Santa Barbara County-Wide Integrated Stormwater Resource Plan
Stakeholder Kickoff Meeting
South County – October 10, 2017
North County – October 12, 2017
Discussion Topics

• Stormwater Resource Plan (SWRP) project goals
• SWRP project overview
• Identification and Prioritization of Projects
• Wrap up
Stormwater Resource Plan
Project Goals
SWRP Background

- **The Water Quality, Supply, and Infrastructure Improvement Act (Proposition 1)**
  - provides $200 million for matching grants

- **Senate Bill (SB) 985, the Stormwater Resources Planning Act**
  - requires development of a Storm Water Resource Plan to receive grant funds
SWRP Requirements

- Identify watershed and subwatersheds
- Identify pollutant sources
- Consistent with other plans and permits
- Prioritize project based on multiple benefits
- Community participation
- Submit to Integrated Regional Water Management (IRWM) Group

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<table>
<thead>
<tr>
<th>Benefit</th>
<th>Example</th>
<th>Metric Unit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quality</td>
<td>Pollutant Load Reduction</td>
<td>pounds/lbs/day, kilograms/kg/day, milligrams/mg/L, micrograms/µg/L</td>
</tr>
<tr>
<td></td>
<td>Nonpoint source pollution control</td>
<td>most probable number of bacteria or indicator organisms (MPN/mL/L)</td>
</tr>
<tr>
<td></td>
<td>Reestablished natural water drainage and treatment</td>
<td>Volume Treated: million gallons per day (mgd) ares-foot per year (afy)</td>
</tr>
<tr>
<td>Water Supply</td>
<td>Volume Captured</td>
<td>in terms of augmentation/replacement of water supply, or reduced dependence on imported water</td>
</tr>
<tr>
<td></td>
<td>Water supply reliability</td>
<td>million gallons per day (mgd) ares-foot per year (afy)</td>
</tr>
<tr>
<td></td>
<td>Water conservation</td>
<td>Cost: dollars per volume per year (or augmented water supply)</td>
</tr>
<tr>
<td></td>
<td>Conjunctive use</td>
<td></td>
</tr>
<tr>
<td>Flood Management</td>
<td>Decreased flood risk by reducing runoff rate and/or volume</td>
<td>Rate, Volume, and/or Size: cubic feet per second (cfs) ares-foot (af) ares or linear feet</td>
</tr>
<tr>
<td></td>
<td>Reduced sanitary sewer overflows</td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td>Environmental and habitat protection and improvement, including:</td>
<td>Size and/or Rate: ares cubic feet per second (cfs) carbon sequestration (megagrams of carbon per area)</td>
</tr>
<tr>
<td></td>
<td>- wetland enhancement/creation; riparian enhancement, and/or instream flow improvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased urban green space</td>
<td></td>
</tr>
<tr>
<td>Environmental (continued)</td>
<td>Reduced energy use, greenhouse gas emissions, or provides a carbon sink</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reestablishment of the natural hydrograph</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water temperature improvements</td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>Enhanced and/or created recreational and public use areas</td>
<td>Size: size of population served, number of people; number of jobs</td>
</tr>
<tr>
<td></td>
<td>Community involvement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Employment opportunities provided</td>
<td></td>
</tr>
</tbody>
</table>
Project Driver - Impacted Water Quality

- 54 waterbodies with evaluation of pollution levels
- 15 water quality regulatory actions
DROUGHT EMERGENCY!

Stage 2 Drought Emergency Declared!

From Carpinteria Valley Water District website
Primary Goals and Mission

Develop a forward-thinking County-Wide Integrated Stormwater Resource Plan (SWRP) that includes:

- Addressing water quality concerns
- Prioritizing water supply needs
- Accurate quantitative modeling
- Collaborative development
- Local project support
- Utilize natural solutions
- Opportunities for future grant funding
The End Product

- SWRP meeting all Water Code requirements and SWRP guideline recommendations
- An adaptive plan that can be updated in the future
- Carefully screened and prioritized parcels
- At least 18 project concepts ranked by multi-benefits
- At least 4 Project Implementation Work Plans
Example End Product – Ventura County SWRP

