Appendix 10

Implementation Cost Analysis

County of San Diego
2024 Climate Action Plan
Implementation Cost Analysis

May 2024

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GLOSSARY OF TERMS

AWM - County of San Diego's Agriculture, Weights and Measures

CAP Coordination and Reporting - Activities required to regularly update the County's GHG emissions inventory, conduct interdepartmental coordination (e.g., sustainability task force meetings), and monitor and report on CAP progress.

Capital - An expenditure category that includes capital expenditures such as infrastructure projects and improvements to County facilities.

DEHQ - County of San Diego's Department of Environmental Health and Quality

Department Funded - Actions or programs funded by Fees and Deposits and all grant programs like vehicle licensing fees, and any department-related funding source.

DGS - County of San Diego's Department of General Services

DHR - County of San Diego's Department of Human Resources

DPR - County of San Diego's Department of Parks and Recreation

DPW - County of San Diego's Department of Public Works

Environmental Trust Fund – Fund administered by the Department of Public Works to cover monitoring and maintenance of County-owned or formerly County-owned or operated inactive or closed solid waste facilities.

Existing Program - Any existing action as a part of regular department operations or created through prior Board action.

Existing Staffing - Existing staff positions associated with Existing Programs.

Expanded Program - Any expansion of an Existing Program as a result of the CAP that would result in new costs or investments.

Fees & Deposits - Revenues received as a result of fees charged for certain services provided by County departments to residents and other public agencies.

General Purpose Revenue - Revenue derived from sources not specific to any program or service delivery that may be used for any purpose that is a legal expenditure of County funds.

HHSA - County of San Diego's Health and Human Services Agency

Incremental Cost - Any new cost or investment associated with New or Expanded Programs as a result of CAP.

Implementation Costs - Total costs associated with Existing, New, or Expanded Programs.

Inflation Rate – Assumed cost increase of 3% across all expenditure types for planning purposes only.

New Program - Any new actions or programs as a result of CAP that would result in new costs or investments.

New Staffing - New staff positions associated with New or Expanded Programs.

One-Time Activity - Any discrete activity that occurs only once over the CAP implementation timeline such as program development or ordinance adoption.

One-Time Only (OTO) Funding - A County budgeting term to denote funding allocations that are considered and approved each year generally for short term uses.

Ongoing Activity - An activity that occurs over an extended time period such as planting trees annually or monitoring and reporting CAP progress.

Operational Plan – The County's two-year financial plan that allocates resources to specific programs and services that support the County's long-term goals; it includes the adopted budget for the first year and a tentative budget that is approved in principle for the second year.

PDS - County of San Diego's Planning & Development Services

Program Status - Whether a program is Existing, New, or Expanded.

Salary and Benefits - An expenditure category that includes expenses related to the compensation of County employees such as salaries, wages, health, and retirement benefits.

Services and Supplies - An expenditure category that includes materials, supplies, and consultant costs.

1 INTRODUCTION AND KEY FINDINGS

The County of San Diego (County) released a draft 2024 Climate Action Plan (CAP) that establishes nine strategies, 21 measures, and 70 actions across five emissions reduction sectors to reduce greenhouse gas (GHG) emissions and achieve the County's 2030 and 2045 emission reduction targets.

This report summarizes the findings of the CAP Implementation Cost Analysis, which estimates and classifies County costs for implementing CAP measures and actions to achieve the GHG emission reduction targets included in the draft Final CAP. The goals of this analysis are to:

- (1) develop a preliminary estimate of the total cost to the County to implement the CAP over the first five fiscal years (FY 2025/26 – FY 2029/30) following CAP adoption in FY 2024/25 (herein referred to as "CAP implementation costs");
- (2) determine the costs of existing programs and incremental (or new) costs associated with expanded and new programs that would not have occurred without the CAP; and
- (3) provide implementing departments guidance for developing budget requests and identifying funding sources as part of the County's annual five year forecast and Operational Plan budget process.

Some of the actions involve one-time activities, such as developing a program or plan, or adoption of an ordinance. Others are ongoing activities, such as educating the public about incentive and rebate programs. Each action has an implementation time frame.

1.1 TIME FRAME OF CAP IMPLEMENTATION COST ESTIMATES

CAP implementation costs were estimated for a five fiscal year period following CAP adoption in FY 2024/25. Costs are estimated for each fiscal year and for the full five fiscal year timeframe (FY 2025/26 – FY 2029/30).

This timeframe aligns with the County's annual five year financial forecast. The current fiscal year, FY 2024/25, is not included, as costs associated with CAP adoption year are accounted for in the annual budget. After CAP adoption, the County will re-evaluate and estimate CAP implementation costs for subsequent fiscal years as part of its annual five year financial forecasts and when the County prepares a CAP update every five years.

1.2 TYPES OF COUNTY EXPENDITURES ACCOUNTED FOR IN CAP IMPLEMENTATION COST ESTIMATES

The CAP implementation costs presented in this report are estimates of the following types of County government expenditures that would be needed to implement the draft CAP (herein referred to as "expenditure categories"): capital costs, services and supplies, and salary and benefits. The report also identifies the number of full-time equivalent staff positions (FTEs) needed to implement the CAP, including existing FTEs and new FTEs.

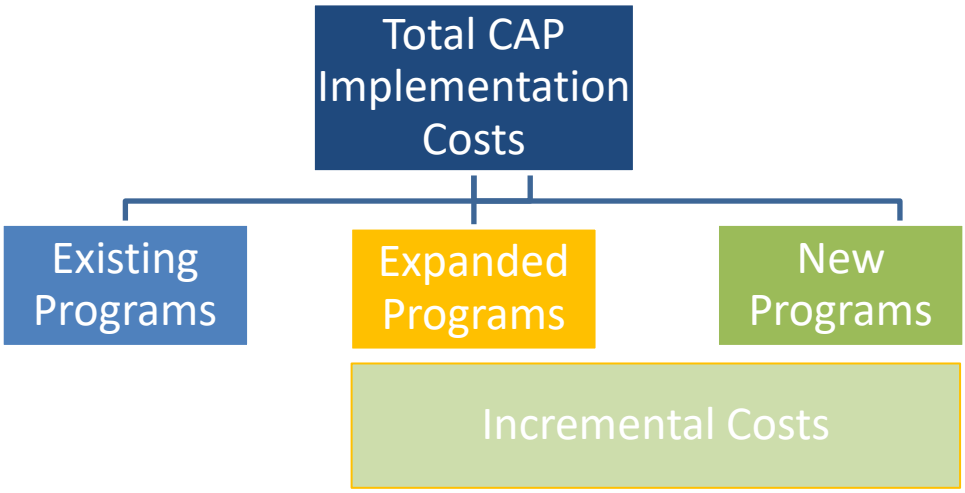
CAP implementation cost estimates are based on input from County departments that will be involved in implementation. These departments are Agriculture, Weights & Measures (AWM), Department of General Services (DGS), Department of Human Resources (DHR), Department of Parks & Recreation (DPR), Department of Public Works (DPW), Department of Purchasing and Contracting (DPC), Health & Human Services Agency (HHSA), Department of Environmental Health and Quality (DEHQ), and Planning & Development Services (PDS).

Cost estimates represent those expected to be incurred by the County to implement CAP measures and actions, which can be broken into two broad cost categories. The first, and largest, includes the cost to implement CAP measures and actions, including costs to develop and implement ordinances, acquire assets, and build capital improvements. The second category includes the costs associated with CAP coordination and reporting to annually assess measure performance, complete GHG inventory updates every two years, coordinate implementation and performance tracking activities among departments (e.g., Sustainability Task Force, an internal working group comprised of representatives from multiple County departments implementing the CAP), and prepare a CAP update every five years. Costs and benefits borne by unincorporated area residents and businesses are not considered in this report but will be addressed in a companion CAP Cost Effectiveness Analysis and Cost to Disproportionately Impacted Communities Report. The companion analyses will evaluate each CAP measure to determine the associated costs and benefits of reducing GHG emissions and any disproportionate costs incurred by residents and businesses participating in or affected by CAP measures.

1.3 FRAMEWORK FOR ESTIMATING TOTAL AND INCREMENTAL CAP IMPLEMENTATION COSTS

The report presents total CAP implementation costs based on program status including costs of existing County programs that implement the CAP, and incremental CAP implementation costs, which include the costs of expanded and new programs that implement the CAP. Existing programs refer to CAP measures and actions that involve continuation of an adopted County plan, policy, or initiative (e.g., Active Transportation Plan, Landscaping Ordinance, Multiple Species Conservation Program) that was in existence and operational prior to the CAP and would require continued investment to reach CAP implementation goals. Expanded programs refer to CAP measures and actions that involve an expansion of the scope of an existing, adopted County plan, policy, or initiative (e.g., increased acquisitions under the Multiple Species Conservation Program) and the costs associated with the expansion of those programs. New programs refer to novel work efforts (e.g., Equity Driven Tree Planting Program, Climate Smart Land Stewardship Program) that would need to be undertaken as a direct result of the CAP and the costs associated with the development and implementation of those programs. This analytical framework for estimating CAP implementation costs based on program status is depicted in Figure 1.

Figure 1. Implementation Cost Analysis Framework



Total CAP implementation costs (from existing, expanded, and new programs) and incremental CAP implementation costs (from expanded and new programs) are summarized for each of the CAP's 70 actions, expenditure categories, five emissions reduction sectors by expenditure type and for each County department.

The report also identifies funding sources that could be used to pay for CAP implementation costs, including One-Time Only, departmental budgets, and grants. This information is included as a guide and can be used to supplement departmental budget requests as part of the annual five year financial forecast and Operational Plan budget process. The underlying assumptions and limitations of this analysis are provided at the end of the report.

1.4 SUMMARY OF CAP IMPLEMENTATION COSTS AND KEY FINDINGS

Total CAP implementation costs during FY 2025/26 through FY 2029/30 are estimated to be $650 million, with $494 million (76%) of total implementation costs associated with existing County programs. The remaining $156 million (24%) of total implementation costs are incremental (or new) costs associated with the expansion of existing County programs ($102 million or 16%) and new County programs ($53 million or 8%) that would directly result from draft CAP actions. A summary of CAP implementation costs by program status is provided in Figure 2 and Table 1.

