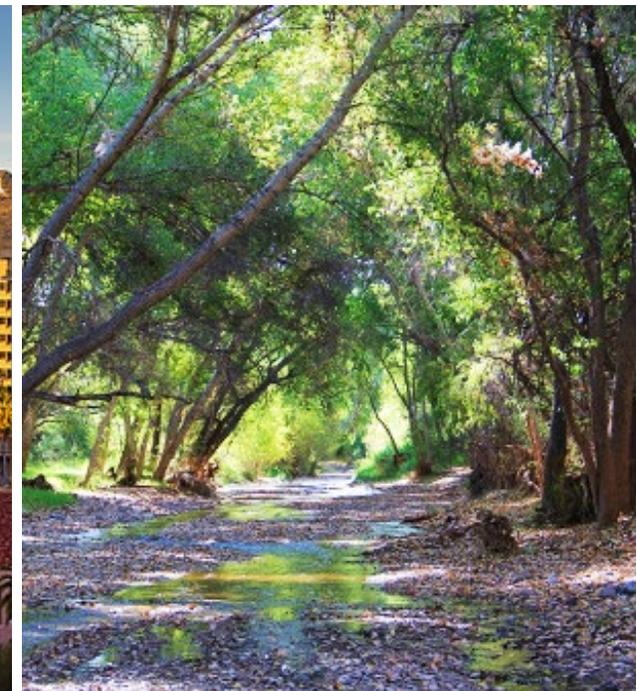




SAPCO Implementation Plan 2018 - 2025

Provided by
the Office of Sustainability and Conservation



SAPCO History

Through BOS direction and cross-departmental collaboration, SAPCO is an award-winning 15+ Year effort!

- » 2005: Sustainable Action Plan concept work began
- » 2007: First SAPCO (FY 2008-2013) adopted by BOS
- » 2014: Updated SAPCO (FY 2014-2019) adopted by BOS
- » 2016: Created SAPCO Methods Handbook (continue to update)
- » 2017: Two Climate Resolutions (2017-39, 2017-51) passed by BOS
- » 2018: Updated SAPCO (FY 2018-2025) to align with the Paris Agreement
- » 2018: Tucson 2030 District Changemaker Award
- » 2019: AZ Forward 2019 Crescordia Award for SAPCO's Climate Change emphasis



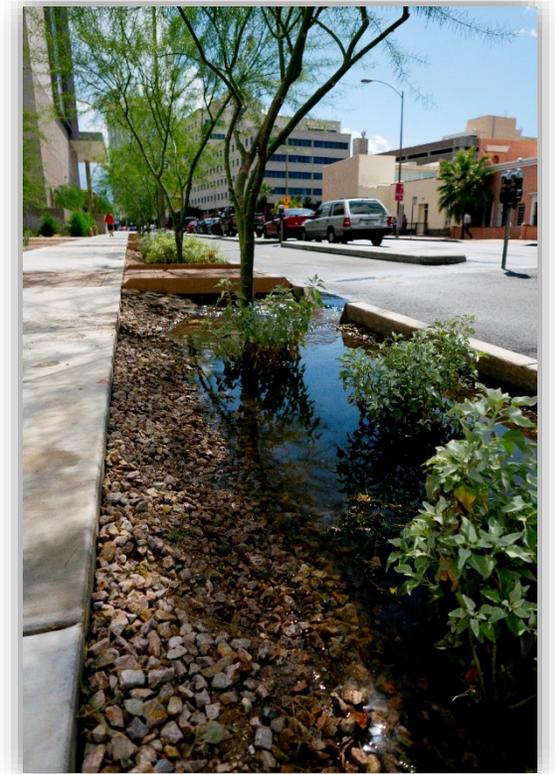
About SAPCO 2018-2025



Paris Agreement Commitment:

Reduce current greenhouse gas emissions 26%-28% below 2005 levels by 2025.

- » **BOS Climate Resolution 2017-51 directive to align SAPCO with Paris Agreement**
 - » **Collaboratively designed:** 60 meetings (2017-2018) with directors and key staff experts to develop new targets & recommended strategies
 - » **Condensed & streamlined:** Nine chapters to five, eliminated action items, replaced with strategies



About SAPCO 2018-2025



Paris Agreement Commitment:

Reduce current greenhouse gas emissions 26%-28% below 2005 levels by 2025.

- » BOS Climate Resolution 2017-51 directive to align SAPCO with Paris Agreement
 - » Collaboratively designed: 60 meetings (2017-2018) with directors and key staff experts to develop new targets & recommended strategies
 - » Condensed & streamlined: Nine chapters to five, eliminated action items, replaced with strategies
- » **BOS adopted the updated SAPCO in October 16, 2018**
 - » **Requires:** Engagement of County personnel at all levels and cooperation across numerous departments



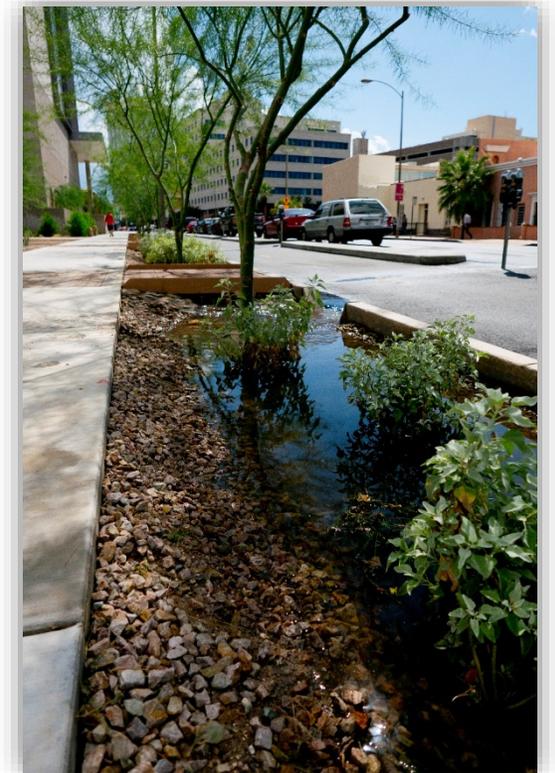
About SAPCO 2018-2025



Paris Agreement Commitment:

