



BOARD OF SUPERVISORS
AGENDA LETTER

Agenda Number:

Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
(805) 568-2240

Department Name: Public Works and
Planning &
Development
Department No.: 054/053
For Agenda Of: 06/15/10
Placement: Set Hearing
Estimated Tme: 60 minutes on
August 10, 2010
Continued Item: No
If Yes, date from:
Vote Required: Majority

TO: Board of Supervisors

FROM: Department Scott McGolpin, Director, Public Works, 568-3010
Director(s) Glenn Russell, Ph.D., Director, Planning & Development, 568-2085
Contact Info: Tom Fayram, Deputy Director, Water Resources, 568-3436
Dianne Black, Director of Development Services, 568-2086

SUBJECT: **A Status Report on Implementation of Low Impact Development Standards and
New Storm Water Management Requirements**

County Counsel Concurrence

As to form: No

Auditor-Controller Concurrence

As to form: No

Other Concurrence:

As to form: No

Recommended Actions:

That the Board of Supervisors set time on the departmental agenda on August 10, 2010 to receive the following status report on implementation of Low Impact Development standards and new storm water requirements from the Regional Water Quality Control Board. (ESTIMATED TIME: 60 minutes)

Summary Text:

The County is required through its approved Stormwater Management Program to develop and implement requirements on new development to control the detrimental modification of watercourses caused by changes in land use (termed hydromodification). The Regional Water Quality Control Board (Regional Board) is providing an opportunity for central coast jurisdictions to participate in a two year "Joint Effort" to develop a unified region-wide approach to hydromodification control using the expertise of technical consultants with funding from the State. As a condition of participating in the Joint Effort, the County was required to revise the Stormwater Management Program to add several milestones to be achieved over the two year period including:

1. Apply a Low Impact Development (LID) approach to all applicable discretionary projects
2. Identify and track LID design principals and features incorporated into each project
3. Provide LID Design Guidance to project applicants and stakeholders.

This status report provides detail on LID and hydromodification control, the Joint Effort, and how the County intends to achieve the Joint Effort milestones over the next two years.

Background:

The County is mandated under federal Clean Water Act regulations to have and enforce a Stormwater Management Program. The County is enrolled under the State of California's NPDES General Storm Water Permit through the approval of its Stormwater Management Program in July 2006 by the Regional Board, the regional arm of the State Water Board. The State Water Board is delegated with the enforcement of the Clean Water Act by the federal Environmental Protection Agency.

Under the approved Stormwater Management Program, the County was required to produce numeric hydromodification controls over the next two years. In addition, interim hydromodification control measures were to be adopted by September of 2010.

In October, 2009, the Regional Board proposed an opportunity for agencies to participate in a two year "Joint Effort" to develop hydromodification control criteria as an alternative to the current requirements for developing interim criteria earlier and without regional support. As a condition of participating in the Joint Effort, the County was required to revise the Stormwater Management Program to apply Low Impact Development (LID) techniques to applicable discretionary projects, to identify and track LID design principals and features incorporated into each project, and to provide LID Design Guidance to project applicants and stakeholders.

What is Low Impact Development

LID is an ecologically-based approach to site development that minimizes pollutants in storm water by mimicking natural processes and maintaining pre-development hydrologic characteristics. It does so by using decentralized, small scale techniques that capture, spread and infiltrate stormwater at the source. LID practices can reduce stormwater runoff, pollution and erosion typically associated with development. LID can also be used to recharge the groundwater table and to provide an additional water source through on-site rain water harvesting. The main principals of LID are:

- Maximize natural infiltration capacity by preserving natural areas, existing vegetation, drainage patterns, and soils,
- Minimize impervious areas,
- Direct runoff from impervious areas to pervious areas,
- Use infiltration to slow and reduce runoff close to the source, and
- Emphasize simple, nonstructural, low-tech, low-cost methods.

There are a number of techniques and features that can be used to achieve these principals, including but not limited to clustered developments, rain gardens, permeable paving, biofilters, rain barrels, and vegetated roofs to name a few. Numerous LID guidance documents are available for applicants to consider in designing their projects.

While a worthwhile goal, LID is not the only consideration in designing and reviewing development projects. It is one component of site planning and it may not be appropriate or applicable for all projects. In particular it cannot override building or fire regulations or safety concerns related to fire, transportation or flooding.

LID techniques are intended to minimize impacts to water courses caused by changes in land use. It is one solution to the problem of hydromodification.

What is Hydromodification

The term hydromodification is used to describe the alteration of the natural flow of water through the landscape. Changes to runoff and sediment processes are caused by land development, in particular significant increases in impervious surfaces from roads, parking lots and roof tops, reducing vegetative cover, and compacting soil. These changes can result in increased physical, chemical and biological impacts to creeks and rivers, such as increased creek channel instability, degraded water quality, and changes in riparian and aquatic habitats.

