

Resilience category	Current and projected climate change in Utah		Indicator of resilience	Metric for measurement	Current status	Vulnerability addressed	Responsible department(s)/individual(s)	Notes and relevant documents
	Changes in temperature and seasonality (associated risks: heat waves, megadroughts, dust storms, wildfires, phenology)	Changes in precipitation (associated risks: flooding, megadroughts, reduced snowpack)						
Social Equity & Governance	What are possible impacts of this change?	What are possible impacts of this change?	What indicator could address these impacts and increase resilience?	How could this indicator be measured?	What is the current capacity of the U? What resources and activities exist?	What vulnerabilities does this indicator address?	Who at the U is primarily responsible for this?	
	Climate stress with disproportionate impacts on marginalized groups/individuals; stresses to campus community	Climate stress with disproportionate impacts on marginalized groups/individuals; stress to campus community	<b>1 - Inclusive campus climate</b>	1.1 - STARS PA-6 Assessing Diversity and Equity	<b>STARS PA-6 score: 0.5/1</b>	Economic inequality, ethnic inequality, structural racism, mental health damages.	Office of Budget and Institutional Analysis; STARS data collected by Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-6/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-6/</a>
	Climate stress with disproportionate impacts on marginalized groups/individuals	Climate stress with disproportionate impacts on marginalized groups/individuals	<b>2 - Racial equity</b>	2.1 - Racial equity gap graduation metrics	(data will be available in 2022)	Ethnic inequality, structural racism.	Office of Equity Diversity and Inclusion	
	Climate stress with disproportionate impacts on marginalized groups/individuals	Climate stress with disproportionate impacts on marginalized groups/individuals	<b>3 - Support for marginalized groups</b>	3.1 - STARS PA-7 Support for Underrepresented Groups	<b>STARS PA-7 score: 3.0/3.0</b>	Ethnic inequality, structural racism, mental health damages.	Office of Equity Diversity and Inclusion; STARS data collected by Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-7/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-7/</a>
				3.2 - STARS PA-5 Diversity & Equity Coordination	<b>STARS PA-5 score: 1.67/2.0</b>			<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-5/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-5/</a>
	Climate stress with disproportionate impacts on marginalized groups/individuals	Climate stress with disproportionate impacts on marginalized groups/individuals	<b>4 - Educational access &amp; affordability</b>	4.1 - Cost of U education	Cost of U education: On campus: Res: \$26,642 Non-Res: \$47,352. Off campus: Res: \$28,460 , Non-Res:\$49,170. In-State: \$8,615. Out-of-state: \$27,220. Books and supplies: \$996 On-campus room and board: \$10,684 On-Campus other expenses: \$3,574 Off-Campus (not with family) room and board: \$11,862 Off-Campus (not with family) other expenses: \$3,574 Off-Campus (with family) other expenses: \$3,754.	Economic inequality.	OBIA; STARS data collected by Sustainability Office	
				4.2 - STARS PA-8 Affordability & Access	<b>STARS PA-8 score: 2.94/4</b>			<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-8/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/diversity-affordability/PA-8/</a>
Climate stress with disproportionate impacts on marginalized groups/individuals	Climate stress with disproportionate impacts on marginalized groups/individuals	<b>5 - Inclusive &amp; participatory governance</b>	5.1 - STARS PA-3 Inclusive & Participatory Governance	<b>STARS PA-3 score: 2.13/3.00</b>	Economic inequality, ethnic inequality, structural racism, mental health damages.	STARS data collected by Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/coordination-planning/PA-3/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/coordination-planning/PA-3/</a>	

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Health & Wellness	What are possible impacts of this change?	What are possible impacts of this change?	What indicator could address these impacts and increase resilience?	How could this indicator be measured?	What is the current capacity of the U? What resources and activities exist?	What vulnerabilities does this indicator address?	Who at the U is primarily responsible for this?	