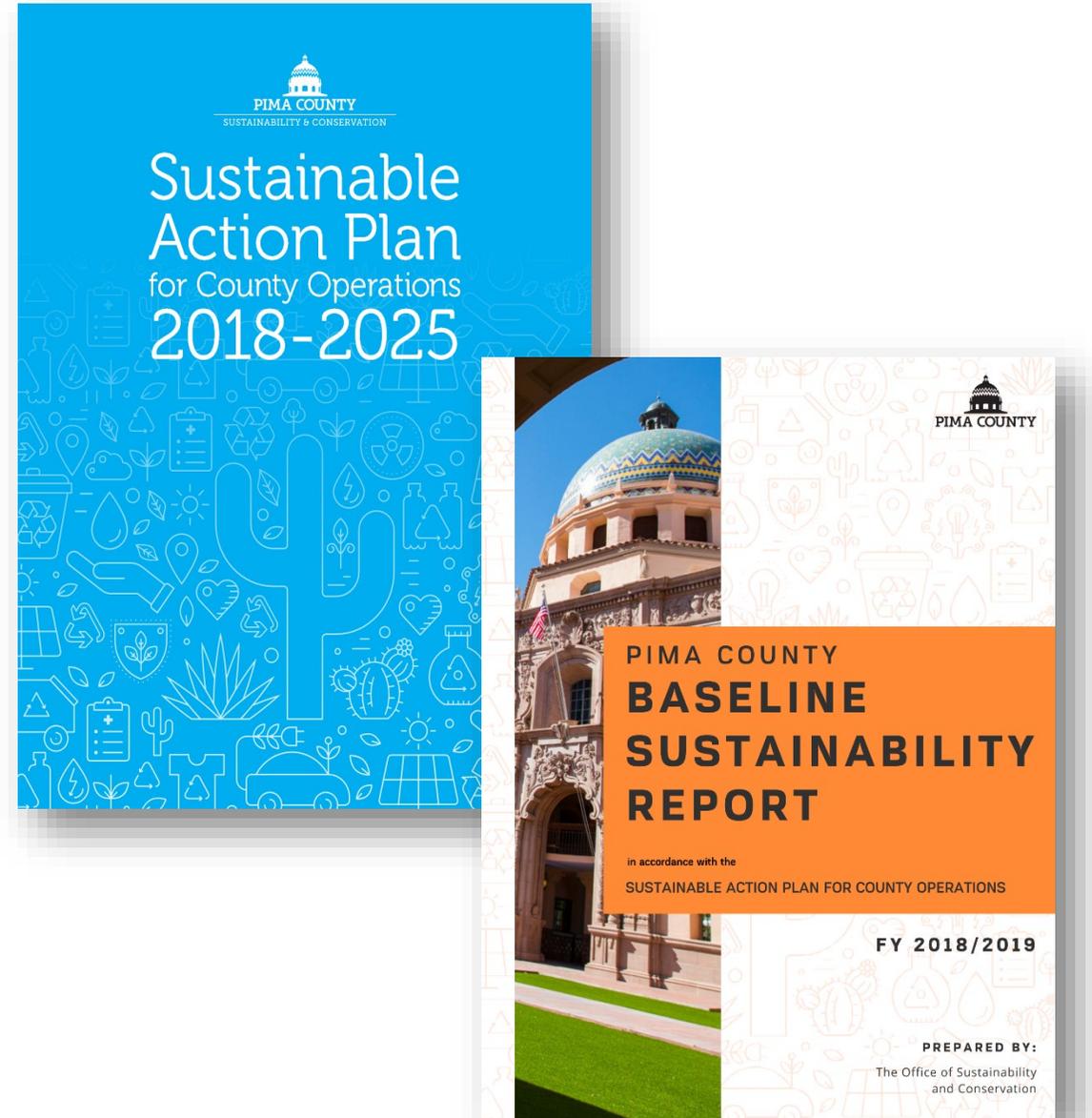
Reduce current greenhouse gas emissions 26%-28% below 2005 levels by 2025.

- » BOS Climate Resolution 2017-51 directive to align SAPCO with Paris Agreement
 - » Collaboratively designed: 60 meetings (2017-2018) with directors and key staff experts to develop new targets & recommended strategies
 - » Condensed & streamlined: Nine chapters to five, eliminated action items, replaced with strategies
- » BOS adopted the updated SAPCO in October 16, 2018
 - » Requires: Engagement of County personnel at all levels and cooperation across numerous departments
- » **Key Elements**
 - » **Climate Change Mitigation:** Cut carbon 26% below 2005 levels (estimated 50% of 2025 projected levels to reach 78,832 MtCO_{2e})
 - » **Climate Change Adaptation:** Employee preparedness, green infrastructure, food systems, plant trees, protect and manage natural areas and cultural resources
 - » **Methods:** Builds on advances rigorous replicable methods, standardized reporting and KPIs
 - » **Data:** Shared with PAG and other jurisdictions, relies on TEP emission factors
 - » **Climate Change 2025 deadline:** Five more years remaining to meet goals and targets



Purpose of this presentation

- » Provide an overview of the 2018-2025 SAPCO Implementation Plan (IP) for Operations (internally focused)
- » Discuss the roles and responsibilities of County Departments to successfully achieve SAPCO 2025 targets
- » Present FY18/19 Baseline Report results for carbon emissions



SAPCO Implementation Plan Overview



We heard your concerns:

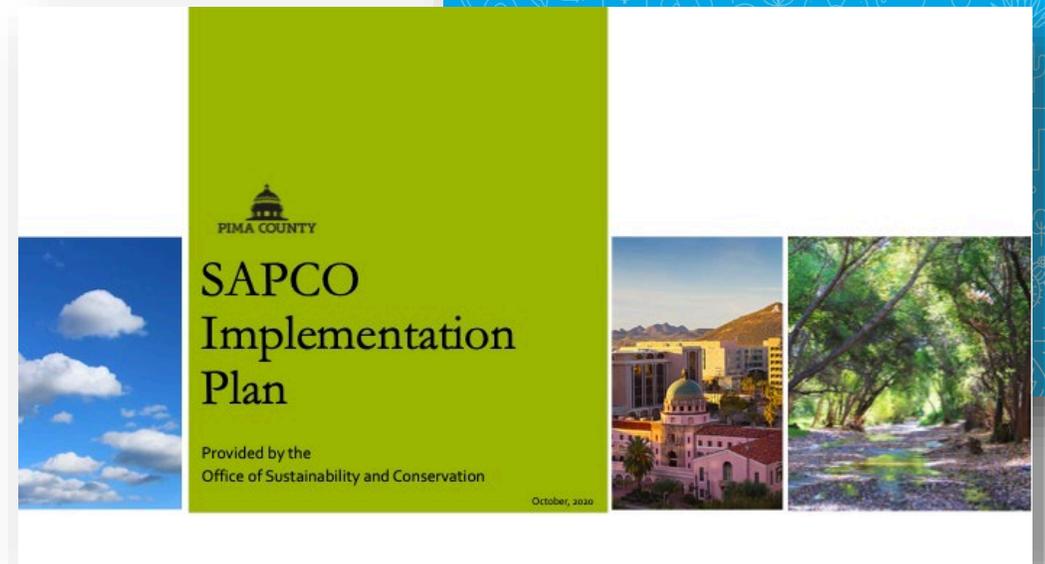
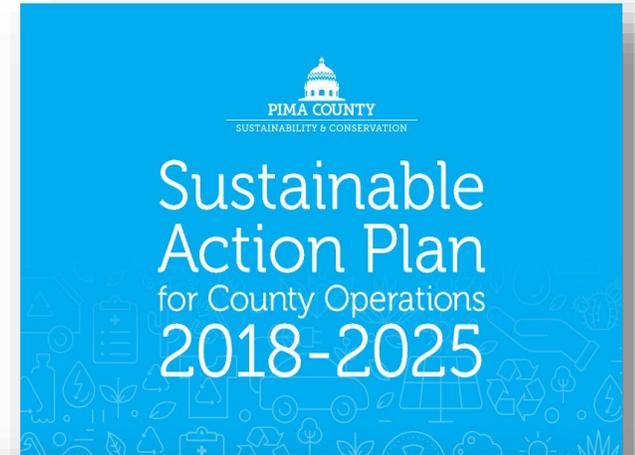
- » Insufficient resources and authority to implement SAPCO strategies
- » Time and energy commitment of staff

Our solutions to ensure your success:

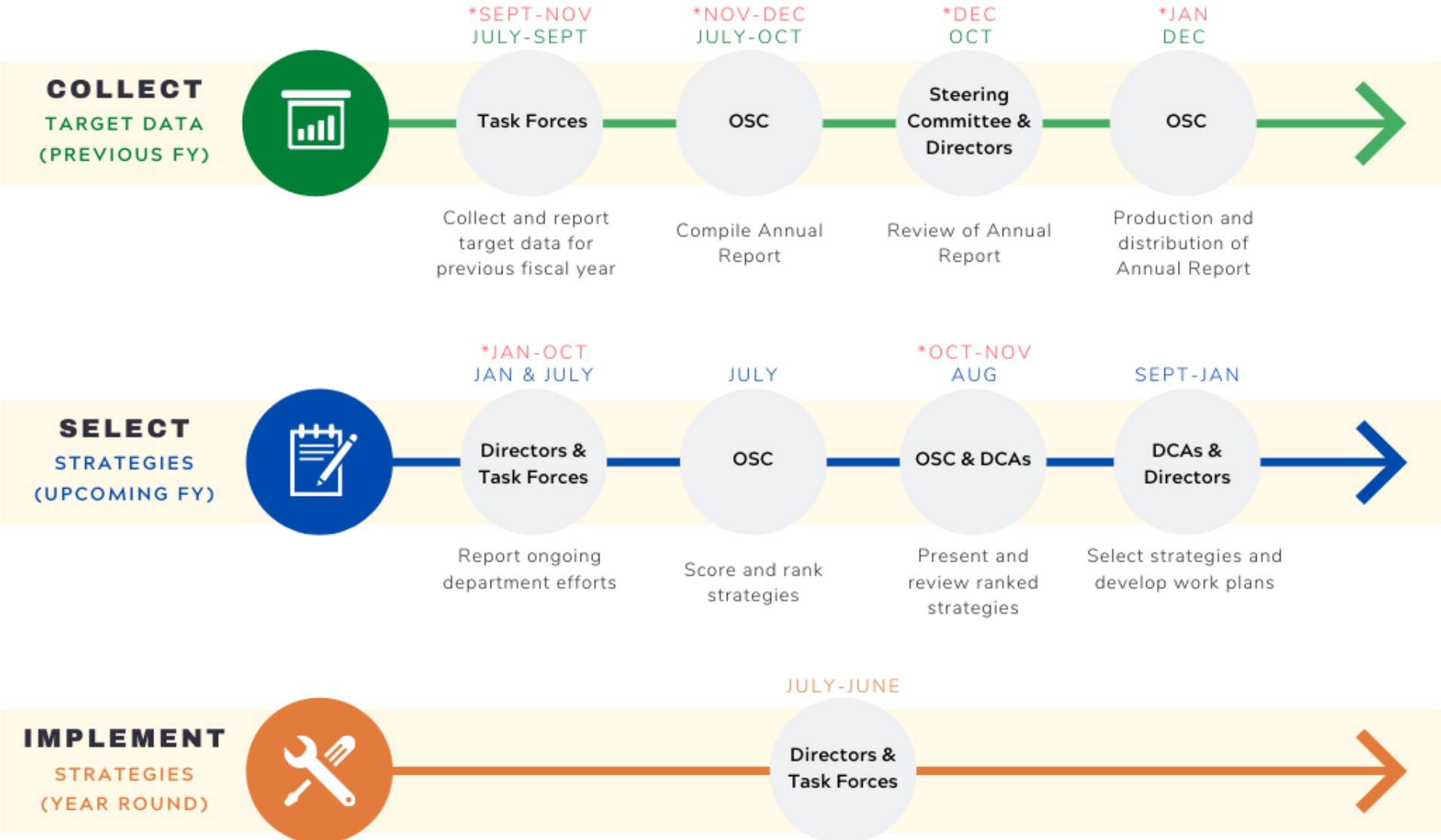
- » Implementation Flow Chart
 - » Structured timeline of deliverables based on FY organized and aligned with internal procedures and decision making hierarchy
- » SAPCO Roles & Responsibilities
 - » Breakout of oversight responsibilities for Deputy County Administrators and Directors to decide strategies and resources.
- » Multi-Criteria Decision Model (MCDM)
 - » Decision making tool for prioritizing annual strategies using a triple bottom line approach