Figure 2. Summary of CAP Implementation Costs by Program Status
(FY 2025/26 through FY 2029/30)

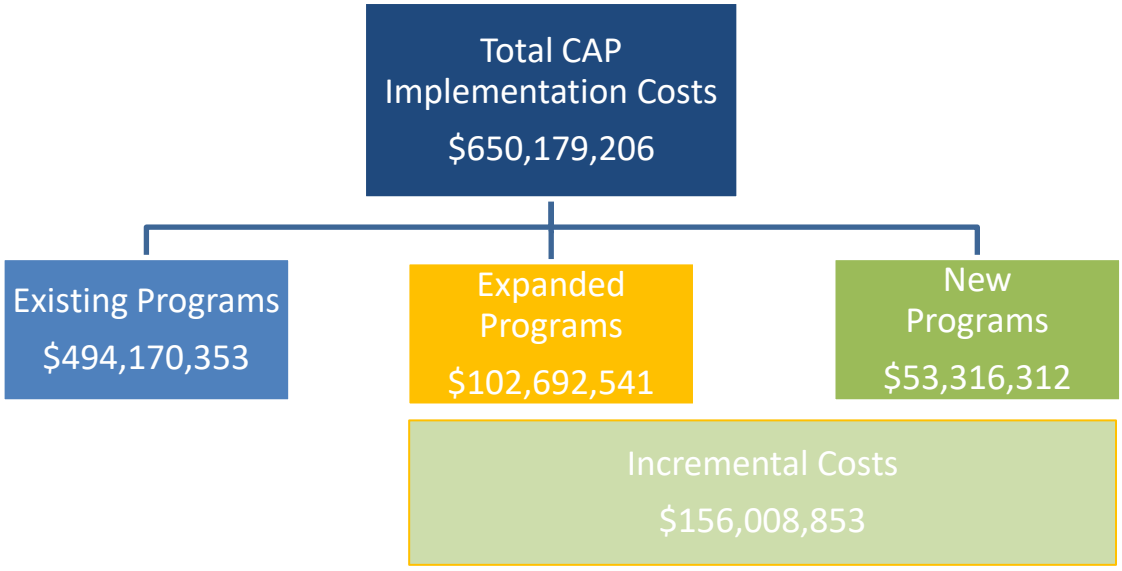


Table 1. Summary of CAP Implementation Costs by Program Status and Fiscal Year
(FY 2025/26 through FY 2029/30)

Status	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total	% CAP Total
Existing	$91,390,286	$94,532,686	$96,821,838	$103,524,969	$107,900,574	**$494,170,353**	76%
Expanded	$14,995,050	$20,466,496	$20,745,276	$22,922,709	$23,563,010	**$102,692,541**	16%
New	$6,763,006	$7,183,568	$7,877,955	$8,154,189	$23,337,594	**$53,316,312**	8%
Total	**$113,148,342**	**$122,182,751**	**$125,445,069**	**$134,601,866**	**$154,801,178**	**$650,179,207**	100%

- Total CAP implementation costs increase steadily over the five year period - The total estimated cost to implement CAP actions over the first five years after adoption is $650 million. Table 1 shows that annual implementation costs increase from $113 million in FY 2025/26 to $155 million in FY 2029/30.
- Existing programs account for a significant portion of CAP implementation costs - The total estimated costs for existing programs over the first five years after adoption is $494 million. Annual implementation costs for existing programs increase from $91 million in FY 2025/26 by 15% over the next five years to $107 million in FY 2029/30, as displayed in Table 1.

    - Of the total existing program costs, Action T-5.1 to implement the Active Transportation Plan, Action A-1.1 to acquire conservation lands, and Action E-1.1 to implement the Zero Carbon Portfolio Plan have the highest total costs over the five year period.

- Incremental CAP implementation costs are comparatively low - Costs associated with expanded and new programs, which would have not occurred without CAP adoption is $156 million. Annual costs for expanded and new programs increase from $22 million in FY 2025/26 by 155% over the next five years to $47 million in FY 2029/30, as displayed in Table 1.
    - Of the total incremental costs, Action A-1.1 to expand the County's conservation land acquisitions, Action W-1.1 to implement the County's Water Efficiency Plan, and Action E-3.3 to provide 100% renewable energy have the highest total costs for expanded and new programs over the five year period.
- Current staffing levels are sufficient to cover most of the CAP implementation activities - The total staffing needed to implement the CAP is estimated to be 77 FTE positions in FY 2029/30, approximately 90% of which are existing staff positions

2 CAP IMPLEMENTATION COST ANALYSIS METHODOLOGY

The following sections summarize the process used to estimate CAP implementation costs based on input and discussions with the County departments responsible for CAP implementation. The costs are based on the best available information and will help each of these departments develop annual budgets in the future. Through the regular CAP monitoring, reporting, and updating efforts or the County's annual Operational Plan, departments can reassess costs presented in this document and adjust accordingly to keep on track with stated CAP implementation goals and remain in sync with the County's budgetary process.

2.1 PROCESS TO ESTIMATE CAP IMPLEMENTATION COSTS

CAP implementation cost estimates were developed through the following steps:

- (1) determine the tasks required to implement CAP measures and actions;
- (2) define workload associated with these tasks;
- (3) determine whether existing staffing and other resources are sufficient;
- (4) determine the additional staffing level and other resources that might be required; and
- (5) quality control and data validation.

2.1.1 Identify Tasks to Implement CAP Measures and Actions

The first step was for County staff to identify tasks that adequately represent the expected workload to implement CAP measures and actions. To better understand the potential workload and more accurately estimate associated costs, County staff identified preliminary tasks for each CAP action that would need to be taken to implement each County initiative, requirement, or incentive outlined under each CAP measure. These actions include program research and development, policy updates, financing and incentive development, outreach and education, and others.

2.1.2 Establish Cost Estimates

Once tasks were identified, County staff developed CAP implementation cost estimates for capital, services and supplies, and salary and benefits expenditures. To facilitate and standardize collection of implementation cost data, a data collection template was provided for each County department to complete. Quality control and data validation occurred at several stages. Initial review occurred after total estimated costs were collected from each department. Upon subsequent review of cost estimates with department managers and staff, some cost components were updated to create consistency across all departments and to ensure a complete data set.

Estimates reflect the costs of CAP implementation, based on reasonable assumptions of the required work effort. All costs results presented in this report include a set inflation rate (3%), year over year. The implementation costs presented herein are subject to change and would need to be revisited and potentially adjusted as the CAP is implemented, as described above.

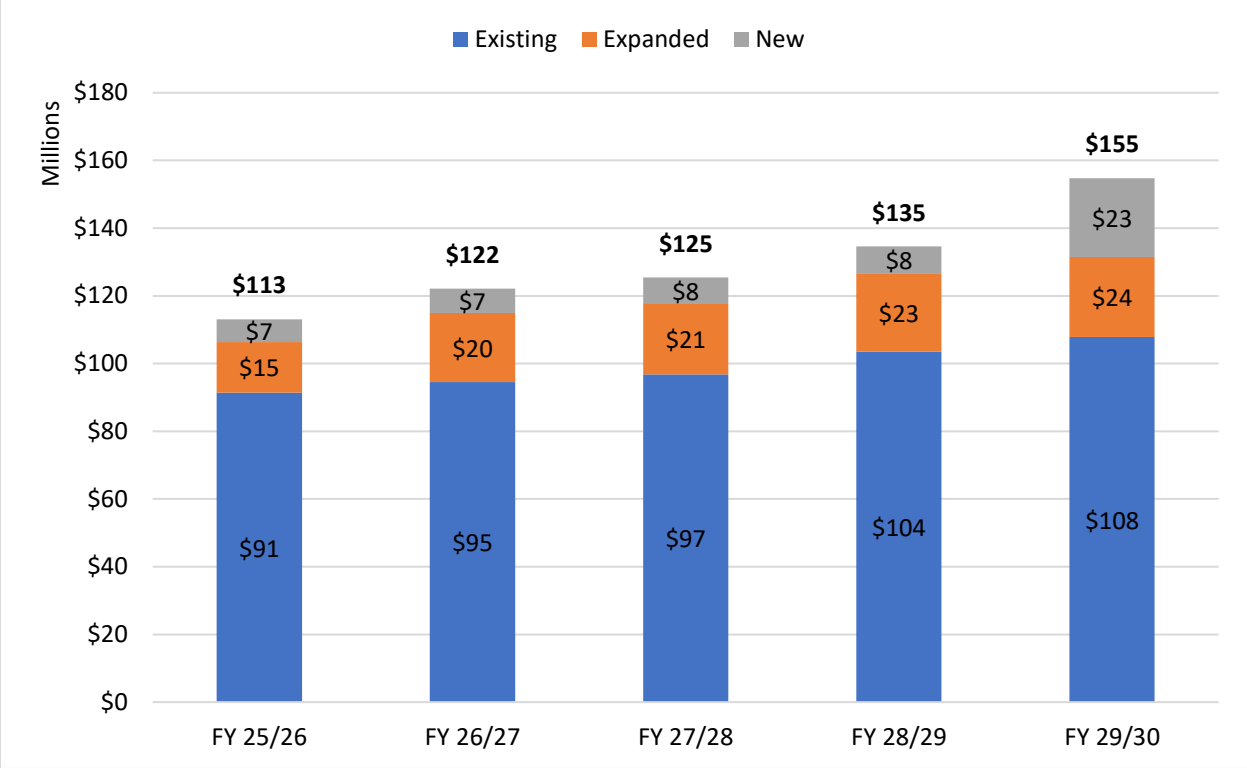
3 RESULTS – CAP IMPLEMENTATION COST ESTIMATES

This section summarizes CAP implementation cost analysis results. Costs are evaluated by CAP actions, department, expenditure category, and GHG emissions reduction sector (i.e., Built Environment and Transportation; Energy; Solid Waste; Water and Wastewater; and Agriculture and Conservation). Each subsection uses the evaluation framework described in Section 1.3 and presents total CAP costs, and incremental costs. All costs results presented in this report include a set inflation rate (3%), year over year.

3.1 TOTAL CAP IMPLEMENTATION COSTS

Figure 3 illustrates the total estimated implementation costs from FY 2025/26 through FY 2029/30. Estimated annual total CAP implementation costs increase from about $113 million in FY 2025/26 to $155 million in FY 2029/30, an increase of 37% over the five year period. Total CAP implementation costs are projected to be $650 million over the five year period. Existing programs account for about $494 million or 76% of total implementation costs. New and expanded programs representing new costs or investments as a result of the CAP account for about $156 million, or 24% of total implementation costs. This represents the incremental cost to the County for implementing the CAP.

