



THE CITY OF SAN DIEGO

OFFICE OF THE INDEPENDENT BUDGET ANALYST REPORT

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Climate Action Plan 2.0: Analysis of Changes Proposed and Recommendations for Improved Implementation Planning

OVERVIEW

City staff from the Sustainability and Mobility Department (SuMo) are bringing forward an [updated Climate Action Plan \(CAP\)](#), also known as CAP 2.0, for City Council approval. This item was discussed and amended at the Environment Committee on June 30, 2022 and forwarded to the full Council for approval.¹ CAP 2.0 is a significant update of the [original CAP](#), which was adopted by the City Council in 2015 and set the City's initial goals for greenhouse gas (GHG) emission reductions. The new CAP not only builds upon the goals, measures, and actions of the current CAP, but goes beyond the commitments of the current CAP, with interim emission reduction goals in 2030 and a stated goal to achieve net-zero GHG emissions by 2035.

In preparation for Council consideration of CAP 2.0, our Office produced this report in order to provide more information about the differences between the current CAP and the updated CAP, and what new targets, strategies, measures, and actions are included in CAP 2.0. Our Office also provides various recommendations regarding the CAP 2.0 Implementation Plan, which is still being developed by City staff, and recommends that the City Council adopt a new Council Policy that will guide staff in the prioritization of the various implementation efforts over the lifetime of CAP 2.0.

¹ The committee recommended Council approval of staff's recommendation with the following amendments: (1) Add to Measure 3.1: "Implement the City's San Diego River Park Master Plan to increase mobility through enhancement of the river trail; (2) add to Measure 5.1: "Partner with the San Diego River Conservancy and other agencies to identify sequestration opportunities through restoration projects; (3) amend Measure 3.1: "Implement the City's Bicycle Master Plan and community plan bicycle networks with an emphasis on separated bikeways a Class IV First approach; and (4) add to Measure 3.1: "Implement Assembly Bill 43 to reduce speed limits in select corridors.

BACKGROUND

In 2010, the City initiated the development of strategies and potential measures to meet State emission reduction requirements, which at that time had only recently been proposed by the California Air Resources Board (CARB) in response to State legislation. In 2015, the City adopted the Climate Action Plan (CAP) which identified five overarching strategies and multiple actions to support the City achieving the established State emission targets. In keeping with the CARB recommendation that local governments establish a 15% emission reduction target from current levels, the City selected 2010 as the base year against which future emission reductions would be evaluated. The City selected 2010 as the base year because it was the year the City both initiated development of its CAP and the year with the most emission information available at the time. The CAP established GHG reduction targets below the 2010 base year emission level of 15% by 2020, 40% by 2030, and 50% by 2035.

Following adoption of the CAP, the City began to implement various actions contained in the plan and began reporting on progress towards the various targets. To this end, City staff prepared annual reports on CAP implementation and progress, with the last report issued in 2020. In [that report](#), the City reported on progress through 2019, with a reported GHG reduction of 25% from the 2010 baseline. However, of the various specific 2020 targets established for the five strategies, such as mode shift goals, waste diversion, and others, none were on track to meet the 2020 targets², while only three of the seventeen actions were deemed complete. The fact that the City could meet overall GHG reductions targets, while specific actions showed limited progress, demonstrated the limited utility of measuring GHG reductions to a baseline, which CAP 2.0 seeks to avoid with the net-zero goal.

While the CAP matched proposed goals and actions to achieve specified targets and outcomes by 2020 and 2035, it did not provide specific implementation details, especially in regard to timing and cost, on an annual basis. Following the FY 2018 budget hearings, our Office received a request to develop a short-term financial outlook for the CAP. Our Office prepared [Report 18-05 Climate Action Plan: Development of an Initial Five-year Financial Outlook](#) in response to that request. In that report, our Office provided estimated expenditure projections by department and year, but we also identified numerous limitations and considerations that prevented us from preparing a more robust estimate. We therefore made three recommendations to strengthen the financial information that could be presented in future outlooks. These recommendations included 1) inclusion of CAP related expenses with the Five-Year Financial Outlook as a separate attachment, 2) the inclusion of implementation timelines (short-term and long-term) and cost estimates in future strategic plans, and 3) continued development of performance measures for CAP related programs and projects.

