leadership. In February 2018, Phase 2 of the survey was administered to a random sampling of 20 percent of DAS staff. The appendix to the Phase 1 Report includes a summary of responses.



The Wall of Ideas from an April 2018 pop-up event.



The DAS sustainability dashboard

The Phase 1 report in Appendix A contains a more complete inventory of DAS' current impacts and sustainability footprint. The following dashboard summarizes key metrics and progress:

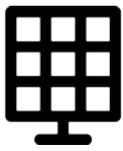
Metric	Unit	Measure	Trends
Energy consumption	Kilowatt hours (kWh)	Calculated from utility bills through the Energy CAP software.	 While DAS energy use intensity (EUI) is improving in some DAS buildings, overall DAS energy use increased in 2017 compared to 2016, mainly due to increased cooling demands.
Water consumption	Thousand gallons (kgals)	Calculated from utility bills for buildings, and from meter readings on DAS' three wells, used for irrigation.	 DAS water use in Water Year 2017 fell 9.2 percent from the 2014 baseline. Irrigation use fell 22 percent.
Waste diversion	Tons	Amount of material diverted from landfill and recycled, salvaged or composted. Calculated from recycling totals and trash weight estimates by building, and for DAS as a whole.	 DAS diversion across its building portfolio was approximately 40 percent in 2017. This was the first year for which DAS calculated a diversion rate. This is below the Marion County average of 48 percent.
Paper and green office supplies	Dollars	Amount of green and non-green office supplies.	 The ratio of green to non-green office supply purchases declined in 2017 compared to the previous two years. DAS purchased \$187,000 worth of office paper in 2017.
Fleet carbon emissions per mile	Tons of carbon dioxide equivalent.	Calculated from vehicle fuel mix and vehicle miles traveled.	 Slight decline from 2016 to 2017.
Overall GHG emissions	Tons of carbon dioxide equivalent.	Calculated for 2017 using The Climate Registry Information System (CRIS). Approximately 76 percent of emissions are from purchased electricity.	 2017 was the first year for which a comprehensive GHG inventory was conducted. Trends will be established with multiple years of data.
Staff engaged in sustainability (education, events, trainings)	Number, percent of staff	Not yet calculated.	Will be calculated moving forward as part of new sustainability plan goals and strategies related to staff engagement.
Staff diversity, equity and inclusion	Percentage	Metrics provided by the Chief Human Resources Office (CHRO)	 Diversity rate of 17 percent, slightly less than the statewide average of 18 percent.



Relationship to relevant policies and executive orders

This Sustainability Plan and its implementation will serve as a central point of coordination for DAS compliance of and progress toward sustainability-related executive orders and statewide policies. The following table summarizes key orders and policies, DAS compliance efforts and links to the Sustainability Plan.

Executive Order (EO) or Statewide Policy	DAS Compliance Efforts	Relationship to Plan Components
EO 17-20: Accelerating efficiency in Oregon's built environment to reduce greenhouse gas emissions and address climate change	DAS serves on the working group to implement the EO. DAS is coordinating with ODOE on plug load strategy and procurement of efficient equipment.	Goals and strategies related to energy and material flows – procurement.
EO 17-21: Accelerating zero emission vehicle adoption in Oregon to reduce greenhouse gas emissions and address climate change	DAS serves on the working group to implement the EO. DAS is coordinating with DEQ and ODOE to implement various individual components of the EO.	Goals and strategies related to fleet/transportation.
EO 15-09: Direct state agencies to plan for resiliency to drought, to meet the challenge that a changing climate brings	DAS is tracking year-over-year water use to make progress toward the EO reduction goals. Irrigation has been cut back and leaks/system losses are being evaluated.	Goals and strategies related to water.
EO 17-11: Relating to affirmative action, equal employment opportunity, diversity, equity, and inclusion	The DAS sustainability team is following the lead of the CHRO, which is working on several initiatives.	Goals and strategies related to supporting staff.
Statewide Resource Conservation Policy 107-011-010	DAS is enforcing elements of the policy in its own buildings and educating tenants. DAS is also leading up a major update of the policy.	Update process not specifically addressed in the plan, but strategies across multiple topics relate to and support the policy.
Sustainable Procurement and Internal Operations Policy 107-011-140	Comprehensive sustainable procurement approach being formulated by Procurement.	Goals and strategies related to material flows, procurement.
Fleet Management, Statewide Policy 107-011-040	Being carried out by Fleet and Parking Services.	Goals and strategies related to fleet/transportation aimed at boosting agency compliance with the policy.
Green Procurement Guidelines Policy 107-009-0080	Integrated into DAS price agreements.	Procurement goals and strategies related to metrics and training.
Sustainable Acquisition and Disposal of Electronic Equipment, Policy 107-011-050	Efforts currently led by Surplus.	Not specifically addressed in the Plan as compliance is underway.



Goals and strategies: Energy

In 2017 DAS spent over \$3 million to light, cool and heat its buildings and support other operations. Energy is vital to the agency’s operations, and finding ways to conserve and use energy efficiently can also lead to cost savings. In the U.S., building energy use accounts for over 40 percent of greenhouse emissions, so saving energy helps save money as well as reduce DAS’ climate impacts. DAS Operations and Maintenance (O&M) already has an energy action team, including HVAC and lighting technicians and a certified energy manager, who are actively working with the Energy Trust of Oregon under the Strategic Energy Management Program (ETO SEM). It has a newly completed Energy Action Plan to address HVAC, lighting and occupant engagement. The strategies support and expand on those included in the Action Plan. DAS also has a new Energy Management Policy that, in addition to the goals in this Plan, sets more specific energy targets for buildings in compliance with EO 17-20.

Goals

- Reduce total energy use (in BTUs) across the current portfolio of all DAS-owned buildings by 2% per year, resulting in a 20% reduction by 2025 over 2015 baseline.
- Generate 5% percent of electricity from onsite renewable energy generation by 2025.
- *Long-term aspiration: By 2050, at least 75% of DAS electricity will be derived from renewable energy sources.*

Strategies

Priority 1

Engage employees and tenants through messaging, "power down" campaigns, energy report cards, meetings, energy challenges and other engagement tools.
Continue to work with DAS O&M to conduct periodic night audits of buildings, including work stations for those who leave on desk lamps and other equipment.
Encourage/design in more natural daylight to reduce lighting needs in buildings and deploy window tinting to manage light and glare.
Phase out individual server racks in buildings and optimize underutilized servers.
Include sustainability and power management goals for the DAS Information Technology Windows 10 Enterprise update to centrally manage personal computer power.
Develop an agency-wide plug load strategy to align with EO 17-20 plug load strategy requirements.
Update the Statewide Resource Conservation Policy to align with EO 17-20 and incorporate best practice.

Priority 2

Based on the plug load strategy, deploy smart plug strips where appropriate to power off equipment in work spaces and publish guidelines for staff on how to save energy at work stations.
Centralize control of printers/copiers to manage power, or create power efficiency standards for them.
Support efforts to develop a 10 year strategic plan for the state data center.
Conduct a feasibility study for renewable energy on DAS land and buildings. Include small-scale hydro, PV, solar thermal and other renewable energy technologies.
Ensure agencies incorporate sustainable, energy efficient systems in their project requests DAS approves. A new construction inspector will review plans and construction of these project to ensure compliance.
Train project managers on integration of energy consideration into projects and decisions per the DAS Energy Management Policy. Provide Enterprise Asset Management and Planning and Construction Management checklists for integrating necessary energy considerations.



Goals and strategies: Climate

Climate change presents a significant threat to Oregon citizens’ livelihoods, as well as to economic security, environment, health and wellbeing. Governor Brown has made climate change a priority issue – both reducing pollution that contributes to climate change, as well as adapting to changes already taking place and projected to occur.

Greenhouse gas (GHG) reduction is a cross-cutting issue involving building energy efficiency and conservation, fleets and transportation, stationary fuel sources (such as diesel for equipment and generators), refrigerants, solid waste and others. The State of Oregon’s goal is to reduce GHGs 10 percent below 1990 levels by 2020 and at least 75 percent below 1990 levels by 2050 (ORS 468A.20). Governor Brown has also committed Oregon to achieving the U.S. targets of the Paris Climate Agreement, which are reducing GHG emissions 26 to 28 percent below 2005 levels by 2025. DAS has aligned itself with the Governor’s goals.

Because climate change is a cross-cutting issue, the strategies in this document related to energy and fleets/transportation, as well as the actions in the ETO SEM Action Plan, will contribute significantly toward meeting GHG reduction goals. The following strategies are proposed in addition to energy and fleet-related strategies.

Goals

- Reduce DAS GHG emissions in the current portfolio by 26 to 28% below 2005 levels by 2025 to align with the U.S. Paris Agreement and Oregon Governor’s goals.
- *Long-term aspiration:* All DAS buildings will be operating as carbon neutral by 2050.

Strategies

Priority 1

Partner with DEQ to include an analysis of the carbon content of building materials per EO 17-20.
Conduct a consumption-based GHG inventory for DAS and use this inventory to inform lower-carbon options for procurement of materials.
Work with the Interagency Sustainability Coordinators Network and Oregon Sustainability Board to integrate climate mitigation and adaptation into agency plan guidance. Support development of leadership and staff training materials on climate mitigation and adaptation across the enterprise.

Priority 2

Develop guidelines and standards for carbon neutral ready buildings by 2022, using the Oregon Resilience Building as a model, per EO 17-20.
Create an adaptation/resilience plan for DAS assets to proactively respond to a changing climate by evaluating potential risks and responses.



Goals and strategies: Water

DAS uses water in a variety of ways to carry out its operations and support its programs. Water is not only vital to building operations, it is also used to maintain landscaping around buildings and on the Capital Mall grounds, to wash vehicles and to operate heating and cooling equipment.

Managing water efficiently is a high priority for Governor Brown, as is reflected in EO 15-09, which directs DAS, among other agencies, to reduce non-essential water use 15% by 2020 over a 2014 Water Year (Oct 1-Sep 30) baseline. Observed and anticipated further changes in Oregon’s climate also increase the likelihood of less winter snowpack and hotter and drier summers. This, along with continued population growth, is likely to put further strain on our state’s water resources.

Goals

- Beyond the 2020 EO goal, reduce total water use (utility water and wells) in the current portfolio an average of 2.5% year-over-year, resulting in a reduction of 25% across all DAS-owned buildings and irrigated areas by 2025 from a 2014 baseline.

Strategies

Priority 1

Re-evaluate DAS landscape plant selection guidelines and identify additional native and low water use plants and grasses as well as pollinators for future landscape projects (new and refurbished).

Explore a pilot project to harvest rainwater on buildings to cut down on potable water use where not needed (irrigation, toilets).

Continue to conduct strategic retrofits of end-use fixtures (WaterSense fixtures) in buildings where feasible, and where major renovations are planned.

Investigate options for assessing and updating the efficiency of the DAS irrigation system (feasibility study, recommendations).

Priority 2

Review watering requirements in service level agreements for DAS tenants and incorporate where possible the ability to "let the grass go brown".

Explore water efficiency opportunities in boiler and chiller system selection and maintenance.

