



**SAFE
CLEAN
WATER
PROGRAM**

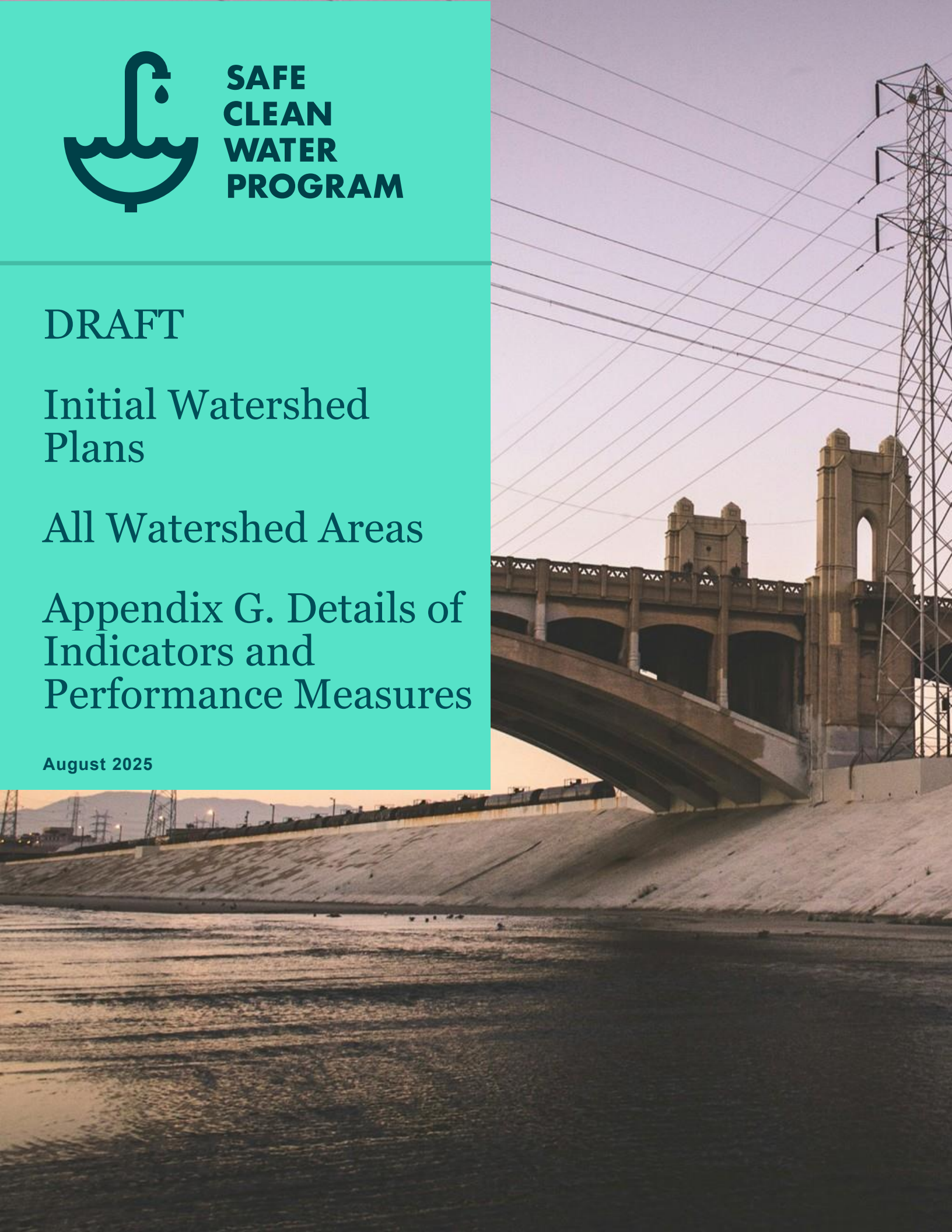
DRAFT

**Initial Watershed
Plans**

All Watershed Areas

**Appendix G. Details of
Indicators and
Performance Measures**

August 2025





DRAFT Initial Watershed Plans

Appendix G

All Watershed Areas

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Appendix G. Details of Indicators and Performance Measures

This appendix provides details of Indicators and Performance Measures (PMs), organized by Safe, Clean Water (SCW) Program Goals via Planning Themes. The quantitative measures presented in this Initial Watershed Plan are preliminary and provide an initial foundation for vision-setting and progress tracking. Over time, these quantitative measures will evolve during Adaptive Management based on lessons learned, priorities, new data, and other considerations.