- Modeled project benefits
  - 400 ac-ft water supply
  - Pollutant load reductions for 15 TMDLs
- Coordinated 11 MS4 Permittees
  - identified and designed 12 projects
  - eligible for up to $55 million grant funding
- Plan has resulted in a Prop 1 implementation grant
Stormwater Resource Plan
Project Overview
**Project Milestones**

- **Watershed Characterization and SWRP Outline**
  - 9/15/2017

- **Project Identification and Prioritization**
  - 12/15/2017

- **Administrative Draft SWRP**
  - 1/31/2018

- **Public Draft SWRP**
  - 3/19/2018

- **Final Draft SWRP**
  - 6/30/2018

- **SWRP submitted to Water Board**
  - 9/30/2018

- **Stakeholder Kickoff Meeting**

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GEOSYNTEC CONSULTANTS
Project Collaboration

- Provide local insight & feedback during SWRP development
- Recommend potential projects
- Comment on the public draft SWRP
- Oversee & review SWRP development
- Direct project design & modeling priorities
- Engage with local stakeholders
- Manage SWRP development & State Grant Agreement
- Coordinate collaboration of stakeholders, TAC, and consultants
- Develop SWRP
- Identify, design, model, & prioritize projects based on SWRP Guidelines and local priorities
## TAC Members

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Primary Contact</th>
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<tbody>
<tr>
<td>State Water Board</td>
<td>Kelley List</td>
</tr>
<tr>
<td>Regional Water Board</td>
<td>Lucas Sharkey</td>
</tr>
<tr>
<td>City of Buellton</td>
<td>Rose Hess</td>
</tr>
<tr>
<td>City of Carpinteria</td>
<td>Erin Maker</td>
</tr>
<tr>
<td>City of Goleta</td>
<td>Everett King</td>
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<tr>
<td>City of Guadalupe</td>
<td>Cruz Ramos</td>
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<tr>
<td>City of Solvang</td>
<td>Bridget Elliott</td>
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<tr>
<td>Carpinteria Valley Water District</td>
<td>Jeremy Rentch</td>
</tr>
<tr>
<td>Montecito Water District</td>
<td>Nicholas Turner</td>
</tr>
<tr>
<td>UC Santa Barbara</td>
<td>Lisa Stratton</td>
</tr>
<tr>
<td>County of Santa Barbara</td>
<td>John Karamitsos</td>
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</tbody>
</table>
Stakeholder List

Cities
City of Santa Barbara
City of Santa Maria

Sanitary and Water Conservation Districts
Carpinteria Sanitary District
Goleta Water District
Goleta Sanitary District
Goleta West Sanitary District
Santa Maria Valley Water Conservation District
Santa Ynez River Water Conservation District
Santa Ynez River Water Conservation District, ID 1

Community Service Districts
Casmalia Community Services District
Cuyama Community Services District
Vandenberg Village Community Services District

Joint Powers Agencies
Cachuma Operations and Maintenance Board
Cachuma Conservation Release Board
Central Coast Water Authority

Special Districts
Cachuma Resource Conservation District

Native Americans
Santa Ynez Band of Chumash Indians

Non Governmental Organizations
AIA Santa Barbara
Arguello Group, Los Padres Sierra Club
Guadalupe-Nipomo Dunes Center
Heal the Ocean
La Purisima Audubon Society
Santa Barbara Channelkeepers
Santa Barbara County Action Network
Santa Rita Hills Wine Growers Alliance
South Coast Habitat Restoration
UCSB Sedgwick Reserve

Private Citizens
Marell Brooks
Monte Cole

Other Stakeholders
USFS Los Padres National Forest
Stakeholder Meetings

- **1st Stakeholder Meeting – Week of 10/9/17** (1 meeting in North County and 1 in South County)
  - Project overview
  - Present draft parcel screening and prioritization
  - Request other potential locations/projects for consideration

- **2nd Stakeholder Meeting – March 2018**
  - Present public draft SWRP
  - Update on advanced project development
Screen and Prioritize Parcels
- 60,485 total parcels
- 1,639 feasible parcels
- 15 recommended parcels per Cooperating Entity