Additionally, the Office of the City Auditor completed a full [audit of the Climate Action Plan](#), which was released in February 2021. This audit made two findings: 1) the City can strengthen its oversight mechanisms to ensure City departments stay on track to implement CAP actions, and better inform key decisionmakers of implementation progress, and 2) the City should improve its fiscal planning efforts for CAP implementation by developing a prioritization mechanism and estimating project and program costs. To address these findings, the audit contained six

² While no 2020 targets were within reach, at least two measures had already achieved their 2035 targets but did not have a 2020 target. These were 1) gas captured from the wastewater treatment facility, and 2) miles per day of commute distance.

recommendations for improving the implementation and financial planning for the CAP going forward. The City Auditor recommendations were as follows:

1. To formally establish responsibility and authority for oversight and accountability of CAP implementation, the City's Chief Operating Officer should adopt an Administrative Regulation that requires:
 - a. CAP-related departments to annually provide CAP workplans to SuMo for review and approval, which outline the work City departments plan on accomplishing for the following year.
 - b. Formally establish roles within each City department involved in CAP implementation to act as a liaison and to drive forward CAP implementation within their respective department, including development of the annual workplans.
 - c. For CAP-related departments to annually request to docket their CAP annual workplans for presentation to the full City Council for budgetary consideration.
 - d. SuMo to annually request to docket the CAP annual monitoring report for presentation to the full City Council.
2. In conjunction with the CAP 2.0 update, SuMo should conduct a staffing analysis to determine whether additional resources are needed to support CAP implementation and present the completed analysis to the Environment Committee.
3. SuMo should ensure that departmental roundtable meetings are held at least quarterly, and that these meetings have time dedicated in the agenda for departments to share the implementation status of CAP workplans and to discuss challenges and potential areas for collaboration.
4. SuMo should work with the Council President's office and Docket office to revise the staff report template to include a section to identify how an item helps to implement or support the CAP.
5. As part of the City's CAP 2.0 update and to facilitate the prioritization of the City's limited resources for CAP implementation, SuMo should conduct an assessment and develop a rating system of CAP measures, such as cost estimates, staff resources, feasibility, GHG reductions, climate equity, and other benefits to help inform prioritization.
6. Once CAP 2.0 is developed, SuMo should develop an implementation plan, including an estimate of associated costs, information on funding sources, and identification of funding gaps.

To date, SuMo has implemented Recommendations 2 and 4 from the Audit and have also established the meetings required in Recommendation 3. Further, CAP 2.0 contains many of the measures requested as part of Recommendation 5, and staff are currently working on both Recommendations 1 and 6.

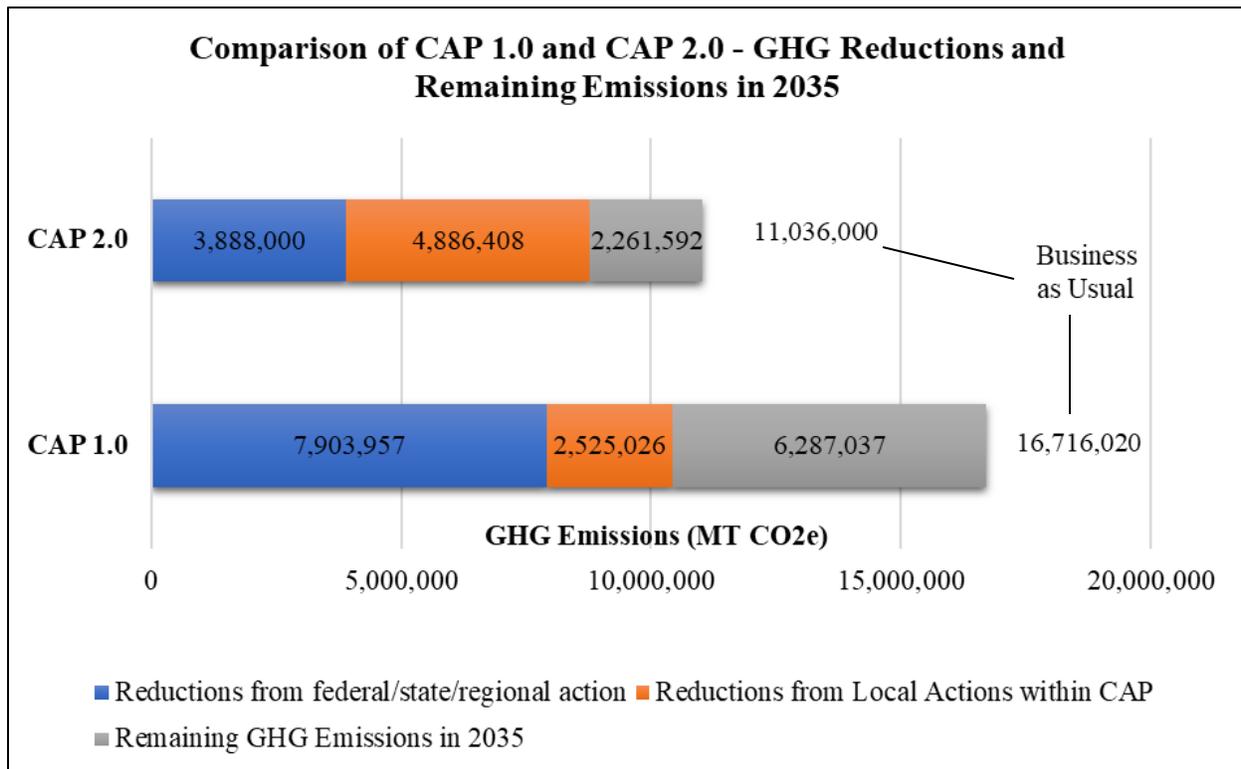
Since 2020, City staff have been developing the new updated CAP, or CAP 2.0. However, it is also worth mentioning two additional policy developments that are directly influencing the update of the CAP. The first is the City's focus on equity, which is concretely established in the development of the Climate Equity Index (CEI). The CEI, which was created by Sustainability Department staff and released in late 2019, scores every region of the City by census tract utilizing various indicators to measure an area's relative access to opportunity and assess the degree of potential impact from climate change to these areas. The purpose of the CEI is to provide the City