Figure 3. Total CAP Implementation Cost by Program Status
FY 2025/26 through FY 2029/30



3.1.1 Funding Sources

County staff have identified potential funding sources for CAP implementation costs, understanding that all final funding allocations require Board of Supervisors' approval through the County's annual budget process. Funding sources include one-time only funding allocations that are approved each year during the budget process and generally for short term uses, general purpose revenue funding sources that are derived from sources not specific to any program or service delivery, special funds (e.g., Environmental Trust Fund, fees and deposits, department funds) that are derived from fees for services or deposits, and grant funding. As part of the County's annual budget and CAP implementation processes, County staff will continue to evaluate funding sources and financing strategies to reduce the fiscal impact of CAP actions. For example, significant federal and state funding sources are available for public sector climate-related investments through the Inflation Reduction Act, Bipartisan Infrastructure Law, California Greenhouse Gas Reduction Fund, and the State of California Budget, among others. Additional funding source information can be found in Appendix A of this document.

3.2 COSTS BY CAP ACTION

This section summarizes total estimated costs to implement the actions of the draft CAP including the costs associated with CAP coordination and reporting, including GHG emissions inventory updates, coordinating implementation and performance tracking activities among departments (e.g., Sustainability Task Force), and monitoring and reporting on CAP implementation progress.

3.2.1 Total Cost by CAP Action

Table 2 shows total annual implementation cost by CAP action. Below is a summary of the total costs by CAP action:

- Action A-1.1 has the highest cost in the Agriculture and Conservation sector, at $135 million, to acquire 11,000 acres of conservation lands by 2030 and 1,000 acres per year thereafter to preserve land in perpetuity. Actions A-2.1 (i.e., expands the County's tree planting initiative) and A-3.1 (i.e., expands the Purchase of Agricultural Conservation Easement Program) are over $9 million each.
- Action E-1.1 has the highest cost in the Energy sector, at $52 million, to implement the County Facilities Zero Carbon Portfolio Plan. Three other actions: E-2.2 (i.e., increase energy efficiency and electrification), E-3.2 (i.e., streamlined solar permitting) and E-3.3 (i.e., provide 100% renewable energy) are each over $13 million.
- Action SW-2.1c has the highest cost in the Solid Waste sector, at $3 million, and will educate the public and work towards achieving zero waste by 2045.
- Action T-5.1 in the Built Environment and Transportation sector has the highest cost of all CAP actions at $213 million or 33% of all costs. It aims to install 315 miles of bikeways and 345 miles of sidewalks by 2030. Action T-3.1 (i.e., increase the use of electric and other zero-emission vehicles) has a cost of $15.7 million.
- Action W-3.1 has the highest cost in the Water and Wastewater sector, at $44.7 million, to increase wastewater treatment efficiency through the East County Advanced Water Purification Program. Action W-2.4 (i.e., implement the Waterscape Rebate Program) has a cost of $10.2 million.
- Costs associated with CAP coordination and reporting are $5.8 million. The County's prior CAP implementation experience is used to inform these monitoring and evaluation cost estimates, which represent about 0.9% of total CAP implementation costs.

Table 2. Total CAP Implementation Costs by Action
FY 2025/26 through FY 2029/30

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
CAP Coordination and Reporting						
	$980,009	$1,009,409	$1,845,977	$1,156,119	$871,153	**$5,862,667**
Agriculture and Conservation						
A-1.1	$23,471,829	$25,299,867	$26,057,128	$29,064,583	$31,480,717	**$135,374,125**
A-1.2	$0	$0	$137,653	$817,088	$493,818	**$1,448,559**
A-1.2a	$0	$0	$0	$17,739	$18,272	**$36,011**
A-2.1	$2,813,769	$2,855,746	$2,941,419	$3,029,661	$3,120,551	**$14,761,147**
A-2.1a	$225,202	$179,550	$31,080	$26,385	$27,177	**$489,395**
A-3.1	$1,811,422	$1,865,765	$1,921,738	$1,979,390	$2,038,771	**$9,617,086**
A-4.1	$592,119	$485,380	$500,008	$515,077	$530,599	**$2,623,183**
A-4.1a	$69,952	$72,050	$123,471	$76,438	$78,731	**$420,642**
A-4.1b	$0	$0	$207,277	$213,563	$220,040	**$640,880**
A-4.1c	$0	$0	$80,416	$26,622	$27,491	**$134,528**
A-4.1d	$0	$0	$80,416	$26,622	$27,491	**$134,528**
A-5.1	$93,817	$822,352	$847,088	$821,832	$846,557	**$3,431,646**
A-5.1a	$0	$0	$43,057	$0	$0	**$43,057**
Energy						
E-1.1	$9,701,033	$9,992,064	$10,291,826	$10,600,580	$10,918,598	**$51,504,100**
E-2.1	$320,701	$358,050	$454,843	$447,806	$501,568	**$2,082,968**
E-2.2	$312,037	$3,207,359	$3,273,338	$3,286,627	$3,474,504	**$13,553,866**
E-2.2a	$324,039	$317,039	$326,551	$336,347	$346,437	**$1,650,414**
E-2.2b	$145,651	$230,665	$75,580	$80,005	$142,813	**$674,713**
E-2.2c	$145,651	$18,485	$20,944	$23,729	$26,885	**$235,694**
E-2.2d	$145,651	$18,485	$20,944	$23,729	$26,885	**$235,694**
E-3.1	$308,054	$343,721	$438,609	$429,413	$480,729	**$2,000,527**
E-3.2	$3,437,621	$3,571,250	$3,767,581	$3,863,486	$4,023,751	**$18,663,688**
E-3.2a	$206,000	$106,090	$109,273	$56,275	$57,964	**$535,602**
E-3.3	$0	$0	$0	$0	$15,070,563	**$15,070,563**
Solid Waste						
SW-1.1	$145,978	$200,963	$75,427	$77,690	$80,021	**$580,079**
SW-1.1a	$0	$41,803	$0	$0	$0	**$41,803**
SW-1.1b	$126,989	$115,850	$119,326	$122,906	$126,593	**$611,663**
SW-2.1	$465,560	$479,527	$493,913	$254,365	$0	**$1,693,364**
SW-2.1a	$175,718	$169,107	$174,181	$179,406	$184,788	**$883,201**
SW-2.1b	$49,893	$51,390	$52,932	$54,520	$56,155	**$264,890**
SW-2.1c	$630,494	$634,461	$653,494	$673,099	$693,292	**$3,284,841**

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
SW-3.1	$63,654	$330,789	$340,712	$350,934	$361,462	**$1,447,550**
SW-4.1	$290,051	$323,813	$292,304	$104,110	$107,233	**$1,117,511**
SW-4.1a	$268,601	$487,741	$384,144	$283,186	$291,682	**$1,715,354**
SW-4.1b	$158,167	$203,863	$0	$0	$0	**$362,029**
Built Environment and Transportation						
T-1.1	$2,203,416	$2,715,097	$1,539,914	$5,863,045	$6,038,936	**$18,360,408**
T-1.1a	$1,030,000	$1,060,900	$1,092,727	$1,125,509	$1,159,274	**$5,468,410**
T-1.1b	$5,150	$5,305	$5,464	$5,628	$5,796	**$27,342**
T-1.2	$189,330	$167,633	$147,529	$135,072	$234,185	**$873,749**
T-2.1	$285,825	$421,708	$696,613	$717,512	$739,037	**$2,860,695**
T-2.2	$182,825	$15,914	$16,391	$16,883	$17,389	**$249,401**
T-3.1	$2,950,119	$3,045,382	$3,199,039	$3,247,411	$3,354,665	**$15,796,616**
T-3.1a	$145,651	$18,485	$20,944	$23,729	$26,885	**$235,694**
T-4.1	$62,579	$64,456	$66,390	$68,382	$70,433	**$332,240**
T-4.1a	$25,174	$25,929	$26,707	$19,579	$20,166	**$117,553**
T-4.2	$56,035	$57,716	$59,448	$61,231	$63,068	**$297,497**
T-5.1	$40,070,061	$41,272,163	$42,510,328	$43,785,638	$45,099,207	**$212,737,397**
T-5.1a	$0	$0	$43,057	$0	$0	**$43,057**
T-5.2	$495,792	$502,305	$517,375	$532,896	$548,883	**$2,597,251**
T-6.1	$1,870,234	$1,917,981	$1,966,909	$2,025,916	$2,086,693	**$9,867,732**
T-6.2	$1,431,641	$1,433,439	$794,226	$818,889	$844,403	**$5,322,597**
T-6.2a	$114,858	$59,152	$0	$0	$0	**$174,010**
T-6.3	$700,398	$922,347	$906,961	$934,170	$962,195	**$4,426,072**
Water and Wastewater						
W-1.1	$3,090,000	$3,182,700	$3,278,181	$3,376,526	$3,477,822	**$16,405,230**
W-2.1	$129,904	$305,005	$345,570	$391,531	$443,605	**$1,615,614**
W-2.2	$269,201	$305,005	$345,570	$391,531	$443,605	**$1,754,911**
W-2.3	$31,250	$35,406	$40,116	$45,451	$51,496	**$203,719**
W-2.3a	$161,041	$48,040	$52,796	$58,136	$64,136	**$384,150**
W-2.3b	$453,456	$317,039	$326,551	$336,347	$346,437	**$1,779,830**
W-2.4	$1,933,073	$1,991,065	$2,050,797	$2,112,321	$2,175,691	**$10,262,948**
W-3.1	$7,781,665	$8,499,947	$9,212,820	$9,489,204	$9,773,880	**$44,757,516**
Total	**$113,148,342**	**$122,182,750**	**$125,445,069**	**$134,601,866**	**$154,801,177**	**$650,179,206**

3.2.2 CAP Action Costs by Program Status

Table 3 shows the CAP action costs by their program status for existing, expanded, and new programs to implement CAP actions. Actions with the highest incremental CAP implementation costs (i.e., expanded and new programs) include:

- Action A-1.1 (i.e., acquire conservation lands): $59 million.
- Action W-1.1 (i.e., implement the County's Water Efficiency Plan): $16 million.
- Action E-3.3 (i.e., provide 100% renewable energy): $15 million.
- Action E-2.2 (i.e., increase energy efficiency and electrification): $14 million.