Indicators and PMs are based on the Metrics and Monitoring Study (MMS) and subsequent discussions and input provided by the Regional Oversight Committee (ROC). The *MMS Approach & Outcomes* section of Appendix G of the Watershed Planning Framework describes the original process and approach in MMS that was used to develop an initial set of Indicators and PMs. Initial Watershed Plans have built upon that original foundation and developed twenty (20) Indicators and fifty-four (54) PMs based on input provided by WASCs, interested parties and ROC Community Investment Benefits (CIB) and Water Quality Working Groups. The [SCW Watershed Planning Tool](#) (Planning Tool) in the SCW Program Portal provides a living platform for exploring these Indicators and tracking progress toward Watershed Area (WA) targets (which are detailed in **Error! Reference source not found.**).

The key elements of this appendix are as follows:

- Table G-1 illustrates organization and relationships between Indicators and PMs.
- Figure G-1 presents these Indicators and PMs in a tabular format and provides additional details on PM units, definitions, and considerations.

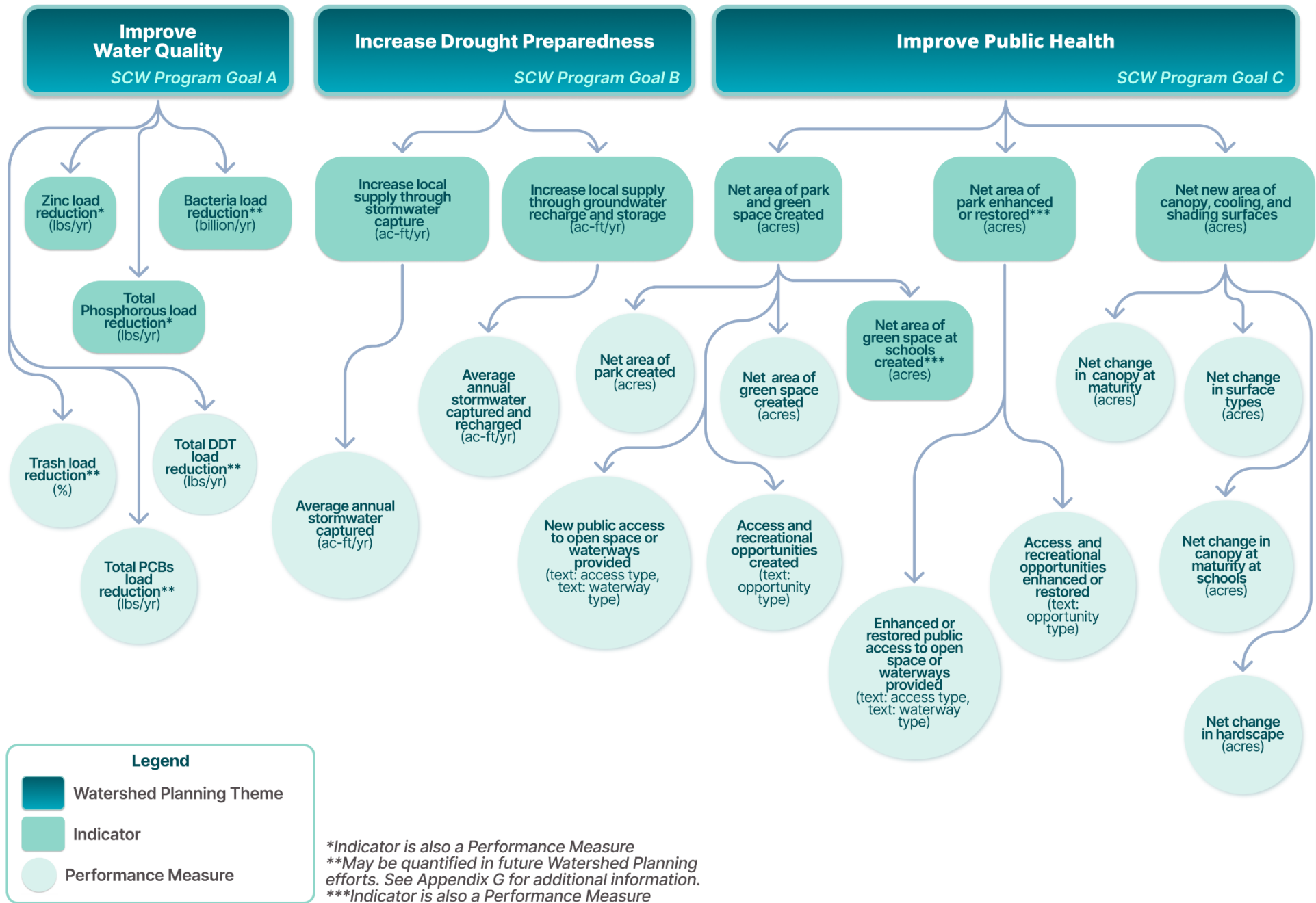


Figure G-1. SCW Program Indicators and PMs (part 1 of 3)