Evaluate opportunities for cost-effective water retrofits even in buildings that aren't being remodeled (flushometer replacements, aerators).



Goals and strategies: Material flows

Like all organizations, DAS relies on a wide range of materials for its operations. These include everything from office supplies and paper to furniture, vehicles, electronics, uniforms and more.

With analogies to things like vehicles (fuel in, exhaust out) or organisms (food in, waste out), DAS holistically looks at its “material flows” – or the goods and services it consumes to operate, and the waste produced in the process of doing so.

DAS is already involved in efforts to create sustainable procurement standards and guidelines for energy and water efficient equipment as part of implementation of EO 17-20, and it is developing sustainability standards for furniture procurement – which add to sustainability in price agreements previously established for office and janitorial supplies.

Procurement

Goals

- By 2020, position DAS to be a statewide leader in sustainable procurement by updating revised policies/rules, establishing product categories, and enhancing training/communication.
- Increase statewide purchase of recycled-content office products to 50% of total spend by 2020, and 70% of total spend by 2025.

Strategies

Priority 1

Continue monitoring green janitorial supply and office supply price agreements, analyzing them for continued product inclusion.
Integrate language on demonstrating commitment to sustainability into request for proposal template language.
Design training module(s) on sustainable procurement for DAS staff, and for other procurement officers to use in their agencies.
Provide enhanced communication for those using the newly developed DAS online procurement portal regarding the benefits of more sustainable products.
Continue to participate in EO 17-20 work group efforts to establish procurement standards and guidelines for energy and water efficient equipment. Use this process as an example for expanding sustainable procurement efforts and create priority product categories for future updates.

Priority 2

Explore embodied carbon in purchased materials in key procurement areas with the highest carbon footprint.
Explore expansion of qualified rehabilitation facilities (QRFs) to meet more services and supply needs. This potentially increases employment for disabled persons, who historically have a high unemployment rate.
Incorporate sustainable purchasing principles into statewide trainings. E.g. "Principles of Oregon Public Procurement" and contract administration training open to state and local government trainees
Enhance monitoring of agency buys on agreements that offer choice of green or non-green products and work with agencies to focus on areas for improvement.
Place and receive more procurement orders online and examine vendor ordering interfaces to offer green and sustainable items first.



Waste reduction and recycling

Goals

- Achieve a diversion rate of 52% in DAS-owned buildings by 2020, and 55% by 2025.
- *Long-term aspiration: Achieve zero waste status (90% diversion rate) by 2050.*

Strategies

Priority 1

Track construction/demolition project waste diversion. Create waste plans and diversion goals for projects over a certain size (salvage, recycle, etc.). Work with Surplus to quantify materials diverted from landfill to Surplus.

Conduct a pilot to make composting available in DAS breakrooms and in landscaping operations. Use lessons learned from the Portland State Office Building.

Reinforce the process of checking Surplus first for any needed items before making a new purchase. Incorporate prioritization to supply requests and procurement practices.

Streamline paper use by employing electronic RFP processes, eliminating paper agendas and increasing use of smart boards and electronic signatures.

Increase availability and visibility of recycling receptacles (e.g. building entrances and exits). Make Styrofoam, electronics and battery recycling bins more widely available throughout DAS buildings.

Priority 2

Reduce or eliminate use of paper/plastic dishes, plastic straws and other unrecyclable materials in break rooms and for staff events.

Complete a waste audit of DAS waste streams to determine composition and opportunities to increase diversion.

Push more print requests to Printing and Distribution to cut printing costs and print more efficiently.



Goals and strategies: Buildings and grounds

Like GHGs, green buildings and grounds are cross cutting topics encompassing many of the resource conservation activities previously discussed. Green buildings and grounds can also support staff health and wellness by creating healthy and productive places to work. Green buildings have also shown to have premiums in the real estate market as desirable places to work¹.

Goals

- Ensure that all new buildings and major renovations designed and constructed after 2022 are carbon neutral ready and built to the-then current LEED Gold standard or better.
- Bring up to status and maintain 100% of DAS-owned buildings at a sustainability certification standard (e.g., LEED EB O+M, Marion County Earthwise, or equivalent) by 2022.

Strategies

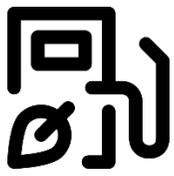
Priority 1

- Create new sustainable design policy/standards for new statewide construction and major renovation projects.
- Incorporate sustainability into boilerplate DAS construction standards to incorporate appropriate elements of the latest green building standards (LEED Version 4). Require contractors adhere to these standards, or better.
- Request that private landlords share energy and water consumption and recycling data for leased properties.
- For smaller projects, create a sustainability checklist to identify opportunities and project sustainability goals and consistency with green certification standards.
- Use the Oregon Resilience Building as a test bed for development of a high-performing, carbon neutral and state-of-the-art building - from owner project requirements and conceptual design through construction and operation.

Priority 2

- Create sustainability checklists for Real Estate to use in considering attributes for leased space.
- Use less/least toxic chemicals in landscape maintenance and create an integrated pest management strategy/plan.

¹ <https://www.appraisalinstitute.org/assets/1/7/Green-Building-and-Property-Value.pdf>



Goals and strategies: Fleet/transportation

The Fleet and Parking Services program manages over 4,000 DAS-owned vehicles; provides policy oversight to over 3,000 vehicles owned by other agencies; and manages 4,500 parking spaces in the Salem capitol mall, Portland and Eugene. Fleet and Parking Services rents vehicles on a daily basis and on a long-term basis to over 100 state and local agencies and promotes alternative modes of transportation for state employees. In 2017, state staff logged over 40 million fleet miles traveled.

Goals

- Increase the percentage of zero emission vehicles (ZEVs) to 25% of the fleet by 2025.
- Reduce fleet carbon intensity per mile 20% by 2025 over a 2015 baseline.
- Aspiration: 100% of hybrid vehicles in the state fleet are driven above minimum standards specified in statewide policy by 2020.
- *Long-term aspiration: Increase the percentage of ZEVs in the fleet to 75% by 2050.*

Strategies

Priority 1

Encourage employees to conduct more virtual meetings to cut down on unnecessary travel.
Implement policy changes to gain more efficient use of hybrids and electric vehicles. Agencies that do not meet minimum use requirements for hybrids will not be able to add more vehicles; only replace existing ones.
Consolidate agency and Printing and Distribution delivery routes and remove duplication to reduce vehicle miles traveled.
Revisit feasibility of multiple car sharing sites around the Capital Mall for state agencies to use, which would reduce the number of low use vehicles. This would also free up parking spaces for employee use.

Priority 2

Revisit the latest or emerging carpool services or support apps that encourage carpooling. Work with ODOT to better understand commuting patterns and “clusters” where opportunities may be focused.
Continue supporting incentivized rates for rental of high efficiency cars.
Expand covered/secure storage for bikes at DAS buildings and explore participating in the City of Salem's bike share program.
Continue to examine the return on efficiency on high efficiency small cylinder engines versus alternative fuel options when replacing vehicles. Smaller conventional gasoline engines may yield more GHG reductions than larger flex fuel engines.



Goals and strategies: Staff support

Supporting DAS staff and the greater community address the “community” component of the Oregon Sustainability Act. This encompasses a broad range of topics, but it offers an opportunity to evaluate and support those actions that can support staff and ultimately, the “sustainability” of DAS as a thriving, efficient and productive organization for the citizens of Oregon. It includes not only opportunities for staff to engage in furthering DAS sustainability goals, but also DAS support for staff health and productivity; and for equity, diversity and inclusion.

The DAS CHRO is already working with the Governor’s office and leading up the agency’s efforts around goals and strategies for supporting employees and pursuing greater equity, diversity and inclusion opportunities. The DAS sustainability staff will follow and support CHRO’s leadership in these efforts as embodied in the strategies below.

Goals

- Reach 50% of DAS staff annually through sustainability events and trainings by 2020. Reach 90% staff annually through sustainability events and trainings by 2025.
- Support the Chief Human Resources Office (CHRO) and the Governor’s Office in meeting agency diversity and employee retention targets; and in pursuing diversity, equity and inclusion initiatives.

Strategies

Priority 1

Hold month-long sustainability challenges between building floors/units. Topics could include alternative commuting, home lunch vs. takeout, energy conservation or “give up your waste basket”, as examples.
Support CHRO recruitment efforts that reflect Oregon’s changing demographics in attracting top talent.
Train staff on sustainability "how tos" through iLearn modules, live group trainings and DASH stories.
Support CHRO in continuing to provide training for DAS managers to reach equity and diversity goals.
Evaluate the triple bottom line cost/benefit of moving employees in buildings multiple times.
Support CHRO’s work in leadership training opportunities that builds expertise around equity, inclusion and diversity.
Create guidance for staff to be able to participate in sustainability activities on paid time.

Priority 2

Create separate, self-sustaining green teams in each DAS building.
Support CHRO in their efforts to create succession planning and pathways for agency leadership positions.
Create guidelines for sustainability in staff and agency events.
Support CHRO efforts to put equity, inclusion and diversity expectations in title descriptions.
Ask employees to commit to initiatives that parallel the state of Oregon's commitments to environmental protection.
Support CHRO efforts to retain top employees.
Create "sustainability days" for staff (e.g. bike to work day with breakfast stations – this could be an enterprise wide event, such as a "no waste day").
Provide meetings, brochures and other materials in a variety of languages and formats to allow for greater public access.



Strategies: Economic and fiscal sustainability

Economic and fiscal sustainability represents the third leg of the sustainability triple bottom line (along with environment and community). Economic and fiscal sustainability, beyond the DAS budgeting process, is about exploring opportunities to be efficient with resources, identify opportunities to leverage funds through grants and partnerships and evaluate projects holistically to make short-term and long-term decisions with costs and benefits in mind. While there are no sustainability-specific goals for this topic area, a number of strategies will be pursued – these will support the successful implementation of other sustainability goals in this Plan.

Priority 1

Continue to work with O&M to maintain an energy efficiency fund from ETO behavior-based incentives for DAS to re-invest in staff engagement initiatives such as energy challenges.

Pursue creating a dedicated sustainability program budget (consultant help, Sustainability Board support, awards and materials for program, etc.).

Actively explore grants, cooperative agreements, partnerships and other sources to leverage DAS resources for the sustainability program.

Explore a fund to allow revenue from clean fuel credits to be used to fund more ZEV purchases.

Establish a process for Planning and Construction project managers to document resource cost savings from projects (e.g., ETO incentives, energy saved in the design process, waste reduction benefits, etc.)

Priority 2

Develop a triple bottom line decision support tool to consider people, planet and profit in major decisions.