with a tool to assist it in targeting new programs and benefits into those communities of concern that are traditionally not able to benefit from new climate policies and programs. This tool has already been used to determine some funding allocations, in particular those related to the Climate Equity Fund, and will continue to be utilized by staff to ensure equitable access and targeting for the implementation actions of CAP 2.0. SuMo staff have also committed to updating the CEI within the next year.

Additionally, it is worth mentioning that a major driver of the policy goal to achieve net-zero GHG emissions by 2035 is the City Council’s passage of the March 2020 Resolution Declaring a Climate Emergency. This resolution in particular contained a passage which stated that “the City of San Diego reaffirms the necessity to achieve net-zero emissions as soon as possible.” This statement has become a guiding principle of the new CAP 2.0, which changes the policy goal for GHG reductions from 50% of the 2010 baseline to net-zero by 2035.

FISCAL AND POLICY DISCUSSION

CAP 2.0 represents a major change in the policy direction of the City for GHG emission reductions. While the previous CAP committed to a reduction from a baseline, CAP 2.0 for the first time establishes a policy goal of the City to achieve net-zero emissions by 2035. As shown in the graph below, this policy change commits the City to more emission reductions than the previous CAP, both in the quantifiable amount of emission reductions, as well as a proportion of emission reduction activity measured against the “business as usual” projection. Previously, federal, state, and regional actions represented 75.8% of the total reductions projected by 2035 in the CAP. However, in CAP 2.0, the City is committing to actions that at this point will achieve 55.7% of total reductions by 2035, beyond federal, state, and regional actions. Further, the City is committing to also take responsibility for remaining emissions in 2035 as well.



The following sections of our report highlight the major policy changes proposed in CAP 2.0 and how they differ from the current CAP and provide recommendations for improved implementation planning purposes.

Comparison between the Current CAP and CAP 2.0

As shown in the table on the next page, CAP 2.0 is basically maintaining a similar structure as far as strategies and measures to achieve GHG reductions. However, as shown in the table, areas where the City is making commitments to reduce GHG emissions have not only grown in size, but the commitments themselves have changed in significant ways.

The single largest area of change is the differences in Strategy 1, which is switching from a focus on energy and water efficiency to a focus on decarbonization. CAP 2.0 in particular proposes to focus on the removal of natural gas from both future and existing buildings. This change in focus results in this strategy becoming the largest source of estimated GHG emission reductions within the entire CAP. It is important to note that the vast majority of the reductions for this strategy are contained within one measure, which is the decarbonization of *existing* buildings. This measure, with an estimated reduction of 1.9 million MTCO₂e in 2035,³ represents not only the vast majority of GHG reductions within this strategy but is by far the largest reduction contained within CAP 2.0 and is potentially the most consequential commitment of CAP 2.0. It will require an enormous effort on the part of the City and its citizens and should remain a major focus of implementation planning going forward.