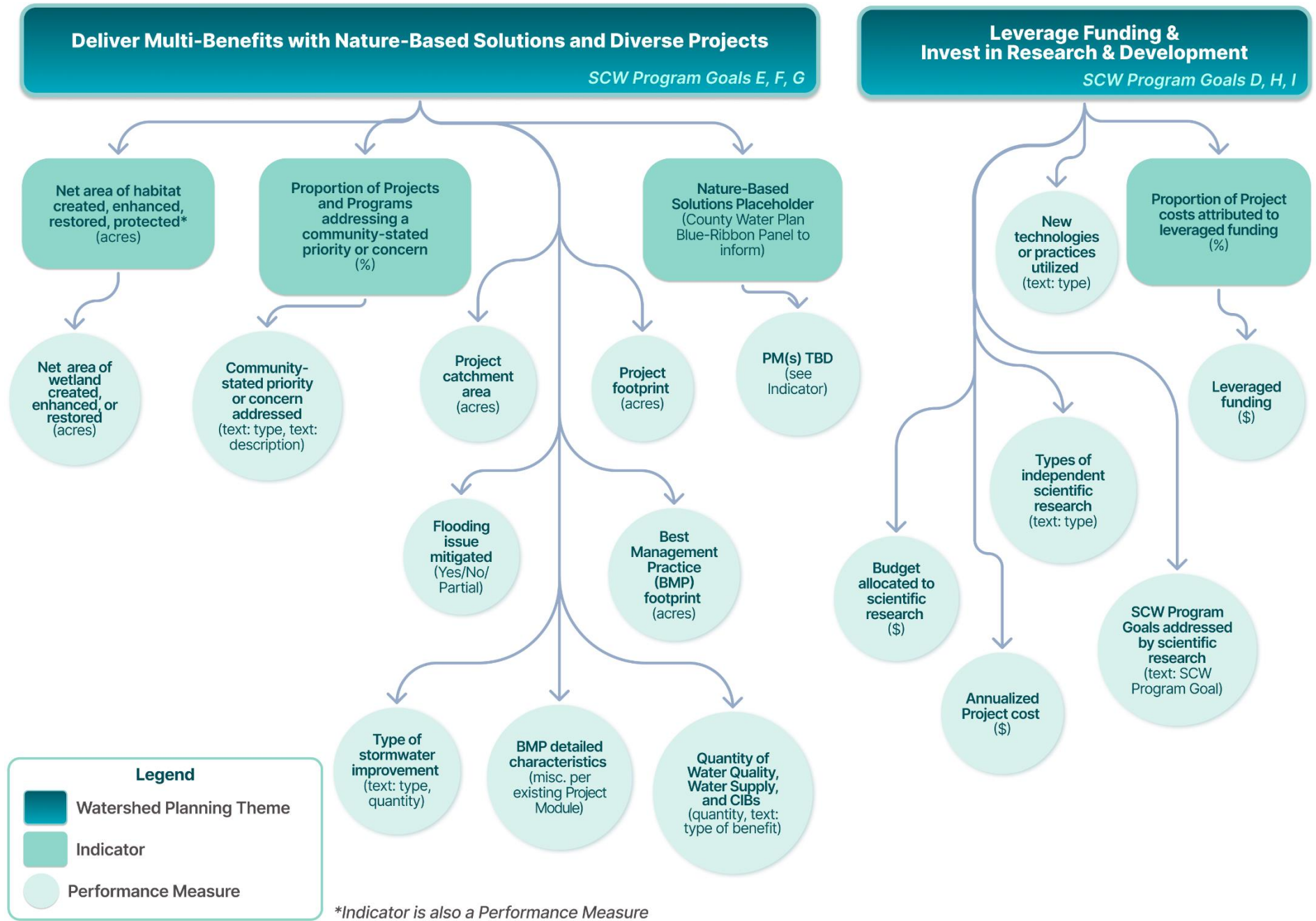


Figure G-1. SCW Program Indicators and PMs (part 2 of 3)