IP Overview – What’s New

- » **Oversight and engagement** by DCAs
- » **Clear identification** of roles and responsibilities – Directors are in charge
- » **New** Task Forces (collect and report data, implement strategies under direction of Director)
- » **Clear** Timeline for implementation and reporting – OSC receives and compiles data
- » **New** mechanism to pin *Implementation Strategies* to budget cycles and approval processes
- » **Added** Multi-criteria Decision Analysis Tool used by OSC to score and rank strategies – results presented to DCAs annually
- » **Re-launch** Green Stewards Program with Employee Engagement Training
- » **Continue** Annual Report (data collection, analysis, publish)



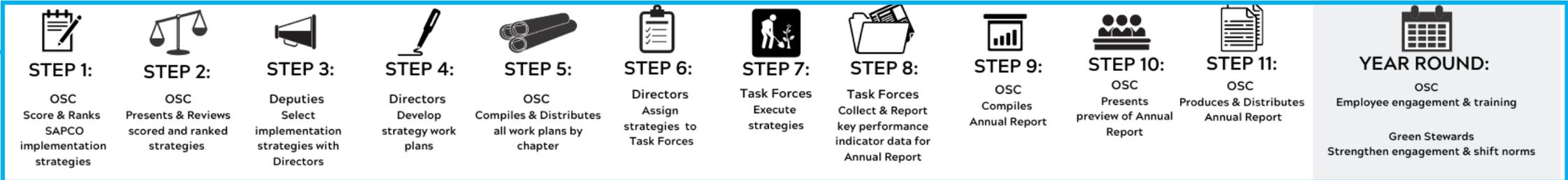
Simplified SAPCO Implementation Flow Chart



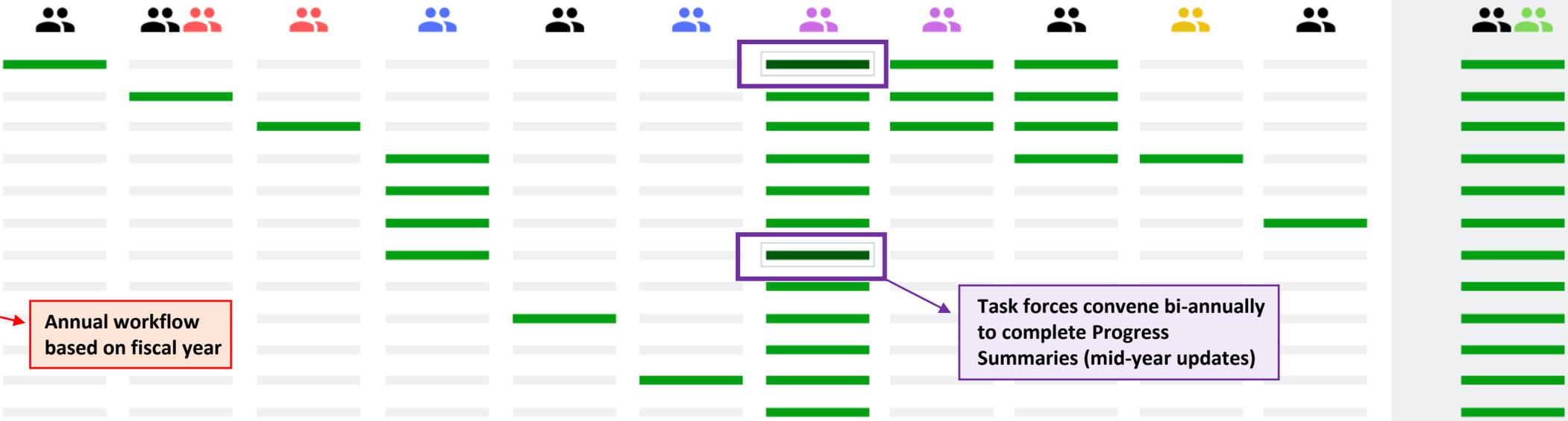
*Modified Fall 2020 Schedule

Sequential decision points and procedures that align with Fiscal Year planning and budgeting.

SAPCO Implementation Flow Chart



July
August
September
October
November
December
January
February
March
April
May
June



Annual workflow based on fiscal year

Task forces convene bi-annually to complete Progress Summaries (mid-year updates)

Establish value in Triple Bottom Line (TBL) assessments
See IP Appendix F for decision matrix used to score and rank strategies

Sustainability Division presents implementation priorities to DCAs

DCAs provide Directors with resources to ensure successful implementation of selected strategies

Directors work closely with DCAs to finalize work

See IG Appendix D for work plan description and template

Work Plans are described in the Implementation Plan. OSC is available to assist if needed.

