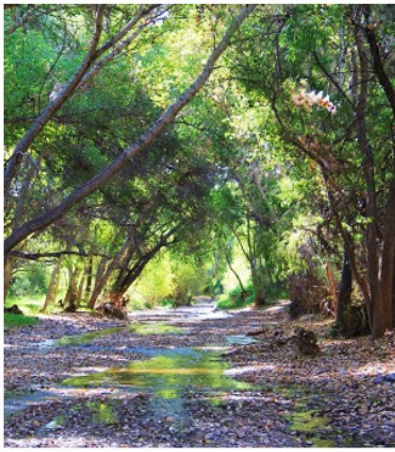
PIMA COUNTY

SAPCO Implementation Plan 2018 - 2025

Provided by
the Office of Sustainability and Conservation



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Introduction

In 2017, the Sustainable Action Plan for County Operations (SAPCO) was updated to align Pima County operations with the Paris Agreement per two Board-adopted climate resolutions (2017-39 and 2017-51). In updating the Plan, the Sustainability Division held a series of meetings with Directors and key staff experts to not only collect input on the components of the new plan but also discuss ways to improve its execution. These suggestions provided the framework for developing *The SAPCO Implementation Plan*, which outlines the structure, process, roles, responsibilities and tools for achieving the Plan's ambitious goals and targets.

Three separate but supporting documents will also be available to reinforce the information provided in this Implementation Plan:

- The *Annual Sustainability Report Methodology Handbook*, which provides instructions for collecting and analyzing the key performance indicator (KPI) data for the Annual Sustainability Report.
- The *SAPCO Engagement Guide* outlines the program to develop an internal Green Stewards initiative that is currently under development
- A *Climate Change Guide for Technical Staff*

SAPCO remains the primary framework for operationalizing sustainability across Pima County's programs and departments.

Purpose of this Plan

The most challenging part of any large, comprehensive plan is implementing it, and SAPCO has been no exception. Previous iterations of the Plan did not completely align its 'Action Items' with the specific roles and processes already well-established in each department. This ultimately made several strategies cumbersome and/or infeasible for departments to integrate into their regular operations.

Therefore, the purpose of this Implementation Plan is to provide Pima County staff a clear framework and a more efficient process, along with appropriate tools to deliver program objectives. This Plan is divided into sections that describe the SAPCO implementation structure, key roles and responsibilities, a Flow Chart that outlines annual benchmarks aligned with the County's fiscal calendar, and tools for project management use and reporting.

Specifically, The Implementation Plan provides the following:

1. An Implementation Flow Chart organized and aligned with Pima County's internal procedures, decision making hierarchy and fiscal year planning cycle (Appendix A);
2. A SAPCO Roles & Responsibilities document, which provides a breakout of oversight responsibilities for Deputy County Administrators (Appendix B);
3. A list and description of the SAPCO Implementation Teams (total of five) (Appendix C);
4. A Work Plan template for Directors and Task Forces to use to develop their annual SAPCO implementation strategies (Appendix D);
5. A Biannual Progress Summary Template for reporting mid-fiscal year updates on Work Plans (Appendix E);
6. A Multi-Criteria Decision Model (MCDM) tool for prioritizing strategies using a triple-bottom-line approach (Appendix F).

SAPCO Implementation Flow Chart

This Implementation Plan seeks to align decision points and procedures within Pima County's existing hierarchical structure using this eleven-step process:

1. The Sustainability Division undertakes an annual Multi-Criteria Decision Analysis for scoring and ranking of implementation strategies outlined in SAPCO (July).
2. The Sustainability Division presents the annual TBL assessment to the Deputy County Administrators (DCAs) for their review and consideration (August).
3. The DCAs assign selected strategies with appropriate resources to Directors with lead responsibilities (September).
4. Directors develop Work Plans for implementing the assignments and iterate with DCAs and Task Forces as needed (October, November, December, January).
5. The Sustainability Division collects and compiles the annual Work Plans into an annual Work Plan and circulates to the DCAs and the Steering Committee (SC) (March).
6. Directors assign Work Plans to the Task Forces to monitor progress towards completing the assignments (May).
7. Task Forces execute Work Plans over the fiscal year (with biannual meetings in July & January to complete Progress Summary Report).

8. Task Forces collect key SAPCO performance data for the fiscal year for their focus areas (July-September).
9. The Sustainability Division analyzes data and compiles the Annual Sustainability Report (July-October).
10. The Sustainability Division presents a preview of the Annual Sustainability Report to the Steering Committee for review and feedback (October).
11. The Sustainability Division publishes and distributes and Annual Sustainability Report (December).

An Implementation Flow Chart organized and aligned with Pima County's internal procedures, decision-making hierarchy and fiscal year planning cycle is provided in Appendix A.

SAPCO Roles & Responsibilities

Because of its unique scope, SAPCO implementation requires the engagement of collaborative interdisciplinary teams comprised of experts across multiple County departments.

While navigating this structure has, and remains a complex enterprise, the County recognizes that a key to the Plan's ongoing success is in fact, the work of cross-functional teams. In other words, more robust outcomes are achieved when Directors and staff are directly engaged in the planning, implementation and evaluation of program strategies.

Presently, there are fourteen (14) departments at the County with direct implementation responsibilities for SAPCO. Deputy County Administrators will annually discuss and assign implementation priorities to Directors. While DCAs only oversee their assigned departments (shown in bold in the Proposed Task Forces – Appendix B), there are SAPCO chapters where multiple departments' responsibilities share focus areas and targets.

Directors will form and assign staff to participate on Task Forces associated by topic with sections of SAPCO. Employee volunteers may participate in the Green Stewards program with the approval of their Supervisors. The Sustainability Division staff will continue to participate on Task Forces to facilitate as needed and assist with data collection and analysis for the Sustainability Reports.

A document listing the breakout of roles and responsibilities for Deputy County Administrators is provided in Appendix B.

SAPCO Implementation Teams

Implementation of SAPCO involves the designation and mobilization of five teams. Three of the teams are organized around the County's internal hierarchy for decision-making: the Deputy County Administration Review Team, a Steering Committee comprised of Directors with lead implementation responsibilities, and Sustainability Task Forces comprised of staff subject matter experts.

Another new team being proposed is the Green Stewards program. This team would be comprised of trained and engaged County employee advocates to reinforce sustainability messaging and behavior among departments. The Green Stewards could also play a role as supplemental community ambassadors at regional sustainability events such as Tucson Meet Yourself, Cyclovia, Earth Day, etc.

The Sustainability Division forms the last team. The role of the Division is to support and interact with all the teams and serve a variety of functions from: Reporter/liaison to the Science & Technical Advisory Committee; as

a convener and subject matter expert to the DCA Review Team; providing coaching and facilitation support to the Task Forces; facilitating the Steering Committee meetings and compiling feedback; and serving as trainers and program coordinators for the Green Stewards program.

A list and description of the SAPCO Implementation Teams is provided in Appendix C.

Work Plans

Directors and their Task Forces will be required to develop Work Plans for SAPCO implementation assignments they receive annually from the DCAs. Work Plans will be submitted to the Sustainability Division for compiling and sharing with the County Administrator, the DCAs and the Steering Committee.