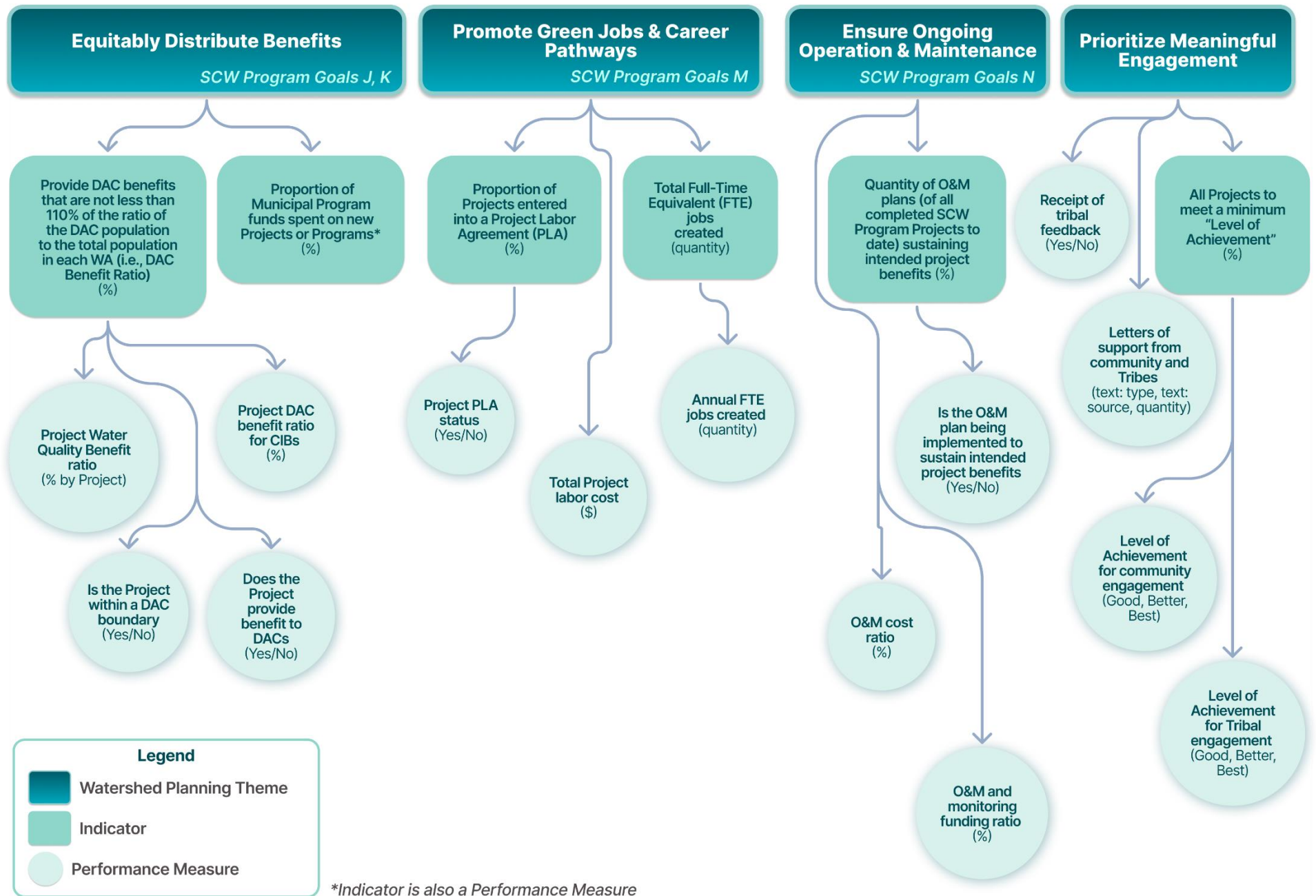


Figure G-1. SCW Program Indicators and PMs (part 3 of 3)

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
Improve Water Quality	A	Zinc load reduction	Zinc load reduction	lbs/yr	The corresponding target for this Indicator is <i>NOT</i> applicable to, <ul style="list-style-type: none"> North Santa Monica Bay (NSMB) Santa Clara River (SCR)
		Total phosphorus load reduction	Total phosphorus load reduction	lbs/yr	The corresponding target for this Indicator is <i>NOT</i> applicable to, <ul style="list-style-type: none"> Central Santa Monica Bay (CSMB) Lower Los Angeles River (LLAR) Lower San Gabriel River (LSGR) Santa Clara River (SCR) Upper Los Angeles River (ULAR)
		Bacteria load reduction	Bacteria load reduction*	billion/yr	Bacteria time series currently unavailable through Los Angeles County Public Works Watershed Management Modeling System version 2.0 (WMMS2). This is a known data gap that will be addressed in future Watershed Planning efforts. *May be quantified in future Watershed Planning efforts
		--	Trash load reduction*	%	Trash load reduction practices are inconsistent across WAs and Municipalities in the Los Angeles region which makes it difficult to set appropriate and meaningful methods and metrics for tracking trash load reductions by SCW Program Projects. In turn, the Initial Watershed Plans do not quantify trash load reduction, and this item is identified as a data gap. Further analysis is needed to consistently and meaningfully quantify this metric both on a Project-level as well as WA and SCW Program levels without creating additional monitoring or reporting burden for Project proponents and Municipalities. *May be quantified in future Watershed Planning efforts
		--	Total Dichloro-Diphenyl-Trichloroethane (DDT) load reduction*	lbs/yr	*May be quantified in future Watershed Planning efforts