Bi-annual (July and January) progress reports are completed by Task Force Team Leads
See IP Appendix E for Bi-annual Progress Summary Template

See RCM for Task Force data collection sheets

Data analysis must be completed by October 31st

Preview of Annual Report is reviewed by SC

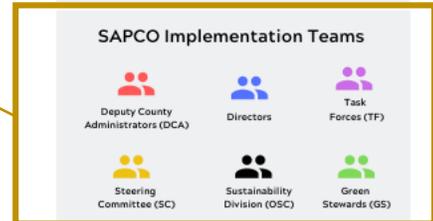
Final Annual Report must be completed by December 31st

OSC uses results to identify strategies that need to be addressed in Step 1

OSC compiles recommendations for Step 1

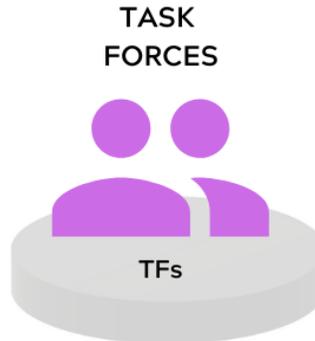
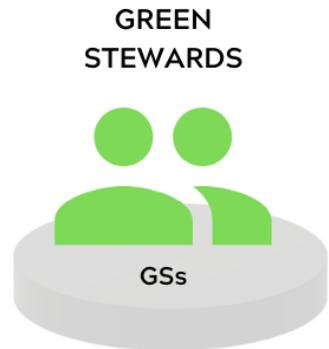
Reference Documents:
SAPCO: Sustainable Action Plan for County Operations
IP: SAPCO Implementation Plan
RCM: SAPCO Report Card Methodology
EE: Employee Engagement Plan

See next slide for details



SAPCO IMPLEMENTATION TEAMS

GSs serve as the outreach and engagement branch for SAPCO.



The DCAs will review and work with their departments to select SAPCO implementation strategies and define resources as the strategies create value for Pima County

The SC is comprised of department directors with operational responsibilities in SAPCO. The SC convenes bi-annually to review SAPCO data collection and analysis and consider work plans developed by the Task Forces.

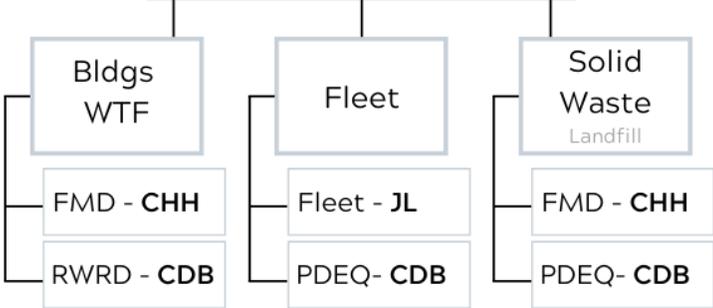
TFs implement strategies to fulfill SAPCO targets at the direction of Directors. with lead responsibilities. TFs are comprised of staff subject matter experts with direct operational knowledge.

SAPCO Roles and Responsibilities

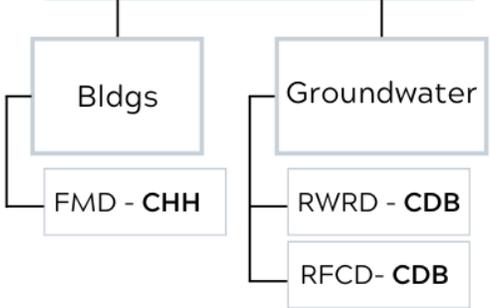
Deputy County Administrators will oversee their respective departments and annually decide implementation strategies with Directors.

