

Central California
M u n i c i p a l
Regulatory Update
Assistance Program
[MRUAP]

SESSION ONE



WEBINAR PROTOCOL:

- Please use the Feedback drop down menu button, located on the upper right corner of your screen, to let us know if you have technical challenges



WEBINAR PROTOCOL:

Questions can be posed by:

- Pressing the 'Q&A' drop down menu located on the toolbar,
- Typing in your question, and
- Hitting enter

Questions may not be answered during the live webinar, but we will be keeping a complete list of questions that will be responded to afterwards

Copies of the presentation with notes will be made available by Darla Inglis after the session

objective

The MRUAP TRAINING SERIES is intended to:

Provide staff of local jurisdictions with the tools to:

review,

revise, and

*present regulatory language addressing
hydromodification control practices for consideration and
adoption by their elected officials.*

INTRODUCTION

agenda

SESSION ONE

- Hydromodification Control and LID
- Project Road Map
- Topics for Updates to Codes and Standards
- Wrap Up

INTRODUCTION

agenda

SESSION TWO

- Gap Analysis Report
- Developing Draft Regulatory Language and Standards
- Developing/Assembling Documentation to Support the Adoption Phase
- Integrating Maintenance & Enforcement into Development Controls
- Wrap Up

INTRODUCTION

roles & resources



The Central Coast Regional Water Quality Control Board



The UC Davis Extension, LID Initiative

INTRODUCTION

roles & resources

AHBL

has assisted nearly 40 Phase II NPDES communities integrate hydromodification control standards and LID into local codes and regulations.



Wayne Carlson,
AICP, LEED AP
Associate Principal



Brad Medrud, AICP
Senior Planner



Laura Grignon, PE
Civil Engineer

INTRODUCTION

objective

SESSION ONE is intended to:

- Provide jurisdiction staff with the *resources* to initiate the discussion of the importance of Hydromodification Control and LID to decision makers in their community
- Include important considerations associated with the early establishment of a "*Project Road Map*"
- Include the topics that should be considered during the update of the *codes & standards* along with the internal staff that will likely prove most use valuable with the update

INTRODUCTION

objective

- Phase II MS4s – Cities and counties within Central Coast will need to *reduce* negative impacts on aquatic ecosystems and degradation of water quality to the maximum extent practicable (MEP).
- Central Coast MS4s must incorporate new *hydromodification control* practices that include the use of low impact development (LID) into ordinances covering new and redevelopment proposals.

objective

The integration of hydromodification control measures into codes and standards for the first time will require a significant amount of work –
MUCH OF WHICH CAN BE STARTED NOW!

INTRODUCTION

SECTION ONE



hydromodification
CONTROLS & LID

objective

*The intent of this Section is to provide local government staff with **information and strategies** needed to effectively communicate the importance of hydromodification control and LID effectively to elected officials.*

hydromodification
CONTROLS & LID

strategies for communication

Communicating the importance of the need for
hydromodification control:

- It is a **requirement** of the NPDES General Stormwater Permit
- There are a broad range of **public benefits**
- These practices are becoming **common practice** and being employed in other communities in California and elsewhere