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
		--	Total Polychlorinated Biphenyls (PCBs) load reduction*	lbs/yr	*May be quantified in future Watershed Planning efforts
Increase Drought Preparedness	B	Increase local supply through stormwater capture	Average annual stormwater captured	acre-ft/year	<ul style="list-style-type: none"> Average annual stormwater volume managed - sorted by type of capture/storage. Stormwater Capture fate or use types: <ul style="list-style-type: none"> Treated and Discharged to Storm Drain Treated and Discharged to a Receiving Water Body or Aquatic Ecosystem Infiltrated to Managed Usable Aquifer Infiltrated Over Confined or Unmanaged Aquifer Diverted to Existing Treatment and Reuse Plants Diverted to Future Planned Treatment and Reuse Plants Used On Site for Potable Offset Other <p>Note: this PM considers Project attributes such as capture area as well as existing upstream/downstream Projects and major capture facilities in its quantification.</p>
		Increase local supply through groundwater recharge and storage	Average annual stormwater captured and recharged	acre-ft/year	<ul style="list-style-type: none"> Average annual stormwater captured and infiltrated to a managed usable aquifer. <p>Note: this PM considers Project attributes such as capture area as well as existing upstream/downstream Projects and major capture facilities in its quantification.</p>
Improve Public Health	C	Net area of park and green space created	Net area of park created	acres	<ul style="list-style-type: none"> Net area of park created <p>Note: Park created is defined as new park space, or development of a recreational opportunity that did not exist; for example, building a bird viewing platform adjacent to a new constructed wetland constitutes a new recreational opportunity.</p>
			Net area of green space created	acres	<ul style="list-style-type: none"> Net green space created <p>Note: Green Space includes all areas defined as habitat plus lawns and turf playing fields.</p>

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
			Net area of green space at schools created*	acres	<ul style="list-style-type: none"> Is the Project location on a K-12 public or private school ground or is it co-located with a youth-based education program? (Yes/No) Area of new green space <p>Note: Green Space includes all areas defined as habitat plus lawns and turf playing fields.</p> <p>*This metric considers both public and private schools as well as youth-based education programs. This metric is also an Indicator with an established target.</p> <p>This PM is also an Indicator.</p>
Improve Public Health	C	<i>Net area of park and green space created (continued)</i>	New public access to open space or waterways provided	text (access type), text (waterway type)	<ul style="list-style-type: none"> Is the Project publicly accessible? <ul style="list-style-type: none"> Yes, physical access is open Yes, physical access is restricted/limited Yes, visual access only No Access If yes, what type of waterway is accessible? <ul style="list-style-type: none"> Ocean/Bay Watercourse Lake/Pond N/A Area of accessible space created to be determined through related area-based metrics <p>Note: Publicly accessible means areas of park or open space that are specifically intended for public access, use or enjoyment. Natural or naturalized areas intended primarily as habitat or for stormwater treatment and which are within an otherwise publicly accessible park or which border on public right of way and are without significant visual or physical barriers (larger than low standard guardrail) are considered publicly accessible. In these cases, visual access to nature is considered a public use. Publicly accessible areas do not include areas with prohibited access such as maintenance yards. Areas to be excluded from public accessibility calculations must be both no larger than ¼ acre and no larger than 10% of the parcel size.</p>
Improve Public Health	C	<i>Net area of park and green space created (continued)</i>	Access and recreational opportunities created	text (opportunity type)	<ul style="list-style-type: none"> Type of access and recreational opportunities created: <ul style="list-style-type: none"> Walking path Bike path Viewing platform Exercise equipment

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
					<ul style="list-style-type: none"> ○ Sports field and courts ○ Picnic / BBQ area ○ Play equipment ○ Outdoor seating ○ Other
Improve Public Health	C	Net area of park enhanced or restored	Net area of park enhanced or restored	acres	<ul style="list-style-type: none"> ● Net area of park enhanced or restored <p>Note: Park enhanced is defined as park space or a recreational opportunity that existed before the Project, but which was improved because of the Project; for example, a Project that places an underground stormwater vault beneath existing public tennis courts, but which improves the courts by resurfacing constitutes an enhancement; converting one recreational feature to a different type (e.g., a tennis court to a basketball court) would also be considered an enhancement unless the original recreational feature is dilapidated beyond use, in which case the improvement would be considered to be created.</p> <p>Note: Park restored is defined as existing but non-functional park space or recreational opportunities that have been improved to a functional state by the Project; for example, repair of broken playground equipment to enable use would constitute restoration.</p>
			Enhanced or restored public access to open space or waterways provided	text (access type), text (waterway type)	<ul style="list-style-type: none"> ● Is the Project publicly accessible? <ul style="list-style-type: none"> ○ Yes, physical access is open ○ Yes, physical access is restricted/limited ○ Yes, visual access only ○ No Access ● If yes, what type of waterway is accessible? <ul style="list-style-type: none"> ○ Ocean/Bay ○ Watercourse ○ Lake/Pond ○ N/A ● Area of accessible space enhanced or restored to be determined through related area-based metrics <p>Note: Publicly accessible means areas of park or open space that are specifically intended for public access, use or enjoyment. Natural or naturalized areas intended primarily as habitat or for stormwater treatment and which are within an otherwise publicly accessible park or which border on public right of way and are without significant visual or physical barriers (larger than low standard guardrail) are considered</p>