	Increase in vector-borne disease. Increased air pollution (include allergens, wildfire smoke, dust). Increase in severe weather	Increase in vector-borne disease. Increased air pollution (include allergens, wildfire smoke, dust). Increase in severe weather	1 - Healthcare system climate preparedness	1.1 World Health Organization Climate Change and Health Vulnerability and Adaptation Assessment (modified)	(data available fall 2021)	Disease outbreak/extreme heat/fire/rainfall flooding/severe storms/poor air quality	Hospital Green Team	<a href="https://www.who.int/activities/supporting-countries-to-protect-human-health-from-climate-change/climate-resilient-health-systems">https://www.who.int/activities/supporting-countries-to-protect-human-health-from-climate-change/climate-resilient-health-systems</a>
				1.2 Hospitals and clinics have measures in place to address surge needs during disasters	Hospital has in place Emergency Operations Plan, as well as 6 Blue-Med Hospital Tents		Senior Director of Emergency Management	
	Less reliable food supply due to increased average temperature, impacts of drought, dust events, wildfire, and changes in phenology	Less reliable food supply due to increased flooding risk, drought, reduce snowpack	2 - Local, diversified, and accessible food supply	2.1 - lbs. of food grown at university	Edible Campus Gardens stats 2018: 1,404.3 lbs. of food produced 2019:704.3 lbs. of food produced 2020:979.2 lbs. of food produced (donated to Feed U Pantry)	Food insecurity	Edible Campus Gardens Manager (Sustainability Office)	<a href="https://sustainability.utah.edu/wp-content/uploads/sites/56/2019/03/2018_RFC_Results-copy2.pdf">https://sustainability.utah.edu/wp-content/uploads/sites/56/2019/03/2018_RFC_Results-copy2.pdf</a>
				2.2 - lbs. of food distributed through University food pantries and basic needs center	May 2020- April 2021: 20,343 lbs. of food received, 29,213 lbs. of food donated	Food insecurity	Feed U Pantry	<a href="https://union.utah.edu/feed-u-pantry-a-great-resource/">https://union.utah.edu/feed-u-pantry-a-great-resource/</a>
	Increase in disease risk, heat and air quality related illness, disproportional impact on marginalized communities	Increase in disease risk, heat and air quality related illness, disproportional impact on marginalized communities	3 - Health insurance coverage	3.1 - % of community with health insurance	Persons without health insurance under the age of 65: 12% of Salt Lake City, 11% of Utah, national average is 10%. (Community Health Needs Assessment)	Economic inequality	Director of Community Outreach for University of Utah Hospital	<a href="https://healthcare.utah.edu/about/pdfs/u-of-u-health-hospitals-and-clinics-community-health-needs-assessment-2021-2023.pdf">https://healthcare.utah.edu/about/pdfs/u-of-u-health-hospitals-and-clinics-community-health-needs-assessment-2021-2023.pdf</a>
	Increased stress associated with climate impacts, disruptions to community networks, limits in social services	Increased stress associated with climate impacts, disruptions to community networks, limits in social services	4 - Access to Mental Health Services	4.1 - Capacity of University Counseling Center	University Counseling Center meets or exceeds International Accreditation of Counseling Services (IACS) recommended ratio of 1 permanent counselor per 1,500 students: 2020 ratio 1:1,454	Mental health damages	University Counseling Center	<a href="https://counselingcenter.utah.edu/">https://counselingcenter.utah.edu/</a>
				4.2 - Employee Assistance Program includes mental health services	yes	Mental health damages	Human Resources	<a href="https://www.hr.utah.edu/benefits/eap.php">https://www.hr.utah.edu/benefits/eap.php</a>
				4.3 - University health insurance includes mental health coverage	yes for both student and employee plans	Mental health damages	Human Resources	<a href="https://www.hr.utah.edu/benefits/healthcare.php">https://www.hr.utah.edu/benefits/healthcare.php</a>
				4.4 - % of University of Utah main campus that is vegetative space	79% including the Heritage Preserve	Mental health damages	GIS, Facilities	<a href="https://uvmxdsymoeqj.cioomom.neuwp-content/uploads/sites/5/20170814193015/Master-Plan-Research.pdf">https://uvmxdsymoeqj.cioomom.neuwp-content/uploads/sites/5/20170814193015/Master-Plan-Research.pdf</a>

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Ecosystem Services	What are possible impacts of this change?	What are possible impacts of this change?	What indicator could address these impacts and increase resilience?	How could this indicator be measured?	What is the current capacity of the U? What resources and activities exist?	What vulnerabilities does this indicator address?	Who at the U is primarily responsible for this?		