hydromodification
CONTROLS & LID

strategies for communication

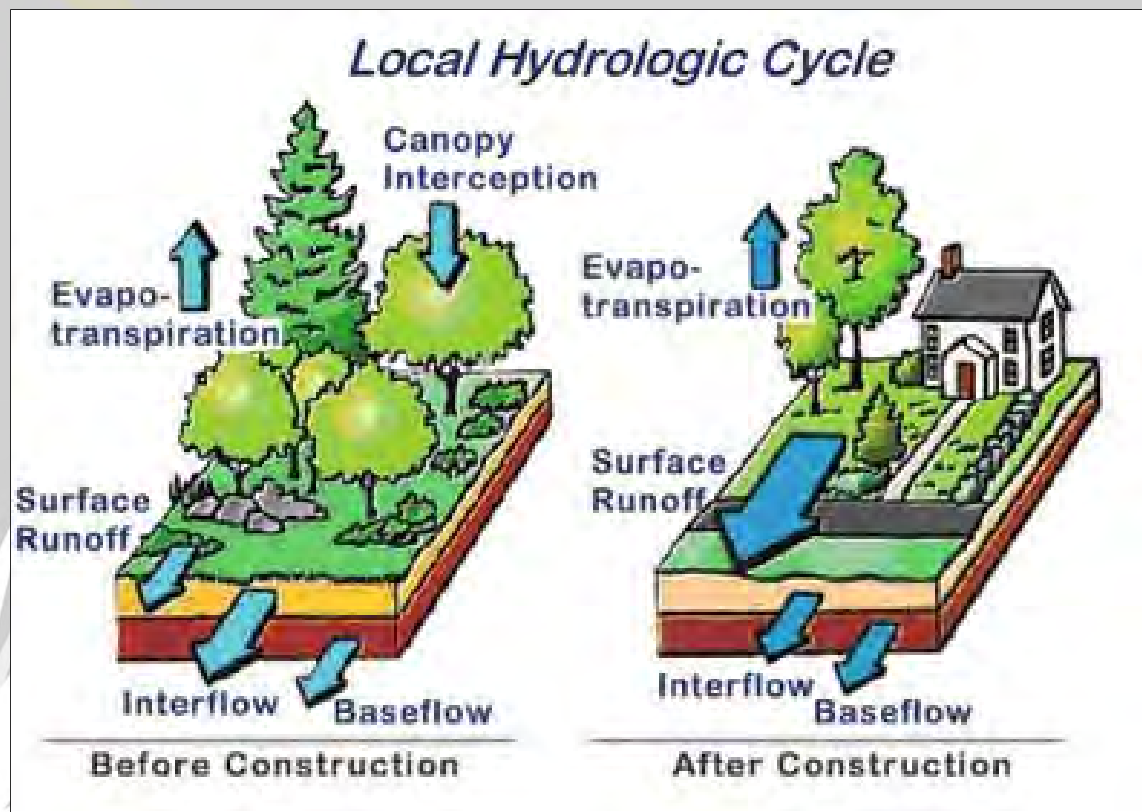
Management of municipal stormwater is *required* under the National Pollutant Discharge Elimination System (NDPES) General Stormwater Permit. For the Central Coast region, Permit requirements are intended to achieve the following conditions:

- **Optimize infiltration**
- **Protect critical areas**
- **Minimize pollutants**
- **Provide long-term watershed protection**

hydromodification
CONTROLS & LID

strategies for communication

Impending NPDES Permit requirements will address post-construction stormwater runoff impacts from new and redevelopment.



hydromodification
CONTROLS & LID

strategies for communication

Jurisdictions will need to update their local regulations (e.g. codes/ordinances) to comply with the new NPDES requirements.



hydromodification
CONTROLS & LID

strategies for communication

In addition to the environmental benefits associated with protecting watershed health, there are many other *public benefits* to practicing hydromodification control, including:

- **Flood Control** – Managing stormwater on-site minimizes peak flows downstream thereby reducing flooding



hydromodification
CONTROLS & LID

strategies for communication

- **Water Quality** – Managing stormwater on-site minimizes pollutant transport
- Use of LID as a hydromodification control practice is more **economical** than traditional catch basin & pipe design solutions
- Use of LID also has **environmental and social benefits** associated with the use of open space for multiple uses (e.g., stormwater management, passive open space, habitat areas, etc.)