A Work Plan template for Directors and Task Forces to use for developing their annual SAPCO Implementation Strategies is provided in Appendix D.

Biannual Progress Summary Reports

Task Forces will be asked to complete Biannual Progress Summary Reports for ongoing implementation assignments. The Progress Reports help ensure that projects are on track and information on successes can be collected and included in the Annual Sustainability Report.

A Biannual Progress Summary Template to report mid-fiscal year progress on work on the Work Plans is included in Appendix E.

A Multi-Criteria Decision Model for prioritizing SAPCO strategies using a Triple-Bottom-Line Approach

Addressing a Core Challenge of Valuing Sustainability

In addition to lack of funding, one of the most significant barriers to implementing SAPCO has been the lack of a methodology for prioritizing implementation strategies that meet *all three pillars of sustainability* (social, environmental and economic), otherwise known as a Triple-Bottom-Line or TBL cost-benefit analysis.

Finding and adapting suitable methodologies for valuing the TBL in public sector projects remains elusive. As a result, it is not surprising that sustainability strategies that demonstrate clear returns on economic investment, or ROIs, are often advanced over strategies for which it has been more difficult to estimate benefits. Climate adaptation and resilience initiatives are examples of such strategies.

This Implementation Plan addresses these needs by providing a simple Multi-Criteria Decision Analysis Tool for that OSC staff will use to evaluate and prioritize strategies based on triple-, instead of single-, bottom line considerations. Furthermore, since valuation tools are part of an emerging market in climate planning, we anticipate better resources will become available in the future.

Lastly, it is important to note, while better valuation methods will assist with making the business case for proposed sustainability efforts, the fate of those proposals will ultimately depend upon Pima County's ability to prioritize and finance those efforts. The ultimate goal of future implementation work should be to advance the establishment of a sustainability "Green Revolving Fund"[1] for long-term program financing.

A detailed description of the Multi-Criteria Decision Analysis Tool is provided in Appendix F.

[1] Green Revolving Fund (GRF) is an internal capital pool that is dedicated to funding energy efficiency, renewable energy, and/or sustainability projects that generate cost savings. This establishes an ongoing funding vehicle that helps drive energy efficiency and sustainability over time (https://betterbuildingsinitiative.energy.gov/)

Summary

This Implementation Plan is a resource for Pima County Administrators, Directors and staff who are involved in advancing the work of the Sustainable Action Plan for County Operations. This guide reflects and integrates the input and guidance of Directors and staff who have been working on various aspects of sustainability at the County since SAPCO's adoption in 2008.

The core blocks for SAPCO implementation are the following:

- Sustainability strategy identification, prioritization, assignments, funding and implementation work plans to meet targets;
- Data compiling and analysis for key performance indicators (KPIs) and production of the Annual Sustainability Report to evaluate and share progress with the Board of Supervisors in meeting SAPCO targets; and
- Employee training & engagement in Sustainability messaging and actions to promote the broader adoption of the Action Plan in operations.

The Implementation Plan is a part of a set of documents, which also include:

- The *Annual Sustainability Report Methodology Handbook,* which provides instructions for collecting and analyzing the key performance indicator (KPI) data for the Annual Sustainability Report.
- The *SAPCO Engagement Guide* that outlines the program to develop an internal Green Stewards initiative that is currently under development (Spring 2021).
- A Climate Change Guide for Technical Staff (Spring 2021).

The plan will be updated as needed to reflect the incorporation of improved practices and methodologies.

For further information about SAPCO or about implementation questions, please contact the Sustainability Division within the Office of Sustainability and Conservation.