Table 3. CAP Action Implementation Costs by Program Status by Fiscal Year

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
CAP Implementation Monitoring and Reporting	**$980,009**	**$1,009,409**	**$1,845,977**	**$1,156,119**	**$871,153**	**$5,862,667**
Existing	$980,009	$1,009,409	$1,845,977	$1,156,119	$871,153	$5,862,667
Agriculture and Conservation						
A-1.1	**$23,471,829**	**$25,299,867**	**$26,057,128**	**$29,064,583**	**$31,480,717**	**$135,374,125**
Existing	$14,357,166	$14,293,896	$14,569,093	$15,353,437	$17,358,237	$75,931,828
Expanded	$8,718,311	$10,597,728	$11,067,545	$13,278,041	$13,676,382	$57,338,007
New	$396,353	$408,243	$420,490	$433,105	$446,098	$2,104,290
A-1.2	**$0**	**$0**	**$137,653**	**$817,088**	**$493,818**	**$1,448,559**
Existing	$0	$0	$137,653	$141,783	$146,036	$425,472
New	$0	$0	$0	$675,305	$347,782	$1,023,088
A-1.2a	**$0**	**$0**	**$0**	**$17,739**	**$18,272**	**$36,011**
Expanded	$0	$0	$0	$17,739	$18,272	$36,011
A-2.1	**$2,813,769**	**$2,855,746**	**$2,941,419**	**$3,029,661**	**$3,120,551**	**$14,761,147**
Existing	$1,710,418	$1,761,731	$1,814,582	$1,869,020	$1,925,091	$9,080,841
Expanded	$1,103,351	$1,094,016	$1,126,836	$1,160,641	$1,195,461	$5,680,306
A-2.1a	**$225,202**	**$179,550**	**$31,080**	**$26,385**	**$27,177**	**$489,395**
Expanded	$18,996	$19,566	$20,153	$20,758	$21,380	$100,854
New	$206,206	$159,984	$10,927	$5,628	$5,796	$388,541
A-3.1	**$1,811,422**	**$1,865,765**	**$1,921,738**	**$1,979,390**	**$2,038,771**	**$9,617,086**
Existing	$1,480,792	$1,525,216	$1,570,972	$1,618,101	$1,666,645	$7,861,726
Expanded	$330,630	$340,549	$350,765	$361,288	$372,127	$1,755,360
A-4.1	**$592,119**	**$485,380**	**$500,008**	**$515,077**	**$530,599**	**$2,623,183**
New	$592,119	$485,380	$500,008	$515,077	$530,599	$2,623,183
A-4.1a	**$69,952**	**$72,050**	**$123,471**	**$76,438**	**$78,731**	**$420,642**
Existing	$69,952	$72,050	$74,212	$76,438	$78,731	$371,382
New	$0	$0	$49,260	$0	$0	$49,260
A-4.1b	**$0**	**$0**	**$207,277**	**$213,563**	**$220,040**	**$640,880**

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
New	$0	$0	$207,277	$213,563	$220,040	$640,880
A-4.1c	**$0**	**$0**	**$80,416**	**$26,622**	**$27,491**	**$134,528**
New	$0	$0	$80,416	$26,622	$27,491	$134,528
A-4.1d	**$0**	**$0**	**$80,416**	**$26,622**	**$27,491**	**$134,528**
Existing	$0	$0	$54,636	$0	$0	$54,636
New	$0	$0	$25,780	$26,622	$27,491	$79,892
A-5.1	**$93,817**	**$822,352**	**$847,088**	**$821,832**	**$846,557**	**$3,431,646**
New	$93,817	$822,352	$847,088	$821,832	$846,557	$3,431,646
A-5.1a	**$0**	**$0**	**$43,057**	**$0**	**$0**	**$43,057**
New	$0	$0	$43,057	$0	$0	$43,057
Energy						
E-1.1	**$9,701,033**	**$9,992,064**	**$10,291,826**	**$10,600,580**	**$10,918,598**	**$51,504,100**
Existing	$9,701,033	$9,992,064	$10,291,826	$10,600,580	$10,918,598	$51,504,100
E-2.1	**$320,701**	**$358,050**	**$454,843**	**$447,806**	**$501,568**	**$2,082,968**
New	$320,701	$358,050	$454,843	$447,806	$501,568	$2,082,968
E-2.2	**$312,037**	**$3,207,359**	**$3,273,338**	**$3,286,627**	**$3,474,504**	**$13,553,866**
Expanded	$242,591	$3,133,981	$3,141,028	$3,204,249	$3,386,967	$13,108,815
New	$69,447	$73,379	$132,311	$82,378	$87,537	$445,051
E-2.2a	**$324,039**	**$317,039**	**$326,551**	**$336,347**	**$346,437**	**$1,650,414**
Existing	$324,039	$317,039	$326,551	$336,347	$346,437	$1,650,414
E-2.2b	**$145,651**	**$230,665**	**$75,580**	**$80,005**	**$142,813**	**$674,713**
New	$145,651	$230,665	$75,580	$80,005	$142,813	$674,713
E-2.2c	**$145,651**	**$18,485**	**$20,944**	**$23,729**	**$26,885**	**$235,694**
New	$145,651	$18,485	$20,944	$23,729	$26,885	$235,694
E-2.2d	**$145,651**	**$18,485**	**$20,944**	**$23,729**	**$26,885**	**$235,694**
New	$145,651	$18,485	$20,944	$23,729	$26,885	$235,694
E-3.1	**$308,054**	**$343,721**	**$438,609**	**$429,413**	**$480,729**	**$2,000,527**
Expanded	$308,054	$343,721	$438,609	$429,413	$480,729	$2,000,527
E-3.2	**$3,437,621**	**$3,571,250**	**$3,767,581**	**$3,863,486**	**$4,023,751**	**$18,663,688**
Existing	$3,437,621	$3,571,250	$3,767,581	$3,863,486	$4,023,751	$18,663,688
E-3.2a	**$206,000**	**$106,090**	**$109,273**	**$56,275**	**$57,964**	**$535,602**
New	$206,000	$106,090	$109,273	$56,275	$57,964	$535,602
E-3.3	**$0**	**$0**	**$0**	**$0**	**$15,070,563**	**$15,070,563**
New	$0	$0	$0	$0	$15,070,563	$15,070,563
Solid Waste						
SW-1.1	**$145,978**	**$200,963**	**$75,427**	**$77,690**	**$80,021**	**$580,079**
Existing	$71,097	$73,230	$75,427	$77,690	$80,021	$377,466
Expanded	$74,881	$127,732	$0	$0	$0	$202,613
SW-1.1a	**$0**	**$41,803**	**$0**	**$0**	**$0**	**$41,803**

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
Expanded	$0	$41,803	$0	$0	$0	$41,803
SW-1.1b	**$126,989**	**$115,850**	**$119,326**	**$122,906**	**$126,593**	**$611,663**
Expanded	$126,989	$115,850	$119,326	$122,906	$126,593	$611,663
SW-2.1	**$465,560**	**$479,527**	**$493,913**	**$254,365**	**$0**	**$1,693,364**
Expanded	$465,560	$479,527	$493,913	$254,365	$0	$1,693,364
SW-2.1a	**$175,718**	**$169,107**	**$174,181**	**$179,406**	**$184,788**	**$883,201**
Expanded	$175,718	$169,107	$174,181	$179,406	$184,788	$883,201
SW-2.1b	**$49,893**	**$51,390**	**$52,932**	**$54,520**	**$56,155**	**$264,890**
Expanded	$49,893	$51,390	$52,932	$54,520	$56,155	$264,890
SW-2.1c	**$630,494**	**$634,461**	**$653,494**	**$673,099**	**$693,292**	**$3,284,841**
Existing	$615,981	$634,461	$653,494	$673,099	$693,292	$3,270,328
Expanded	$14,513	$0	$0	$0	$0	$14,513
SW-3.1	**$63,654**	**$330,789**	**$340,712**	**$350,934**	**$361,462**	**$1,447,550**
Existing	$0	$0	$0	$0	$0	$0
Expanded	$63,654	$330,789	$340,712	$350,934	$361,462	$1,447,550
SW-4.1	**$290,051**	**$323,813**	**$292,304**	**$104,110**	**$107,233**	**$1,117,511**
New	$290,051	$323,813	$292,304	$104,110	$107,233	$1,117,511
SW-4.1a	**$268,601**	**$487,741**	**$384,144**	**$283,186**	**$291,682**	**$1,715,354**
Expanded	$268,601	$487,741	$384,144	$283,186	$291,682	$1,715,354
SW-4.1b	**$158,167**	**$203,863**	**$0**	**$0**	**$0**	**$362,029**
Expanded	$158,167	$203,863	$0	$0	$0	$362,029
Built Environment and Transportation						
T-1.1	**$2,203,416**	**$2,715,097**	**$1,539,914**	**$5,863,045**	**$6,038,936**	**$18,360,408**
Existing	$2,203,416	$2,715,097	$1,539,914	$5,863,045	$6,038,936	$18,360,408
T-1.1a	**$1,030,000**	**$1,060,900**	**$1,092,727**	**$1,125,509**	**$1,159,274**	**$5,468,410**
Existing	$1,030,000	$1,060,900	$1,092,727	$1,125,509	$1,159,274	$5,468,410
T-1.1b	**$5,150**	**$5,305**	**$5,464**	**$5,628**	**$5,796**	**$27,342**
Existing	$5,150	$5,305	$5,464	$5,628	$5,796	$27,342
T-1.2	**$189,330**	**$167,633**	**$147,529**	**$135,072**	**$234,185**	**$873,749**
New	$189,330	$167,633	$147,529	$135,072	$234,185	$873,749
T-2.1	**$285,825**	**$421,708**	**$696,613**	**$717,512**	**$739,037**	**$2,860,695**
New	$285,825	$421,708	$696,613	$717,512	$739,037	$2,860,695
T-2.2	**$182,825**	**$15,914**	**$16,391**	**$16,883**	**$17,389**	**$249,401**
New	$182,825	$15,914	$16,391	$16,883	$17,389	$249,401
T-3.1	**$2,950,119**	**$3,045,382**	**$3,199,039**	**$3,247,411**	**$3,354,665**	**$15,796,616**
Existing	$2,832,994	$2,917,984	$3,005,523	$3,095,689	$3,188,560	$15,040,749
New	$117,125	$127,399	$193,515	$151,722	$166,105	$755,867
T-3.1a	**$145,651**	**$18,485**	**$20,944**	**$23,729**	**$26,885**	**$235,694**
New	$145,651	$18,485	$20,944	$23,729	$26,885	$235,694