hydromodification
CONTROLS & LID

strategies for communication

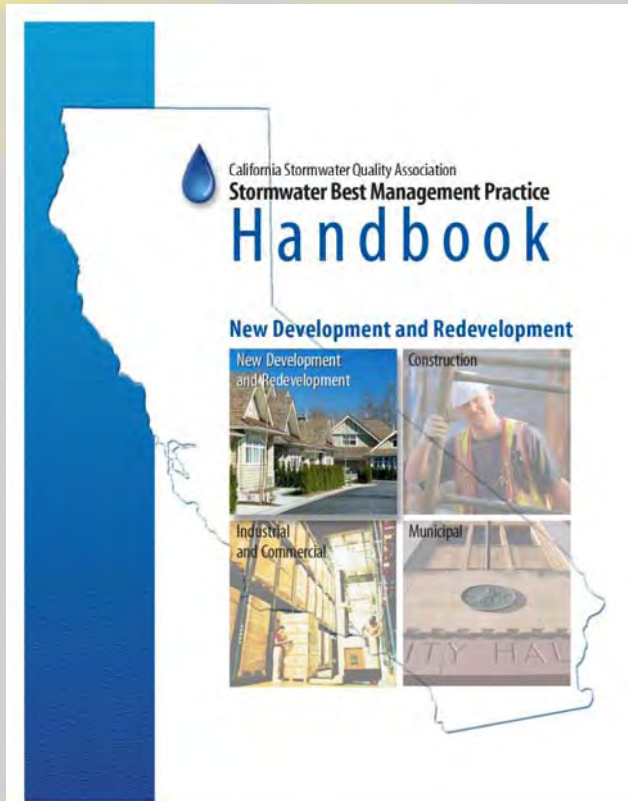
The following slides illustrate various *resources* for communicating the public benefit of hydromodification control to a variety of technical and non-technical audiences such as:

- **Elected officials**
- **Jurisdiction staff**
- **Consultants**
- **Property owners/citizens**

hydromodification
CONTROLS & LID

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Technical Manuals



City of Santa Barbara

Storm Water BMP Guidance Manual

June 2008
(Final)



Low Impact Development Manual for Southern California:

Technical Guidance and Site Planning Strategies

Prepared for

Southern California Stormwater Monitoring Coalition
in cooperation with the State Water Resources Control Board

By

The Low Impact Development Center Inc.



hydromodification
CONTROLS & LID

strategies for communication

Educational Handouts



What is Low Impact Development (LID)?

LID is an alternative method of land development that seeks to maintain the natural hydrologic character of the site or region. The natural hydrology, or movement of water through a watershed, is shaped over centuries under location-specific conditions to form a balanced and efficient system. When hardened surfaces such as roads, parking lots, and rooftops are constructed, the movement of water is altered: in particular, the amount of runoff increases and infiltration decreases. This results in increased peak flow rate and volume, and pollution levels in stormwater runoff. LID designs with nature in mind: working with the natural landscape and hydrology to minimize these changes. LID accomplishes this through source control, retaining more water on the site where it falls, rather than using traditional methods of funneling water via pipes into local waterways. Both improved site design and specific management measures are utilized in LID designs. LID has been applied to government, residential, and commercial development and redevelopment, and has proven to be a cost-efficient and effective method for managing runoff and protecting the environment.

Using LID Tools in Residential Development

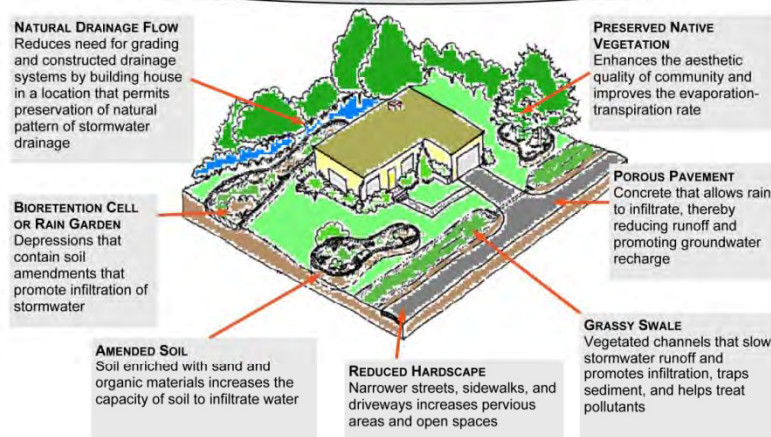


Diagram adapted from Prince George's County Maryland Low-Impact Development Design Strategies

hydromodification
CONTROLS & LID

strategies for communication

Educational Handouts



Low Impact Development **LID**

■ **LOW IMPACT DEVELOPMENT (LID)** is an approach to land development that preserves natural resources and mimics natural systems for managing storm water runoff while meeting development goals.