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
					publicly accessible. In these cases, visual access to nature is considered a public use. Publicly accessible areas do not include areas with prohibited access such as maintenance yards. Areas to be excluded from public accessibility calculations must be both no larger than ¼ acre and no larger than 10% of the parcel size.
Improve Public Health	C	Net area of park enhanced or restored (continued)	Access and recreational opportunities enhanced or restored	text (opportunity type)	<ul style="list-style-type: none"> Type of access or recreational opportunities enhanced or restored: <ul style="list-style-type: none"> Walking path Bike path Viewing platform Exercise equipment Sports field and courts Picnic / BBQ area Play equipment Outdoor seating Other
		Net new area of canopy, cooling, and shading surfaces	Net new area of cooling and shading surfaces	acres	<ul style="list-style-type: none"> Area by type: <ul style="list-style-type: none"> Net new green space* Net change in canopy at maturity* Manmade shade structures <p>Note: These metrics are also included as separate PMs.</p>
			Net change in surface types	acres	<ul style="list-style-type: none"> Area of pre-Project surface types, parsed by each basic surface type (see definitions associated with CIB PMs) <ul style="list-style-type: none"> Impermeable hardscape Permeable hardscape Lawn and natural turf Native vegetation Climate appropriate vegetation Irrigated non-native vegetation Non-vegetated habitat Area of post-Project surface types, parsed by each surface type as per above
			Net change in canopy at maturity	acres	<ul style="list-style-type: none"> Quantity of trees planted, parsed by species. Quantity of trees removed, parsed by species. Net change in tree canopy at maturity

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
Improve Public Health	C	Net new area of canopy, cooling, and shading surfaces (continued)	Net change in canopy at maturity at schools	acres	<ul style="list-style-type: none"> Is the Project location on a K-12 public or private school ground or is it co-located with a youth-based education program? (Yes/No) Area of new tree canopy at maturity <p>Note: This metric considers both public and private schools as well as youth-based education programs. This metric is also an Indicator with an established target.</p>
			Net change in hardscape	acres	<ul style="list-style-type: none"> Hardscape removed Hardscape added <p>Note: Hardscape Surfaces include all non-vegetated surfaces. Artificial turf is considered hardscape. Hardscape can be divided into two categories: impermeable hardscape and permeable hardscape. The latter includes common building materials such as permeable concrete, permeable asphalt, and other permeable paving materials.</p>
Deliver Multi-Benefits with Nature-Based Solutions (NBS) and Diverse Projects	E	Net area of habitat created, enhanced, restored, protected	Net area of habitat created, enhanced, restored, protected	acres	<ul style="list-style-type: none"> Type of habitat: <ul style="list-style-type: none"> Native vegetation and habitat Climate appropriate non-native vegetation Non-Native Permanently Irrigated Habitat Non-vegetated habitat Parsed by area of habitat created, enhanced, restored, or protected <p>Note: Habitat includes vegetated areas within a wide variety of potential habitat types including but not limited to wetlands, riparian, meadow, woodland, groundcover, shrub, chaparral, and natural rocky or shoreline habitats. Note that not all of these are vegetated. For the vegetated habitats, there are three general sub-categories of habitat including native habitat, climate appropriate habitat (i.e., non-native but not requiring irrigation beyond establishment) and non-native irrigated habitat (i.e., neither native nor climate appropriate).</p> <p>Tree canopy, while certainly a habitat, is not considered a surface type and is calculated separately within the Goal C metrics.</p> <p>Habitat also includes non-vegetated areas that are either permanent or ephemeral natural or created, naturalized water courses or water features (e.g., arroyos, rock lined swales/bioretention areas). Lawn and playing fields are the only vegetated surface type not considered to be habitat. Surface types on roofs shall be considered in the same light as surfaces at ground level.</p>

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects	E	<i>Net area of habitat created, enhanced, restored, protected (acres) (continued)</i>	Net area of wetland created, enhanced, or restored	acres	<ul style="list-style-type: none"> Net area of wetland Parsed by area created, enhanced, or restored
		Proportion of Projects and Programs addressing a community-stated priority or concern (%)	Community-stated priority or concern addressed	text (type), text (descript.)	<ul style="list-style-type: none"> Please select the community-stated priority and/or concern addressed by the Project or Program and describe where the concern/priority was identified (e.g., Community Strengths & Needs Assessment (CSNA), engagement meeting, etc.) Concerns Dropdowns: <ul style="list-style-type: none"> Impacts of climate change (flooding, drought, extreme heat, sea level rise) Trash, litter & illegal dumping Cost of living & housing Crime Traffic & parking Public transportation, pedestrian & bicycle safety Outdoor water pollution (ocean, rivers, lakes) Drinking water Air quality Access to parks & outdoor recreation Condition of public spaces (sidewalks, parks, streets) Catch rainwater Reduce flooding Green spaces Wildlife habitat Education & stewardship Clean rivers & ocean Shade trees Jobs & training Other