Telephone: (520) 724-6940

Email: SustainabilityPrograms@pima.gov

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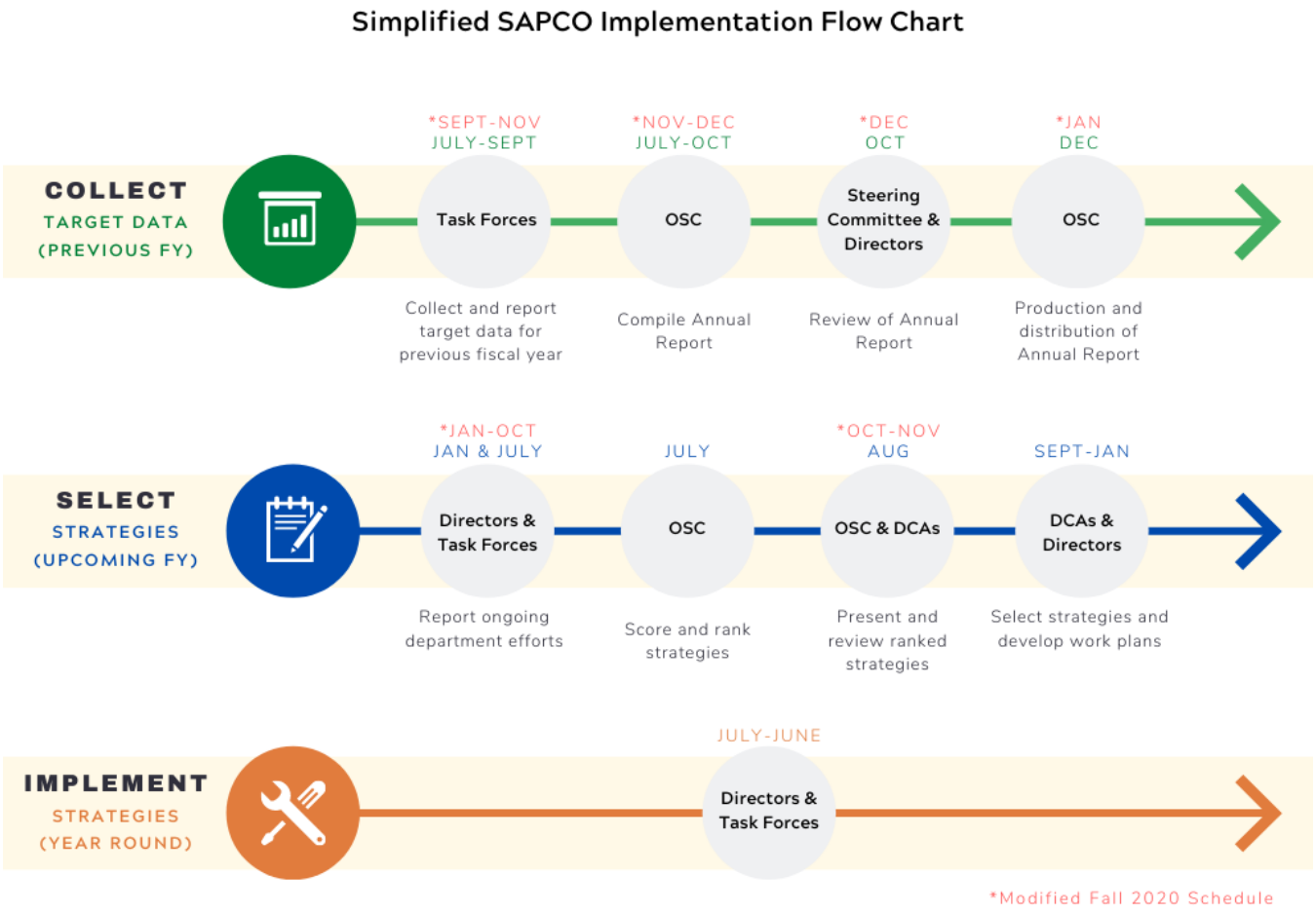
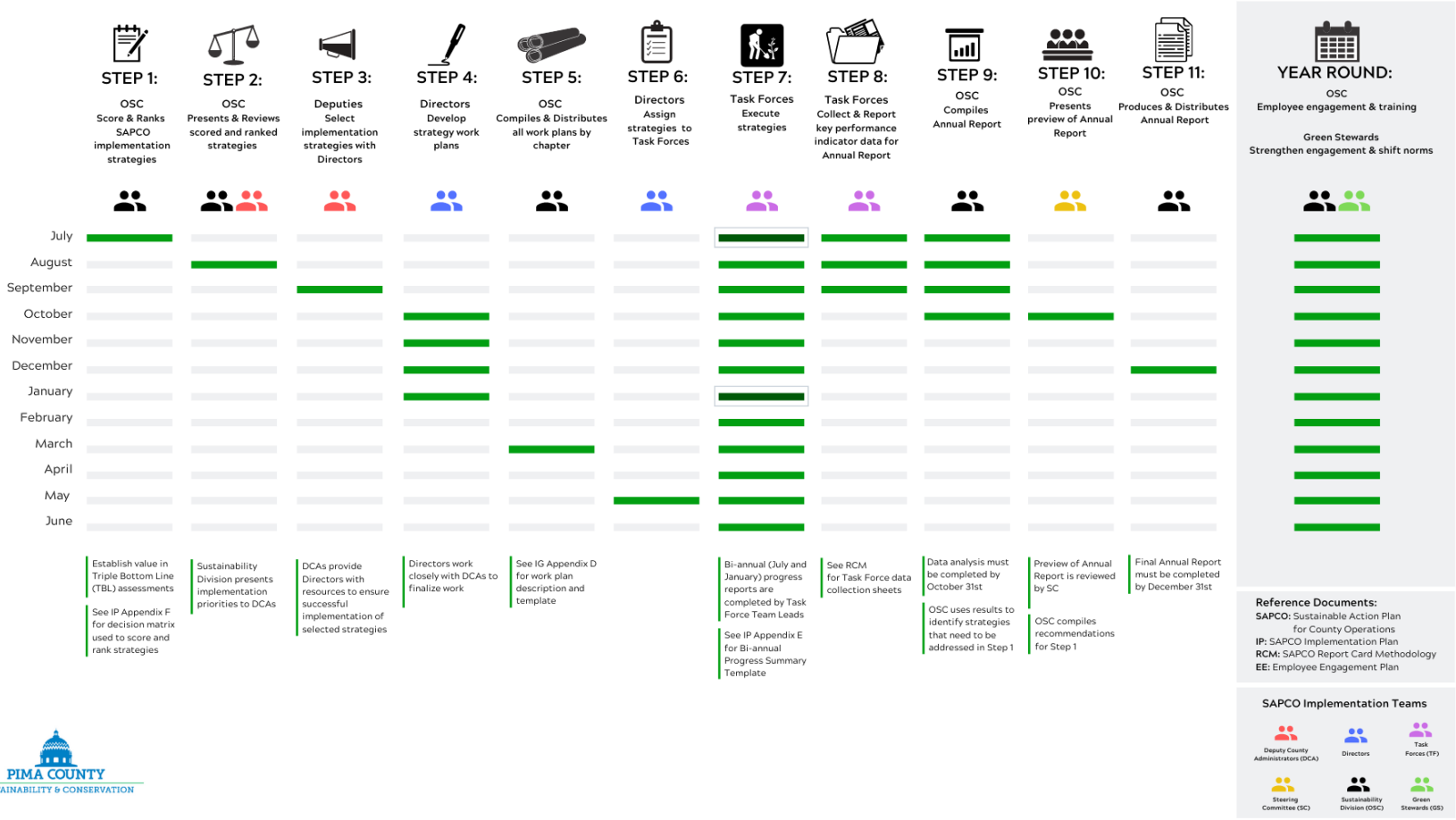
Appendix A: SAPCO Implementation Flow Chart



SAPCO Implementation Flow Chart



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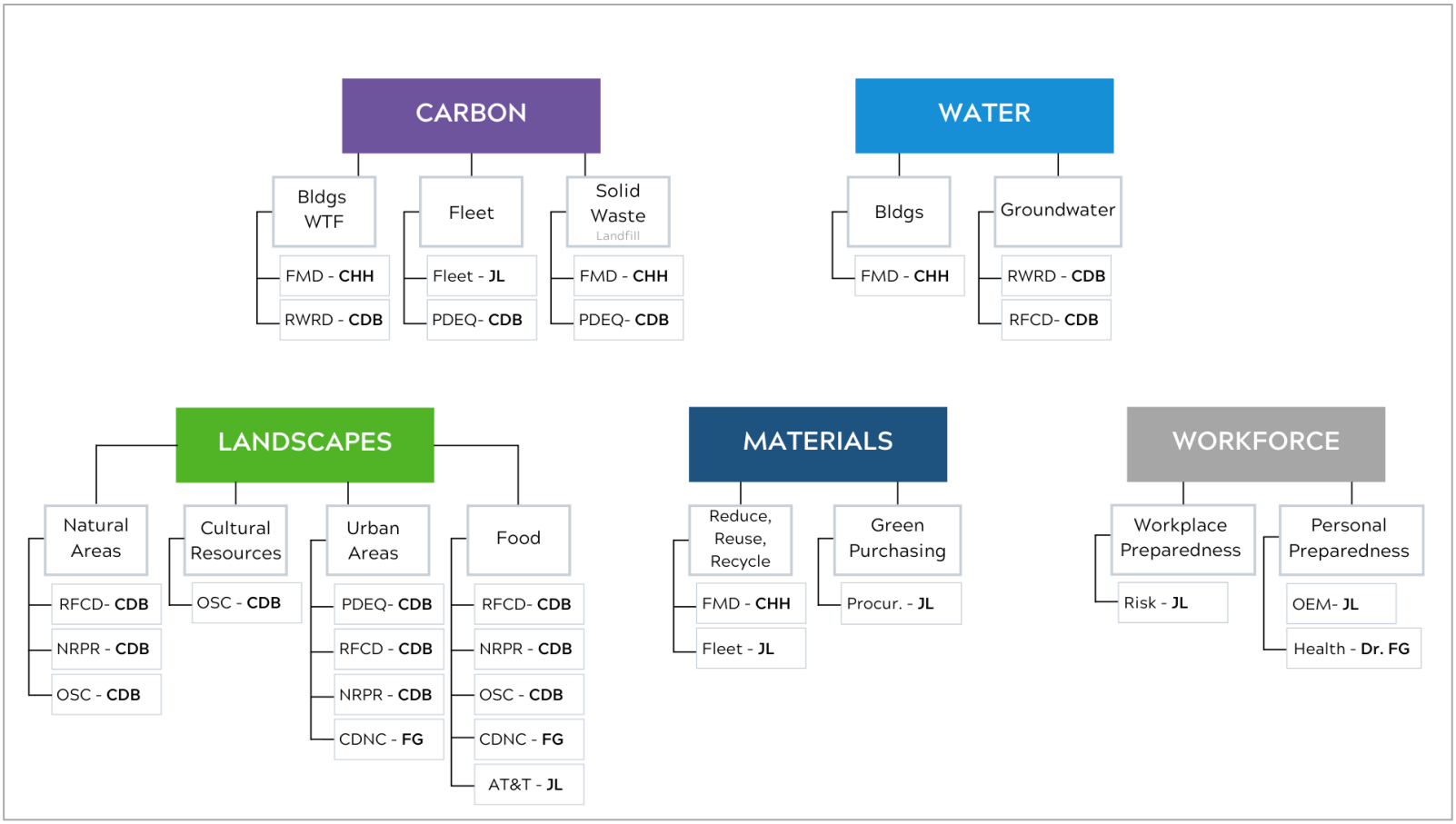
Appendix B: SAPCO Roles & Responsibilities*