LID mimics natural hydrology of a site through site design and careful construction practices, preserving trees and natural areas, and managing water close to where it falls. LID can be used for public projects, residential and commercial development, and redevelopment, and has proven to be a cost-effective way to manage runoff and protect the environment. It also increases livability by making communities greener and more attractive!



Check out our website for more low-impact development ideas: www.santamariacleanwater.org

City of Santa Maria Community Development
Department/Planning Division
110 South Pine Street, Santa Maria, CA 93458
805 925-0951, ext. 244 • FAX: 805 925-7565
www.ci.santa-maria.ca.us

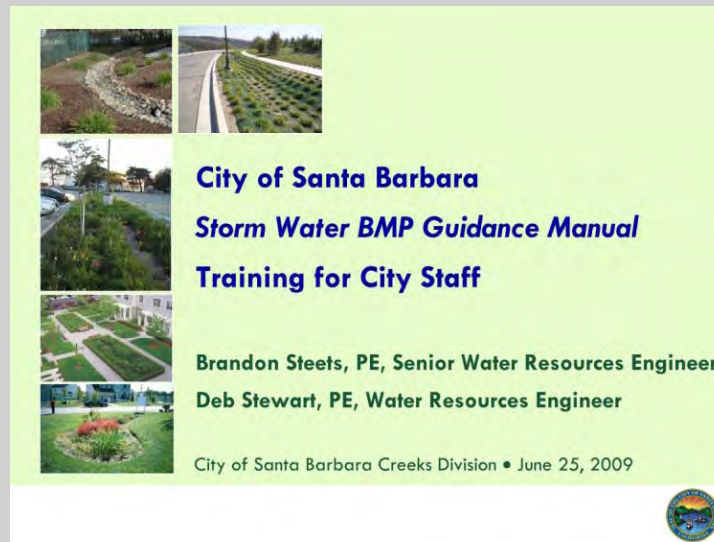


hydromodification
CONTROLS & LID

strategies for communication



PowerPoint Presentations



hydromodification
CONTROLS & LID

strategies for communication

The importance of cataloging local examples that can be found within a few hour drive of the local jurisdiction:

- *Allowing decision makers to **understand** what the practices look like in the ground.*
- *Providing **comparable** examples so that decision makers understand that the practices are not only applicable and used elsewhere. This will allow decision makers to rest assured that they are not out on a limb adopting untested standards.*



A valuable resource that is continually evolving with new information about hydromodification control and LID practices can be found on the LID portal at the California Stormwater Quality Association website (<http://www.casqa.org>)

hydromodification
CONTROLS & LID

SECTION TWO



establish a
PROJECT ROAD MAP

objective

*Provide local government staff with an understanding of the **key considerations** that should be considered prior to embarking on the task of updating local codes and standards:*

- Integration strategies
- Adoption schedule
- Attributes of the internal project team
- Who should be involved
- Use of other resources