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
T-4.1	**$62,579**	**$64,456**	**$66,390**	**$68,382**	**$70,433**	**$332,240**
Existing	$62,579	$64,456	$66,390	$68,382	$70,433	$332,240
T-4.1a	**$25,174**	**$25,929**	**$26,707**	**$19,579**	**$20,166**	**$117,553**
Existing	$25,174	$25,929	$26,707	$19,579	$20,166	$117,553
T-4.2	**$56,035**	**$57,716**	**$59,448**	**$61,231**	**$63,068**	**$297,497**
Existing	$40,585	$41,803	$43,057	$44,348	$45,679	$215,471
New	$15,450	$15,914	$16,391	$16,883	$17,389	$82,026
T-5.1	**$40,070,061**	**$41,272,163**	**$42,510,328**	**$43,785,638**	**$45,099,207**	**$212,737,397**
Existing	$40,070,061	$41,272,163	$42,510,328	$43,785,638	$45,099,207	$212,737,397
T-5.1a	**$0**	**$0**	**$43,057**	**$0**	**$0**	**$43,057**
New	$0	$0	$43,057	$0	$0	$43,057
T-5.2	**$495,792**	**$502,305**	**$517,375**	**$532,896**	**$548,883**	**$2,597,251**
Existing	$212,542	$210,558	$216,875	$223,381	$230,082	$1,093,438
Expanded	$283,250	$291,748	$300,500	$309,515	$318,800	$1,503,813
T-6.1	**$1,870,234**	**$1,917,981**	**$1,966,909**	**$2,025,916**	**$2,086,693**	**$9,867,732**
Expanded	$1,870,234	$1,917,981	$1,966,909	$2,025,916	$2,086,693	$9,867,732
T-6.2	**$1,431,641**	**$1,433,439**	**$794,226**	**$818,889**	**$844,403**	**$5,322,597**
Existing	$1,426,493	$1,428,137	$788,764	$813,263	$838,608	$5,295,266
New	$5,148	$5,302	$5,461	$5,625	$5,794	$27,331
T-6.2a	**$114,858**	**$59,152**	**$0**	**$0**	**$0**	**$174,010**
New	$114,858	$59,152	$0	$0	$0	$174,010
T-6.3	**$700,398**	**$922,347**	**$906,961**	**$934,170**	**$962,195**	**$4,426,072**
Existing	$695,250	$716,108	$737,591	$759,718	$782,510	$3,691,177
Expanded	$0	$41,803	$0	$0	$0	$41,803
New	$5,148	$164,437	$169,370	$174,452	$179,685	$693,093
Water and Wastewater						
W-1.1	**$3,090,000**	**$3,182,700**	**$3,278,181**	**$3,376,526**	**$3,477,822**	**$16,405,230**
Existing	$0	$0	$0	$0	$0	$0
New	$3,090,000	$3,182,700	$3,278,181	$3,376,526	$3,477,822	$16,405,230
W-2.1	**$129,904**	**$305,005**	**$345,570**	**$391,531**	**$443,605**	**$1,615,614**
Expanded	$129,904	$305,005	$345,570	$391,531	$443,605	$1,615,614
W-2.2	**$269,201**	**$305,005**	**$345,570**	**$391,531**	**$443,605**	**$1,754,911**
Expanded	$269,201	$305,005	$345,570	$391,531	$443,605	$1,754,911
W-2.3	**$31,250**	**$35,406**	**$40,116**	**$45,451**	**$51,496**	**$203,719**
Expanded	$31,250	$35,406	$40,116	$45,451	$51,496	$203,719
W-2.3a	**$161,041**	**$48,040**	**$52,796**	**$58,136**	**$64,136**	**$384,150**
Existing	$15,390	$15,852	$16,328	$16,817	$17,322	$81,709
Expanded	$145,651	$32,188	$36,469	$41,319	$46,814	$302,441
W-2.3b	**$453,456**	**$317,039**	**$326,551**	**$336,347**	**$346,437**	**$1,779,830**

Action	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
Existing	$307,805	$317,039	$326,551	$336,347	$346,437	$1,634,180
Expanded	$145,651	$0	$0	$0	$0	$145,651
W-2.4	**$1,933,073**	**$1,991,065**	**$2,050,797**	**$2,112,321**	**$2,175,691**	**$10,262,948**
Existing	$1,933,073	$1,991,065	$2,050,797	$2,112,321	$2,175,691	$10,262,948
W-3.1	**$7,781,665**	**$8,499,947**	**$9,212,820**	**$9,489,204**	**$9,773,880**	**$44,757,516**
Existing	$7,781,665	$8,499,947	$9,212,820	$9,489,204	$9,773,880	$44,757,516
Total	**$113,148,342**	**$122,182,751**	**$125,445,069**	**$134,601,866**	**$154,801,178**	**$650,179,207**

3.3 COSTS BY EXPENDITURE CATEGORY

County expenditure categories include capital, salary and benefits, and services and supplies.

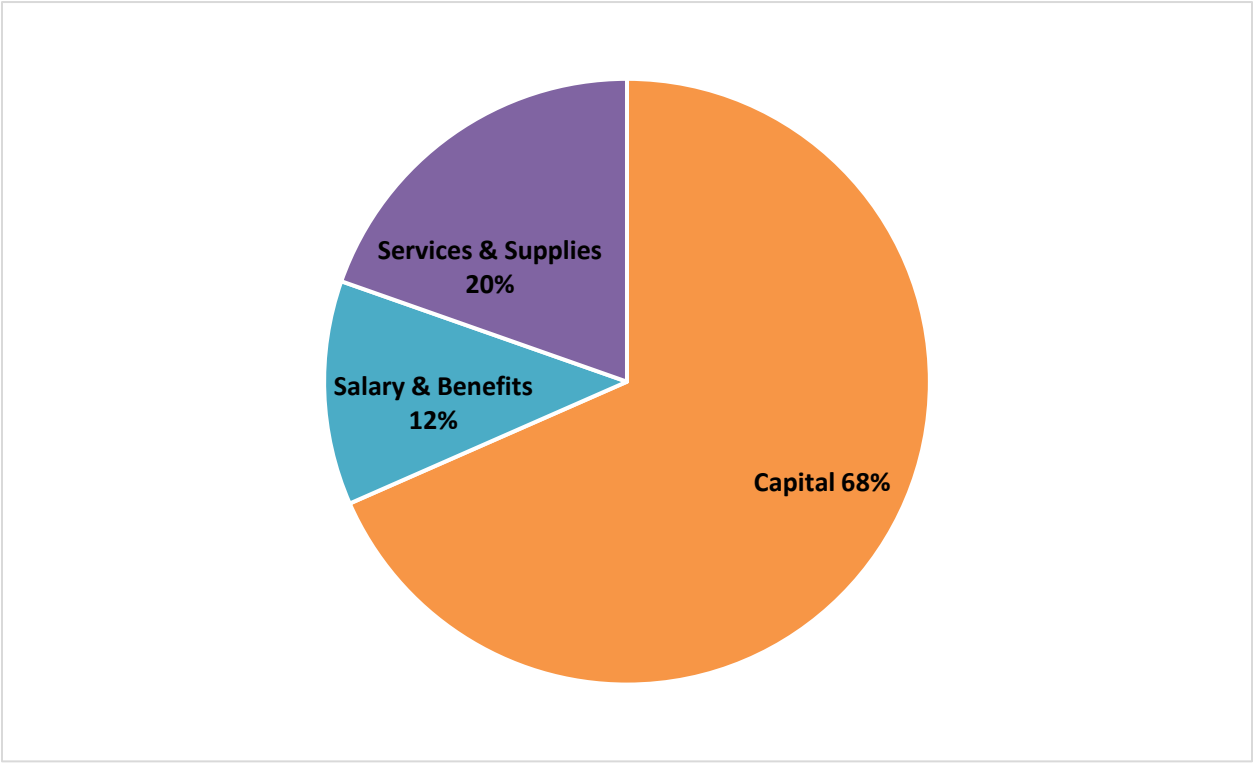
Capital – The capital category represents about 68% of total costs over the analysis period. Examples of capital expenditures could include incentives, purchase of land for conservation, construction of bicycle lanes and sidewalks, and actions to control methane emissions from landfills.

Services and Supplies - The services and supplies category, which accounts for 20% of costs, is comprised of consultants, other services such as capital design and land appraisals, materials, permitting fees, and supplies (e.g., education and outreach materials) needed to implement CAP actions. Examples of implementation costs in this category include support to develop CAP-related ordinances, CEQA-related activities, stewardship of purchased land, fees paid through a Joint Powers Agreement, and a tree canopy assessment.

Salary and Benefits - The salary and benefits category represents the County personnel costs associated with CAP implementation. This category represents about 12% of total costs over the five years covered by this report. Salary and benefit costs include current base salary, benefits like health insurance and retirement, and overhead costs associated with fixed expenses such as equipment and supplies allocated to each County employee.

Figure 4 displays the total costs within each expenditure category across the five fiscal years.