	Loss of plant abundance and diversity, habitat destruction, disrupted ecosystems	Loss of plant abundance and diversity, habitat destruction, disrupted ecosystems	1. Plant abundance and diversity	1.1. Climate adaptation strategies present in landscape master plan	Landscape Master Plan Ch. 5: Tree Succession Plan: a planning framework formulated on the existing tree populations on the University of Utah campus. It aims to assist in long-term management and facilitation of change, ensuring future development of tree assets is wholly integrated and steered toward an agreed-upon and enduring vision.  Goal 1: strengthen the campus landscape character through wise establishment of a sustainable mix of tree ages. Strategy 1.1: document species diversity, quantity and current health, age, structural condition and significance of trees. Strategy 1.2: develop and maintain a sustainable, mixed-age tree canopy. Strategy 1.3: Undertake a comprehensive survey of specimen tree planting undertake over last decade to guide future planting plans.  Goal 2: Enhance and augment Arboretum diversity. Strategy 2.1: Identify and prioritize areas where new trees can be established and select species according to current and future site profile, climate change projections, value to scientific research, landscape character, site elements, and weed risk potential. Strategy 2.2: priority taxa on campus that should be replaced/repeated on campus (before a specimen is lost, or because it's not doing well) and identified using the current database and condition survey. SOME happening Strategy 2.3: develop a prioritized list of taxa that should be planted on campus as opportunities align, i.e. the right project, microclimate and soil conditions, as well as availability of the desired taxa.  Goal 3: Conserve, sustain and develop (through experimentation) the landscape and living tree collections over the long term. Strategy 3.1: adopt a 'best practice' approach to tree care and protection.	Loss of biodiversity, environmental degradation	Facility Manger, Landscape and Open Space	<a href="https://rdc.utah.edu/planning/master-plans/">https://rdc.utah.edu/planning/master-plans/</a>	
				1.2. Number and diversity of campus trees	Landscape Master Plan Ch. 3: Tree Canopy: Presently the tree population is nearly 12,000 with approximately 325 species and varieties. Campus Tree Canopy: 44% shade trees, 23% evergreen trees, 23% ornamental trees, 7.4% small deciduous trees. The Landscape Master Plan also contains percentages and tree counts by species.		GIS, Facilities		
	Loss of animal life, loss of habitat, loss of diversity	Loss of animal life, loss of habitat, loss of diversity	2. Animal abundance and diversity	2.1. Bird counts	Campus eBird data: 158 species observed on campus as of February 12, 2021.  STARS: OP-10: Biodiversity – assessment conducted to identify endangered and vulnerable species with habitats on land owned/managed by the U (June sucker – critically endangered, Bonneville Cutthroat trout). Plans and programs in place to protect or positively affect identified species, habitats, and/or ecosystems: Wasatch Environmental Observatory, U.S. Forest Service Research Natural Area Network, Utah Open Lands Conservation Easement, Salt Lake County Watershed Planning and Restoration Program, Salt Lake City Foothill Trails Master Plan	Loss of biodiversity, environmental degradation		<a href="https://ebird.org/hotspot/L299580">https://ebird.org/hotspot/L299580</a>	
				2.2. Endangered species with habitats on campus			STARS: Sustainability Office, Data held at Utah Museum of Natural History Entomology collection.	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/grounds/OP-10/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/grounds/OP-10/</a>	