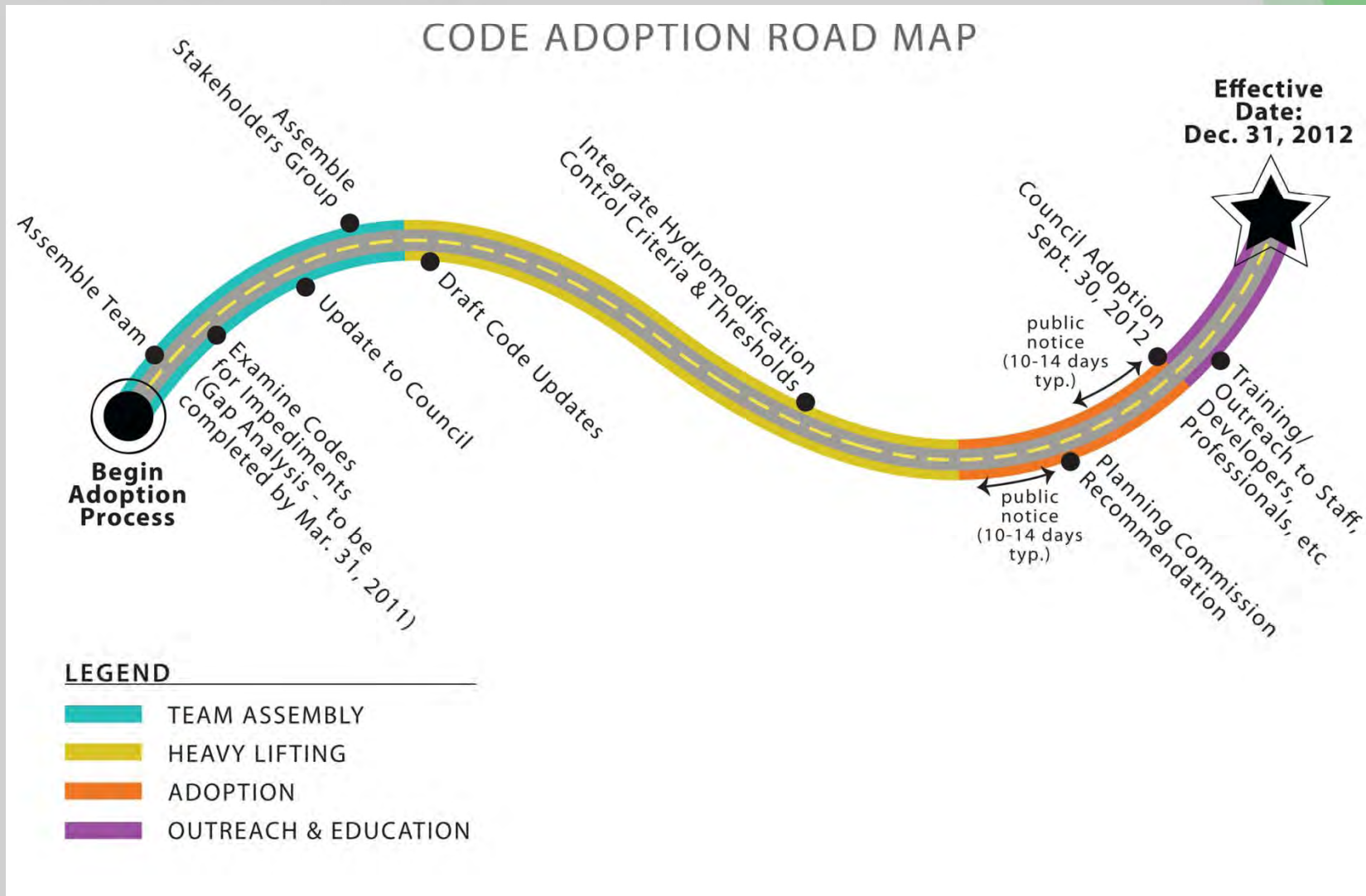
scheduling

HOW will the new regulations be integrated with existing development controls?