*A breakout of oversight responsibilities by Deputy County Administrator. **Bolded departments and names** in the Proposed Task Forces represent the Lead Director under the DCA with implementation responsibilities. Proposed Task Forces may have more than Lead since the implementation of SAPCO strategies often requires cross-departmental participation.



SAPCO Roles and Responsibilities

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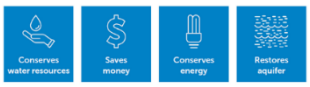
CA
Mr. Huckelberry

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
CARBON 	**Focus Area:** Buildings, Facilities and Wastewater Treatment **Target:** Reduce CO2e from County facilities (including RWRD) by 50% **Lead Departments: FMD, RWRD**	
	Focus Area: Solid Waste **Target:** Reduce CO2e from waste by 10% **Lead Department: FMD**	**Facility Operations Task Force** Members / Title/Position Lead **Lisa Josker (FMD)** — **Director w/ Oversight** Lead Jackson Jenkins (RWRD) — Director w/ Oversight Patrick O'Leary (FMD) — Energy Manager Houssam El Jerdi (RWRD) — WW Technical Services Manager Kathy Chavez (OSC) — Water Policy Manager Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator
WATER 	**Focus Area:** Water Use in Facilities **Target:** Reduce potable water use by 15% in buildings & facilities **Lead Department: FMD**	
MATERIALS 	**Focus Area:** Solid Waste **Target:** Reduce volume/weight of landfill by 20% **Lead Department: FMD**	

SAPCO Roles and Responsibilities

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Chief Deputy CA
Ms. Lesher

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
CARBON 	**Focus Area:** County Vehicle Fleet **Target:** Reduce CO2e by 10% in non-EVs; Replace up to 120 gas sedans with EVs **Lead Department: Fleet**	**Fleet Task Force** Lead **Ray Ochotorena (Fleet)** — **Director w/ Oversight** Lead Ursula Nelson (PDEQ) — Director w/ Oversight Patricia Mehrens (Fleet) — Deputy Director Pete Bowers (Fleet) — Trades Maintenance Supervisor Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator
MATERIALS 	**Focus Area:** Green Purchasing **Target:** Increase the percentage of Preferred Products purchased by 20% **Lead Department: Procurement**	**Materials Operations Task Force** Lead Lisa Josker (FMD) — Director w/ Oversight Lead **Mary Jo Furphy (Procurement)** — **Director w/ Oversight** Reenie Ochoa (Stadium District) — Community Services Director Jennifer Moore (Procur.) — Procurement Officer TBD (FMD) — Waste/recycling Coord. Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator

Chief Deputy CA
Ms. Lesher

SAPCO Roles and Responsibilities Cont'd

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SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
MATERIALS 	**Focus Area:** Solid Waste **Target:** Recycle industrial waste 100% **Lead Department: Fleet**	**Fleet Task Force** Members / Title/Position Lead **Ray Ochotorena (Fleet)** — **Director w/ Oversight** Lead Ursula Nelson (PDEQ) — Director w/ Oversight Patricia Mehrens (Fleet) — Deputy Director Pete Bowers (Fleet) — Trades Maintenance Supervisor Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator
WORKFORCE 	**Focus Area:** Workplace preparedness **Target:** 100% of employees complete annual emergency training **Lead Department: Risk, Health**	**Workplace Preparedness Task Force** Members / Title/Position Lead **Michelle Campagne (Risk)** — **Director w/ Oversight** Lead Jeff Guthrie (OEM) — Director w/ Oversight Lead Cathy Bohland (HR) TBD — Director w/ Oversight Lead TBD (HR) TBD (OEM) Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator

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SAPCO Roles and Responsibilities

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DCA
Mr. DeBonis

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
WATER 	**Focus Area:** Groundwater Replenishment **Target:** Monitor the use of reclaimed water for groundwater recharge & inventory recharge **Lead Department: RFCD, RWRD**	
LANDSCAPES 	**Focus Area:** Natural Areas **Target:** Conserve biodiversity & habitat; manage areas for resilience **Lead Departments: RFCD, OSC, NRPR**	
	Focus Area: Cultural Resources **Target:** Conserve cultural resources; education & outreach **Lead Department: OSC**	

Natural Areas Task Force

	Members	Title/Position
Lead	**Suzanne Shields (RFCD)**	**Director w/ Oversight**
Lead	**Linda Mayro (OSC)**	**Director w/ Oversight**
Lead	**Chris Cawein (NRPR)**	**Director w/ Oversight**
	Karen Simms (NRPR)	Division Manager
	Julia Fonseca (OSC)	Env. Planning Manager
	Brian Powell (NRPR)	Parks Superintendent
	Marisa Rice (RFCD)	Program Manager
	David Scalero (RFCD)	Hydrologist Principal
	Doug Siegel (NRPR)	Natural Resources Specialist
	Julie Robinson (OSC)	Program Manager
	Sandra Maina (OSC)	Program Coordinator
	Angela Della Croce (OSC)	Program Coordinator

Cultural Resources Task Force

	Members	Title/Position
Lead	**Linda Mayro (OSC)**	**Director w/ Oversight**
	Ian Milliken (OSC)	Program Coordinator
	Courtney Rose (OSC)	Program Manager
	Julie Robinson (OSC)	Program Manager
	Sandra Maina (OSC)	Program Coordinator
	Angela Della Croce (OSC)	Program Coordinator

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SAPCO Roles and Responsibilities Cont'd