Figure 4. Distribution of Expenditure Types



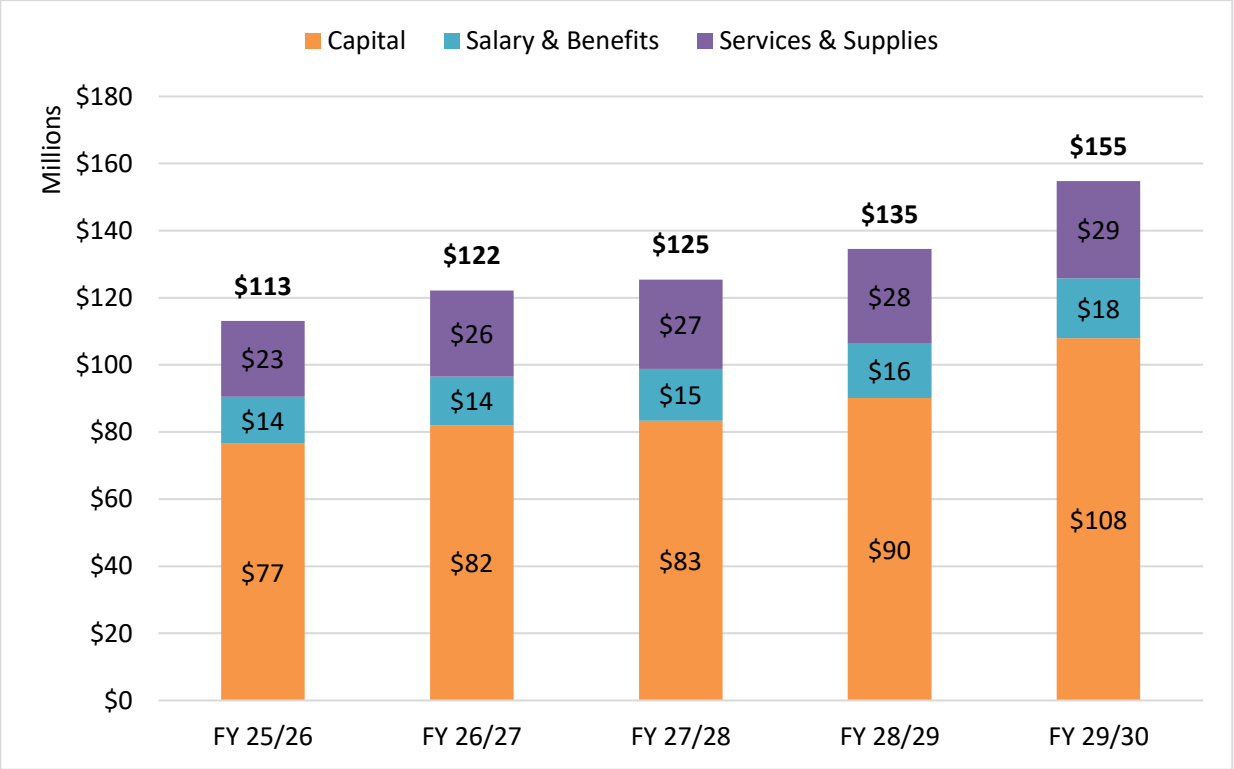
3.3.1 Total Costs by Expenditure Category

Table 4 and Figure 5 summarize these projected costs by fiscal year. Capital is the largest category, totaling $440 million. Services and supplies are the next largest category, totaling $132 million.

Table 4. Total CAP Implementation Costs by Expenditure Category

Expenditure Category	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
Capital	$76,670,933	$82,058,917	$83,362,394	$90,140,200	$107,914,969	**$440,147,413**
Services & Supplies	$22,658,045	$25,629,933	$26,615,825	$28,076,883	$29,049,693	**$132,030,380**
Salary & Benefits	$13,819,364	$14,493,900	$15,466,850	$16,384,783	$17,836,516	**$78,001,414**
Total	**$113,148,342**	**$122,182,751**	**$125,445,069**	**$134,601,866**	**$154,801,178**	**$650,179,207**

Figure 5. Total CAP Implementation Costs by Expenditure Category
FY 2025/26 through FY 2029/30



3.4 COSTS BY DEPARTMENT

This section summarizes CAP implementation costs by County department. Table 5 lists the departments that will participate in CAP implementation activities. Not all of these departments have prepared projected budgets as their activities will be incidental to their other duties.

Table 5. County Departments Implementing CAP Actions

AWM	Agriculture, Weights & Measures
DEHQ	Department of Environmental Health and Quality
DGS	Department of General Services
DHR	Department of Human Resources
DPC	Department of Purchasing and Contracting
DPR	Department of Parks & Recreation
DPW	Department of Public Works
HHSA	Health & Human Services
PDS	Planning & Development Services

3.4.1 Total Costs by Department

Table 6 summarizes implementation costs by department over the five year period. Figure 6 shows that DPW has a majority of expenditures at 45%, with DPR following at 24%, PDS at 15%, and DGS at 13%.

Table 6. Total CAP Implementation Costs by County Department

Dept	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
AWM	$7,345	$3,073	$6,199	$6,794	$7,349	**$30,759**
DEHQ	$631,001	$649,931	$832,704	$857,685	$883,416	**$3,854,736**
DGS	$15,112,109	$16,011,050	$15,234,746	$19,968,722	$20,567,783	**$86,894,411**
DPR	$26,717,493	$28,664,756	$29,481,627	$32,906,960	$35,185,644	**$152,956,479**
DPW	$54,581,351	$57,250,082	$59,026,548	$60,683,668	$62,242,182	**$293,783,832**
HHSA	$2,403,510	$2,475,615	$2,549,883	$2,626,380	$2,705,171	**$12,760,559**
PDS	$13,695,534	$17,128,244	$18,313,362	$17,551,658	$33,209,633	**$99,898,430**
Total	**$113,148,342**	**$122,182,751**	**$125,445,069**	**$134,601,866**	**$154,801,178**	$650,179,207

Figure 6. Total CAP Implementation Costs by County Department

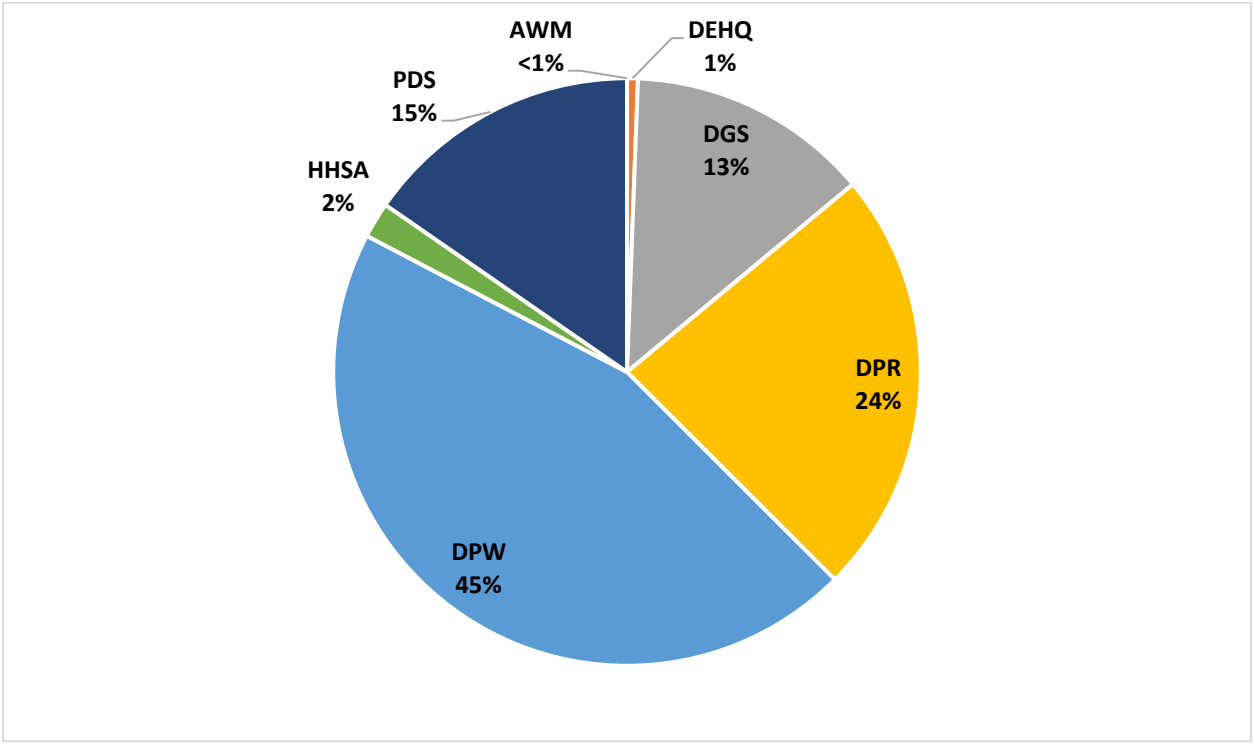


Table 7 shows the breakdown of total CAP implementation costs for each department by expenditure category.

Table 7. Total CAP Implementation Costs for Departments by Expenditure Type
FY 2025/26 through FY 2029/30

Dept	Capital	Salary & Benefits	Services & Supplies	Grand Total	% of total
AWM	$0	$30,759	$0	$30,759	**0.005%**
DEHQ	$0	$3,854,736	$0	$3,854,736	**1%**
HHSA	$11,346,951	$981,605	$432,004	$12,760,559	**2%**
DGS	$82,837,120	$4,057,290	$0	$86,894,411	**13%**
PDS	$70,917,006	$20,781,985	$8,199,439	$99,898,430	**15%**
DPR	$92,336,372	$40,784,878	$19,835,229	$152,956,479	**24%**
DPW	$182,709,964	$7,510,161	$103,563,707	$293,783,832	**45%**
Total	**$440,147,413**	**$78,001,414**	**$132,030,380**	**$650,179,207**	**100%**

Table 8 presents the annual implementation costs by department for each expenditure category across the five year period.

Table 8. Implementation Costs for Programs by Department and Expenditure Type
FY 2025/26 through FY 2029/30

Department	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total
AWM	**$7,345**	**$3,073**	**$6,199**	**$6,794**	**$7,349**	**$30,759**
Salary & Benefits	$7,345	$3,073	$6,199	$6,794	$7,349	$30,759
DEHQ	**$631,001**	**$649,931**	**$832,704**	**$857,685**	**$883,416**	**$3,854,736**
Salary & Benefits	$631,001	$649,931	$832,704	$857,685	$883,416	$3,854,736
DGS	**$15,112,109**	**$16,011,050**	**$15,234,746**	**$19,968,722**	**$20,567,783**	**$86,894,411**
Capital	$14,347,900	$15,223,915	$14,423,996	$19,133,650	$19,707,659	$82,837,120
Salary & Benefits	$764,209	$787,135	$810,750	$835,072	$860,124	$4,057,290
DPR	**$26,717,493**	**$28,664,756**	**$29,481,627**	**$32,906,960**	**$35,185,644**	**$152,956,479**
Capital	$18,262,826	$17,947,776	$18,158,391	$18,703,143	$19,264,237	$92,336,372
Salary & Benefits	$6,549,682	$7,473,949	$8,040,075	$8,637,439	$10,083,734	$40,784,878
Services & Supplies	$1,904,985	$3,243,031	$3,283,162	$5,566,378	$5,837,673	$19,835,229
DPW	**$54,581,351**	**$57,250,082**	**$59,026,548**	**$60,683,668**	**$62,242,182**	**$293,783,832**
Capital	$34,414,257	$35,446,685	$36,510,085	$37,605,388	$38,733,549	$182,709,964
Salary & Benefits	$1,431,804	$1,767,450	$1,523,328	$1,458,053	$1,329,526	$7,510,161
Services & Supplies	$18,735,290	$20,035,948	$20,993,135	$21,620,228	$22,179,107	$103,563,707
HHSA	**$2,403,510**	**$2,475,615**	**$2,549,883**	**$2,626,380**	**$2,705,171**	**$12,760,559**
Capital	$2,137,250	$2,201,368	$2,267,409	$2,335,431	$2,405,494	$11,346,951
Salary & Benefits	$184,890	$190,436	$196,149	$202,034	$208,095	$981,605
Services & Supplies	$81,370	$83,811	$86,325	$88,915	$91,583	$432,004

