

APPENDIX 3-C

A Comprehensive Listing of Stormwater Management Techniques

STORMWATER CONTROL MEASURE Type/Sub-Type	Description	
Parcel-Scale Projects	<i>Parcel-scale SCMs, sometimes referred to as decentralized SCMs, can be located on private or public parcels and typically manage runoff from the parcel only. They can be effective on a project by project basis but must be evaluated for their benefit on a wider local or regional scale due to feasibility challenges associated with long-term O&M, site constraints, and performance.</i>	<ul style="list-style-type: none"> • Morro Bay State Park Permeable Parking Lot • Stormwater Rewards Rebate Program • San Simeon Creek Road Flooding Remediation (San Simeon Creek) • Pismo Preserve Roads Improvement Project
Cistern	Above or below-ground container used to collect and store stormwater for use as irrigation or if treated for additional uses.	
Biofiltration or bioretention	Small-scale engineered landscape areas that capture and treat stormwater. Can be designed to convey to the underground storm system via perforated pipe and/or to infiltrate into native soils.	
Infiltration Trench or Drywell	Shallow aggregate filled trench that collects and infiltrates stormwater.	
Impervious Surface Reduction/Disconnection	The practice of disconnecting stormwater conveyance to redirect from tightlines and/or impervious surfaces and then routing to low impact development (LID) features or uncompacted green spaces.	
Soil Amendments	Adding compost into existing soils to enhance infiltration and runoff reduction.	
Trees	Tree canopies provide surface area that captures rain from which it evaporates, roots take up water and create conditions in soil that promote infiltration.	

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Pervious Pavement	Pavement material that allows infiltration of stormwater; can be used for driveways, patios, low-traffic roadways and alleys, etc.	
Neighborhood-Scale Projects	<i>Neighborhood-scale SCMs typically address stormwater runoff from adjacent properties and the street right-of-way. Ownership and O&M responsibility is generally by the municipality. SCM types tend to be scaled versions of the parcel-scale and regional SCM types. Stormwater design at the neighborhood scale often must take into consideration volume management for water quality objectives, flood control, and overall improvement to the flow regime.</i>	<ul style="list-style-type: none"> • 2nd Street Baywood Green Street • Oceano Drainage Improvement Project • Upper Spring Street LID Project • Atascadero Sunken Gardens Stormwater Capture • El Camino Real Greenstreets Project – Downtown Corridor • Embarcadero Surf Project • Embarcadero Boat Wash Project
Cistern	See above.	
Biofiltration or Bioretention	See above.	
Tree Planting	See above.	
Multi-use Online Detention Basin	Generally large basins that capture stormwater from many acres. Often designed primarily for peak flow management, with some opportunity for water-quality improvement.	
Multi-use Online Retention Basin	Generally large basins that capture stormwater from many acres. Designed to achieve a broader range of flow attenuation beyond just peak flow management, including infiltration and water-quality improvement.	
Capture and Use	Rerouting stormwater to support other uses, such as to irrigate crops, recharge GW, or improve WWTP efficiency	

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Valley Gutters	Conventional stormwater conveyance used to route stormwater runoff.	
Curb and Gutter	Conventional stormwater conveyance used to route stormwater runoff.	
Impervious Surface Reduction (e.g., road diet)	See above.	
Settling Basin (sediment chamber, forebay, etc.)	A structural feature incorporated at the inlet of a basin or bioretention/biofiltration facility to provide an area for sediment capture and removal.	
Permeable Pavement	See above.	
Drywell	Underground, aggregate filled porous chamber that allows runoff to enter and infiltrate in the ground.	
Biofilter/Drywell	May include two-part design systems that combine biofiltration pre-treatment that conveys to an underground, aggregate-filled drywell or proprietary systems that provide filter cartridges or media attached to a drywell infiltration unit.	
Trash Capture Devices	Devices such as insert filters and retractable screens.	
Media Filters	Sand or other media filters, proprietary products such as those by Contech, Filterra, etc.	
Subterranean Storage/Infiltration	Engineered below-ground repositories filled with aggregate or proprietary structural storage systems that are designed to detain and convey or infiltrate runoff.	
Regional-Scale Projects	<i>Regional-scale SCMs manage stormwater from multiple blocks/acres. In the past, basins were primarily designed for flood control (peak flow management). Newer basins are often designed to include water quality and hydromodification control performance. Significant volumes of Capture-and-Use for irrigation water supply, etc. are often best achieved with</i>	<ul style="list-style-type: none"> • Ocean Infiltration Basins • Mountain Springs Sedimentation Basin • San Juan Storm Water Infiltration Project (?) • Cloisters Project

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	<i>Regional-Scale SCM types. Similarly, this scale is most suitable for creation of public/wildlife open spaces such as wetlands, and/or for educational purposes.</i>	
Multi-use Online Basin (Retention and/or Detention)	See above; depending on performance objectives.	
Capture and use	See above.	
Tree Planting	See above.	
Regional Subsurface Storage (proprietary)	Underground storage containers such as vaults and cisterns.	
Subterranean Storage/ Infiltration Gallery	See above.	
Storm Drain Extension to Existing Storm Drain	Conventional stormwater conveyance.	
New Storm Drain System to New Multi-use Basin	Conventional stormwater conveyance.	
Receiving Water Protection / Enhancement / Restoration	Direct modification of existing water feature to improve ecological, aesthetic, and/or public health-and-safety conditions. Also can encompass acquisition of surrounding land to maintain existing conditions.	<ul style="list-style-type: none"> • Santa Rosa Creek Floodplain & Wetland Retention Plan