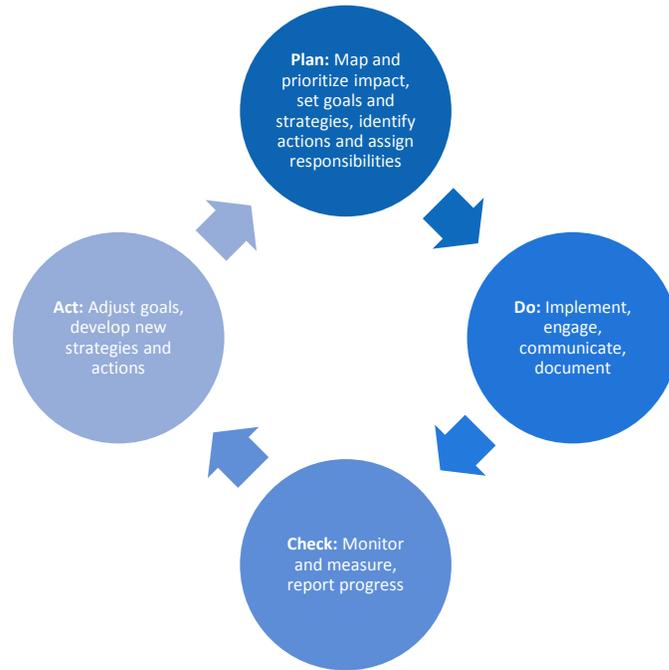
Explore opportunities to partner with other agencies on large-scale sustainability projects that result in cost efficiencies and support the DAS Sustainability Plan.

Continue to apply and expand life-cycle costing to major projects and decisions to account for full project costs and benefits. Deploy new life-cycle analysis tools for energy, water and carbon developed by DAS and ODOE for EO 17-20 and EO 17-21.



Sustaining the sustainability – management system

It’s not enough to just prepare a Sustainability Plan – it must be implemented and actively managed with progress measurement, checking that actions are being completed, monitoring progress toward goals with metrics and adapting to changing conditions as needed. This is “sustaining” the sustainability” through a constant plan-do-check-act process.



The DAS Sustainability Program will integrate this Plan into its overall work program and actively lead its implementation. It will develop an implementation “workbook” to track progress, metrics, accountability and reporting (to the DAS Executive Team, Board and agency staff). Below are highlights of key implementation milestones.

What	Who	When
Track implementation of strategies and progress toward goals	DAS sustainability staff to coordinate with various divisions to collect data and report progress on strategies.	Quarterly
Track performance metrics	DAS sustainability to collect data in coordination with the O&M Energy Analyst.	Quarterly
Compile sustainability progress report, report to Executive Team and share with staff on DASH	DAS sustainability staff	Annually
Meeting of Steering Committee to review progress and adjust strategies/goals as needed	DAS Sustainability Plan Steering Committee	Annually
Revise Overall Sustainability Plan	DAS sustainability staff	Every 5 years
Staff engagement: communication, training, education, action	DAS sustainability staff	Ongoing



Appendices: Phase 1 report

DAS Sustainability Plan 2018 Update

Phase 1 Report: Baseline Summary,
Benchmarking Results and Staff Input



DAS DEPARTMENT OF
ADMINISTRATIVE
SERVICES
SUSTAINABILITY PROGRAM

June 2018

Table of contents

A.	Introduction	3
	Gathering Ideas.....	4
	Sustainability Survey Results	4
B.	Water Resources.....	4
	Where we are and how we compare.....	5
	Where we’re going: ideas for goals and actions.....	6
	Goals	6
	Potential Actions.....	6
C.	Energy Resources.....	7
	Where we are and how we compare.....	7
	Where we’re going: ideas for goals and actions.....	11
	Goals	11
	Actions	11
D.	Material Flows.....	12
	Where we are: Procurement	12
	Where we are and how we compare: Waste/Recycling.....	14
	*Only includes buildings where recycling is weighed by Garten or others.....	15
	Where we’re going: ideas for goals and actions.....	16
	Goals	16
	Actions	16
E.	Fleet/Transportation.....	17
	Where we are and how we compare.....	18
	Where we’re going: ideas for goals and actions.....	19
	Goals	19
	Actions	19
F.	Greenhouse Gas Emissions	20
	Where we are and how we compare.....	20
	Where we’re going: ideas for goals and actions.....	21
	Goals	21
	Actions	21
G.	Green Building and Grounds.....	21
	Goals	21
	Actions	22

H. Support Staff and Community 22
 Where we are and how we compare..... 22
 Actions: Employee Support..... 23
 Actions: Equity, Diversity and Inclusion..... 23
 Actions: Education, Communication and Engagement..... 24
I. Economic/Fiscal and Other Ideas..... 24
J. Appendix A: Brief Summary of Survey Results..... 25

A. Introduction

The Oregon Sustainability Act (ORS 184.421) defines "sustainability" as using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives.



The DAS Sustainability Program is focused on the effects of DAS internal operations and our agency's delivery of external services and statewide policy across the enterprise. Primarily, these efforts focus on the sustainable management of the state's real and personal property assets, technology and the procurement of goods used daily by agencies as they deliver services to Oregonians.

On December 31, 2016, DAS completed an update to its sustainability plan for the period 2017-2023. This document was identified as a framework, with specific strategies and tactics DAS will employ over the next five years to increase the sustainability of state government assets and actions. It was intended to be built upon to create a more comprehensive sustainability plan for the agency in 2017-2018.

This document is Phase 1 of the DAS Sustainability Plan update, providing data, public input and comparative analyses to inform development of revised goals and actions. The DAS sustainability Plan is being updated in four phases:

- Phase 1: Baseline, Benchmarking, Opportunities and Challenges
- Phase 2: Vision/Mission, Goals (Steering Committee Workshop 1)
- Phase 3: Strategies and Implementation (Steering Committee Workshop 2)
- Phase 4: Documentation, Sustaining the Sustainability (Ongoing)

This Plan update is being developed in the context of several DAS sustainability initiatives already underway. Concurrent/ongoing activities will be integrated into the sustainability planning process to avoid duplication and integrate lessons learned. Such activities include but are not limited to:

- DAS participation in Strategic Energy Management (Energy Trust of Oregon)
- Participation in implementation of new Executive Orders (EOs) on energy and climate (EO 17-20 and 17-21)
- Compliance with and revision of sustainability-related policies, such as the DAS Energy Management Policy and statewide Resource Conservation Policy
- Strategic engagement of buildings/green teams, including continuing to encourage Earthwise certification through Marion County
- Other opportunities as they arise or may be proposed, such as those by the Oregon Sustainability Board/Interagency Sustainability Coordinators Network

Each of the following sections lays the groundwork for the Plan update by:

- Identifying where DAS is now (our current use, impact or footprint) with respect to environment/resource conservation, staff and community support and, to a lesser extent, how costs and benefits are integrated into sustainability decision-making.
- Comparing DAS' sustainability performance to peers/other organizations where data are available.
- Identifying current goals in policy, statute or the previous DAS Sustainability Plan that serve as a starting point for new goal setting.
- Identifying potential actions to support goals; these have been drawn from extensive staff input, best practice and the previous version of the Sustainability Plan.

Gathering ideas

The ideas in the actions listed for each resource were drawn from extensive input from DAS staff, including the following:

- 12 focus groups the DAS Sustainability Program held over the past several months with various divisions and functional areas to understand sustainability opportunities and challenges.
- Three Earth Month pop-ups – at Printing & Distribution, DAS East and Executive – which drew over 120 staff members to learn about DAS sustainability efforts, get tips on recycling and share ideas.
- Ideas submitted through the DAS Sustainability Team, and on the DASH web site.

Sustainability survey results

Several DAS staff participated in an enterprise-wide sustainability survey project developed by the Oregon Sustainability Board to gauge priorities, opportunities and challenges with respect to sustainability. In October 2017, Phase 1 of the survey went to DAS leadership. In February 2018, Phase 2 of the survey was administered to a random sampling of 20 percent of DAS staff. Appendix A contains brief summaries of DAS-specific responses for both survey phases.

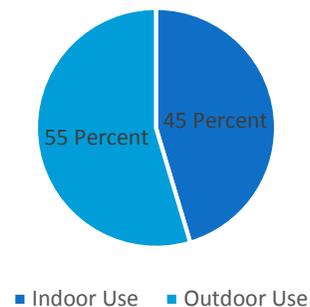
Overall, it is estimated that over 250 DAS staff members contributed ideas through both the survey and other outreach efforts.

B. Water resources

DAS uses water in a variety of ways to carry out its operations and support its programs. Water is not only vital to building operations, it is also used to maintain landscaping around buildings and on the Capital Mall grounds, to wash vehicles and to operate heating and cooling equipment.

Managing water efficiently is a high priority for Governor Brown, as is reflected in Executive Order 15-09, which directs DAS, among other agencies, to reduce non-essential water use 15 percent by 2020 over a 2014 Water Year (Oct 1-Sep 30)

Figure 1. DAS water use breakdown



baseline. Observed and anticipated further changes in Oregon’s climate also increase the likelihood of less winter snowpack and hotter and drier summers. This, along with continued population growth, is likely to put further strain on our state’s water resources.

Where we are and how we compare

DAS tracks water use through monthly invoices for municipal water, as well as meters for its three wells used to irrigate grounds in Salem. About 55 percent of the agency’s total water use is for outdoor use, while 45 percent is used indoors. Overall, DAS water use in Water Year 2017 fell 9.2 percent from the 2014 baseline.

Water trends differed significantly between indoor and outdoor use. In 2017, DAS recorded a 22 percent reduction in outdoor water use compared to a 2014 baseline. During this same reporting period, however, indoor water use increased 0.8 percent. This may be due to increased density of staff in buildings.

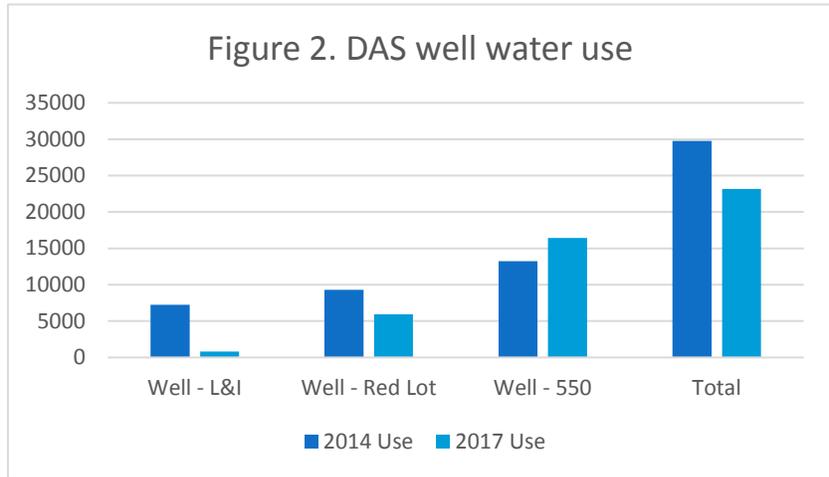
Water use trends per building varied widely, with the Pendleton State Office Building (SOB) recording the largest increase, followed by the Department of Environmental Quality (DEQ) Health Lab. The Human Services Building, DEQ Health Lab and Pendleton SOB were the largest users of water.

Table 1. DAS Buildings with water use increases from 2014 to 2017.