PIMA COUNTY
SUSTAINABILITY & CONSERVATION

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
LANDSCAPES	**Focus Area:** Urban Areas **Target:** Green infrastructure (install 40 sites, 10K trees) **Lead Departments: PDEQ, RFCD, NRPR, CDNC**	**Urban Areas Task Force** **Members** / **Title/Position** Lead **Ursula Nelson (PDEQ)** — **Director w/ Oversight** Lead **Suzanne Shields (RFCD)** — **Director w/ Oversight** Lead **Chris Cawein (NRPR)** — **Director w/ Oversight** Daniel Tylutki (CDNC) — Program Manager, Sr Marie Light (PDEQ) — Hydrologist Ryan Stephenson (CDNC) — GIS Planner Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator **Urban Areas Core Planning Group** Daniel Tylutki (CDNC) — Program Manager, Sr Evan Canfield (RFCD) — Division Manager Greg Saxe (RFCD) — Env. Planning Manager Jennifer Becker (RFCD) — Hydrologist Jessie Byrd (NRPR) — Native Plant Nursery Manager Martha Martin (CDNC) — Comm. Dev. Housing Planner III Nicholas Cogdall (Health) — Program Coordinator Ryan Stephenson (CDNC) — GIS Planner Sandy Bolduc (RFCD) — Project Manager
	Focus Area: Food Systems **Target:** Sites, acres, activities (see SAPCO pp. 28-29 for details) **Lead Departments: OSC, NRPR, A&T, CDNC**	**Food Systems Task Force** **Members** / **Title/Position** Lead **Linda Mayro (OSC)** — **Director w/ Oversight** Lead **Chris Cawein (NRPR)** — **Director w/ Oversight** Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator **Food Systems Core Planning Group (internal)** Catherin Strickland (A&T) — Program Manager Courtney Rose (OSC) — Program Manager Daniel Tylutki (CDNC) — Program Manager, Sr Janice Hughes (RFCD) — Civil Engineering Manager Jessie Byrd (NRPR) — Native Plant Nursery Manager Justine Hernandez (Library) — Librarian Mark Holden (DSD) — Planner Principal Nicholas Cogdall (Health) — Program Coordinator Ryan Stephenson (CDNC) — Planner Sandy Bolduc (RFCD) — Project Manager Vanessa Prileson (NRPR) — Program Manager

SAPCO Roles and Responsibilities

PIMA COUNTY
SUSTAINABILITY & CONSERVATION

Asst CA
Dr. Khawam

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
CARBON 	**Focus Area:** Buildings, Facilities, and Wastewater Treatment **Target:** Reduce CO2e from county facilities (including RWRD) by 50% **Lead Department: FMD, RWRD**	**Facility Operations Task Force** Members / Title/Position Lead **Jackson Jenkins (RWRD)** — **Director w/ Oversight** Lead Lisa Josker (FMD) — Director w/ Oversight Patrick O'Leary (FMD) — Energy Manager Houssam El Jerdi (RWRD) — WW Technical Services Manager Kathy Chavez (OSC) — Water Policy Manager Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator
WATER 	**Focus Area:** Groundwater Replenishment **Target:** Monitor the use of reclaimed water for groundwater recharge & inventory recharge **Lead Department: RWRD, RFCD**	

SAPCO Roles and Responsibilities

PIMA COUNTY
SUSTAINABILITY & CONSERVATION

DCA
Dr. Garcia

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES

LANDSCAPES

Focus Area: Urban Areas
Target: Green infrastructure (install 40 sites, 10K trees)
Lead Departments: PDEQ, RFCD, NRPR, CDNC

Urban Areas Task Force

	Members	Title/Position
Lead	Ursula Nelson (PDEQ)	Director w/ Oversight
Lead	Suzanne Shields (RFCD)	Director w/ Oversight
Lead	Chris Cawein (NRPR)	Director w/ Oversight
Lead	**Daniel Tylutki (CDNC)**	**Program Manager, Sr**
	Marie Light (PDEQ)	**Hydrologist**
	Ryan Stephenson (CDNC)	GIS Planner
	Julie Robinson (OSC)	Program Manager
	Sandra Maina (OSC)	Program Coordinator
	Angela Della Croce (OSC)	Program Coordinator

Urban Areas Core Planning Group

Daniel Tylutki (CDNC)	Program Manager, Sr
Evan Canfield (RFCD)	Dvision Manager
Greg Saxe (RFCD)	Env. Planning Manager
Jennifer Becker (RFCD)	Hydrologist
Jessie Byrd (NRPR)	Native Plant Nursery Manager
Martha Martin (CDNC)	Comm. Dev. Housing Planner III
Nicholas Cogdall (Health)	Program Coordinator
Ryan Stephenson (CDNC)	GIS Planner
Sandy Bolduc (RFCD)	Project Manager

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SAPCO Roles and Responsibilities Cont'd

PIMA COUNTY
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SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES
WORKFORCE	**Focus Area:** Workplace preparedness **Target:** 100% of employees complete annual emergency training **Lead Departments: Risk, OEM, Health** **Focus Area:** Personal preparedness **Target:** 100% of employees download climate emergency checklists **Lead Departments: Risk, OEM, Health**	**Workplace Preparedness Task Force** **Members** — **Title/Position** Lead Michelle Campagne (Risk) — Director w/ Oversight Lead Jeff Guthrie (OEM) — Director w/ Oversight Lead **Cathy Bohland (HR) TBD** — **Director w/ Oversight** Lead TBD (Health) Lead TBD (HR) TBD (OEM) Julie Robinson (OSC) — Program Manager Sandra Maina (OSC) — Program Coordinator Angela Della Croce (OSC) — Program Coordinator

SAPCO Roles and Responsibilities

PIMA COUNTY
SUSTAINABILITY & CONSERVATION

Asst CA
Mr. Voorhees

SAPCO CHAPTER	FOCUS AREAS & TARGETS	PROPOSED TASK FORCES

WORKFORCE

Focus Area: Personal preparedness
Target: 100% of employees download climate emergency checklists
Lead Departments: Risk, OEM, Health

Workplace Preparedness Task Force

	Members	Title/Position
Lead	Michelle Campagne (Risk)	Director w/ Oversight
Lead	**Jeff Guthrie (OEM)**	**Director w/ Oversight**
Lead	Cathy Bohland (HR) TBD	Director w/ Oversight
Lead	TBD (HR)	
	TBD (OEM)	
	Julie Robinson (OSC)	Program Manager
	Sandra Maina (OSC)	Program Coordinator
	Angela Della Croce (OSC)	Program Coordinator

Appendix C: SAPCO Implementation Teams

	Deputy County Administrators (DCAs)
Purpose	The Deputy County Administrators are responsible for reviewing, selecting and assigning SAPCO implementation strategies and resources. The Deputies consider the business case for strategies as they relate to creating value for Pima County residents. Economic considerations as well other critical values such as environmental and community benefits are considered.
Members (by expertise)	Deputy County Administrators Director of Office of Sustainability, Conservation and Cultural Resources Sustainability Manager
Duties	Deputies are responsible for: • Reviewing and assigning SAPCO implementation priorities and resources by year • Communicating priorities to Directors • Serving as ongoing *Sponsors* for the implementation strategies in their sphere of operations • Reviewing progress towards meeting SAPCO 2025 goals and advance resources and support as needed
Meeting Commitments	Once a year (November)
	Steering Committee (SC)
Purpose	The Steering Committee (SC) is comprised of department directors that hold operational responsibilities in SAPCO. The SC convenes once yearly to review SAPCO data collection and analysis and align work plans developed by the Task Forces.
Members (by expertise)	Directors of lead/participating departments Director of Office of Sustainability, Conservation and Cultural Resources Sustainability Manager & Coordinators
Duties	Members of the Steering Committee are responsible for: • Reviewing work plans • Providing staff and financial resources to implement strategies per the direction of the Deputies • Providing quarterly verbal or written progress updates related to Plan implementation to the Deputies & the Sustainability Division • Facilitating opportunities to integrate and align sustainability in County operations Providing periodic presentations on SAPCO to County Administration meetings and external audiences.
Meeting Commitments	Once a year (November)