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects	E	--	Flooding issue mitigated	yes/no/partial	<ul style="list-style-type: none"> Does the Project mitigate flooding issue? (Yes/No/Partial) <ul style="list-style-type: none"> Capital flooding (river or channel flooding) Urban flooding (surface flooding) Nuisance flows (ponding/local flooding) Sewer surcharge flooding Coastal flooding Other flooding
		--	Quantity of water quality, water supply, and CIBs	quantity, text (type of benefit)	<ul style="list-style-type: none"> Quantity of Water Quality Benefits claimed (based on Water Quality PMs, up to three pollutants) Quantity of Water Supply Benefit fates claimed. towards "local water supply" (based on Water Supply PMs, up to six fates) Quantity of CIBs claimed (based on other PMs, up to seven types)
	F	<ul style="list-style-type: none"> NBS PLACEHOLDER (CWP NBS Blue Ribbon Panel to support) - NOTE THIS THEME IS STILL PENDING PANEL DISCUSSION. (definitions, standards, criteria to be developed in Summer 2025; may use Good/Better/Best) 			
	G	--	Project catchment area	acres, shapefile upload	<ul style="list-style-type: none"> Area of capture to Project
		--	Project footprint	acres, shapefile upload	<ul style="list-style-type: none"> Area of Project extents, including all improvements
		--	Best management practice (BMP) footprint	acres, shapefile upload	<ul style="list-style-type: none"> Area of stormwater management Project only

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
Deliver Multi-Benefits with Nature-Based Solutions and Diverse Projects	G	--	Type of stormwater improvement	text (type)	<ul style="list-style-type: none"> Type of Stormwater Improvement: <ul style="list-style-type: none"> Bioretention Biofiltration Infiltration Well Cistern Rain Barrel Infiltration Facility Treatment Facility Diversion to Sanitary Sewer Other Activity Type of "Other Activity": <ul style="list-style-type: none"> Admin Municipal National Pollutant Discharge Elimination System (NPDES) program, permit compliance, inspection, or required testing. Data acquisition / purchase Prepare and implement Watershed Management Program (WMP) or Coordinated Integrated Monitoring Program (CIMP) Design of new structural Projects (pre-SCW submittal) Community outreach and engagement Installation of monitoring equipment Monitoring activities Street sweeping Trash capture device installation Fees, for example, Permit Renewal Other Parse by continuing (pre-2018) and new activities
		--	BMP detailed characteristics	misc. per existing Project Module	<ul style="list-style-type: none"> These are the same as those currently being collected through the SCW Project Modules for each Project type
Leverage Funding	D	Proportion of Project costs attributed to leveraged funding (%)	Leveraged Funding	\$	<ul style="list-style-type: none"> Applies to Regional Program Projects only Non-SCW Program funding/total funding (%) Leveraged funding parsed by stage:

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
					<ul style="list-style-type: none"> ○ Planning ○ Design ○ Construction ○ Annual Operation and Maintenance (O&M) ○ Annual Monitoring (default 3 years monitoring)
		--	Annualized Project cost	\$	<ul style="list-style-type: none"> ● Annualized Project costs parsed by stage: <ul style="list-style-type: none"> ○ Planning ○ Design ○ Construction ○ Annual O&M ○ Annual monitoring (default 3 years monitoring) ● Project costs parsed by leveraged and unleveraged amounts ● Expected useful life ● Annual cost inflation
	H	--	New technologies or practices utilized	yes/no, text (type)	<ul style="list-style-type: none"> ● Does Project or study utilize or investigate new technology? (Yes/No) ● Type of new technology or practice
		--	Types of independent scientific research	yes/no, text (type)	<ul style="list-style-type: none"> ● Is Project or study undertaking independent scientific research? (Yes/No) ● Type or subject of independent scientific research
	I	--	Budget allocated to scientific research	\$	<ul style="list-style-type: none"> ● Is Project or study undertaking independent scientific research? (Yes/No) ● Total SCW Program Project or study budget allocated to independent scientific research
		--	SCW Program Goals addressed by scientific research	text (SCW Goal)	<ul style="list-style-type: none"> ● SCW Program Goals addressed by independent scientific research
Equitably Distribute Benefits	J	Provide disadvantaged community (DAC) benefits that are not less than 110% of the ratio of the DAC	Project DAC benefit ratio for CIBs	%	<ul style="list-style-type: none"> ● DAC population within Project benefit service area (quantity of residents) ● Total population within benefit service area ● Project boundary and service area (shapefile)