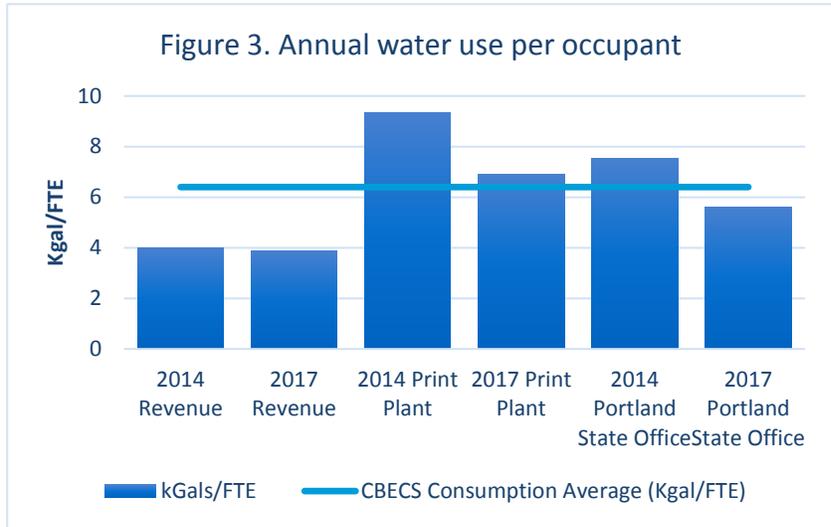
Building	2014 Water Year	2017 Water Year	Change (kgal)	Percent Change
550 Capitol	42.8	535.1	492.3	1150%*
Pendleton SOB	2379.3	4655.5	1725.6	96%
Real Estate	73.6	118.7	45.1	61%
DEQ Health Lab	3010.9	4649.8	1638.9	54%
State Data Center	1320.4	1714	393.6	30%
Public Services	1939.6	2492.4	554.8	29%
State Library	181.2	231.9	50.7	28%
Portland Crime Laboratory	1159.4	1421.5	262.1	23%
Justice	299.3	357.1	57.8	19%
Maintenance Shop	141.9	168.7	26.8	19%
Human Services	4404.1	4548.7	144.6	3%

*Building was vacant in 2014.

DAS well water use for outdoor irrigation declined 22 percent in 2017 compared to the 2014 baseline. Water use dropped the most for the Labor and Industries Well, and slightly for the Red Lot Well. Water use from the 550 Well increased.



Indoor water use efficiency, particularly in offices, can also be examined by evaluating water used per person. The U.S. Energy Information Agency periodically conducts the nationwide Commercial Buildings Energy Consumption Survey (CBECS), which also includes water use². The last survey, completed in 2012, showed a nationwide average of 6,000 gallons per person per year. In sampling a few DAS buildings for comparison (Revenue, Print Plant and Portland State Office Building), water use efficiency was both below and above the CBECS average.



Where we’re going: ideas for goals and actions

Goals

The following are existing water-related goals to consider for DAS water use:

Goal	Source
Reduce non-essential water use by 15 percent by 2020 over the 2014 baseline.	Executive Order 15-09
Meet and exceed 20 percent reduction goals from 2015 levels for DAS facilities.	DAS Sustainability Plan 2017-2023

Potential Actions

Indoor water use

- Compile an inventory of water fixtures and male/female occupants in DAS buildings to document potential water savings and costs/benefits of retrofits.
- Look for cost-effective water retrofits even in buildings that aren’t being remodeled (flushometer replacements, aerators).
- Conduct more routine maintenance on faucets – they often stick open and waste water.
- Install instant on-off faucets in bathrooms.
- Explore harvesting rainwater on buildings to cut down on potable water use where it’s not needed (irrigation, toilets).
- Explore water efficiency opportunities in boiler and chiller system selection and maintenance.

² <https://www.eia.gov/consumption/commercial/>

Outdoor water use

- Monitor irrigation sprinklers more frequently and adjust as needed.
- Evaluate use of surfactants as a water conservation measure in landscaping.
- Investigate options for assessing and updating the DAS irrigation system.
- Review watering requirements in service level agreements and incorporate ability to “let the grass go brown”
- Create/evaluate plant selection guidelines and identify native and low water use plants and grasses as well as pollinators.



A rain garden in Portland.

Other

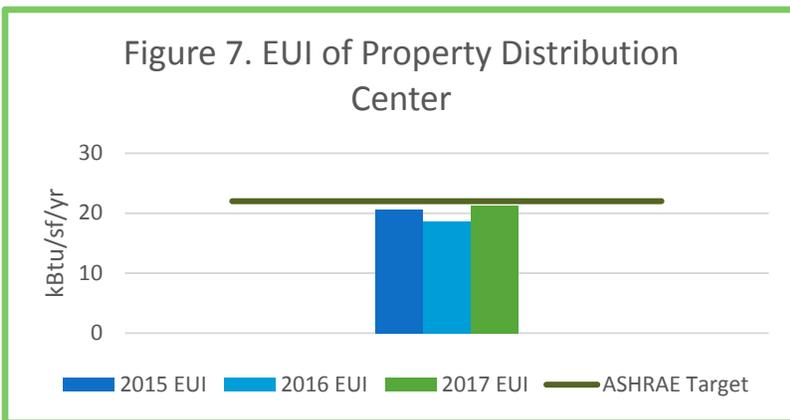
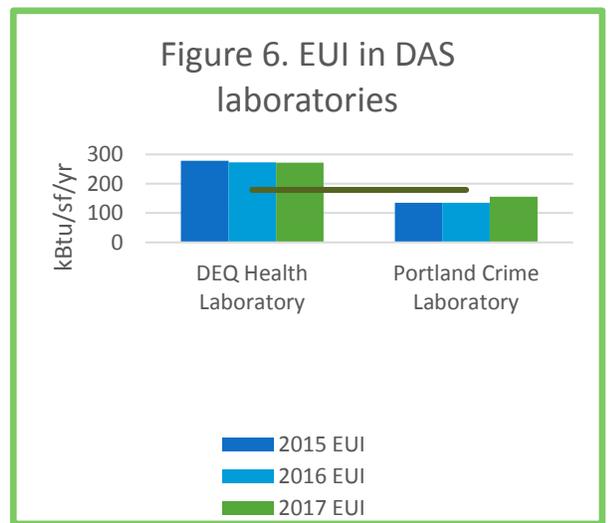
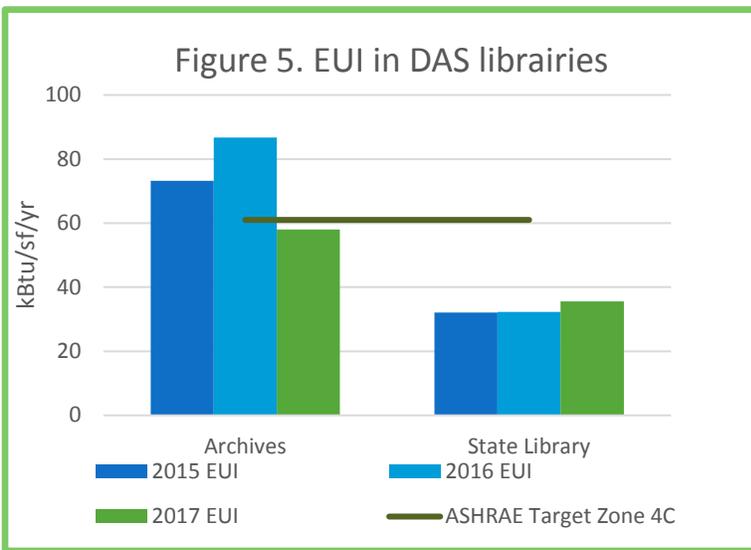
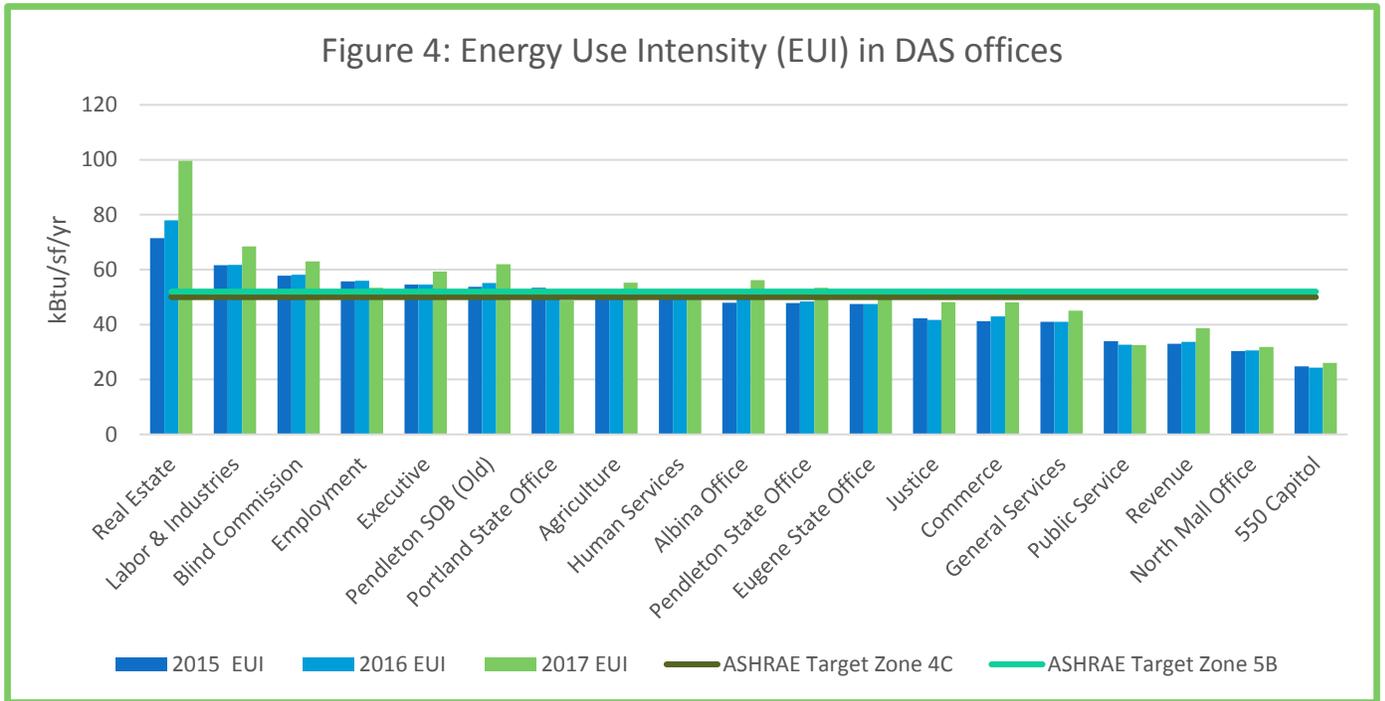
- Evaluate opportunities for “rain gardens” around DAS facilities to infiltrate and treat stormwater runoff.