Another strategy that is shifting significantly is Strategy 3, which is the strategy that most focuses on transportation and land use policies. While many of the measures still focus on shifting modes of travel within the City, including promoting more walking, cycling, and transit use, there is a significant change in the methodology and focus of these measures. While the current CAP only focused on the mode of travel for commuters within Transit Priority Areas (TPAs), CAP 2.0 expands the number of trips to be measured and shifted by focusing on all trips (not just commutes), and by expanding the number of individuals counted by moving beyond TPAs to include all citizens within the City, as well as those individuals who have trips that either originate or end within the City. In doing so, CAP 2.0 both increases the number of individuals that will be impacted by these changes and increases the targets for GHG reductions from these changes. In particular, the GHG reduction targets from walking or cycling in 2035 more than doubles from an estimated 52,062 MTCO₂e in the current CAP to 115,315 MTCO₂e in CAP 2.0. Additionally, CAP 2.0 also increases its focus on reductions from Vehicles Miles Traveled (VMT), including VMT reductions from both land use changes as well as telecommuting options. All of these changes combined increase the estimated GHG reductions from this strategy by more than 200%.

³ “MTCO₂e” stands for *Metric Tons of Carbon Dioxide Equivalent*

Estimated GHG Reductions (MTCO2e*) by Measure and Strategy in 2035

	CAP 1.0		CAP 2.0		Difference
	Targets	GHG Reduction	Targets	GHG Reduction	
Strategy 1	Water & Energy Efficient Buildings	49,016	Decarbonization of the Built Environment	2,056,487	2,007,471
	Reduce energy use by 15% per unit in 50% of residential housing units by 2035	5,605	Phase out 90% of natural gas usage from existing buildings	1,915,290	
	Reduce energy consumption at municipal facilities by 25% by 2035	9,011	All-electric reach code starting in 2023 at new residential and commercial development	108,559	
	Reduce daily per capita water consumption by 9 gallons by 2035	33,747	Phase out 100% natural gas usage in municipal facilities	32,638	
	Reduce daily per capita water consumption by an additional 5 gallons by 2035	653			
Strategy 2	Clean & Renewable Energy	1,624,881	Access to Clean & Renewable Energy	1,204,679	(420,202)
	Add additional renewable electricity supply to achieve 100% renewable electricity by 2035	1,592,878	100% renewable or GHG-free power for all SDCP customers	521,231	
	Increase number of zero emission vehicles in the municipal fleet to 90% by 2035	21,859	Percent of all municipal fleet vehicles to be ZEVs: Cars and LDV: 100% MDV: 75% HDV 75%	15,990	
	100% conversion from diesel fuel used by municipal solid waste collection trucks to compressed natural gas or other alternative low emission fuel by 2035	10,144	25% e-VMT out of all light-duty VMT	667,458	
Strategy 3	Bicycling, Walking, Transit & Land Use	385,891	Mobility and Land Use	1,199,065	813,174
	Achieve mass transit mode share of 25% by 2035 in Transit Priority Areas	213,573	25% walking and 10% cycling mode share of all San Diego resident trips	115,315	
	Achieve walking commuter mode share of 7% by 2035 in Transit Priority Areas	1,488	15% transit mode share of all San Diego trips	234,351	
	Achieve bicycle commuter mode share of 18% by 2035 in Transit Priority Areas	50,574	Achieve 6% citywide VMT reduction through telecommute	242,177	
	Retime 200 traffic signals by 2020	8,508	Install 20 new roundabouts	2,037	
	Install roundabouts at 35 intersections by 2035	2,172	15% VMT (commuter and non-commuter) reduction per capita	605,185	
	Reduce average vehicle commute distance by two miles through implementation of the General Plan City of Villages Strategy by 2035	109,576			
Strategy 4	Zero Waste (Gas & Waste Management)	362,948	Circular Economy and Clean Communities	304,559	(58,389)
	Divert 90% of solid waste by 2035 and capture 90% of remaining landfill emissions by 2035	344,213	90% Waste Diversion Rate and 90% Landfill Gas Capture	277,305	
	Capture 98% of wastewater treatment gases by 2035	18,735	95% Methane capture	27,254	
Strategy 5	Climate Resiliency	102,290	Resilient Infrastructure and Healthy Ecosystems	121,618	19,328
	Achieve 35% urban tree coverage by 2035	102,290	35% urban canopy cover	102,290	
			Restore 700 acres of salt marsh land and other associated tidal wetland and riparian habitats	821	
			Provide 93,000 acre-feet local water supply from PureWater	18,507	
	TOTALS	2,525,026		4,886,408	2,361,382