- Amending codes differs in duration and process from amending technical standards

The process associated with updating engineering standards is typically shorter than council-adopted codes

scheduling



PROJECT ROAD MAP

scheduling

PROCESS & SCHEDULE for developing the amendments to the codes and standards:

- Establishing a code adoption schedule that includes:
 - Review of existing codes
 - Early input by stakeholders and other members of the public
 - Preparation of code amendments and/or new code sections
 - Public review
 - Adoption

Don't forget about the Coastal Commission or other quasi-judicial review boards that may have jurisdiction as applicable

scheduling

PROCESS & SCHEDULE for developing the amendments to the codes and standards:

- Bring the project team and elected officials to a common level in understanding of hydromodification controls and LID;
- Establish reporting procedures for keeping elected officials informed; and
- Establish a work group to provide technical input during the process (e.g., stakeholder groups, internal staff groups, etc.)

roles & responsibilities

ATTRIBUTES a team should possess:

- An inclusive group that includes key decision makers from all affected departments
- If decision-makers/upper management is not part of the team, then the authority for decision-making and delegating authority across departments should be vested in the team
- A nimble group to allow for the completion of the requisite tasks under short timelines
- An integrated approach that will allow for the comprehensive evaluation of the jurisdiction's codes and standards from zoning to engineering details

roles & responsibilities

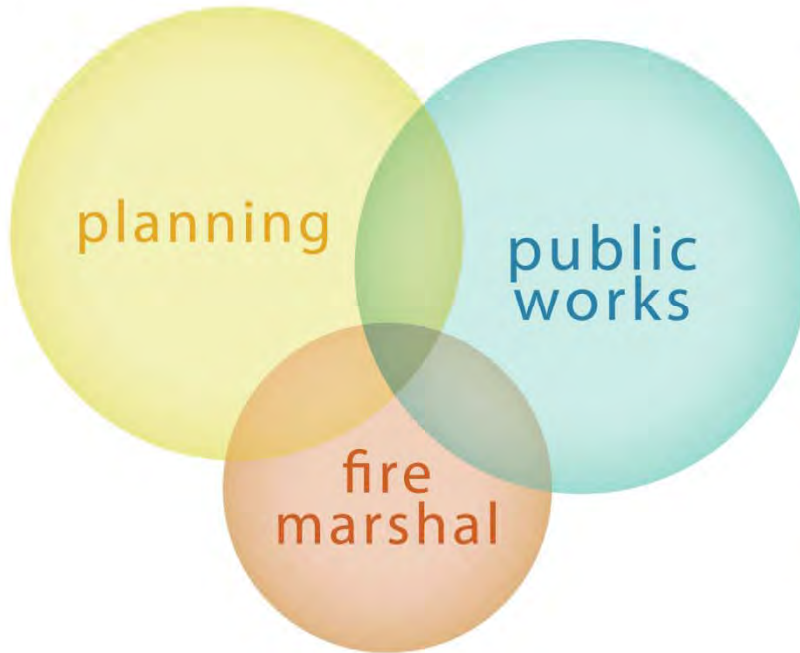
WHO should be involved and what their areas of expertise might include:

- Key participants involved at all key stages of the process and throughout the duration of the effort
- A team leader identified that establishes roles and responsibilities and has the authority to delegate assignments and commit time and resources across departments

roles & responsibilities

WHO should be involved and what their areas of expertise might include:

KEY DEPARTMENTS AND STAFF



p	native vegetation/ tree conservation, landscape code, etc.
p/pw	bioretention, sidewalks, incentives, pavement design, etc.
pw	stormwater utility incentives, grading & drainage codes, bioretention soil mix specifications, etc.
pw/fm	street surfacing, etc.
fm	sprinkler standards
p/fm	clustering v. sprinkler standards, clustering v. multiple points, etc.
all	street widths and lengths

roles & responsibilities

WHO should be involved and what their areas of expertise might include:

ENGINEERING/PUBLIC WORKS

1. Development Review

- Stormwater
 - Surface Water Manual
- Roads and Streets
 - Road Standards
- Grading and Site Review & Approvals
 - Construction Standards

One staff member may wear many different hats and assume multiple roles and responsibilities

roles & responsibilities

WHO should be involved and what their areas of expertise might include:

ENGINEERING/PUBLIC WORKS

2. Construction Management Staff

- Jurisdictional Facilities
 - Streets & Roads
 - Public Buildings & Facilities

3. Maintenance Staff

- Public Facility Maintenance
- Private Facility Maintenance Enforcement

roles & responsibilities

WHO should be involved and what their areas of expertise might include:

PLANNING

1. Development Review

- Landscaping/Native Vegetation
- Parking Review
- Planned Unit Development

2. Policy Development & Education

- Coordination with other general plan goals
 - Updates
 - Higher Density Requirements
- Coordination with other Plans
 - Coastal Plans
 - Other jurisdictions with overlapping authority

roles & responsibilities

WHO should be involved and what their areas of expertise might include:

FIRE MARSHAL/EMERGENCY SERVICES

1. Development Review
2. Ongoing Fire Safety Enforcement

BUILDING/PLAN REVIEW

1. IBO/IBC/Green Building Codes
2. Green Roofs
3. Pin Foundations
4. Rainwater Re-use

roles & responsibilities

Ways local government staff use **OUTSIDE RESOURCES** (e.g., consultants, interns, etc.) effectively as an extension of staff:

Consultants

- Amendments to land use and engineering codes and standards

Interns

- Research and data collection about nearby examples of hydromodification control projects employing LID practices,
- Other data requests as directed by staff
- Other questions tendered by elected officials and the public

SECTION THREE



updates to
CODES & STANDARDS

objective

*Discuss the broad extent of engineering and land use standards that are relevant when **integrating** hydromodification control practices into a municipal code structure.*

updates to
CODES & STANDARDS

objective

How extensively will the **NEW REQUIREMENTS** for hydromodification control and LID permeate local codes and standards?

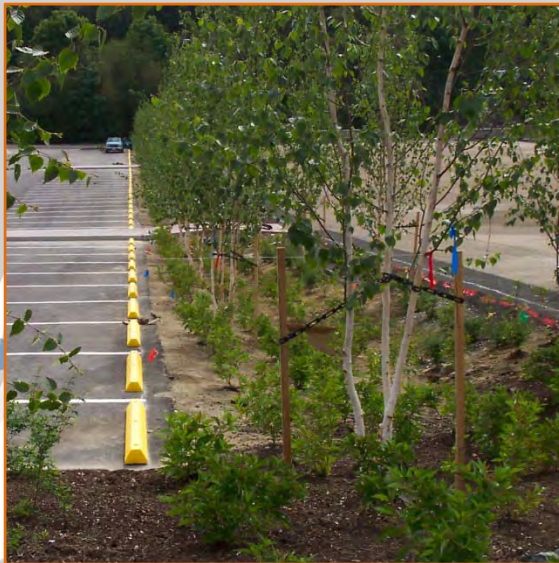
- Integration of hydromodification controls and LID into a local code structure requires a **comprehensive review process** that touches on a wide variety of standards and regulations throughout the jurisdiction's municipal code.

updates to
CODES & STANDARDS

key topics

LANDSCAPING, NATIVE SOIL PRESERVATION, STREET LANDSCAPING, ETC.

1. Determining the type of landscaping to retain or recreate
2. Establishing native soil preservation
3. Allowing multiple use of landscaping for hydromodification control facilities



updates to
CODES & STANDARDS

key topics

IMPERVIOUS SURFACE STANDARDS (MINIMIZING)

1. Encouraging the use of permeable surfacing where site and soil conditions make it feasible
2. Reviewing impervious surface and building coverage standards