	Water scarcity; increased urban heat island, loss of shade	Changes in infiltration and groundwater recharge, issues with water quality and quantity, flood control, limited surface water resources	3. Water system stability	3.1 Health of Red Butte Creek on campus	Difference in the Index of biological integrity, measured and reported by Salt Lake County in 2019, at sites where Red Butte Creek enters campus (site RB_05.19), and at the base of campus (site RB_02.68). The Karr Benthic Index of Biological Integrity (BIBI) original traits and 10-50 scoring scale). 10 represents lowest / worst possible biological integrity; 50 represents highest/best possible biological integrity. RB_05.19 = 28, RBC_02.68 = 16, difference = 12	Water insecurity, drought, rainfall flooding	Environmental Health & Safety	<a href="https://aisdata.slcopendata.arcojs.com/datasets/slc-open-samples/about">https://aisdata.slcopendata.arcojs.com/datasets/slc-open-samples/about</a>	
				3.2. Total area of stormwater retention and detention on campus	Total Detention/Retention ponds: 4.6 acres (part of total Vegetation on campus see 5.3) 6 stormtech below grade			Facilities GIS	<a href="https://slco.maps.arcgis.com/apps/webappviewer/index.html?id=7872466d6e546394b9f63ec6d3a9f">https://slco.maps.arcgis.com/apps/webappviewer/index.html?id=7872466d6e546394b9f63ec6d3a9f</a>
				3.3. Water use for vegetated grounds	STARS: OP-21: Water Use: total water withdrawal per unit of vegetated grounds: performance year 4,680,134.92 gallons/acre, baseline year 5,726,759.51 gallons/acre. Percentage reduction in total water withdrawal per unit of vegetated grounds from baseline: 18.28. Area of vegetated grounds: performance year 230 acres, baseline year 212.12 acres			STARS: Sustainability Office, data from Facilities Energy & Sustainability	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/water/OP-21/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/water/OP-21/</a>
	Decrease in air quality, increased temperatures	Increased extreme weather, change in snowpack	4. Air quality & greenhouse gas emissions	4.1. Local emissions generated	2020 Emissions Inventory Report (Emissions summary for University of Utah facilities): CRITERIA AIR POLLUTANT (CAP) EMISSIONS TOTALS Pollutant Code/CAS # Pollutant Name / Emissions (tons, excluding tailpipe) / Tailpipe Emissions (tons) / Total Emissions (tons) PM10-PRI PM10 Primary (Filt + Cond) 8.02163 / 0.01067 / 8.0323 PM10-FIL PM10 Filterable 1.84843 / <.00001 / 1.84843 PM25-PRI PM2.5 Primary (Filt + Cond) 8.01699 / 0.01035 / 8.02734 PM25-FIL PM2.5 Filterable 1.84384 / <.00001 / 1.84384 PM-CON PM Condensable 5.51097 / <.00001 / 5.51097 SO2 Sulfur Dioxide 0.66172 / 0.00013 / 0.66185 NOX Nitrogen Oxides 53.19259 / 0.09914 / 53.29173 VOC Volatile Organic Compounds 6.26191 / 0.01316 / 6.27507 CO Carbon Monoxide 61.65801 / 0.06659 / 61.72461 NH3 Ammonia 2.21695 / <.00001 / 2.21695 HAZARDOUS AIR POLLUTANT (HAP) and/or OTHER POLLUTANT EMISSIONS TOTALS Pollutant Code/CAS # Pollutant Name Is VOC/PM? Total Emissions (tons) 107028 Acrolein (HAP) VOC 0.00204 75218 Ethylene Oxide (HAP) VOC 0.02348 50000 Formaldehyde (HAP) VOC 0.01455 *Rounded to 5 digits past the decimal point. Note that where rounding results in 0, <.00001 is indicated.	Poor air quality	Environmental Health & Safety, UATAQ	<a href="https://air.utah.edu/">https://air.utah.edu/</a>	
				4.2. GHG emissions	STARS: OP-2: Greenhouse Gas Emissions – total greenhouse gas emissions performance year: 173,957.31 Metric Tons of CO2 Equivalent, baseline year: 211,216.31 Metric Tons of CO2 Equivalent.			STARS: Sustainability Office, data from Facilities Energy & Sustainability	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/air-climate/OP-2/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/air-climate/OP-2/</a>