*"MTCO2e" stands for Metric Tons of Carbon Dioxide Equivalent

The final strategy changing significantly is Strategy 2, which focuses on clean and renewable energy sources. In the current CAP, this strategy contained the highest estimate of GHG reductions, which was primarily driven by a shift to 100% renewable electricity by 2035. This measure directly led the City, along with other jurisdictions, to form the Community Choice Aggregation program, San Diego Community Power, which has the same renewable energy goal. In CAP 2.0, this target is maintained, but the estimated emissions reductions attributable to this target have decreased as the State has increased its requirements for renewable energy generation on all electric utilities within California. As such, more of the emission reductions from this action are attributable to state action in CAP 2.0 than in the current CAP. However, this overall strategy still has increased estimated emission reductions over the current CAP due to the inclusion of a new measure, a focus on the adoption of electric vehicles among the public.

Implementation Recommendations

While reviewing CAP 2.0, as well as all of the recommendations for improvement that have come out since the adoption of the current CAP, our Office developed a number of recommendations, mainly related to implementation and annual reporting, that we believe would improve City and public understanding of how implementation will occur, as well as improve the understanding of how far the City has progressed. This section covers those recommendations.

Council Policy for CAP Action Prioritization

As noted earlier in this report, the City Auditor recommended that a CAP Implementation Plan contain measures that may be utilized to prioritize the actions that are contained within the CAP. While CAP 2.0 does contain these measures, which are also included in the draft implementation matrix, neither CAP 2.0 nor the implementation matrix speaks to how these measures should be used to prioritize these actions. There are many questions that need to still be answered in regard to prioritization criteria, such as:

- Should the City prioritize climate equity actions first, or those with the highest ease of implementation score?
- How should implementation costs be weighed against the estimated GHG reductions of a particular action?
- Should all of the Core Benefits be weighted equally, or does the City wish to prioritize a Core Benefit, such as Air Quality, over another, such as Resiliency?

These are all pertinent questions that should be considered, and in particular are appropriate for the City Council to consider as the City's policy making and legislative body.

Typically, when it has come to developing ways to prioritize various actions, tasks, or financial resource allocations, the City has used Council Policies to guide City staff. **As such, our Office recommends that the Council, in coordination with the SuMo Department, the Mayor's Office, and with appropriate public input, develop a Council Policy that will guide the prioritization of the actions contained within CAP 2.0.** This Council Policy should be developed along with the CAP 2.0 Implementation Plan, so that both can be developed in time to provide needed information that will assist City staff, the Council, and public during the upcoming budget deliberations for FY 2024.

Differentiating Between Actions and Supporting Actions in Implementation Planning

Within the CAP, and connected to each measure and target, there are corresponding Actions that either directly relate to the GHG reduction targets or Supporting Actions that help the City in achieving these targets. While all of the Supporting Actions provide valuable benefits to the City and the CAP, the Actions drive the emission reduction targets, which are a primary reason for the CAP itself. **As such, the SuMo should consider differentiating between Actions and Supporting Actions within implementation plans, annual reports, and other documents so that the Council and public may track progress on these actions.** Additionally, this separation should also be considered when it comes to prioritizing actions, including within the prioritization framework of the Council Policy that was previously discussed.

Incorporating Additional Planning Actions into CAP Implementation

Many of the actions contained within the CAP, including Actions that drive emission reduction targets, call for the development and adoption of corresponding plans, roadmaps, or other documents which will more concretely develop tasks and work items that implement the CAP. This includes plans that are either currently in development, such as the Mobility Master Plan, or are close to adoption, such as the Zero Emissions Municipal Buildings and Operations Policy. In many ways, these Actions are similar to those that were contained in the current CAP. However, as has been reiterated numerous times, plans are only as good as the implementation planning that goes along with them. Our Office notes that, to the extent that these subsequent plans contain actions that will move the City towards achieving the targets and measures contained within the CAP, these actions are just as crucial to the success of CAP 2.0 as any of the other actions included. Comprehensively tracking these plans and implementation will be important for achieving CAP 2.0 goals. **As such, our Office recommends that these actions developed in subsequent plans should be included in future iterations of the CAP Implementation Plan, annual work plans, and other monitoring reports as appropriate.**