updates to
CODES & STANDARDS

key topics

BULK AND DIMENSIONAL STANDARDS

1. Flexibility in setback requirements
2. Flexibility in site design
3. Encouraging clustering
4. Use of incentives



updates to
CODES & STANDARDS

key topics

CLEARING AND GRADING STANDARDS

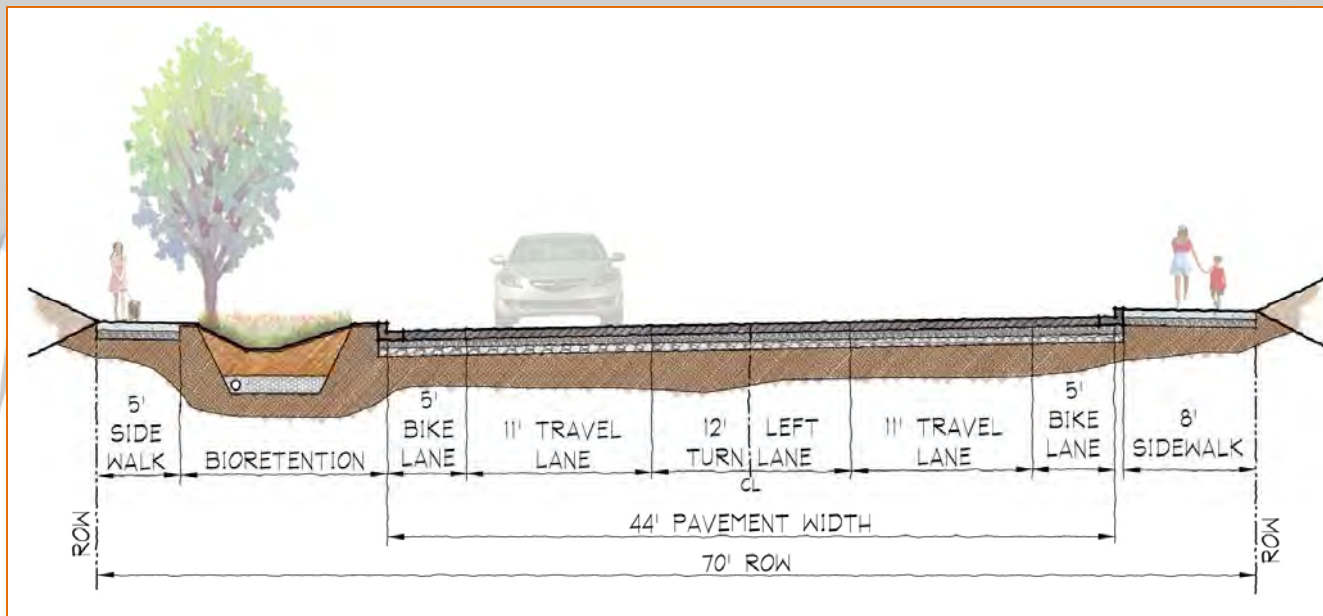
1. Protecting existing native soils
2. Tying the clearing of a site to the final development plan

updates to
CODES & STANDARDS

key topics

ENGINEERING AND ROAD STANDARDS

1. Use of pervious pavement
2. Road width and the needs of other departments
3. Stormwater systems used by road systems
4. Street landscaping requirements
5. Maintenance practices



updates to
CODES & STANDARDS

key topics

DESIGN GUIDELINES/STANDARDS

1. Ensure that the implementation of existing design standards will not preclude the use of hydromodification control practices such as LID
2. Review guidelines for residential and/or commercial development
3. Special design requirements

updates to
CODES & STANDARDS

CONCLUDING REMARKS:

You will want to communicate with key decision makers that the Joint Effort is underway and that a significant amount of work will be necessary on your part.

To marshal the necessary resources to complete this work, you will want to develop a schedule that includes the human resources and budget necessary to complete the tasks.

Although the hydromodification control standard is still being developed, there is work that can be prepared now.

Central California Municipal Regulatory Update Assistance Program (MRUAP)

SESSION ONE

1a:	Wed	Jan 12	2011	9-11 a.m.
1b:	Thu	Jan 13	2011	9-11 a.m.
1c:	Tue	Jan 18	2011	9-11 a.m.

SESSION TWO

2a:	Thu	Jan 20	2011	9-11 a.m.
2b:	Fri	Jan 21	2011	9-11 a.m.
2c:	Mon	Jan 24	2011	9-11 a.m.



TRAINING PARTICIPANTS:

After the full training is complete, please email Darla Inglis dinglis@ucde.ucdavis.edu with the name and organization (e.g., city, county, university, firm, etc.) of each participant



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SESSION TWO PREVIEW