	Sustainability Task Forces (TFs)
Purpose	The Sustainability Task Forces (TFs) implement solution strategies to fulfill SAPCO targets at the direction of Directors with lead responsibilities. The Task Forces are comprised of staff subject matter experts with direct operational knowledge of the sphere of work. The Task Forces are organized into the following focus areas: • *Facility Operations* • *Fleet* • *Materials* • *Natural Areas* • *Cultural Resources* • *Urban Areas* • *Food Systems* • *Workplace & Personal Preparedness*
Members (by expertise)	Directors of lead departments Assigned staff experts Sustainability Manager and Coordinators
Duties	• Developing and executing Work Plans based on assignment/s received from the DCAs • Tracking and collecting data/information for the Annual Sustainability Report • Providing mid-term progress reports to Steering Committee Identifying and elevating any issues or obstacles related to SAPCO implementation and solutions to the Sponsor.
Meeting Commitments	At the discretion of Lead departments & the Sustainability Division
	Green Stewards (GS)
Purpose	The Green Stewards serve as the outreach and engagement branch for SAPCO.
Members (by expertise)	Open to all County employees with supervisors' permission.
Duties	The Green Stewards primary responsibilities include the following: • Participate in training events, earn points towards tiers of internal accreditation • Advocate, educate and advance sustainability practices in County operations • Serve as points-of-contact to disseminate sustainability information within departments • Participate at Supervisor's discretion in sustainability education and outreach events for staff and public. Senior ambassadors engage in and support change-management strategies identified and outlined by or in concert with the Task Forces through identifying a shared need and vision, mobilizing commitment, monitoring progress, and making change last.
Meeting Commitments	Ongoing, year round

	Sustainability Division (SD)
Purpose	The Sustainability Program Division oversees the Sustainable Action Plan and monitors the County's progress toward achieving its sustainability objectives. It plays an active role in the Plan's implementation through serving as experts in sustainability science and practice and climate resilience. They provide facilitation and offer support resources such as trainings, employee engagement activities and communication. The Division also acts as a liaison between internal stakeholders and external sustainability experts and resources.
Members (by expertise)	The OSC Director Sustainability Division Manager and Coordinators
Duties	The Sustainability Programs Division's primary responsibilities pertaining to SAPCO implementation include the following: • Hosts meetings with STAC, Deputies and Steering Committee • Facilitates the Task Forces' development and execution of their annual work plans • Facilitates data collection, analysis and reporting for the Annual Sustainability Report • Produces the Annual Sustainability Report • Oversee the Sustainability Green Stewards Program • Serves as a Sustainability and Climate Resilience point-of-contact at Pima County • Leads sustainability education and outreach events for staff and the public • Coordinates and participate in grant funding initiatives
Meeting Commitments	Ongoing

Appendix D: Work Plan Template for Directors and Task Forces to use to develop their annual SAPCO Implementation Strategies

SAPCO IP Work Plan Template

Fiscal Year:		**Date Submitted:**	
Task Force Lead			
Task Force Members			
Point of Contact			
SAPCO Target			
Strategy (with Code)			
Goals/Objectives			
Budget & Funding sources			
Projected timeline (est. start and end date)			
Action Items (with est. deadlines)			
Task Force Members Roles & Responsibilities			
Potential or existing barriers			
Current status of completion			

SAPCO IP Planning & Organization Guide

This planning guide may be used as a template by the Task Forces to discuss and organize information related to the implementation strategy being considered. The implementation strategy details, once finalized, are transferred into the SAPCO IP Work Plan Template and shared with the Sustainability Division. Task Forces should save the information in the Plan & Organization Guide to refer to and for completing the mid-year SAPCO Progress Summary Sheet.

Phase I Innovation

Description	The Task Force will: • Expose uncertainties in the assignment: What are the knowns and unknowns? • Identify all the partners including the end users who will play a role in implementing the assignment. • Brainstorm ways to implement the assignment. • Pilot a small piece of the solution for learning, if possible. • Make a decision based on evidence to persevere, pivot, or iterate. *If there is evidence to support the decision to persevere, then continue to Phase II. If not, iterate or pivot to alternative strategy and repeat the Phase I process.
Deliverable	Summary of Phase I Outcomes
Assignee(s)	The Task Force with support from Sustainability Division as requested.

Phase II Planning & Design

Description	The Task Force will: Develop a project description, which fulfills the project goals while accounting for the risks, costs and metrics of the project.
Deliverable	The project description includes the following: • Goals/objectives • Action items • Project lead, roles and responsibilities • Project timeline and estimated task deadlines • Budget for action items and resource use • Funding sources • Implementation assessment methodology and data sources (for Phase IV) Deliverables to be produced and submitted. Final sign-off by the SAPCO Administration Review team (SAR)
Assignee(s)	The Task Force or other key staff as required by Directors, with support from Sustainability Division as requested.

Phase III Execution

Description	The assigned Project Lead with support from the Task Force as needed, will: Undertake the Execution Phase beginning with a kick-off meeting to make sure all stakeholders review and provide any needed final input or minor revisions to the project Plan & Design, and understand and accept their roles and responsibilities.
Deliverable (annually)	Progress status reports that outline progress (through assessment), issues/challenges, and any changes to the project plan. *These reports can be used to help build the Mid-term SAPCO Progress Report.*
Assignee	Project Lead, with Task Forces with support from Sustainability Division as requested

Phase IV Process Reviews

Description	A review phase undertaken periodically throughout the implementation effort. How often a Task Force goes back and forth between Implementation and review depends on the complexity and timeline of the project. The goal is to ensure that the project is moving along as planned and make any necessary changes to the

	project plan if a barrier is encountered. Task Forces submit assessment updates, issues or concerns, etc. to the Task Force Lead for escalation to Directors and DCAs.
Deliverable (annually)	Progress Summary reports that share work updates (through assessment), issues/challenges, and any changes to the project plan. *These reports can be used to help build the Mid-term SAPCO Progress Report.*
Assignee	Task Forces with support from Sustainability Division as requested.
Phase V Close-out	
Description	The purpose of the Closeout Phase is to demonstrate that the project is complete and that all deliverables have been submitted and approved. Successful projects reflect the initial objectives of the work plan, though variations may occur. The Closeout Phase is also the opportunity to collect feedback from stakeholders, discuss lessons learned and strengthen the project management framework for future work.
Deliverable (annually)	Statement of acknowledgement that project is complete, signed by participating department director(s).
Assignee	Project Lead, Task Forces with support from Sustainability Division as requested.

Appendix E: Biannual Progress Summary Template for reporting mid-fiscal year updates related to work on the Work Plans

SAPCO Progress Summary Sheet

Fiscal Year	Sustainability Task Force	Task Force Lead	Date submitted

Progress on Assigned Strategies	
Which strategy/s are currently in progress?	
Is there a work plan? (If so, please attached current version)	
Are there any implementation issues/obstacles?	
Items for discussion/escalation to DCAs?	
Estimated completion?	
Noteworthy accomplishments? Are images available?	

