

**Multi-Criteria Decision Analysis
for Recommended Implementation Strategies**

SUMMARY SHEET



Notes: In this FY 2020-21 MCDA, weighted measures were added to some items as extenuating benefits to responses to Covid-19, Recession, Climate Emergency and Electricity Grid Stabilization. These items are notes in the workbook sheets.

Chapter	Core Area	Target	Recommended Strategy	Strategy Code	Score	Date (MM/DD/YY)
Carbon	Buidlings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	1. Improve building efficiency	CB1	41	08/27/2020
Carbon	Buidlings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	2. Expand renewable energy capacity	CB2	65	08/27/2020
Carbon	Buidlings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	3. Include beneficial use of biogas	CB3	16	08/27/2020
Carbon	Buidlings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	4. Improve employee energy conservation practices	CF1	49	08/27/2020
Carbon	County vehicle fleet	Reduce Carbon emissions from County fleet by 10% in non-electric vehicles; replace up to 120 gas sedan vehicles with fully-electric vehicles	1. Replace gasoline vehicles with electric and hybrid vehicles	CF2	25	08/27/2020
Carbon	County vehicle fleet	Reduce Carbon emissions from County fleet by 10% in non-electric vehicles; replace up to 120 gas sedan vehicles with fully-electric vehicles	2. Reduce idling with surcharges for excessive idling	CF3	25	08/27/2020
Carbon	County vehicle fleet	Reduce Carbon emissions from County fleet by 10% in non-electric vehicles; replace up to 120 gas sedan vehicles with fully-electric vehicles	3. Promote downsizing to compact trucks, SUVs, smaller sedans	CF4	20	08/27/2020
Carbon	County vehicle fleet	Reduce Carbon emissions from County fleet by 10% in non-electric vehicles; replace up to 120 gas sedan vehicles with fully-electric vehicles	4. Surcharge for 4-wheel drive vehicles	CF5	21	08/27/2020
Carbon	County vehicle fleet	Reduce Carbon emissions from County fleet by 10% in non-electric vehicles; replace up to 120 gas sedan vehicles with fully-electric vehicles	5. Implement recognition of incentive program(s) for employees who use alternative transportation	CF6	23	08/27/2020
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	1. Increase recycling of office and industrial materials	CW1	27	08/27/2020
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	2. Decrease landfill waste (volume/weight)	CW2	21	08/27/2020
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	3. Buy reusable/refillable items	CW3	23	08/27/2020
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	4. Implement employee education program	CW4	30	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	1. Replace old fixtures with more efficient ones	WAB1	16	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	2. Reduce use of open cooling systems during daylight hours	WAB2	17	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	3. Replace aging water cooled chillers with air-conditioned chillers	WAB3	13	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	4. Sub-meter water systems during retrofits	WAB4	19	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	5. Use grey water sysems to decrease reliance on potable waterfor irrigation	WAB5	24	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	6. Use rainwater collection tanks and passive storm water harvesting to provide irrigation	WAB6	25	08/27/2020
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	7. Implement employee education and outreach programs	WAB7	28	08/27/2020
Water	Groundwater replenishment	Monitor the use of reclaimed water for groundwater recharge	1. Continue reclaimed water recharge at existing sites (the Lower Santa Cruz Managed Recharge project (LSCMRP) and the High plains Constructed Recharge Project)	WAG1	17	08/27/2020
Water	Groundwater replenishment	Monitor the use of reclaimed water for groundwater recharge	2. Continue to inventory uses of renewable water	WAG2	16	08/27/2020
Water	Groundwater replenishment	Monitor the use of reclaimed water for groundwater recharge	3. Continue education and outreach efforts on water conservation and stormwater harvesting	WAG3	24	08/27/2020
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	1. Track and report surface water for wildlife plants in key natural areas	LN1	7	08/27/2020
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	2. Monitor the trends of groundwater dependent ecosystems	LN2	10	08/27/2020
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	3. Track and report the level of shallow groundwater	LN3	16	08/27/2020
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	4. Increase total acres of natural areas conserved	LN4	24	08/27/2020
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	5. Increase total acres protected within Arizona Game and Fish Dept (AGFD) Wildlife Linkages	LN5	21	08/27/2020

Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	6. Acquire riparian corridor parcels	LN6	23	08/27/2020
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	7. Increase linear miles of major riparian corridor added each year	LN7	25	08/27/2020
Landscapes	Natural Areas	Manage natural areas for resilient ecosystems	1. Implement and expand strategic interventions to remove invasive species, e.g. Beat Back Buffleggrass Month	LN8	44	08/27/2020
Landscapes	Natural Areas	Manage natural areas for resilient ecosystems	2. Continue to inventory restoration projects	LN9	17	08/27/2020
Landscapes	Natural Areas	Manage natural areas for resilient ecosystems	3. Track the number and purpose of restoration actions taken	LN10	15	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	1. Conduct cultural resources surveys	LC1	16	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	2. Protect cultural resources from damage	LC2	17	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	3. Collaborate with Tribes	LC3	15	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	4. Administer oral history and archival studies	LC4	16	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	5. Conduct public outreach and education	LC5	15	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	6. Track and report areas inventoried	LC6	10	08/27/2020
Landscapes	Cultural Resources	Protect and conserve historic sites, historic buildings, and archaeological sites, traditional cultural places, and cultural landscapes	7. Track and report sites protected	LC7	10	08/27/2020
Landscapes	Cultural Resources	Promote public outreach and education	1. Build education and outreach plan	LC8	17	08/27/2020
Landscapes	Cultural Resources	Promote public outreach and education	2. Track and report number of activities	LC9	6	08/27/2020
Landscapes	Urban Areas	Plant at least 10,000 trees	1. Utilize PAG GI Prioritization Tool (high heat/low tree canopy)	LU1	18	08/27/2020
Landscapes	Urban Areas	Plant at least 10,000 trees	2. Implement Green Infrastructure Action Plan	LU2	29	08/27/2020
Landscapes	Urban Areas	Plant at least 10,000 trees	3. Pursue policies to require RTA to install trees as a part of 4% landscape budget allocation	LU3	27	08/27/2020
Landscapes	Urban Areas	Plant at least 10,000 trees	4. Implement DOT Landscape Manual Standards (require developers and utilities removing trees in the right-of-way to replace them or pay in lieu fee)	LU4	27	08/27/2020
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	1. Implement Green Infrastructure Action Plan	LU5	25	08/27/2020
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	2. Determine triple bottom line benefits with modeling tools	LU6	21	08/27/2020
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	3. Utilize Capital Improvement Project (CIP) funding where applicable	LU7	28	08/27/2020
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	4. Explore and identify general funds, grants and other resources for projects	LU8	24	08/27/2020
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	5. Identify appropriate County-owned parcels and right-of-ways for projects	LU9	24	08/27/2020
Landscapes	Urban Areas	Maintain or increase acreage of restored habitat, vegetation and turn supported by renewable water	1. Calculate triple bottom line benefits for restoration efforts with modeling tools	LU10	21	08/27/2020
Landscapes	Urban Areas	Maintain or increase acreage of restored habitat, vegetation and turn supported by renewable water	2. Track and report number of acres served by non-potable water	LU11	16	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with Farmer's Markets	1. Catalogue number of new or expanded farmer's markets on County properties each year	LF1	20	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with Farmer's Markets	2. Identify areas to expand or extend the number of farmer's markets on County properties	LF2	44	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with Farmer's Markets	3. Track and report county properties with Farmer's Markets	LF3	13	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	1. Identify appropriate County-owned parcels and right-of way for projects	LF4	45	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	2. Utilize PAG's Food Desert Map to identify areas to expand or extend number of gardens on County properties	LF5	39	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	3. Pilot a project to use reclaimed water for heritage trees	LF6	39	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	4. Pilot a project using local best practices for community engagement and sustainability	LF7	22	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	5. Model triple Bottom Line Cost benefit Analysis (TBL-CBA) of Community Gardens with modeling tools	LF8	23	08/27/2020

Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	6. Track and report County sites with community or heritage gardens	LF9	24	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County properties with community or heritage gardens	7. Explore and identify general funds, grants and other resources for projects	LF10	24	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County acres under cattle grazing leases	1. Continue rangeland inventories, monitoring and assessment	LF11	12	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County acres under cattle grazing leases	2. Continue applying management practices to provide for ecosystem health	LF12	19	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County acres under cattle grazing leases	3. Track and report County acres under cattle grazing leases	LF13	12	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County acres under commercial, niche and/or commodity agricultural production	1. Update the Range Management Standards and Guidelines for agricultural production	LF14	21	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County acres under commercial, niche and/or commodity agricultural production	2. Track and report county acres under commercial, niche and/or commodity agricultural production	LF15	46	08/27/2020
Landscapes	Food Systems	Maintain or expand county-managed food and nutritiona programs and associated technical training	1. Catalogue the number of food-related education and training programs conducted by staff or at County sites each year	LF16	16	08/27/2020
Landscapes	Food Systems	Maintain or expand county-managed food and nutritiona programs and associated technical training	2. Track and report food and nutrition programs and technical training	LF17	16	08/27/2020
Landscapes	Food Systems	Maintain or expland number of County sites with public access for harvesting native plant foods	1. Create a set of guidelines for harvesting native plant foods on County lands	LF18	18	08/27/2020
Landscapes	Food Systems	Maintain or expland number of County sites with public access for harvesting native plant foods	2. Identify potential sites for food harvesting on County lands	LF19	16	08/27/2020
Landscapes	Food Systems	Maintain or expland number of County sites with public access for harvesting native plant foods	3. Track and report County sites with public access for harvesting native plant foods	LF20	20	08/27/2020
Landscapes	Food Systems	Maintain or expand food heritage activities	1. Collaborate with the UA, City of Gastronomy, and other stakeholders to supply resources to include in map for self-guided visitor tours	LF21	20	08/27/2020
Landscapes	Food Systems	Maintain or expand food heritage activities	2. Track and erport on supported food heritage activities	LF22	39	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County sites with composting and soil carbon amendment practices	1. Create a set of guidelines for composting and producing soil amendments to increase carbon sequestration on County lands	LF23	24	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County sites with composting and soil carbon amendment practices	2. Identify potential sites for composting on County lands	LF24	24	08/27/2020
Landscapes	Food Systems	Maintain or expand number of County sites with composting and soil carbon amendment practices	3. Track and report County sites with composing and soil carbon amendment strategies	LF25	24	08/27/2020
Materials	Solid Waste	Recycle industrial waste by 100%; Recycle industrial waste by 100%	1. Improve waste reduction education: a. Paperless systems, b. Company take-back programs, c. Internal reuse of equipment and materials, d. Efficient printing practices (e.g. double-sided printing)	MW1	14	08/27/2020
Materials	Solid Waste	Recycle industrial waste by 100%; Recycle industrial waste by 100%	2. Reuse and repurpose existing buildings	MW2	19	08/27/2020
Materials	Solid Waste	Recycle industrial waste by 100%; Recycle industrial waste by 100%	3. Recycle building construction materials	MW3	12	08/27/2020
Materials	Green Purchasing	Increase percentage of Preferred Products purchased by the County by 20%	1. Expand education and outreach programs for green purchasing practices and policies: a. Online trainings, b. Updated office vendor webpage, c. Engagement of Green Purchasing Representatives	MG1	17	08/27/2020
Materials	Green Purchasing	Increase percentage of Preferred Products purchased by the County by 20%	2. Standardize product selection and purchasing practices	MG2	18	08/27/2020
Materials	Green Purchasing	Increase percentage of Preferred Products purchased by the County by 20%	3. Include green specifications in vendor contracts	MG3	15	08/27/2020
Workforce	Workplace preparedness	100% of employees complete emergency trainings (annual)	1. Implement quarterly seasonal safety trainings and education campaigns, for example: a. Fall - fires, dust, and air quality; b. Winter - cold, winter flooding; c. Spring - bees and venomous creatures; d. Summer - heat related illnesses, air quality issues, summer	WFW1	24	08/27/2020
Workforce	Workplace preparedness	100% of employees complete emergency trainings (annual)	2. Promote through a variety of outreach sources - Wellness Program, E-Scoop	WFW2	17	08/27/2020
Workforce	Workplace preparedness	100% of employees complete emergency trainings (annual)	3. Host annual safety classroom trainings for field departments i.e. NRPR, RWRD, DOT, PCSD, etc.	WFW3	23	08/27/2020

Workforce	Personal preparedness	100% employees download emergency checklist and information handouts (annual)	1. Implement an annual emergency preparedness campaign with an ADP prompt to: a. Download an Emergency Preparedness Checklist, b. Download Neighborhood Climate Resilience Resource	WFP1	26	08/27/2020
Workforce	Personal preparedness	100% employees download emergency checklist and information handouts (annual)	2. Complete a quiz on at-home preparedness	WFP2	26	08/27/2020
Workforce	Personal preparedness	100% employees download emergency checklist and information handouts (annual)	3. Partner with Risk and Human Resource's Wellness Team to promost information via events	WFP3	26	08/27/2020