County Administration
CHH: C.H. Huckelberry
JL: Jan Leshner
CDB: Carmine DeBonis

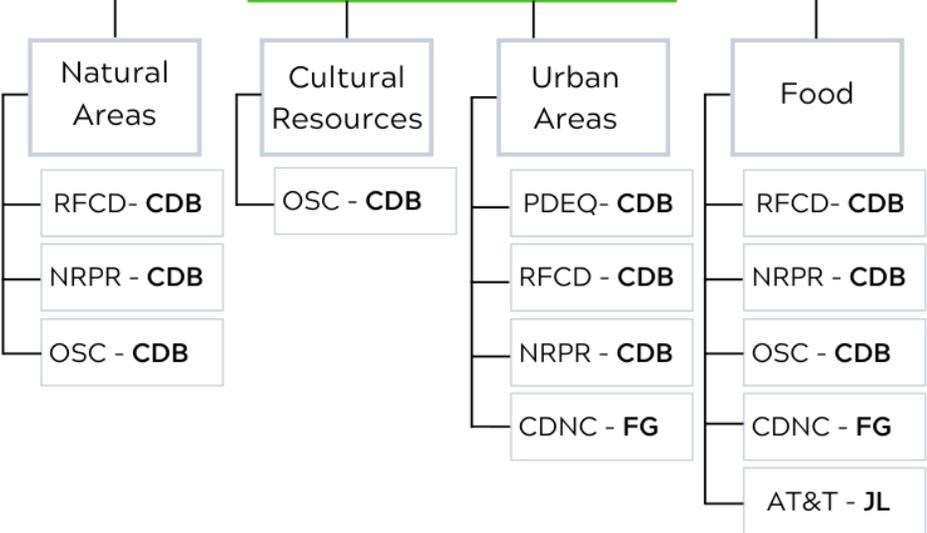
CARBON



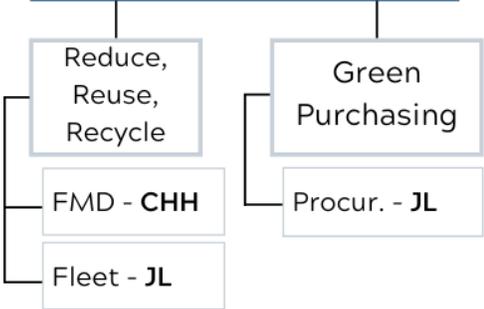
WATER



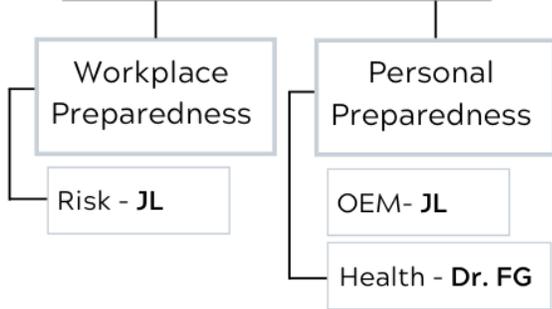
LANDSCAPES



MATERIALS



WORKFORCE



The Sustainability Division will annually score and prioritize SAPCO implementation strategies using a Multi-Criteria Decision Analysis Model. An example analysis is below.

Example Multi-Criteria Decision Model (MCDM)

SCORE SCHEDULE	
A	0 = impact, 1=low positive impact, 2=moderate positive impact, 3=medium positive impact, 4= high positive impact, 5=very high positive impact
B	0=no influence, 1=low influence, 2=moderate influence, 3=medium influence 4=high influence 5=partnership effort
C	0=none, 1=low indirect, 2=moderate indirect, 3=low direct, 4=moderate direct, 5=high direct
D	Staff time: 0 to -5 (0 = no staff time, -1 = .10, -2 = .25, -3 = .5, -4 = .75, -5 = 1
E	0=none, 1=objective 2=objectives, 3=objectives, 4=objectives, 5=objectives
F	0 = no upfront cost, -1 = minor cost (under \$25K); -2=moderate cost (\$25K-\$100K range); -3=medium cost (\$100K-\$500K range); -4=significant cost (\$500K- \$1 million range);-5=high cost (\$1 million plus)
G	-1 = -10%, -2 = -25%, -3 = -50%, -4 = -75%, -5 = -100%, 0 = break even, 1 = 10%, 2 = 25%, 3 = 50%, 4 = 75%, 5 = 100%

WATER

SAPCO Core Area: Water use in facilities (SAPCO Pg.23)
Target: Reduce potable water use across all county facilities by 15%

All SAPCO targets will receive a score, from which top ranked strategies will be chosen. It is at the discretion of the DCAs and Directors to make economic, environmental, and community benefit considerations.

1. Replace old fixtures with more efficient ones

Category	Criteria	Scale	Score (Si)	Weight factor	Total Weighted
Social	Employee Health	A	1		1
	Employee Engagement Opportunities	B	3		3
	Community Benefit (ancillary)	C	1		1
Technical	Long-term Solution/s	C	5		5
	Stepping Stone	C	1		1
	Staff Time (1 FTE equivalent per FY)	D	-4		-4
Environmental	Advances Climate Mitigations Targets	C	2		2
	Advances Climate Adaptation Targets	C	5		5
	Addresses more than one environmental SAPCO objective	E	1		1
Economic	Est. Upfront Cost (FY)	F	-3		-3
	Potential ROI (@ 2% growth over 10 years)	G	5		5
	Avoided costs	A	5		5