C. Energy resources

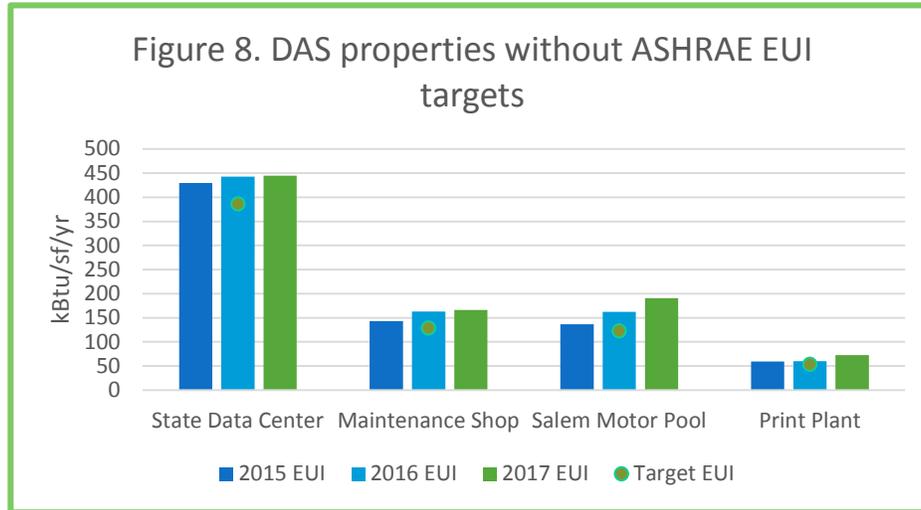
In 2016 DAS spent over \$3.3 million to light, cool and heat its buildings and support other operations. Energy is vital to the agency’s operations, and finding ways to conserve and use energy efficiently can also lead to cost savings. In the U.S., building energy use also accounts for over 40 percent of greenhouse emissions, so saving energy helps save money as well as lower DAS’ climate impacts.

Where we are and how we compare

The Oregon Department of Energy (ODOE) issues annual reports to agencies on energy use in buildings over 5,000 square feet. These reports, which are based on data submitted by DAS and other agencies, also track the energy use intensity (EUI) of buildings, or how much energy is used on a per square foot basis. Data on EUI by building is then compared to benchmarks in ASHRAE 100, an industry-developed standard for building performance broken into several categories by building type. Climate types are also included in the benchmarks, with Western Oregon being in Zone 4C, and Eastern Oregon in 5B. Buildings that fall below the benchmark are considered high performance, efficient buildings.



In addition to DAS buildings with EUI targets, four buildings do not have specific targets because of their unique nature in operations. Of these, the State Data Center is the most intense in its energy use, with the Print Plant the least intense on an EUI basis.

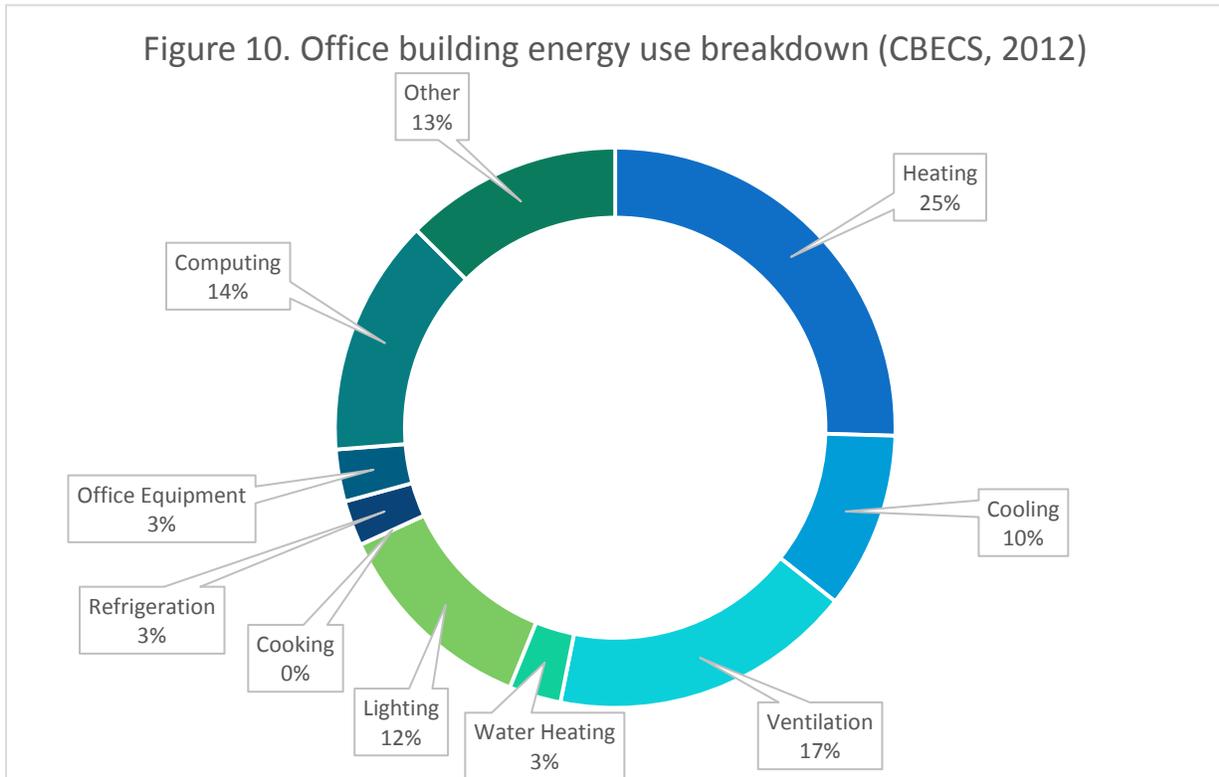
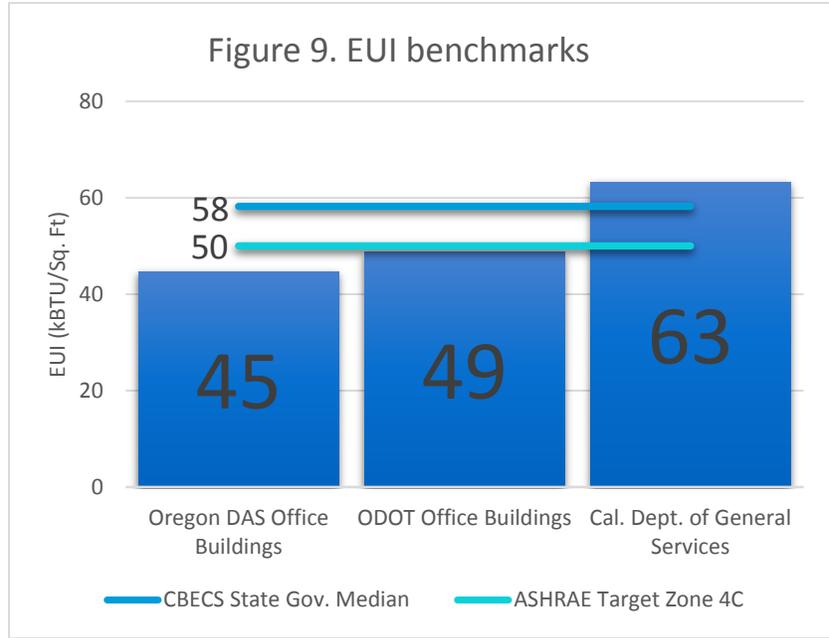


A number of improvements are already planned in DAS buildings that will work to lower EUI and make building operations more energy efficient. Table 2 shows projected annual energy cost savings if the EUI in these buildings were brought down to their EUI targets.

Table 2. EUI and energy savings for select DAS buildings.

Building	2016 EUI	EUI Target	Percent Gap from Target	Annual Energy Savings from Meeting Target Compared to 2016	2016 Cost of Energy
Real Estate	78	50	36%	\$8,746.00	\$24,294.22
DEQ Health Laboratory	272.6	179	34%	\$112,010.00	\$329,440.14
Archives	86.7	61	30%	\$33,371.00	\$111,235.71
Labor & Industries	61.7	50	19%	\$41,677.00	\$219,351.73
Blind Commission	58.1	50	14%	\$6,223.00	\$44,447.34
Employment	56	50	11%	\$23,347.00	\$212,246.69
Executive	54.5	50	8%	\$7,086.00	\$88,581.10
Pendleton SOB (Old)	55.1	52	6%	\$1,322.00	\$22,033.04
Portland State Office	51.8	50	3%	\$9,210.00	\$307,000.56
Agriculture	51.4	50	3%	\$3,377.00	\$112,566.45
Human Services	50.7	50	1%	\$2,847.00	\$284,693.46
TOTAL				\$249,216.00	\$1,755,890.44

When comparing DAS buildings to some of its “peer” organizations as well as to the CBECS database, DAS office buildings perform fairly well. According to the CBECS, on average heating is the largest energy use in buildings, followed by ventilation. Cooling, lighting and computer use are also notable uses of energy.



Where we're going: ideas for goals and actions

Goals

Goal	Source
Achieve ASHRAE 100 Standard targets for energy efficiency in all DAS buildings by 2022.	Executive Order 17-20, DAS Energy Management Policy
Reduce energy use 10 percent in buildings without an ASHRAE 100 standard.	Executive Order 17-20, DAS Energy Management Policy
Reduce energy use in BTUs by 20 percent over a 2012 baseline by 2025	DAS Sustainability Plan 2017-2023

Actions

(Note: DAS O&M has developed an [Energy Action Plan](#) through the Energy Trust of Oregon's Strategic Energy Management Program. The Action Plan contains several actions for 2017 and beyond. The actions below are in addition to what's already in the Action Plan.)

HVAC and Lighting

- Maintain a regular and recurring building retro-commissioning or "tune-up" program to ensure building systems are operating efficiently and to specifications.

Plug Loads

- Conduct periodic audits of work stations for those who leave on desk lamps and other equipment.
- Publish guidelines for staff on how to save energy at work stations.
- Research and deploy smart plug strips where appropriate to power off equipment in work spaces.

Information Technology (some may apply to DAS, others to OSCIO)

- Centralize control of printers/copiers to manage power, or create consistent power efficiency standards for them.
- Mandate all computer resources be specified with solid state hard drives.
- Phase out individual server racks in buildings and optimize underutilized servers.
- Pick personal computers by function and use case to optimize energy efficiency.
- Create a 10 year strategic plan for the state data center (equipment, capacity, etc.).
- Include sustainability and power management goals for the DAS IT Windows 10 Enterprise update to centrally manage PC power.

Other

- Set back hot water temperatures.
- Encourage/design in more natural daylight to reduce lighting needs in buildings.

- Conduct a feasibility study for renewable energy opportunities on DAS land and parking structures, as well as buildings where structurally possible.
- Develop a sub-metering plan for electric loads to more granularly evaluate energy use. Identify priority areas/loads and tenant spaces for sub-metering.
- Train project managers on the integration of energy considerations into projects and decisions per the DAS Energy Management Policy. Provide EAM and PCM checklists for integrating energy considerations where relevant.
- Engage employees and tenants through messaging, “power down” campaigns, energy report cards, signage/messaging, meetings, energy challenges and other engagement tools.
- Ensure agencies are incorporating sustainable, energy efficient systems in project requests they manage but DAS approves. DAS’ Construction Inspector position will review plans and construction of these projects to ensure compliance.