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
		population to the total population in each Watershed Area (%) (i.e., DAC Benefit Ratio)	Project water quality benefit ratio	% by Project	<ul style="list-style-type: none"> Primary pollutant reduction by Project (from Water Quality PMs) Primary pollutant reduction parsed by Watershed Management Group (WMG) served by Project (from Water Quality PMs) WMG Group containing Project location
			Does the Project provide benefit to DACs	yes/no	<ul style="list-style-type: none"> Does the Project provide benefit to DACs? (Yes/No)
			Is the project within a DAC boundary	yes/no	<ul style="list-style-type: none"> Is the Project within a DAC boundary? (Yes/No)
	K	Proportion of Municipal Program funds spent on new Projects or Programs (%)	Proportion of Municipal Program funds spent on new Projects or Programs	%	<ul style="list-style-type: none"> Municipality's Municipal Program funds spent annually on eligible expenses related to Projects or Programs implemented on or after November 6, 2018, which also includes O&M of Projects built to comply with the MS4 Permit, so long as the Project complies with Municipal Program requirements
Promote Green Jobs & Career	M	Total Full-Time Equivalent (FTE) jobs created (quantity)	Annual FTE jobs created	quantity	<ul style="list-style-type: none"> Estimated total (direct and indirect) labor cost per FTE job created, parsed by job classification
		--	Total Project labor cost	\$	<ul style="list-style-type: none"> Total direct labor costs (as wages) for each Project stage and job classification Indirect labor costs parsed by job classification or design stage

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
					<ul style="list-style-type: none"> Design Stages may include: <ul style="list-style-type: none"> Project Stage Planning Design Construction O&M Monitoring
		Proportion of Projects entered in a Project Labor Agreement (PLA) (%)	Project PLA Status	yes/no	<ul style="list-style-type: none"> Are the contractors performing work on this Project bound by the provisions of: (1) a County-wide PLA (Community Workforce Agreement), or (2) other PLA?
Ensure Ongoing O&M for Projects	N	Quantity of O&M plans (of all completed SCW Program Projects to date) sustaining intended Project benefits (%)	Is there an O&M plan being implemented to sustain intended Project benefits	yes/no	<ul style="list-style-type: none"> Yes or No
		--	O&M and Monitoring Funding Ratio	%	<ul style="list-style-type: none"> Estimated net present value of all O&M and monitoring cost over Project life Total O&M and Monitoring funding set aside, parsed by SCW Program and Other funding sources i.e., Total O&M and Monitoring funding set aside / estimated total O&M and Monitoring cost
		--	O&M Cost Ratio	%	<ul style="list-style-type: none"> Estimated net present value of 1st year O&M cost Project construction cost i.e., annual O&M / Project construction costs
Prioritize Meaningful Engagement	All	All Projects to meet a minimum "level of achievement" (%)	Level of achievement for community engagement	good, better, best, PDF upload	<ul style="list-style-type: none"> Quantity and types of engagement activities undertaken by Project proponent. Example activities include: <ul style="list-style-type: none"> Canvassing Citizen Advocacy Committees Community-Driven Planning Community Forums Community Organizing Consensus Building Document expanded understanding and commitment to ongoing relationships Fact Sheets with translation as needed

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
					<ul style="list-style-type: none"> ○ Focus Groups ○ House Meetings ○ Interactive Workshops & Tours ○ Listening Sessions ○ Local Media ○ MOUs or support letters with community-based organizations (CBOs) ○ MOUs or support letters from elected bodies ○ Online Media ○ Open Houses ○ Open planning forums with citizen polling ○ Other educational event ○ Other engagement event ○ Other engagement meeting ○ Other outreach event ○ Participatory action research ○ Participatory budgeting cooperatives ○ Polling ○ Presentations ○ Public Comments ○ Social Media ○ Surveys ○ Transparent responses to community concerns ○ Videos ● Project "Level of Achievement" for community engagement. (Good/Better/Best) ● Supporting documentation
Prioritize Meaningful Engagement	All	--	Level of Achievement for Tribal Engagement	good, better, best, PDF upload	<ul style="list-style-type: none"> ● Quantity and types of tribal engagement activities undertaken by Project proponent. See example engagement activities above. ● Project "Level of Achievement" for tribal engagement. (Good/Better/Best) ● Supporting documentation
		--	Receipt of tribal feedback	yes/no, PDF upload	<ul style="list-style-type: none"> ● Was feedback received from tribes based on engagement activities undertaken? (Yes/No)

Table G-1. Details of Indicators and Performance Measures

Theme	Goal	Indicator	PM	PM Units	Definitions and Considerations
		--	Letters of support from community and tribes	text (source, quantity)	<ul style="list-style-type: none"> Source and quantity of letters of support or Memorandums of Understanding (MOUs) from community groups and tribes