PDS	**$13,695,534**	**$17,128,244**	**$18,313,362**	**$17,551,658**	**$33,209,633**	**$99,898,430**
Capital	$7,508,700	$11,239,175	$12,002,513	$12,362,589	$27,804,029	$70,917,006
Salary & Benefits	$4,250,434	$3,621,926	$4,057,645	$4,387,707	$4,464,273	$20,781,985
Services & Supplies	$1,936,400	$2,267,143	$2,253,203	$801,362	$941,331	$8,199,439
Total	**$113,148,342**	**$122,182,751**	**$125,445,069**	**$134,601,866**	**$154,801,178**	**$650,179,207**

3.5 IMPLEMENTATION COSTS BY GHG EMISSIONS SECTOR

This section presents CAP implementation costs by each of the five GHG emission reduction sectors: Built Environment and Transportation; Energy; Solid Waste; Water and Wastewater; and Agriculture and Conservation.

3.5.1 Total CAP Implementation Costs by GHG Emission Reduction Sector

Total CAP implementation costs associated with the Built Environment and Transportation sector are estimated to be about $280 million over the five years, or 43% of the total cost. Estimated annual costs for this sector range from $52 to $61 million for each fiscal year over the five year period. The Agriculture and Conservation sector has the second highest cost at $169 million (26% of total). Annual costs begin at $29 million in FY 2026/26 and increase to $39 million over the five fiscal years. Table 9 summarizes total annual implementation costs by emissions sector. Note that the total value does not add to $650 million because CAP coordination and reporting costs are not accounted for in GHG emission reduction sector implementation costs.

Table 9. Total CAP Implementation Costs by GHG Emissions Sector

Sector	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30	Total	% of Total
Solid Waste	$2,375,106	$3,039,305	$2,586,433	$2,100,215	$1,901,225	**$12,002,285**	**2%**
Water and Wastewater	$13,849,590	$14,684,207	$15,652,400	$16,201,048	$16,776,672	**$77,163,917**	**12%**
Energy	$15,046,438	$18,163,209	$18,779,487	$19,147,998	$35,070,697	**$106,207,828**	**16%**
Agriculture and Conservation	$29,078,110	$31,580,710	$32,970,752	$36,614,999	$38,910,215	**$169,154,787**	**26%**
Built Environment & Transportation	$51,819,089	$53,705,912	$53,610,019	$59,381,488	$61,271,215	**$279,787,723**	**43%**
Total	**$112,168,334**	**$121,173,342**	**$123,599,092**	**$133,445,747**	**$153,930,024**	**$644,316,539**	**100%**

4 RESULTS – CAP IMPLEMENTATION STAFFING IMPACTS

As part of CAP implementation costs, staffing levels – in hours, summarized by full time equivalent (FTE) staff [1] – required to implement CAP actions were estimated. This section presents results in terms of FTE. For most actions, staffing impacts are reflected in partial FTEs per year (e.g., 0.25 FTE or 520 hours). In these cases, the projected increase was a few hours per year for a position and will be accommodated within the duties of an existing employee. Staffing impacts were evaluated for FY 2025/26 through FY 2029/30, aligning with the County's five year financial forecasts.

4.1 ANNUAL STAFFING IMPACT

Total staffing needed to implement the CAP is estimated at a total of 77 FTE positions across six implementing departments, as shown in Table 10. Three additional departments (AWM, DHR, DPC) have incremental staffing impacts that do not total a full FTE position in any fiscal year included in this cost analysis. Most of the CAP implementation activities are anticipated to be handled by existing staff across all departments. Seven new staff would be required to support expanded and new programs associated with CAP implementation at DPR and DPW.

Table 10. Total Staffing to Implement CAP Actions by Department in FY 2029/30

Position Status	DEHQ	DGS	DPR	DPW	HHSA	PDS	TOTAL
Existing	5	3	38	2	2	20	**70**
New	0	0	5	2	0	0	**7**
Total	**5**	**3**	**43**	**4**	**2**	**20**	**77**

[1] FTE is assumed to equal 2,080 hours per year.

5 LIMITATIONS

This cost analysis uses best available information, data, and methods. Additional CAP implementation cost information will be presented in two companion reports, the CAP Cost Effectiveness Report and the Disproportionate Cost Analysis Report, which will analyze the cost effectiveness of the CAP actions and estimate the impacts of environmental conditions and costs to residents and businesses in the unincorporated area, respectively.

5.1 BASED ON DRAFT CAP AS PRESENTED

The results reflect preliminary cost estimates based on the strategies, measures, and actions required for CAP implementation. The final suite of measures and actions approved by the Board of Supervisors could have different cost and staffing impacts than included herein.

5.2 PRELIMINARY ESTIMATE

Cost and staffing impact results should be considered preliminary. Because there is limited information about the specific tasks that would be required to implement CAP actions, the analysis relies on reasonable assumptions about the expected work to be performed. Over time, specific tasks required to implement final CAP actions will become clearer and considerations for how to coordinate and sequence activities can be made, which may also affect ultimate costs and staffing levels. Fortunately, County departments have experience since the previous CAP was budgeted in FY 2017/18 upon which to base these budget estimates, and future CAP updates will reflect how this experience improves budgeting accuracy.

5.3 CAP TIME HORIZON

This analysis evaluated the County's implementation cost and staffing impacts for the CAP's first five years through FY 2029/30 to match with the County's five year financial forecast. While the draft CAP has a horizon year of 2045, this report does not estimate costs beyond FY 2029/30. Some CAP actions may be implemented and have costs beyond the scope of this initial cost analysis, but only the costs during the next five years are estimated herein. Cost estimates can be updated through the CAP monitoring update processes, and/or through the County's Annual Operational Plan and five year forecasting.

5.4 GHG EMISSIONS EXCLUDED

This report does not consider the GHG emissions reductions associated with CAP actions. Many measures and actions involve associated activities by County residents and businesses, such as buying an electric vehicle or installing new electric appliances in place of conventional appliances, that have private costs as well. While GHG emissions are not considered in this report, the companion CAP Cost Effectiveness Report does estimate the cost per metric ton of GHG reductions for most CAP actions, including certain actions that affect County government costs, such as changes to County facilities. County government costs are included in those calculations.

APPENDIX A: CAP IMPLEMENTATION COSTS FUNDING SOURCES

This Table provides a list of potential funding sources for implementing the County's CAP for each funding category identified in the Draft CAP Table 13. Programs and funding sources for implementing emissions reduction programs are developing rapidly and may change substantially from year to year. As outlined in the Implementation and Monitoring program for the Draft CAP (Chapter 5), the County will stay up to date on available funding and financing sources to maximize resource efficiency.

Funding Category	Funding Source or Program	Description
County	General Fund	Provides funding for the County's primary operating accounts (including General Purpose Revenue and One-Time Only funds) except those required to be accounted for in another fund.
	Special Revenue Funds	Provides legally restricted funding for specified purposes (other than for major capital projects) (e.g., roads, library, asset forfeiture, and Proposition 172 funds).
	Capital Project Funds	Provides funding for the acquisition or construction of major capital facilities (other than those financed by proprietary funds and trust funds).
	New Development Impact Fees	Provides funding for proposed programs and projects that offset new development impacts or provide additional services to new development.
Utilities	Environmental Champions Program	Provides program funding to support climate action through habitat restoration and urban greening. Priority is given to programs that serve low-income, diverse, and under-invested communities.

Funding Category	Funding Source or Program	Description
	Energy Efficiency Programs	Various programs offered for commercial, industrial, agricultural, and public sector customers to provide funding for energy efficiency projects through local energy providers.
	Community Choice Energy (CCE) Revenue	Existing and future programs that would fund or incentivize GHG reduction measures using San Diego Community Power revenue.
	Regional Energy Network	Proposed regional program that would offer programs and funding to promote energy efficiency, demand response and conservation programs, services and resources, and outreach to communities through a partnership between San Diego Community Power and others.
	Solar Discount Program	Program to increase local, new-build, small-scale solar projects under the California Public Utilities Commission Community Solar Green Tariff Program.
	Community Clean Energy Grant Program	Provides rebates and cash incentives for energy-efficient business improvements.
	Feed-In Tariff	Energy purchasing program from San Diego Community Power that would allow small-scale, distributed renewable energy generating systems to sell energy to the regional grid.

Funding Category	Funding Source or Program	Description
State and MPO	California Air Resources Board (CARB) Programs	CARB offers several grants, incentives, and credit programs to reduce on-road and off-road transportation emissions. Residents, businesses, and fleet operators can receive funds or incentives depending on the program. The following programs can be used to fund local measures: • Air Quality Improvement Program (Assembly Bill [AB] 118) • Loan Incentives Program • California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project • Low Carbon Transportation Investments and the Air Quality Improvement Program
	California Climate Investments (CCI)	CCI uses proceeds from the cap-and-trade program to facilitate investments to further the state's climate goals. Through funding from the state's Greenhouse Gas Reduction Fund, CCI offers the various programs to promote clean energy and efficiency, as well as the following incentive programs: • The California Vehicle Rebate Program • The Clean Vehicle Assistance Program
	California Department of Community Services and Development	The Low-Income Weatherization Program (LIWP) provides low-income households with solar photovoltaic (PV) systems and energy efficiency upgrades at no cost to residents.
	California Department of Motor Vehicles	The Motor Vehicle Registration Fee Program provides funding for projects that reduce air pollution from vehicles.