D. Material flows

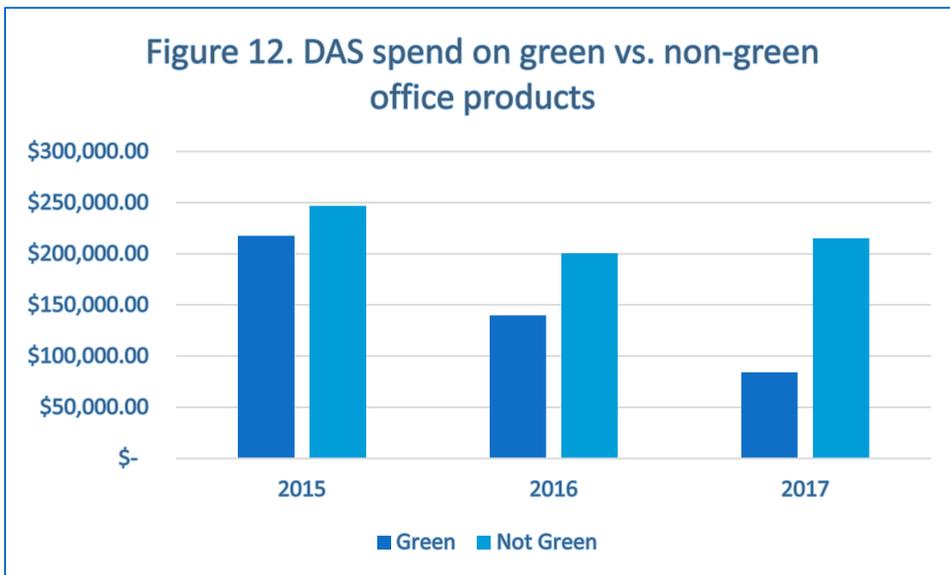
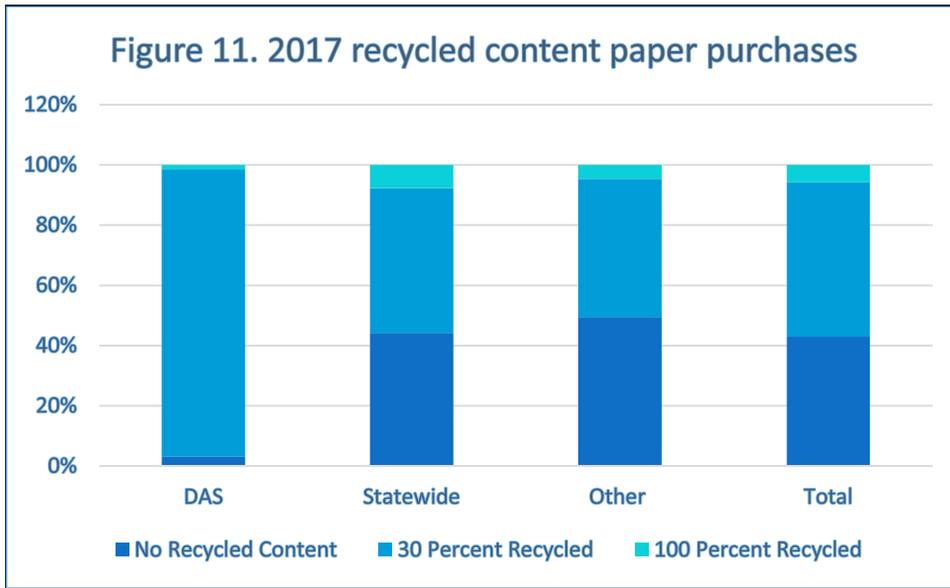
Like all organizations, DAS relies on a wide range of materials for its operations. These include everything from office supplies and paper to furniture, vehicles, electronics, uniforms and more. With analogies to things like vehicles (fuel in, exhaust out) or organisms (food in, waste out), DAS can holistically look at its “material flows” – or the goods and services it consumes to operate, and the waste produced in the process of doing so.

Where we are: Procurement

With hundreds of price agreements and large quantities of goods being procured by DAS – as well as by other organizations through DAS price agreements – procurement represents a significant sustainability opportunity. DAS currently has two “green” price agreements, one for office supplies and one for janitorial supplies. All agencies must use the green janitorial supply price agreement, while the green office supply price agreement is optional. A third price agreement for sustainability in furnishings is in development. EO 17-20 also calls on DAS, in collaboration with ODOE, to develop procurement standards for energy and water efficient building equipment.

Table 3. 2017 Spend on paper by recycled content.

Recycled Content Paper	DAS	Statewide	Other	Grand Total
0%	\$ 3,868.28	\$ 257,848.23	\$ 298,640.85	\$ 560,357.36
30%	\$ 113,524.26	\$ 280,328.35	\$ 276,253.88	\$ 670,106.50
100%	\$ 1,886.59	\$ 45,096.63	\$ 28,371.75	\$ 75,354.97
Total	\$ 119,279.14	\$ 583,273.21	\$ 603,266.49	\$ 1,305,818.83



Where we are and how we compare:
Waste/Recycling

DAS produces a wide range of materials at the “back end” of the material flow cycle. DAS recycles a number of materials including paper, cardboard, some plastics, electronics, batteries and Styrofoam. Deposit bottles and cans are also separated and collected. Other materials are diverted from the waste stream through State Surplus, donations and other means. DAS spent over \$143,000 to have waste hauled offsite in 2017.

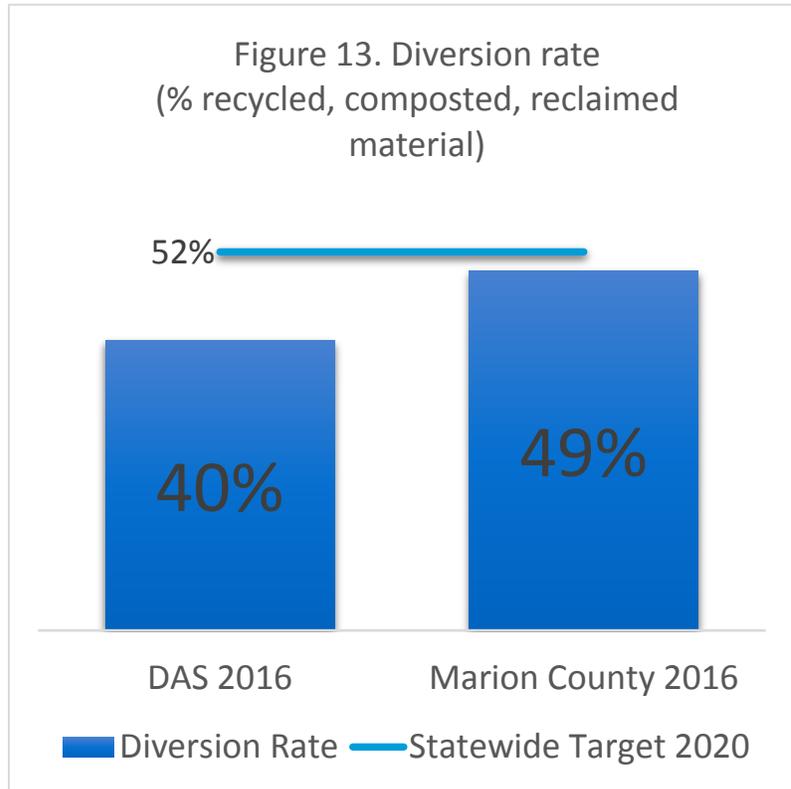
DAS diverted an estimated 40 percent of its waste from landfill in 2017 (DAS’ Diversion Rate was

approximately 32 percent in General Services and Executive). This is the first attempt to estimate DAS’ diversion rate and includes tenant-occupied buildings. This estimation included review of monthly invoices from waste haulers and estimating of waste weight based on bin size, pickup frequency and weight calculators provided by the U.S. Environmental Protection Agency³. It was assumed that all waste bins are 100 percent full at pickup, based on input from DAS custodial staff. Weights for all recyclables were provided by Garten Services.

The DAS estimated diversion rate was compared to Marion County, Oregon’s rate. Generally, diversion rates in the Portland Metro area are higher. Analysis shows that DAS is diverting less waste than Marion County as a whole. It is also below a 2020 goal of 52 percent diversion for the state as established in Senate Bill 263.

Further analysis would allow this diversion rate to be more fine-tuned. For example, this does not include cardboard picked up by Republic in Salem, nor does it include miscellaneous waste such as construction and demolition debris. Invoices for some buildings (e.g., Eugene SOB) do not include recycling. Finally, the contract with Garten only includes weighing recycling from 12 buildings.

Diversion rate estimates vary widely by building. This could be due to the generation of more paper, which is then ultimately recycled. It could also be a factor of staff behavior, location and number of recycling facilities, or other factors not identified at this time.



³ https://www.epa.gov/sites/production/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf

Table 4. Estimated Diversion Rate for DAS Buildings*

DAS Building	Recycle	Solid Waste	Diversion Rate
Employment	87,152	31,200	74%
Revenue	233,658	117,974	66%
Labor & Industries	104,391	67,472	61%
PERS	75,456	93,600	45%
Justice Building	109,554	156,000	41%
North Mall Office Building	38,669	55,821	41%
Albina	62,880	93,600	40%
Portland State Office Building	130,397	205,533	40%
Central Point	9,432	15,600	38%
Executive Building (DAS occupied)	37,981	78,000	33%
General Services (DAS occupied)	28,559	62,400	31%
Commerce	12,483	28,761	30%
Blind Commission	25,152	62,400	29%
State Data Center	20,683	62,400	25%
Agriculture	38,166	120,372	24%
Portland Crime Laboratory	49,321	187,200	21%
Archives	5,812	32,356	15%
Public Utility	8,987	143,389	6%
Real Estate	1,896	31,200	6%

*Only includes buildings where recycling is weighed by Garten or others. DAS is responsible for waste/recycling services in tenant-occupied buildings.

Surplus is broken out separately from this list due to its unique functions and high diversion rate.

	Recycle	Solid Waste	Diversion Rate
Property Distribution Center (DAS)	267,569	31,200	90%

Where we're going: ideas for goals and actions

Goals

Goal	Source
By 2023, increase statewide purchase of recycled-content copier paper and statewide purchase of current green office products to 50% of total volume.	DAS Sustainability Plan 2017-2023
Achieve a statewide 52 percent diversion rate by 2020, and 55 percent by 2025.	Senate Bill 263
Achieve a 64 percent diversion rate in Marion County and Portland Metro areas by 2020.	Senate Bill 263

Actions

Procurement

- Place and receive more procurement orders online.
- Integrate language on demonstrating commitment to sustainability into RFPs and sustainability into contract administration training.
- Explore embodied carbon in purchased materials in key procurement areas with the highest carbon footprint.
- Incorporate sustainable purchasing principles into statewide trainings. A module on sustainable purchasing has been incorporated into the DAS introductory course, "Principles of Oregon Public Procurement" course, which is open to state and local government trainees.
- Provide enhanced communication for those using the procurement portals regarding the benefits of more sustainable products.
- Monitor agency buys on agreements that offer choice of green or non-green products and work with agencies to focus on areas for improvement.
- Examine vendor ordering interfaces to offer green and sustainable items first.
- Continue monitoring green janitorial supply and office supply agreements and see if even more products can be included. Integrate new sustainable furniture price agreement into trainings.
- Build partnership with new DEQ Materials staff. Support other programs' sustainable projects, such as green fleet.
- Explore expansion of QRFs to meet more services and supply needs. This would potentially assist in increasing employment of people with disabilities, which have a historically high unemployment rate.