Appendix F: A Multi-Criteria Decision Model (MCDM): A tool for prioritizing implementation strategies using a Triple-Bottom-Line Approach

As part of the SAPCO mid-term evaluation conducted in 2017 by the Sustainability Division and the Steering Committee, it was determined that a system for prioritizing implementation strategies was needed. Additionally, there was agreement that a prioritization process that gave equal weight to all three pillars of sustainability (social, environmental *and* economic) was required since the existing internal selection process favored strategies for which it was possible to calculate returns on investment or ROIs. Consequently, important sustainability strategies that advanced social and environmental benefits (mandated by the BOS-adopted SAPCO) were not pursued as vigorously.

At present, Triple-Bottom-Line (TBL) modeling tools that weigh and calculate the *actual* social, environmental and economic benefits of sustainability strategies are only available through paid client services. As sustainability becomes mainstreamed in corporate and municipal planning, it is likely that off-the-shelf, affordable TBL products will become available. In the meantime, in researching TBL tools, staff determined that the next best option involved using a variation of a Multiple-criteria Decision Analysis Model, which could be adopted with modifications for use in implementing SAPCO.

Multiple-Criteria Decision Model (MCDM) is a branch of operational research dealing with finding optimal results in complex scenarios including several and/or conflicting indicators, objectives or criteria. This tool is becoming popular in the field of sustainability and energy planning due to the flexibility it provides for considering multiple criteria and objectives simultaneously.

At a practical level, this framework provides practitioners with a transparent tool to support complex decision-making. MCDA applies values to multiple variables in a scoring system, which is useful in situations where there are multiple options or alternatives to choose from and no option optimizes every interest or every sustainability requirement.

The MCDA that staff will use to undertake annual TBL's of strategies, relies on expert elicitation (in lieu of modeled cost-benefit scenarios) to assign scores and rank priorities. Currently, scenario modeling requires significant resources beyond the scope of our current efforts. It is important to note that the MCDA assists with scoring for insights rather than precision, an important distinction.

While the MCDA is somewhat subjective in nature, it allows staff to talk about decision opportunities (problems to be solved) from differing perspectives. The trade-offs among different alternatives can be considered and the choices of competing interests can be compared.

Simplified MCDA

The SAPCO Multi-Criteria Decision Analysis Methodology:

1. **Identify decision opportunities** i.e. the strategies available to achieve a sustainability objective. Recommended strategies for each SAPCO target are outlined in the Plan, however new strategies may be introduced or existing strategies may be tabled depending upon evolving circumstances.
2. **Build a decision table** for each strategy to organize the information (see Table 1).
3. **Provide performance scores for each strategy** across four categories: social, technical, environmental and economic with each category containing three scoring criteria.
4. **Sum the criteria and apply a weighted factor** at the evaluator's discretion (with justification) to address political, administrative, economic or black swan-type[2] of influences that may have a positive or negative bearing on the timing of the strategy under consideration.
5. **Rank the strategies** based on their weighted scores

The sustainability score (***S***) is calculated through the weighted sum formula given by:

$$S = \sum_i w_i s_i$$

- W_i is the weight (if added) of criterion ***i*;**
- S_i is the performance score for criterion ***i*;**

Alternatives with a higher value for ***S*** are determined to be more sustainable in a triple-bottom-line analysis.

In this framework, all weights and scores are derived from expert elicitation, and indicate the relative importance of each criterion compared to alternatives. Strategies with the highest values are considered the options with the highest value.

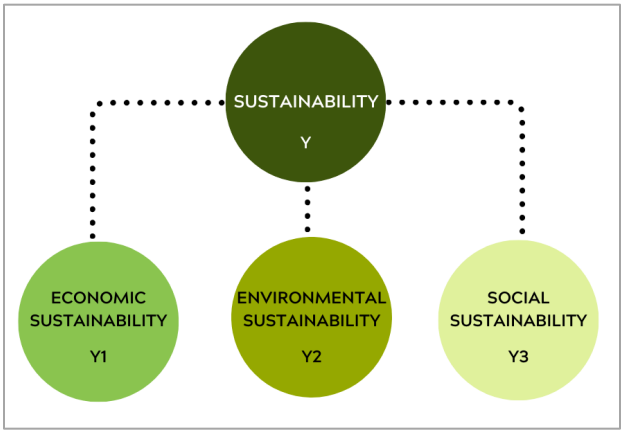
Sustainability Transfer Function

When operationalizing sustainability, this type of scoring is sometimes referred to the 'Sustainability Transfer Function.' The goal of the Sustainability Transfer Function is to define *the critical few* activities that, when managed, will create results consistent with meeting the goals of the Pima County's sustainability commitments (McCarty, Jordan, & Probst, 2011). The transfer function is based on the universally accepted definition of sustainability from the Brundtland Commission[3], which considers the three drivers of sustainability: economic, environmental and social. In considering the sustainable transfer function, solving for both environmental and economic concerns simultaneously, nearly always generates a net positive social benefit.

[2] A black swan event is a metaphor used to describe an existential threat or challenge that comes as a surprise and has a major effect.

[3] The Brundtland Commission delivered, *Our Common Future* (1987), a Report of the World Commission on Environment and Development.

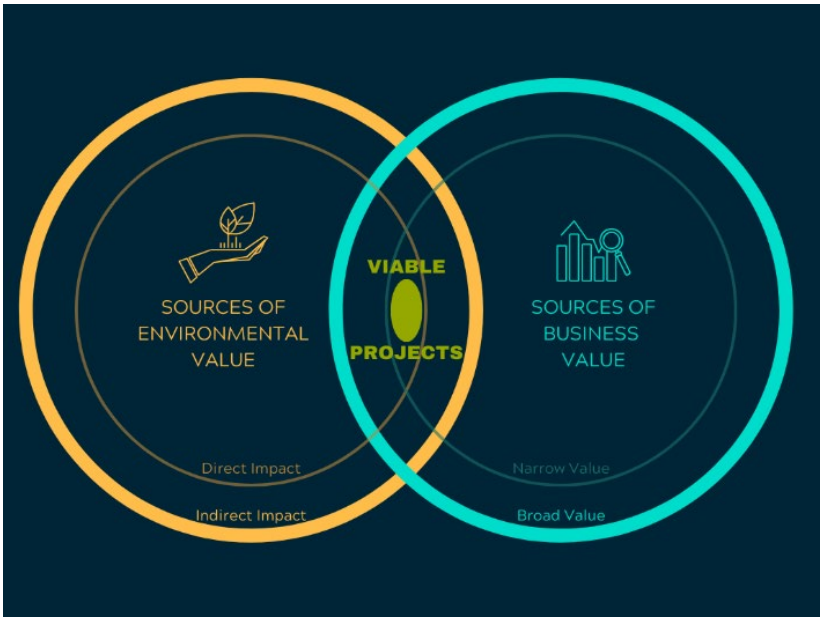
Figure 1. Sustainability Transfer Function



The Sustainability Transfer Function integrates the Natural Step system, (a co-product of the Brundtland Commission work) that employs backcasting principles or more simply, whole-systems thinking. This structure is based on the premise of simplification without reduction (to avoid getting lost in deep complexity) and starts with looking at the imagined vision of success and moves backwards from the vision to the present in a stepwise fashion. There are five key components considered in the Natural Step process – extraction of resources, pollution, other types of environmental degradation by physical means, and that people are not subjected to conditions that systematically undermine their needs. The targets and reporting process outlined in SAPCO reflect the Natural Step system.