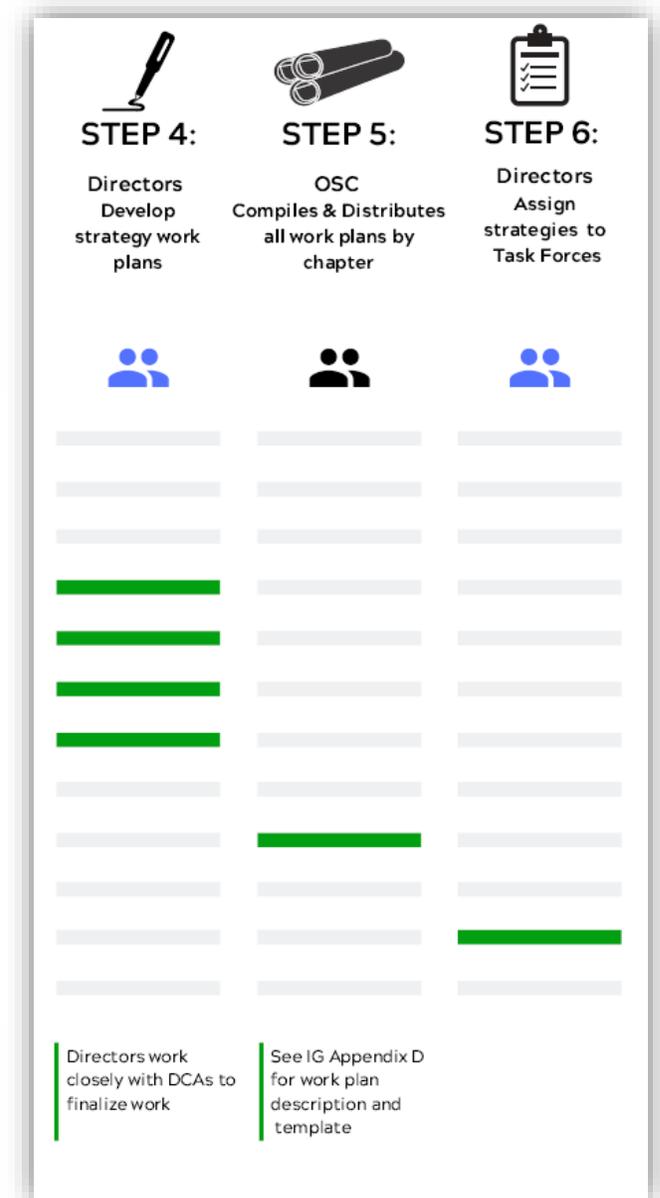
22

Summary of Director Responsibilities



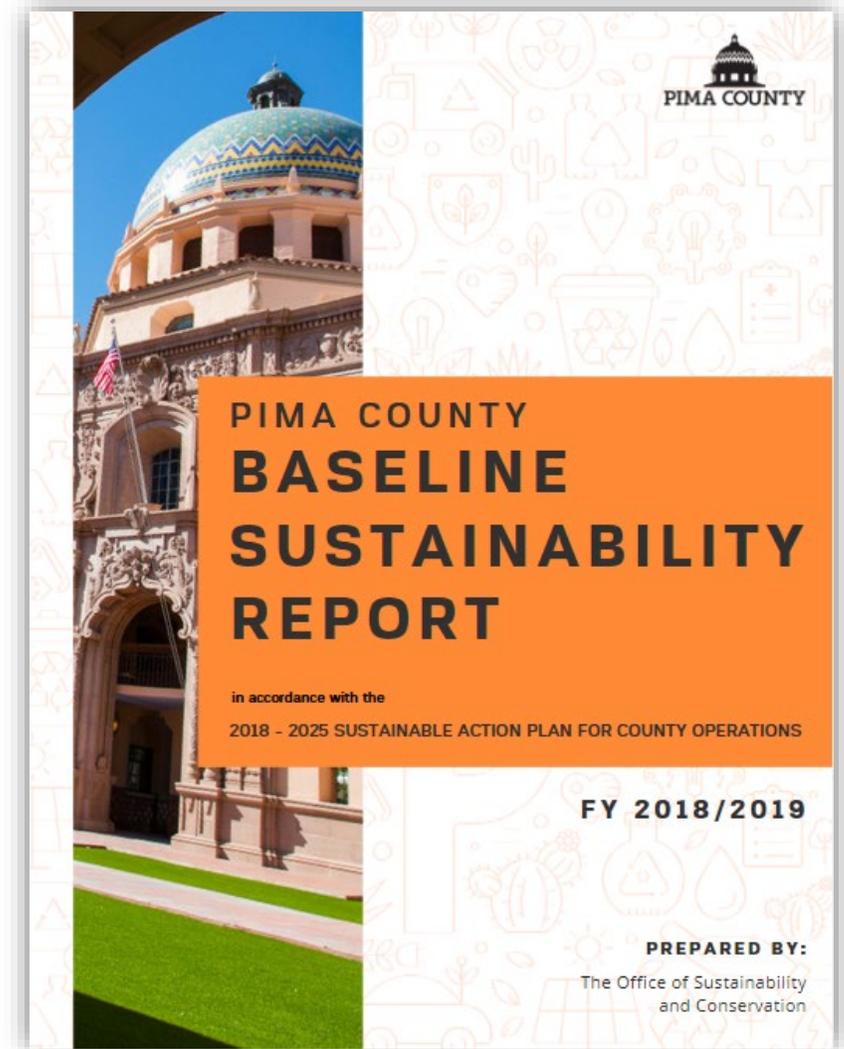
- » Review and select implementation priorities (and needed resources) in discussions with DCAs
- » Develop Work Plans for implementing selected strategies
 - » Work Plans templates can be found in Appendix D of the Implementation Plan
- » Form and assign staff to Task Forces
- » Assign Work Plans to Task Forces

Achieving SAPCO's 2025 targets depends on the successful implementation of annual strategies as driven by Director efforts



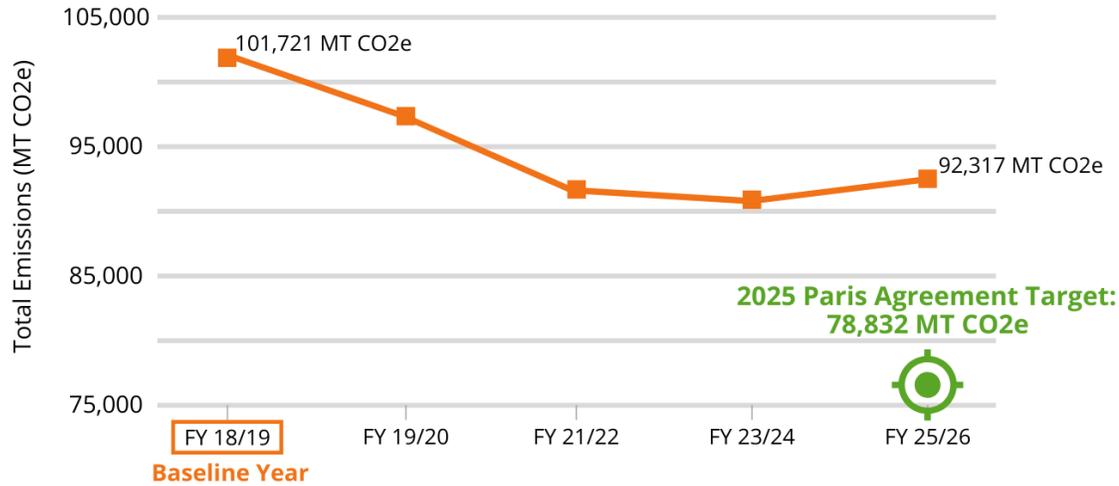
Baseline Sustainability Report

- » Establishes the base measurement for which to measure the County's progress towards achieving its targets over the course of the current plan (2018-2025)
- » Features a new and improved layout to improve readability



Carbon Chapter Results

Pima County Emissions Projections ¹



¹ This graph illustrates total emissions from carbon sources (see page 8). Projections based on 2% annual emissions increase, in accordance with historical trends. Estimated emissions are based on 'business as usual' conditions (i.e. does not account for renewable energy, electrifying fleet, waste reduction, idle reduction). **Estimated emissions do account for the use of prospective renewable energy from the utility.**