Waste Reduction

- Move to electronic RFP process to reduce paper.
- Create a materials exchange for employees.

- Reinforce the process of checking surplus first for any needed items before making a new purchase. Incorporate into procurement practices and guidance.
- Create a paper use “budget” for staff that limits how much they can print in a day/month/year. Track paper use by functional area/group printer and have contests on paper reduction.
- Use more electronic signatures.
- Eliminate paper agendas and use technology instead.
- Eliminate plastic stir straws.
- Push more print requests to P&D to cut printing costs and print more efficiently.
- Eliminate use of paper/plastic dishes in break rooms and for staff events.
- Create a community office supply storage for each building to share/avoid unnecessary purchases.
- Collaborate with P&D to create more online forms.

Recycling

- Provide more attractive recycling collection bins that can be designed into work areas.
- Track construction and demolition waste diversion on construction projects. Create diversion goals for projects over a certain size and plans for waste (salvage, recycle, etc.)
- Use deposit cans and bottles for charitable fund drives
- Collaborate with other agencies to encourage plastics recycling companies to locate in Oregon.
- Set up recycling at building entrances and exits.
- Put glass, electronics and battery recycling collection bins on each floor.
- Set up Styrofoam recycling stations
- Upcycle plastic bags and egg cartons
- Use recycled coffee grounds as fertilizer

Other

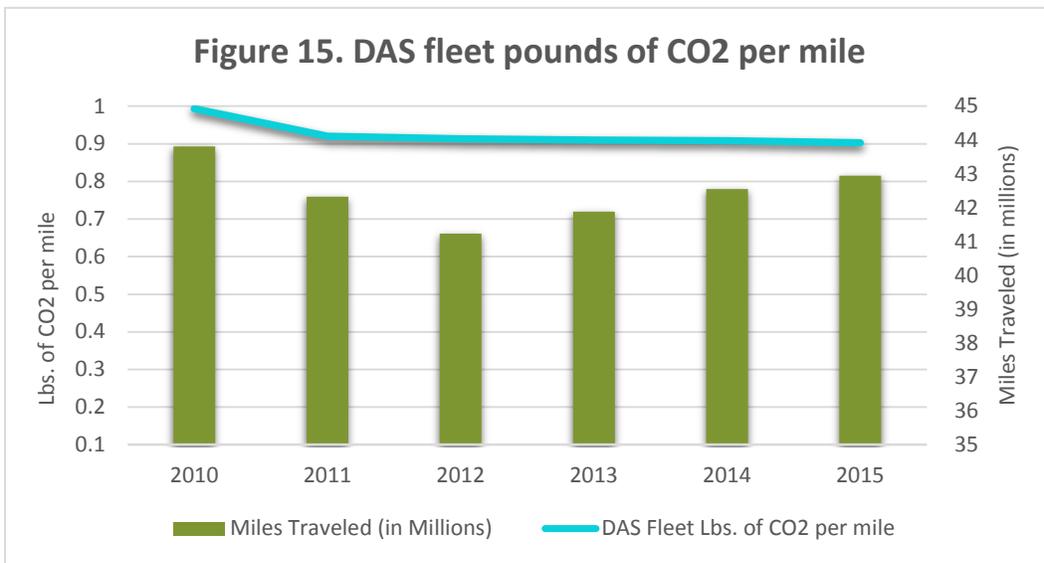
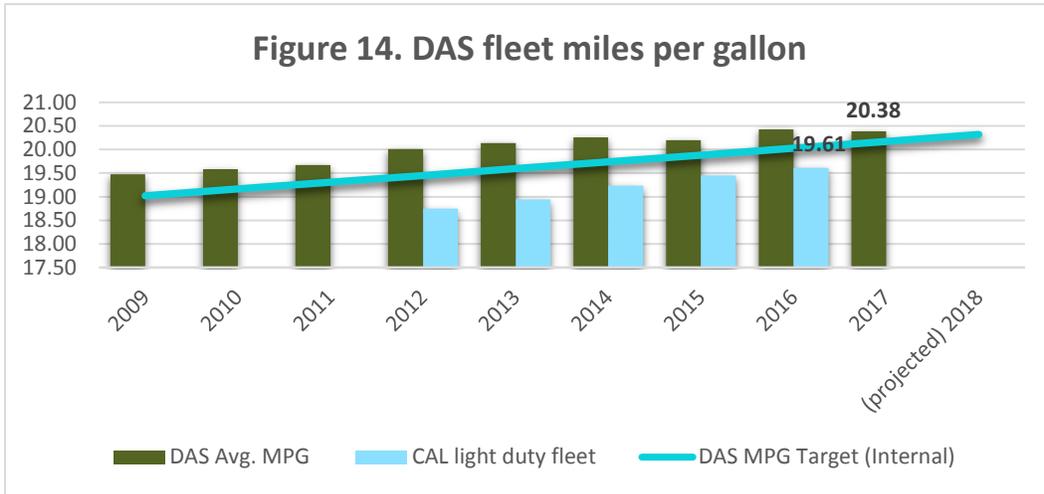
- Conduct a waste audit of DAS waste streams to determine composition and opportunities to increase diversion.
- Explore opportunities to weigh DAS waste as well as recycling to further refine diversion rate data.
- Set construction and demolition diversion rate goals for DAS construction/renovation projects and track outcomes. Drywall, metal, wood and other C&D materials can be recycled or salvaged.
- Make composting available in DAS break rooms. Explore a pilot project using lessons learned from PSOB composting efforts.
- Compost lawn and tree clippings from landscaping operations.

E. Fleet/transportation

The Fleet & Parking Services program manages 4,100 DAS-owned vehicles, provides policy oversight to over 3,000 vehicles owned by other agencies and manages 4,500 parking spaces in the Salem capitol mall, Portland and Eugene. Fleet & Parking Services rents vehicles on a daily basis and long-term to over 100 state and local agencies and promotes alternative modes of transportation for state employees. In 2017, state staff logged over 40 million fleet miles traveled.

Where we are and how we compare

The state fleet has been getting progressively more efficient over time in terms of miles per gallon. Compared to the State of California’s light duty fleet, the state fleet is more efficient.



The transportation sector in Oregon is the largest contributor to greenhouse gas emissions. The DAS fleet has been progressively improving over time with respect to carbon dioxide equivalent pounds per mile. In 2017, the fleet included approximately 350 hybrid vehicles, along with plug-in electric, compressed natural gas and flex-fuel vehicles.

Where we're going: ideas for goals and actions

Goals

Goal	Source
Increase fuel efficiency by 15 percent over a 2007 baseline by 2020.	DAS Sustainability Plan 2017-2023
Triple the number of EVs in Oregon by 2020.	Executive Order 17-21

Actions

- Require vehicles to use auto shutoff/start to save fuel and emissions and reduce idling.
- Have more virtual meetings to cut down on unnecessary travel.
- Create/provide a carpooling web site or support apps that encourage carpooling.
- Consolidate agency and Printing and Distribution delivery routes and remove duplication.
- Continue supporting incentivized rates for rental of high efficiency cars.
- Expand covered/secure storage for bikes at DAS buildings and explore participating in the City of Salem's bike share program.
- Continue to examine ROI on high efficiency small cylinder engines versus alt fuel options when replacing vehicles. Smaller conventional gasoline engines may yield more GHG reductions than larger flex fuel engines.
- Implement policy change to gain more efficient use of hybrids. Agencies that do not meet minimum use requirements for hybrids will not be able to add more vehicles; only replace existing ones.
- Revisit feasibility of multiple car sharing sites around the Capital Mall for state agencies to use, which would reduce the number of low use vehicles. This would also free up parking spaces for employee use.

F. Greenhouse gas emissions

Climate change presents a significant threat to Oregon citizens’ livelihoods, as well as to economic security, environment, health and wellbeing. Governor Brown has made climate change a priority issue – both reducing pollution that contributes to climate change, as well as adapting to changes already taking place and projected to occur.

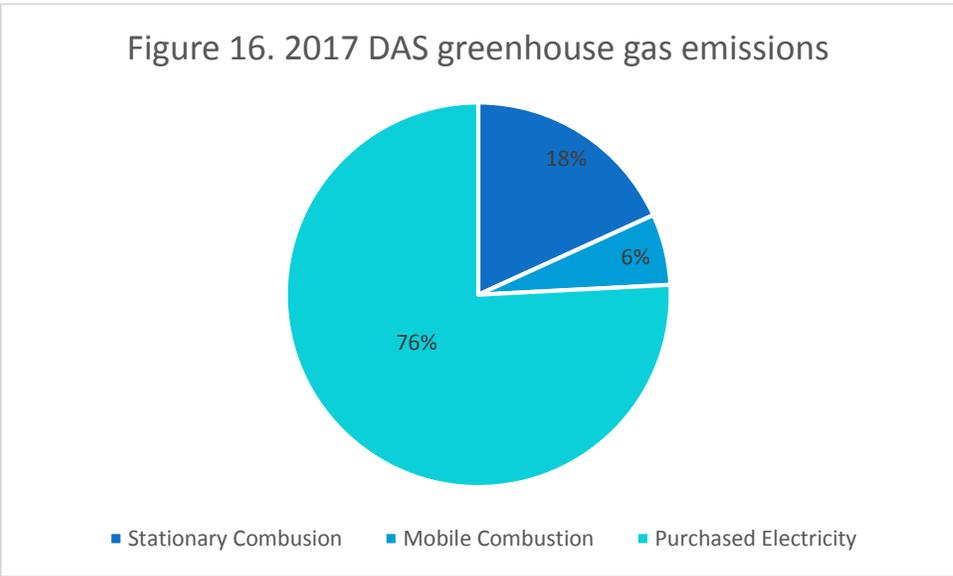
Greenhouse gas (GHG) reduction is a cross-cutting issue involving building energy efficiency and conservation, fleets and transportation, stationary fuel sources (such as diesel for equipment and generators), refrigerants, solid waste and others. The State of Oregon’s goal is to reduce GHGs 10 percent below 1990 levels by 2020 and at least 75 percent below 1990 levels by 2050 (ORS 468A.20). Governor Brown has also committed Oregon to achieving the targets of the Paris Climate Agreement, which are reducing GHG emissions 26 to 28 percent below 2005 levels by 2025.

Where we are and how we compare

Greenhouse gas (GHG) emissions were calculated using The Climate Registry’s Climate Registry Information System (CRIS). Data were uploaded on electricity and natural gas use in buildings, state fleet use, refrigerants and other stationary fuel sources. In 2017 DAS operations resulted in the emission of approximately 15,881 tons of GHG emissions. Emissions from purchased electricity were by far the largest share of emissions, followed by stationary combustion (natural gas, diesel, landscaping fuel, etc.) and fleet (DAS use of state fleet vehicles).

This equates to approximately 18.6 tons of GHGs per DAS employee in 2017. As a comparison, in 2015 Oregon State University emitted approximately 12.5 tons per student⁴.

Emissions from previous years will be calculated to help track trends. Data prior to 2012 is not complete or considered reliable.