Funding Category	Funding Source or Program	Description
	California Department of Transportation (Caltrans) Programs	Caltrans offers several programs and grants supporting sustainable transportation initiative, including: • Low Carbon Transit Operations Program • Active Transportation Program • Transit and Intercity Rail Capital Program • Strategic Partnership Grants • Sustainable Transportation Planning Grant Program
	San Diego Association of Governments (SANDAG) Programs	SANDAG offers programs and grants supporting sustainable transportation initiative through TransNet funding, including: • Smart Growth Incentive Program • Active Transportation Grant Program • Land Management Grant Program to implement regional habitat management and monitoring efforts
	California State Board of Equalization	Section 73 of the California Revenue and Taxation Code allows a property tax exclusion for qualifying new solar installations, meaning that property taxes will not increase for individuals if they install solar on their property. This tax exclusion was set to expire in 2016, but is now extended through January 1, 2025.
	Proposition 1: State Coastal Conservancy Grant	Provides funds for multi-benefit ecosystem and watershed protection and restoration projects.

Funding Category	Funding Source or Program	Description
	Transformative Climate Communities (TCC) Program	Provides assistance to disadvantaged communities to locate affordable housing near transit and increase energy savings and clean transportation, per AB 2722 (September 2016)
	California Department of Food and Agriculture's Healthy Soils Program	Provides incentives to farmers and ranchers to enhance buildup of soil carbon on agricultural lands.

	California Energy Commission (CEC) and California Public Utilities Commission (CPUC) Programs	CEC and CPUC offer a variety of programs and grants, including:
		• Multi-Family Affordable Housing Solar Roofs Program (CPUC)
		• Local Government Challenge Program (CEC)
		  o Retrofits California's existing residential, commercial, and public buildings to become high-performing and energy-efficient
		• Electric Program Investment Challenge (EPIC) Program. (CPUC) (Funds clean energy research, demonstration and deployment projects that support energy policy goals and promote greater electricity reliability, lower costs, and increased safety.)
		• Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) (CEC) (Funds gaps in the energy innovation pipeline for the development and deployment of alternative and renewable fuels and advanced transportation technologies.)
		• Energy Upgrade California Program. (CEC and CPUC, administered by utilities)
		  o Funds for energy upgrade rebates, financing, and other incentives.

	California Department of Forestry and Fire Protection's (CalFire's) Urban and Community Forestry Program	Supports several urban tree planting projects, including jurisdiction wide tree inventory and urban forest mapping, analysis, and long-term management planning; urban wood and biomass utilization projects; and projects to assist local entities purchase and improve unused lots; and projects for urban green infrastructure.

Funding Category	Funding Source or Program	Description

	California Natural Resources Agency (CNRA) Programs	• Urban Greening Grant Program
		  ○ Funds projects that reduce GHGs by sequestering carbon, decreasing energy consumption and reducing vehicle miles traveled, while stablishing and enhancing parks and open space, using natural solutions to improve air and water quality and reducing energy consumption, and creating more walkable and bike-able trails.
		• Environmental Enhancement and Mitigation Program
		  ○ Funds projects that contribute to mitigation of the environmental effects of transportation facilities. These include urban forestry projects designed to offset GHG emissions.
		• Urban Green Infrastructure Program
		  ○ Funds multi-benefit green infrastructure investments in or benefitting disadvantaged or severely disadvantaged communities.

	California Department of Food and Agriculture (CDFA) Programs	• Alternative Manure Management Program
		  ○ Provides financial assistance for the implementation of non-digester manure management practices to help reduce GHG emissions.
		• Fertilizer Research and Education Program
		  ○ Funds research and education to advance the environmentally safe and agronomically sound use and handling of fertilizing materials.
		• State Water Efficiency and Enhancement Program
		  ○ Provides grants to implement irrigation systems that reduce GHGs and save water on California agricultural operations.

Funding Category	Funding Source or Program	Description

	Strategic Growth Council (SGC) and State Department of Conservation (DOC) Programs	The Strategic Growth Council (SGC) and the State Department of Conservation (DOC) provide grants to fund sustainable community planning, natural resource conservation, and development and adoption. These include:
		• Sustainable Communities Planning Grant and Incentives Program. (SGC)
		  ○ Supports local land use planning related to climate and the State's statutory planning opportunities. These grants will support the development and/or implementation of a specific portion of a land use plan, land protection or management practice, or development project (e.g., Climate Action or Adaptation Plans, GHG inventories).
		• Resource Conservation District Assistance Program
		  ○ Provides assistance to local resource conservation districts to educate landowners and the public about resource conservation.
		• Affordable Housing and Sustainable Communities (AHSC) Program (SGC)
		  ○ Distributes California Greenhouse Gas Reduction Fund (GGRF) funds to disadvantaged communities. Eligible projects include providing affordable housing, transit-oriented development (TOD), transit, complete streets, and active transportation projects that reduce GHG emissions and vehicle miles traveled.
		• Sustainable Agricultural Lands Conservation (SALC) Program
		  ○ Provides funding to protect at-risk agricultural lands from conversion to more GHG-intensive land uses, such as urban or rural residential development. This program intends to promote growth within jurisdictions, ensure open space remains available, and support a healthy agricultural economy and resulting food security.

Funding Category	Funding Source or Program	Description
	California Department of Resources Recycling and Recovery (CalRecycle) GHG reduction Grant and Loan Program	Provides financial incentives for capital investments to composting/digestion infrastructure and recycling manufacturing facilities that will result in reduced GHG emissions.
Federal	Federal Transit Administration (FTA) Programs	FTA has a variety of available grants and programs available for transit agencies and local governments including: • Job Access and Reverse Commute and New Freedom Programs • Buses and Bus Grants Program • Formula Grants for Rural Areas
	Federal Solar Investment Tax Credit	The federal residential solar energy credit is a tax credit that can be claimed on federal income taxes for a percentage of the cost of a solar PV system. The tax credit expires stating in 2035 unless Congress renews it.
	Federal Inflation Reduction Act (IRA)	The IRA includes nearly $400 billion in climate-related funding and nearly $370 billion in investments in disadvantaged communities. The IRA supports projects including EV charging, power infrastructure, and climate resilience.
	Renewable Electricity Production Tax Credit	The renewable electricity production tax credit (PTC) is a per kilowatt-hour (kWh) federal tax credit included under Section 45 of the U.S. tax code for electricity generated by qualified renewable energy resources.

Funding Category	Funding Source or Program	Description
	Reconnecting Communities Pilot Program-Planning Grants and Capital Construction Grants	The Bipartisan Infrastructure Law established this discretionary grant program, funded with $1 billion over the next 5 years. It is the first-ever Federal program dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure. Funding supports planning grants and capital construction grants, as well as technical assistance, to restore community connectivity through the removal, retrofit, mitigation, or replacement of eligible transportation infrastructure facilities.
	Low Income Home Energy Assistance Program (LIHEAP)	LIHEAP is a federal program administered by the U.S. Department of Health and Human Services that provides assistance to eligible low-income households to manage and meet their immediate home heating and/or cooling needs including: • Home Energy Assistance Program • Energy Crisis Intervention Program • Weatherization • Energy budget counseling and education
	Justice40 Investments	This set the goal that 40% of the overall benefits of Federal climate, clean energy, and other covered investments flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.
	Electric Vehicles Tax Credits (Inflation Reduction Act)	The Inflation Reduction Act (IRA) extends tax credits for EVs and establishes new tax credits for used EVs and commercial EVs, as well as credit for clean heavy-duty vehicles and EV charging equipment.

Funding Category	Funding Source or Program	Description
	Greenhouse Gas Reduction Fund	The Inflation Reduction Act amended the Clean Air Act to create this national-scale program to provide a total of $27 billion in public funding to mobilize financing and private capital to address the climate crisis, ensure economic competitiveness, and promote energy independence while delivering lower energy costs and economic revitalization to communities that have historically been left behind. These funds would be distributed through the National Clean Investment Fund, the Clean Communities Investment Accelerator, and Solar for All programs.
	Promoting Resilient Operations for Transformative, Efficient and Cost-Saving Transportation (PROTECT) Program	This program would help local governments improve the resiliency of their on-system transportation infrastructure. Specifically, the program provides federal funding to help communities address vulnerabilities and plan transportation improvements and emergency response strategies associated with weather events, increasing frequency and magnitude of natural disasters, and changing climate conditions, including sea level rise.
	Partnership for Sustainable Communities	A multi-agency partnership between U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and the U.S. Environmental Protection Agency that offers grant funding to help build more viable, walkable, and environmentally sustainable communities.
	Federal Income Tax Credits for Energy Efficiency	Provides tax credits for energy efficiency upgrades for homes.
Private	Climate Program Grants	Funds development and implementation of local government action plans and climate preparedness. Funds provided by the San Diego Foundation Climate program.

Funding Category	Funding Source or Program	Description
	Private Funding	Private equity can be used to finance energy improvements, with returns realized as future cost savings.
	Private Funding Peer-to-Peer (P2P) Lending/Crowdfunding	Peer-to-Peer Lending and Crowdfunding provides private funding sources through various methods: • Net energy cost savings from improved energy efficiency can fund retrofits in households. • Power Purchase Agreements (PPAs) involve a private company that purchases, installs, and maintains a renewable energy technology through a contract that typically lasts 15-25 years. After the contract period, the company would uninstall the technology or sign a new contract. • Crowdfunding and P2P lending organizations offer easy, efficient, and low-cost sources for capital investments, loan repayment, and project funding
Loans	Municipal Bonds	There are two basic types of municipal bonds: General Obligation Bonds and Revenue Bonds. • General Obligation Bonds often require voter assent and tend to have lower interest rates than Revenue Bonds. • With Revenue Bonds, the principal and interest is secured by revenues derived from tolls, charges, or rents from the facility built with the proceeds of the bond issuance.

Funding Category	Funding Source or Program	Description
	Property-Assessed Clean Energy (PACE)	Under AB 811, the State's PACE finance program is intended to finance energy and water improvements within a home or business through a land-secured loan, and funds are repaid through property assessments. This program is administered by a variety of private entities including California FIRST, HERO PACE Program, and Ygrene Energy Fund. Municipalities are authorized to designate areas where property owners can enter contractual assessments to receive long-term, low- interest loans for energy and water efficiency improvements, and renewable energy installation on their property.
	Federal Housing Administration's Energy Efficient Mortgages (EEM) Program	Credits a home's energy efficiency features in the mortgage itself. To verify a home's energy efficiency, an EEM typically requires a home energy rating of the house by a home energy rater before financing is approved. EEMs typically are used to purchase a new home that is already energy efficient, such as an ENERGY STAR® qualified home.