2025 Carbon emissions targets:

- » Paris Agreement: 78,832 MT CO₂
- » SAPCO: 53,698 MT CO₂

CARBON BASELINE REPORT

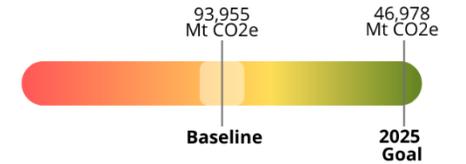
101,721 MT CO_{2e} FY 18/19 Total Emissions
53,698 MT CO_{2e} FY 25/26 SAPCO Target ¹

Buildings, facilities, and wastewater treatment

TARGET

Reduce carbon emissions from county facilities and wastewater treatment by 50%

Baseline: 93,955 Metric Ton CO_{2e}

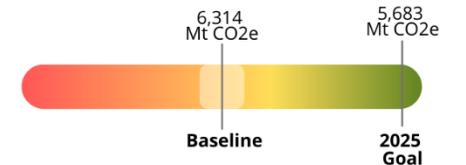


County vehicle fleet

TARGET

Reduce carbon emissions from county fleet by 10% in non-electric vehicles

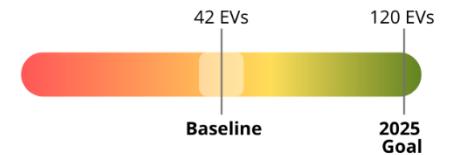
Baseline: 6,314 Metric Tons CO_{2e}



TARGET

Replace up to 120 gas sedan vehicles with fully electric vehicles

Baseline: 42 electric vehicles (EVs)

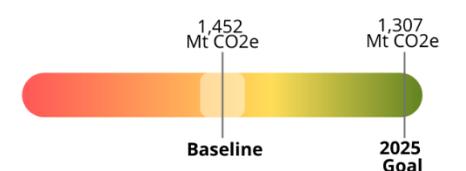


Solid waste

TARGET

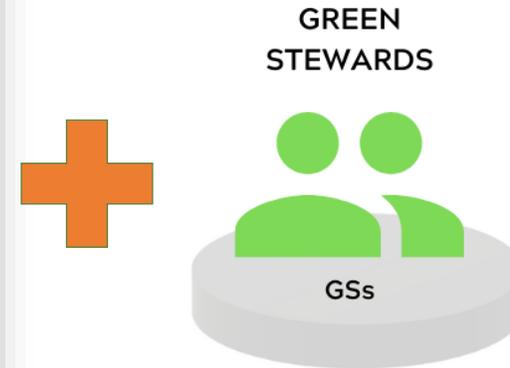
Reduce carbon emissions from solid waste generation by 10%

Baseline: 1,452 Metric Tons CO_{2e}



¹ The SAPCO 2025 Target establishes an emissions goal that is lower than that required by the Paris Agreement (i.e. 78,832 MT CO₂). Pima County strives to exceed what is required in order to set a precedent response that demonstrates the urgency to reduce greenhouse gas emissions.

Employee Engagement Program:



- » Launching a pilot training in Jan. 2021 with Mrs. Green's World and UA CAPLA
- » Would like Directors to nominate 1-2 staff to participate in a 6-week virtual course

Next Steps : Director Responsibilities

Achieving SAPCO's 2025 targets depends on the successful implementation of annual strategies as driven by Director efforts



Action items	Resource	Due date
Assign staff to Task Force (TF)	N/A	Oct 31, 2020
Oversee TF – compile and report SAPCO work in progress	Appendix E: Biannual Progress Summary Template	Dec 31, 2020
Oversee TF – compile and deliver SAPCO annual data for Report	Sandra Maina will send to data worksheet to TF	Dec 31, 2020
Participate in Steering Committee Meeting – review draft Annual Report (date TBD before Dec. 31)	OSC will circulate draft Annual Report for review prior to meeting	Dec 31, 2020
Select strategies* for annual implementation	MDCA List from DCAs (Description in Appendix F: A Multi-Criteria Decision Model (MCDM): A tool for prioritizing implementation strategies using a Triple-Bottom-Line Approach)	Oct 2020-Jan 2021
Assign work to Task Forces who develop Work Plans	Appendix D: Work Plan Template for Directors and Task Forces to use to develop their annual SAPCO Implementation Strategies	May 31, 2021
Deliver bi-annual Progress Reports	Appendix E: Biannual Progress Summary Template	June 30, 2021

*Select strategies

- » DCAs select strategies from MCDA list of scored and ranked strategies presented by OSC
- » TFs develop Work Plans (Work Plan templates can be found in Appendix D of the Implementation Plan)
- » Strategies once approved by DCA are included in annual budget

Extra Slides

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 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			

The Sustainability Division will annually score and prioritize SAPCO implementation strategies using a triple-bottom line (TBL) analysis. An example analysis is provided below.

Multi-Criteria Decision Analysis (MCDA)

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 ben Covid-19, Recession, Climate Emergency and Electricity Grid Stabilization. These items are notes in

Chapter	Core Area	Target	Recommended Strategy	Strategy Code	Score
Carbon	Buildings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	1. Improve building efficiency	CB1	41
Carbon	Buildings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	2. Expand renewable energy capacity	CB2	65
Carbon	Buildings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	3. Include beneficial use of biogas	CB3	16
Carbon	Buildings, facilities, and wastewater treatment	Reduce carbon emission from county facilities (including RWRD) by 50%	4. Improve employee energy conservation practices	CF1	49
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
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
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
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
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
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	1. Increase recycling of office and industrial materials	CW1	27
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	2. Decrease landfill waste (volume/weight)	CW2	21
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	3. Buy reusable/refillable items	CW3	23
Carbon	Solid Waste	Reduce carbon emissions from solid waste generation by 10%	4. Implement employee education program	CW4	30