Hydromodification has been under study for a number of years, but until recently, was not regulated in California. In early 2003, agencies in the San Francisco Bay Area were directed by their Regional Board to begin development and implementation of hydromodification requirements. In February 2008, the Regional Board outlined its directives for LID and hydromodification to agencies in the central coast, from Santa Cruz to Santa Barbara. The State Water Resources Control Board and the U.S. Environmental Protection Agency are also looking at new regulations to require hydromodification control on a state and national level, respectively.

Through its goal setting process, the Central Coast Regional Board recently established a goal of "Healthy Watersheds". They have defined that as:

1. Rainfall surface runoff is at pre-development levels.
2. Watershed storage of runoff, through infiltration, recharge, baseflow, and interflow, is at pre-development levels.
3. Stream banks are stable, within a natural range.
4. Sediment supply and transport occur within a natural range.
5. Riparian and aquatic habitats are optimal, including stream flow and biotic conditions.

The Regional Board has determined that to achieve healthy watersheds, hydromodification regulation for development and redevelopment is needed. That has translated into the requirements for hydromodification control within the County and all other central coast agencies.

The Joint Effort

When the requirement for hydromodification first appeared in a February 2008 letter to local agencies, local agencies and private organizations were extremely concerned with the level of effort necessary to develop hydromodification criteria for which they have neither the staff expertise nor the financial resources to hire consultants. Efforts such as these can cost on the order of \$400,000-\$600,000 for an entity such as the County. In response to concerns expressed by local jurisdictions and stakeholder organizations, the Regional Board secured a \$600,000 grant to develop a regional hydromodification control methodology through a two-phase Joint Effort process for the central coast region encompassing Santa Cruz, Monterey, San Luis Obispo, and Santa Barbara counties. The Regional Board has invited all jurisdictions in the region to participate in this Joint Effort and all municipalities have committed, including the County of Santa Barbara and the cities of Carpinteria, Santa Barbara, Goleta, Santa Maria, and Lompoc. The Regional Board intends to use the \$600,000 grant to hire a team of technical experts to develop the methodology during Phase I. Phase I will include preliminary engineering and geomorphologic analysis and the development of a methodology. During Phase II, jurisdictions will take the methodology to develop area-specific hydromodification control criteria, applicability criteria and

implementing regulations. While it may be possible for the Regional Board to secure additional grant funding for Phase II, it is not yet in hand. It is likely that the cost for Phase II will fall to the individual jurisdictions, including the County.

The Joint Effort is a unified approach, including any central coast jurisdiction wishing to participate, guided by the Regional Board using the expertise of technical experts to develop regional hydromodification control criteria. Regional Board staff believes that a Joint Effort could provide numerous environmental and other benefits by developing scientifically valid criteria, improving regional consistency in regulations, leveraging limited municipal resources and fostering community buy-in essential for long lasting changes in stormwater management. Ultimately, the County will have a set of performance based requirements that can be implemented by new and redevelopment, and criteria for where the requirements apply.

Joint Effort Milestones Required of the County

As a condition of participating in the Joint Effort, the County was required to revise the Stormwater Management Program to add the following milestones to be achieved over the two year period beginning when the Regional Board completes its consultant selection in the next few months.

Interim LID Implementation

1. Apply LID principals and features to all applicable discretionary projects and track projects beginning in summer 2010. This will be accomplished through the existing development review process administered by the Planning & Development Department, with technical assistance from Project Clean Water staff as needed.
 - Continue to encourage LID for all projects based on current policy
 - Require minimum LID measures for projects currently identified in the Land Use Development Code and County CEQA Guidelines
 - Clarify application submittal requirements
 - Develop LID design guidance
 - Train staff, Boards of Architectural Review, Planning Commission, and affected stakeholders including professional consultants, engineers, architects, contractors, small-scale developers, and the building and development industries
 - Begin tracking LID on projects using Accela

Hydromodification Control Criteria

2. Implement numeric hydromodification control criteria beginning in summer 2012. Depending on the nature of the control criteria, this may be accomplished through standard Public Works conditions applied through the development review process.
 - Derive municipality-specific criteria for controlling hydromodification in new and redevelopment based on Regional Board-approved methodology
 - Modify applicable codes, regulations, standards and specifications as necessary
 - Submit tracking report on LID projects
 - Provide training and outreach, as above.

Performance Measure:

Implementation of interim LID standards and eventual hydromodification control criteria is a reported Measurable Goal in the County's Storm Water Management Program and is a Public Works departmental performance measure in the 2009-2010 budget. Implementation of interim LID standards is accomplished through the existing development review process administered by the Planning & Development Department.

Fiscal and Facilities Impacts:

Costs associated with development of interim LID standards were included in the adopted 2009-2010 budget under the Water Agency cost center of the Water Resources Division of the Public Works Department on page D-344 in the budget book. They are also included in the proposed 2010-2011 budget under the Project Clean Water program. Eventual development of hydromodification control criteria, anticipated in fiscal year 2011-2012 will be partially funded through a Coastal Impact Assistance Program (CIAP) grant. If additional funds are needed for this effort, it will be considered as part of the Project Clean Water 2011-2012 budget. Interim LID implementation by Planning & Development staff will be cost reimbursable through existing development fees.

Special Instructions:

None

Attachments:

None

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