Identify Potential Projects
- 9 conceptual designs
- Projects designed by TAC/Stakeholders

Quantify Multiple Benefits
- Pollutant Reductions
- Groundwater Recharge
- Runoff Volume Remove
- Habitat Created

Prioritize Projects
- Multiple Benefits
- Willing Land Owner
- Commitment to Maintenance

Advanced Project Development
- CEQA Analysis
- Feasibility Assessment
- 30% Design
Parcel Screening Results
• **9 projects (1 per cooperating entity)**
  – Identify ownership, project area, and pretreatment area
  – Delineate upstream drainage area
  – Determine conceptual design parameters (e.g., side slopes, depth, storage volume)
## General Project Details

<table>
<thead>
<tr>
<th>ID</th>
<th>Project Name</th>
<th>Proposed By</th>
<th>Public/Private Parcel (Coor.)</th>
<th>Specific Location (Coor.)</th>
<th>Watershed</th>
<th>Project Description (Type)</th>
<th>Multiple Benefits (None, Med, High)</th>
<th>Notes</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water Quality</td>
<td>Water Supply</td>
</tr>
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</table>

### Conceptual Project Designs

<table>
<thead>
<tr>
<th>Catchment</th>
<th>Acres of Land Use in BMP treatment area</th>
<th>Average Annual Percent Capture</th>
<th>Infiltration rate (in/hr)</th>
<th>Discharge rate (cfs)</th>
<th>BMP Depth (ft)</th>
<th>BMP storage capacity (cu ft)</th>
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Project Conceptual Design and Quantification of Benefits

**BMP Type**: Infiltration Basin (INF-1)

**Ownership**: City of Oxnard

**Drainage Area**: 72 acres

**Imperviousness**: 54%

**Percent of Design Storm**: >100%

**Proposed BMP Geometry**

- Pretreatment Area: 0.58 acres
- BMP Area: 1.7 acres
- Infiltration Rate**: 0.5 in/hr
- Depth: 2 ft
- Side Slopes: 3:1

*65th percentile design volume based on the Urban Runoff Quality Management approach

**Site-specific infiltration testing is needed to confirm

**Average Annual BMP Performance**

- Households supplied by potential water supply volume: 44

**Pollutant Removal**:

<table>
<thead>
<tr>
<th>Volume</th>
<th>TSS</th>
<th>Tot P</th>
<th>Diss P</th>
<th>NH3</th>
<th>NO3</th>
<th>TN</th>
<th>Cu</th>
<th>Pb</th>
<th>Zn</th>
<th>Fecal Col.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000,000</td>
<td>0.200</td>
<td>22</td>
<td>20</td>
<td>45</td>
<td>190</td>
<td>0.035</td>
<td>1.4</td>
<td>0.05</td>
<td>5.0</td>
<td>8.8</td>
</tr>
</tbody>
</table>

**Legend**

- **Approximate BMP Footprint**
- **BMP Drainage Area**
- **Parcel Boundary**
- **Proposed Storm Drain Pipe or Channel**
- **Waterbody**
- **Diversion**
- **City Boundary**
- **Watershed Boundary**

*Note: Proposed project is conceptual and subject to change based on future feasibility assessment, funding availability, and/or other information.*
Wrap up
Primary Goals and Mission

Develop a forward-thinking County-Wide Integrated Stormwater Resource Plan (SWRP) that includes:

- Address water quality concerns
- Prioritizing water supply needs
- Accurate quantitative modeling
- Collaborative development
- Local project support
- Utilize natural solutions
- Opportunities for future grant funding
Stakeholder Roles and Responsibilities

- Attend Stakeholder meetings
- Provide input into development of the SWRP and projects
- Recommend potential projects
- Comment on the public draft SWRP
Stakeholder Actions Needed

- Submittal of input to Cooperating Entities for recommended projects (10/16)
- Provide Stakeholder identified projects for modeling/inclusion in the SWRP (10/25)
- Next Stakeholder meeting (March 2018)
Group Discussion

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