Decrease in soil productivity, increase in dust, changes in land cover surface processes	Decrease in soil productivity, increase in dust, changes in land cover surface processes	5. Land and soil health	5.1. Grounds on campus managed organically	STARS: OP-9: Landscape Management: acres and percentage of grounds managed organically (without inorganic fertilizer, chemical pesticides, fungicides, and herbicides) – 0.75 acres 0.33%, acres and percentage of grounds managed in accordance with Integrated Pest Management (IPM) program that uses selected chemicals only when needed* - 230 acres 99.67%, acres managed using conventional chemical-based landscape management practices – 0 acres.	Environmental degradation, loss of biodiversity	STARS: Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/grounds/OP-9/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/grounds/OP-9/</a>		
			5.2. Topsoil quality and nutrient specifications	DFCM Design Requirements: Topsoil quality and nutrient specifications: pg. 41 4.3 Landscape Design Standards Topsoil Quality: Ideal: pH = 5.5-7.5, Soluble Salts dS/m <2, Sodium Absorption Ratio (SAR) <3, Organic Matter >=2, sand % <70, silt % <70, clay % <30, texture class = Loam (L), Silt Loam (SL). Acceptable* pH = 5.0-8.2, Soluble Salts dS/m <4, Sodium Absorption Ratio (SAR) 3 to 7 SIL, SICL, CL, 3 to 10 SCL, SL, L, Organic Matter >=1, sand % <70, silt % <70, clay % <30, texture class = Sandy Clay Loam (SCL), Sandy Loam (SL), Clay Loam (CL), Silty Clay Loam (SICL) Not Acceptable: pH = <5, >8.2, Soluble Salts dS/m >4, Sodium Absorption Ratio (SAR) >10, Organic Matter <1, sand % >=70, silt % >=70, clay % >=30, texture class = Loamy Sand (LS), Sandy Clay (SC), Silty Clay (SIC), Sand (S), Silt (S), Clay (C). Topsoil Nutrient Specification: Ideal/Acceptable: Nitrate Nitrogen ppm >20, Phosphorus ppm >15, Potassium ppm >150, Iron ppm >10.			Planning Design & Construction	<a href="https://dfcm.utah.gov/wp-content/uploads/02_02_21_design_requirements.pdf">https://dfcm.utah.gov/wp-content/uploads/02_02_21_design_requirements.pdf</a>	
			5.3 Percentage of pervious vs. impervious campus surface	239 acres of vegetated space  Pervious acreage: • Vegetation: 271.9 • Permeable Pavement: .1 • Gravel Roads: .2  Impervious acreage: • Buildings: 125.3 • Roads & Parking: 169.3 • Sidewalks: 84.1			Rainfall flooding	Facilities GIS	
Loss of ecosystem functionality, need for adaptation and changes in management associated with biophysical parameters	Increased risks of fire, drought, and flooding, loss of biodiversity, recreational opportunities, and cultural resources	6. Management of campus ecosystems	6.1. Protected areas for biodiversity/conservation	STARS: OP-10: Biodiversity: estimated percentage of areas of biodiversity importance that are also protected areas – 78%. Protected areas for biodiversity and/or regions of conservation importance: Red Butte Canyon Research Natural Area (RNA): 5,370 acres. Red Butte Creek: 10.5 miles of stream. University of Utah Heritage Preserve: 492 acres. Bonneville Shoreline Trail: 3.3 miles adjacent to UofU campus. Bondeman Field Station at Rio Mesa: 380 acres. Taft Nicholson Center for Environmental Humanities: 16 acres. Range Creek Field Station: 3,027 acres. State Arboretum of Utah/Red Butte Garden and Arboretum: 1,647 acres. Matheson Nature Preserve and Governors Groves: 14 acres (Utah State Parks). This is the Place Heritage Park: 450 acres. Wasatch Mountain Foothills Open Space: vast acreage of U.S. National Forest Service (USFS) property adjacent to the UofU. Utah Open Lands Conservation Easement: On April 18, 2002, the U of U and Utah Open Lands signed a conservation easement to "preserve and maintain as natural and open space."	Environmental degradation	STARS: Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/grounds/OP-10/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/grounds/OP-10/</a>		

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Infrastructure	What are possible impacts of this change?	What are possible impacts of this change?	What indicator could address these impacts and increase resilience?	How could this indicator be measured?	What is the current capacity of the U? What resources and activities exist?	What vulnerabilities does this indicator address?	Who at the U is primarily responsible for this?	