Implementation Plan Timelines and Financial Planning

Our office notes that the Implementation Plan should also include discrete timelines against which the City and public can measure progress on the CAP to ensure emission reduction goals are on track, including measuring progress on the interim 2030 goals. This could include either event time horizons or other applicable methods for determining the schedule of various implementation actions and would be in the spirit of the City Auditor's Recommendation 6 for the development of an implementation plan. In addition to timelines, our Office continues to advocate for the development of near-term financial planning for the CAP, such as the development of a Five-year Financial Outlook, which could not only demonstrate that the City is budgeting for CAP actions effectively but could also help the City plan over a reasonable time horizon for future budgetary actions. **SuMo, in addition to adding discrete timelines into the Implementation Plan, should work, in coordination with the Department of Finance, on either including a CAP section within future Five-year Financial Outlooks, or potentially creating a Five-year Financial Outlook exclusively for the CAP.**

Incorporation of Stakeholder/Citizen Feasibility Measures

As part of the Feasibility of Actions score contained within CAP 2.0, there are numerous feasibility scores provided for each measure. These include measures such as Stakeholder Acceptability,

Technical Feasibility, and Ease of Implementation. It is important to note that the Ease of Implementation measure only refers to the City's ability to independently implement an action, without the assistance or approval of an outside entity such as the state or federal government. The first two measures mentioned, however, speak more to feasibility for the public to take the actions necessary for the City to achieve its targets.

This is an important consideration, especially when it comes to prioritization and resource dedication, as many of the actions contained within CAP 2.0 will require significant efforts and investments by individual citizens for the City as a whole to meet its CAP targets. Most notably, this includes the measure to decarbonize existing buildings, as well as many of the mode shift and other transportation related measures. **As such, staff from SuMo as well as other implementing departments should consider either refining current feasibility measures, or developing a new feasibility measure that more concretely measures the ability of everyday citizens to adapt and make the changes necessary for the City to meet the GHG reduction targets contained in the CAP.**

Categorizing Remaining GHG Emissions

As previously mentioned, CAP 2.0 commits the City to achieving net-zero emissions by 2035. However, as displayed in the CAP and earlier in this report, there are not enough feasible actions or technology available to achieve net-zero at this time. To address this, the CAP not only quantifies the estimated total emissions remaining but includes Strategy 6 on Emerging Climate Action to note that the City will continue to look for new ways to reduce emissions or capture emissions from the atmosphere.

While this is a laudable goal, it is unclear from the document itself what sectors of the economy represent the remaining emissions, and thus where those infeasibilities are thwarting the ability of the City to achieve net-zero, particularly within the CAP's intended timeframe. City staff have told us that they are committed to doing GHG emissions inventories every two years, and that they also plan to revisit the CAP with another update in five years. **As they work on these products, our Office recommends that City staff consider updating and changing the way emission inventories are updated so that reports more clearly demonstrate where emissions work either remains to be done, or where carbon capture technologies will be needed to make up the difference within certain economic sectors.**

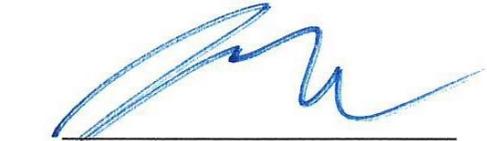
CONCLUSION

CAP 2.0, as presented by the SuMo Department, represents a significant advance in the City's climate policies, and commits the City to greater emissions reductions than the current CAP. In addition, its development has been guided by the City's experience with the current CAP, including many recommendations from City staff, the Council, the City Auditor, and our Office regarding policy setting and concrete implementation actions, especially related to timeframes and budgeting. The Council should consider all of these changes as it considers adopting CAP 2.0.

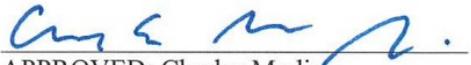
Additionally, our Office has made six recommendations within this report to help improve the CAP implementation process, and those recommendations are bolded in the prior section of this report. In particular, we stress the recommendation that a new Council Policy be developed, in

tandem with the CAP Implementation Plan, to guide City staff on the prioritization of the various actions contained within CAP 2.0.

We would like to thank City staff from SuMo for their help to our Office in developing this report, and we continue to be available to assist the Council and public with any additional requests.



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