Lastly, when considering the impact of sustainability actions it is helpful to recognize that scale is consequential. Some activities may have direct to indirect impacts, on narrow or broad scales. As the figure below illustrates, if a company or government is interested in sustainability only as it pertains to cost savings, the set of business-value sources is relatively small (A-Narrow). If the company uses sustainability as a driver of product sales or brand value, the circle is larger (B-Broad). Sustainability projects that are conceived from the overlap between the two circles offer the highest value environmental and economic value (McCarty et al. 2011).

Figure 2. Choosing Viable Sustainability Projects



Triple Bottom Line (TBL) Analysis Decision Table

This table integrates the MCDA principles and the Sustainability Transfer Function Theory into a matrix that can be used for scoring and prioritizing the sustainability strategies based on a set of equally applied criteria. The Sustainability Division will use this system for generating a list of priorities to advance to the Deputy County Administrators on an annual basis for their review and direction.

Table 1. SAPCO MCDA Table

Multi-Criteria Decision Analysis
for Recommended Implementation Strategies

SUMMARY SHEET

Sustainable Action Plan for County Operations 2018—2025

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
Carbon	Buidlings, facilties, and wastewater treatm	Reduce carbon emission from county facilities (including RWRD) by 50%	1. Improve building efficiency	**CB1**
Carbon	Buidlings, facilties, and wastewater treatm	Reduce carbon emission from county facilities (including RWRD) by 50%	2. Expand renewable energy capacity	**CB2**
Carbon	Buidlings, facilties, and wastewater treatm	Reduce carbon emission from county facilities (including RWRD) by 50%	3. Include beneficial use of biogas	**CB3**
Carbon	Buidlings, facilties, and wastewater treatm	Reduce carbon emission from county facilities (including RWRD) by 50%	4. Improve employee energy conservation practices	**CF1**
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**
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**
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**
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**
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**
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	1. Increase recycling of office and industrial materials	**CW1**
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	2. Decrease landfill waste (volume/weight)	**CW2**
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	3. Buy reusable/refillable items	**CW3**
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	4. Implement employee education program	**CW4**
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	1. Replace old fixtures with more efficient ones	**WAB1**
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**
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	3. Replace aging water cooled chillers with air-conidtioned chillers	**WAB3**
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	4. Sub-meter water systems during retrofits	**WAB4**
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**
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**
Water	Water use in facilities	Reduce potable water use across all county facilities by 15%	7. Implement employee education and outreach programs	**WAB7**
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**
Water	Groundwater replenishment	Monitor the use of reclaimed water for groundwater recharge	2. Continue to inventory uses of renewable water	**WAG2**
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**
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	1. Track and report surface water for wildlife plants in key natural areas	**LN1**
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	2. Monitor the trends of groundwater dependent ecosystems	**LN2**
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	3. Track and report the level of shallow groundwater	**LN3**

Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	4. Increase total acres of natural areas conserved	LN4
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
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	6. Acquire riparian corridor parcels	LN6
Landscapes	Natural Areas	Conserve native wildlife, plants, and natural areas	7. Increase linear miles of major riparian corridor added each year	LN7
Landscapes	Natural Areas	Manage natural areas for resilient ecosystems	1. Implement and expand strategic interventions to remove invase species, e.g. Beat Back Bufflegrass Month	LN8
Landscapes	Natural Areas	Manage natural areas for resilient ecosystems	2. Continue to inventory restoration projects	LN9
Landscapes	Natural Areas	Manage natural areas for resilient ecosystems	3. Track the number and purpose of restoration actions taken	LN10
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	1. Conduct cultural resources surveys	LC1
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	2. Protect cultural resources from damage	LC2
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	3. Colaborate with Tribes	LC3
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	4. Administer oral history and archival studies	LC4
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	5. Conduct public outreach and education	LC5
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	6. Track and report areas inventoried	LC6
Landscapes	Cultural Resources	Protect and concerve historic sites, historic buidlings, and archaelogical sites, traditional cultural places, and cultural landscapes	7. Track and report sites protected	LC7
Landscapes	Cultural Resources	Promote public outreach and education	1. Build education and outreach plan	LC8
Landscapes	Cultural Resources	Promote public outreach and education	2. Track and report number of activities	LC9
Landscapes	Urban Areas	Plant at least 10,000 trees	1. Utilize PAG GI Prioritization Tool (high heat/low tree canopy)	LU1
Landscapes	Urban Areas	Plant at least 10,000 trees	2. Implement Green Infrastructure Action Plan	LU2
Landscapes	Urban Areas	Plant at least 10,000 trees	3. Puruse policies to require RTA to install trees as a part of 4% landscape budget allocation	LU3
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
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	1. Implement Green Infrastructure Action Plan	LU5
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	2. Determine triple bottom line benefits with modeling tools	LU6
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	3. Utilize Capital Improvement Project (CIP) funding where applicable	LU7
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	4. Explore and identify general funds, grants and other resources for projects	LU8
Landscapes	Urban Areas	Install at least 40 green infrastructure sites	5. Identify appropriate County-owned parcels and right-of-ways for projects	LU9
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
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
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
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

Landscapes	Food Systems	Maintain or expand number of County properties with Farmer's Markets	3. Track and report ounty properties with Farmer's Markets	LF3
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
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
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
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
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
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
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
Landscapes	Food Systems	Maintain or expand number of County acres under cattle grazing leases	1. Continue rangeland inventories, monitoring and assessment	LF11
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
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
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
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
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
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
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
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
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
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
Landscapes	Food Systems	Maintain or expand food heritage activities	2. Track and erport on supported food heritage activities	LF22
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
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
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
Materials	Solid Waste	Recycle industrual waste by 100%; Recycle industrual 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
Materials	Solid Waste	Recycle industrual waste by 100%; Recycle industrual waste by 100%	2. Reuse and repurpose existing buildings	MW2
Materials	Solid Waste	Recycle industrual waste by 100%; Recycle industrual waste by 100%	3. Recycle building construction materials	MW3
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

Materials	Green Purchasing	Increase percentage of Preferred Products purchased by the County by 20%	2. Standardize product selection and purchasing practices	**MG2**
Materials	Green Purchasing	Increase percentage of Preferred Products purchased by the County by 20%	3. Include green specifications in vendor contracts	**MG3**
Workforce	Workplace preparedness	100% of employees complete emergency trainings (annual)	1. Implement quarterly seasonal safety trainsings 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**
Workforce	Workplace preparedness	100% of employees complete emergency trainings (annual)	2. Promote through a variety of outreach sources - Wellness Program, E-Scoop	**WFW2**
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**
Workforce	Personal preparedness	100% employees download emergency checklist and information handouts (annual)	1. Implement an annual emergency preparedness campaign with an ADP promtp to: a. Download an Emergency Preparednes Checklist, b. Download Neighborhood Climate Resilience Resource	**WFP1**
Workforce	Personal preparedness	100% employees download emergency checklist and information handouts (annual)	2.Complete a quiz on at-home preparedness	**WFP2**
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**

References

McCarty, T., Jordan, M., & Probst, D. (2011). *Six Sigma for Sustainability: How Organizations Design and Deploy Winning Environmental Programs* (J. Bass Ed.). NY: McGraw-Hill.