	Increased risk of wildfires and summer ozone, poor air quality	Increased risk of wildfires and summer ozone, poor air quality	<b>1 - Ventilation to respond to poor air quality</b>	1.1 - Percentage of classroom spaces that meet or exceed ASHRAE 62.1	74%	drought / fire / poor air quality	Energy & Sustainability, Facilities	
	Increased drought, water stress, changes in surface water availability, changes to stormwater, risks to water quality	Increased drought, water stress, changes in surface water availability, changes to stormwater, risks to water quality	<b>2. Water system efficiency</b>	2.1 - Total consumptive interior water use per building square feet (Water Use Intensity)	STARS OP-21: Potable water use per unit of floor area (2019): 53.79 Gallons / GSF, Potable water use per unit of floor area (2010): 86.86 Gallons / GSF Percentage reduction in potable water use per unit of floor area from 2010 baseline: 38.07%	Drought	Energy & Sustainability, Facilities	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/water/OP-21/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/water/OP-21/</a>
	Increase summer temperatures, increased wildfires and summer ozone, poor air quality episodes, extreme weather events	Increase summer temperatures, increased wildfires and summer ozone, poor air quality episodes, extreme weather events	<b>3. Diverse transportation options</b>	3.1 - Diversity in modes of transit available and their percentage of use	STARS OP-16: Commute Modal Split Primary mode of transportation(%): STUDENTS: Single-occupancy vehicle: 38 Zero-emissions vehicle: 1 Walk, cycle, or other non-motorized mode: 19 Vanpool or carpool: 6 Public transport or campus shuttle: 37 Motorcycle, motorized scooter/bike, or moped: 1 Distance education / telecommute: 2  EMPLOYEES Single-occupancy vehicle: 62 Zero-emissions vehicle: 2 Walk, cycle, or other non-motorized mode: 10 Vanpool or carpool: 5 Public transport or campus shuttle: 22 Motorcycle, motorized scooter/bike, or moped: 1 Distance education / telecommute: 2	Inadequate public transit, inadequate infrastructure	Commuter Services	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/transportation/OP-16/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/OP/transportation/OP-16/</a>
	Increased risk of infrastructure damage with extreme events and stressed systems	Increased risk of infrastructure damage with extreme events and stressed systems	<b>4 - Adequate power supply during a blackout</b>	4.1 - # of backup generators	Number of backup generators on campus: 96	Power outage	Facilities	
				4.2 - # of buildings with dual-electrical feeds on campus	Number of buildings on campus with dual-electrical feeds: 294			
				4.3 - All hospital HVAC on emergency power	Yes			
	Increased risk for extreme events and compounding threats with other natural hazards	Increased risk for extreme events and compounding threats with other natural hazards	<b>5 - Emergency preparedness</b>	5.1 - Emergency plans in place	Emergency Operations Plan (October 2019), Emergency Response Guide, Hospital Emergency Operations Plan (2018)	Severe storms, rainfall flooding, power outage, wildfire	Emergency Management	<a href="https://emergency.utah.edu/">https://emergency.utah.edu/</a>
Increased risk of infrastructure damage with extreme events and stressed systems	Increased risk of infrastructure damage with extreme events and stressed systems	<b>6 - Energy Efficient Buildings</b>	6.1 - Building energy use per square foot (source-based EUI)	EUI (Energy use intensity, kBtu/sq. ft) 2008: 327 - 2009: 320 - 2010: 310 - 2011: 320 - 2012: 332 - 2013: 303 - 2014: 289 - 2015: 284 - 2016: 279 - 2017: 277 - 2018: 262 - 2019: 246	Power outage	Energy & Sustainability, Facilities	<a href="https://betterbuildingsolutioncenter.energy.gov/energy-data/University%20of%20Utah">https://betterbuildingsolutioncenter.energy.gov/energy-data/University%20of%20Utah</a>	

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Economics	What are possible impacts of this change?	What are possible impacts of this change?	What indicator could address these impacts and increase resilience?	How could you measure this indicator?	What is the current capacity of the U? What resources and activities exist?	What vulnerabilities does this indicator address?	Who at the U is primarily responsible for this?	