⁴ http://fa.oregonstate.edu/sites/fa.oregonstate.edu/files/sustainability/docs/fy15_ghg_report.pdf

Where we’re going: ideas for goals and actions

Goals

Goal	Source
Meet international Paris Agreement targets to reduce GHG emissions by 26 to 28 percent below 2005 levels by 2025.	Governor’s Commitment, Embodied in EO 17-20
By 2025, reduce GHG emissions by 20 percent from 2012 baseline.	DAS Sustainability Plan 2017-2023

Actions

Actions related to energy and transportation will also contribute to GHG reductions. Other potential actions include:

- Partner with Department of Corrections (DOC) for a “Poop to Power” project that captures methane from DOC wastewater and converts it to natural gas for state buildings.
- Evaluate opportunities for carbon sequestration through tree plantings.
- Develop guidelines and standards for carbon neutral ready buildings by 2022, using the Resilience Building as a model, per EO 17-20.
- Partner with DEQ to include an analysis of the carbon content of building materials per EO 17-20.
- Conduct a consumption-based GHG inventory for DAS and use to inform lower-carbon options for procurement of materials.
- Purchase carbon offsets only after other efficiency and conservation projects are considered.
- Create an adaptation/resilience plan for DAS to proactively respond to a changing climate by evaluating potential risks to DAS assets and potential responses.

G. Green building and grounds

Like GHGs, green buildings and grounds is a cross cutting topic encompassing many of the resource conservation activities previously discussed. Green buildings and grounds can also support staff health and wellness by creating healthy and productive places to work. Green buildings have also shown to have premiums in the real estate market as desirable places to work⁵.

Goals

The DAS Statewide Facilities Standards and Guidelines (2004) specified that new state buildings and major renovations were to be designed to meet the point equivalent of the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) Silver certification level (new buildings), or

⁵ <https://www.appraisalinstitute.org/assets/1/7/Green-Building-and-Property-Value.pdf>

Certified level (major renovations). This policy was nullified with the rescinding of EOs 00-07 and 03-03. While the Oregon Department of Energy’s State Energy Efficient Design (SEED) program⁶ sets energy efficiency standards for new construction and major remodels, it does not address other aspects of green building.

Actions

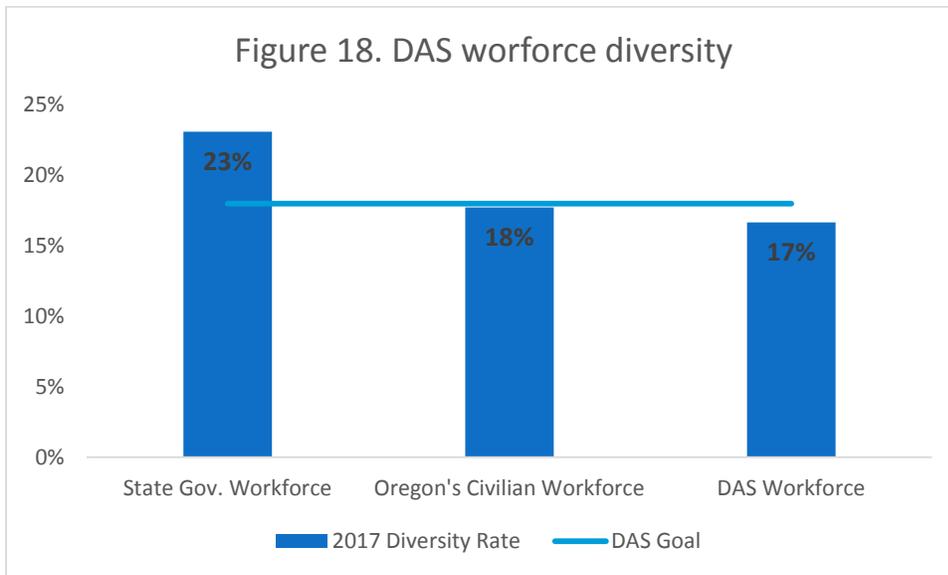
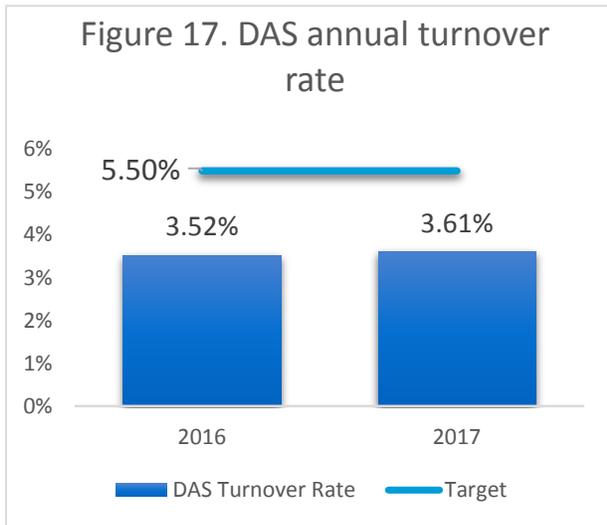
- Create minimum sustainable design standards for new construction and major renovation projects.
- For smaller projects, create a sustainability checklist to identify opportunities and project sustainability goals and consistency with green certification standards. Document outcomes.
- Use the Oregon Resilience Building as a test bed for development of a high-performing, carbon neutral and state-of-the-art building – from owners project requirements and conceptual design through construction and operation.
- Incorporate sustainability into boilerplate DAS construction standards to incorporate the latest green building standards (LEED Version 4). Require contractors to adhere to these standards, or better.
- Ensure construction standards and operations and maintenance standards are working toward common goals.
- Revise sustainable design/finish guidelines to attach to both DAS and private leases. Create versions for larger and smaller projects, as well as for DAS and private leases.
- Create sustainability checklists for RES to use in considering attributes for leased space.
- Request that private landlords share energy and water consumption and recycling data for leased properties.
- Use less/least toxic chemicals in landscape maintenance and create an integrated pest management strategy/plan.
- Pilot a garden project on DAS land for community food production.

H. Support staff and community

Supporting DAS staff and the greater community address the “community” component of the Oregon Sustainability Act. This encompasses a broad range of topics, but it offers an opportunity to evaluate and support those actions that can support staff and ultimately, the “sustainability” of DAS as a thriving, efficient and productive organization for the citizens of Oregon.

⁶ <http://www.oregon.gov/energy/energy-oregon/Pages/SEED-Program-Guidelines.aspx>

Where we are and how we compare



Actions: Employee Support

- Evaluate the benefits and costs of moving employees several times in a building.
- Create succession planning and pathways for agency leadership positions.
- Create guidelines for sustainability in events.
- Create guidance for staff to be able to participate in sustainability activities (paid and unpaid).

Actions: Equity, Diversity and Inclusion

Support and align with the Governor's Office and existing DAS efforts with respect to the following:

- Incorporate recruitment and retention efforts that work toward supporting effective practices.
- Provide training for DAS Managers to incorporate the values of equity and diversity as defined by the Governor and agency leadership.

- Deploy functionality in Workday to evaluate and report workforce metrics and measure progress.
- Incorporate expectations for advancing equity, inclusion and diversity in position descriptions.
- Reward employees for successful efforts in advancing equity, inclusion and diversity.
- Assuring equitable distribution of staff access to mentoring resources and networks.
- Participate in leadership training opportunities that builds expertise around equity, inclusion and diversity.
- Provide meetings, brochures and other materials in a variety of languages and formats.
- Strive for a workforce that reflects the rapidly changing diversity of Oregon.

Actions: Education, Communication and Engagement

- Train staff on sustainability “how tos”.
- Provide a sustainable procurement module on iLearn and require those making purchases to complete it.
- Hold weekly or monthly challenges between building floors or units with tracking boards or tools. Topics could include alternate commuting, home lunch vs. takeout, energy conservation or give up your waste basket for a month.
- Create separate, self-sustaining green teams in each DAS building.
- Create “sustainability days” for staff (e.g. bike to work day with breakfast stations – could be an enterprise wide event’ no waste days).
- Ask employees to commit to initiatives that parallel State of Oregon commitments to environmental protection.

I. Economic/fiscal and other ideas

- Actively explore grants, cooperative agreements, partnerships and other sources to leverage DAS resources.
- Apply life-cycle costing to major projects-decisions to account for full project costs and benefits.
- Set up an energy efficiency fund from ETO incentives for DAS to re-invest in other energy projects.
- Explore a fund to allow revenue from clean fuels credits to be used fund more ZEV purchases.
- Create a dedicated sustainability program budget (consultant help, Sustainability Board support, awards and materials for program, etc.)
- Maintain/obtain Earthwise or equivalent certification for all DAS buildings.
- Explore effective reuse of buildings.
- Explore opportunities to partner with other agencies on large sustainability projects. For example, DOC adults in custody projects that support the DAS Sustainability Plan.
- Develop a triple bottom line decision support tool to consider people, planet and profit in major decisions.
- Develop regular progress with metrics and an annual DAS sustainability report/web portal on progress toward sustainability goals.

J. Appendix A: Brief summary of survey results

Findings for Phase 1: Survey of DAS Leadership

- Survey was distributed to 66 DAS leadership members and senior managers (Level 35 and above); 25 responses were received.
- 42 percent said sustainability was a high strategic priority; 54 percent indicated it was a moderate priority.
- The top three benefits of implementing sustainability were to prepare and adapt to the future, increase efficiency and save money. Fulfilling a sense of obligation was fourth, supporting agency mission fifth.
- The top three most important sustainability issues were energy, waste reduction and procurement. Transportation was fourth, water fifth.
- Leadership rated DAS sustainability performance overall as average to above average. Conserving energy was rated the highest, increasing resiliency to climate change the lowest.
- Staff education and training, dedicated budget and guidance for creating/implementing programs were expressed as the most desired forms of support for sustainability efforts.
- Leadership was moderately or strongly supportive of allowing small amounts of paid staff time for sustainability activities.

Findings for Phase 2: Survey of Staff

- The majority (90 percent) of employees agree DAS should prioritize sustainability both within the agency and in programs directly impacting Oregonians.
- 74 percent of staff believe sustainability should be a high priority for DAS.
- Only 44 percent of DAS employees believe that it currently is a high priority.
- 62 percent of employees expressed they believe it is very important that leadership be involved in sustainability efforts.
- Only 24 percent of staff indicated they are very aware of DAS sustainability efforts and plans. 46 percent of staff are marginally aware or not at all aware of agency sustainability efforts.
- Top rated priorities include conserving energy and water, increasing recycling efforts and reducing waste.
- Biggest perceived benefit of sustainability efforts to DAS is increased efficiency in the use of resources.
- 65 percent of staff indicated interest in helping with sustainability activities; 55 percent indicated a willingness to participate on a volunteer basis, and 80 percent if on paid time.
- The biggest motivators for DAS staff to participate more in agency's sustainability efforts include more knowledge and training, direction from agency leadership and ability to use paid staff time to participate.
- The biggest barriers to practicing sustainability are budget, lack of sustainability staff and lack of knowledge and training.
- Staff indicated that the most effective ways to learn about agency's sustainability efforts would include a state government sustainability-specific newsletter and more sustainability-related trainings.