	Increased costs and economic disruptions with climate-related disasters	Increased costs and economic disruptions with climate-related disasters	<b>1. Financial health of institution</b>	1.1 - Annual net position	\$6,431,837 (2020 Audited Annual Financial Statement)	Disease outbreak/extreme heat/fire/rainfall flooding/severe storms/poor air quality	Chief Financial Officer	<a href="https://fbs.admin.utah.edu/download/finreport/2020fin.pdf">https://fbs.admin.utah.edu/download/finreport/2020fin.pdf</a>
	Increased costs and economic disruptions with climate-related disasters	Increased costs and economic disruptions with climate-related disasters	<b>2. Emergency financial support available for students</b>	2.1 - Existence of funds available to students experiencing impacts of climate-related disasters	Multiple funds in place: tuition assistance, grants for emergency situations, ASUU loan program	Disease outbreak/extreme heat/fire/rainfall flooding/severe storms/economic inequality	Student Affairs	<a href="https://utah.academicworks.com/">https://utah.academicworks.com/</a> <a href="https://diversity.utah.edu/give/emergency-fund/">https://diversity.utah.edu/give/emergency-fund/</a>
	Increased summer heat, changes in water availability, risks to energy and water infrastructure	Increased summer heat, changes in water availability, risks to energy and water infrastructure	<b>3. Energy and water costs</b>	3.1 - Annual cost of electricity, natural gas, and water	\$31 million for CY 2020	Disease outbreak/extreme heat/fire/rainfall flooding/severe storms/poor air quality	Energy & Sustainability, Facilities	
	Increased risk with extreme events and economic disruptions	Increased risk with extreme events and economic disruptions	<b>4. Investment portfolio exposure to climate risk</b>	4.1 - STARS PA-10	STARS PA-10: Score 0/5. \$2 million (out of \$1.2 billion) for 2019-2020	Disease outbreak/extreme heat/fire/rainfall flooding/severe storms/poor air quality	Investment Management Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/investment-finance/PA-10/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/investment-finance/PA-10/</a>
	Increased risk of climate related disasters, climate related disease, community disruption	Increased risk of climate related disasters, climate related disease, community disruption	<b>5. Financial health of employees</b>	5.1 - % of employees earning a living wage	STARS PA-12: 75.41% of employees received a living wage	Economic inequality	STARS: Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/wellbeing-work/PA-12/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/PA/wellbeing-work/PA-12/</a>
	Increased need for all to be educated and empowered	Increased need for all to be educated and empowered	<b>6. Student sustainability literacy (workforce readiness)</b>	6.1 - STARS AC-1 through AC-8	STARS Curriculum: 29.53/40.00	Economic inequality/disease outbreak/extreme heat/fire/rainfall flooding/severe storms/poor air quality	Sustainability Office	<a href="https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/AC/curriculum/AC-1/">https://reports.aashe.org/institutions/university-of-utah-ut/report/2020-10-21/AC/curriculum/AC-1/</a>