

# Regional Stormwater Planning Legislative Proposal

## DRAFT

### November, 2018

#### Overview

**Introduction.** California State law requires:

- **Transportation.** Linking regional transportation, land use, and housing needs through development of a Sustainable Communities Strategy for each region.<sup>1</sup>
- **Stormwater.** Identifying all projects that improve stormwater quality or increase infiltration through development of a Storm Water Resource Plan by watershed or by region.<sup>2</sup> These stormwater treatment projects are often referred to as "green infrastructure".

Green infrastructure projects must be included within transportation corridors, as the regulatory objective is to treat stormwater runoff from paved surfaces. Cities and counties are currently performing stormwater planning (developing Storm Water Resource Plans) independent of regional transportation planning. Regions around the State are also planning adaptation strategies for the impacts of climate change and how to make essential infrastructure more resilient.

This legislative proposal would coordinate and integrate all these planning efforts so that regional transportation, land use, housing, and stormwater needs are considered together, and considered in a way that will increase the region's resiliency to climate change. Resiliency, in the context of stormwater, means protecting transportation infrastructure from rising sea levels, increased storm surge, and more intense rainfall.

**Problem Statement.** Though essential to our society and economy, stormwater infrastructure is underground and out of sight, underappreciated and undervalued. Though an essential element of a transportation project, stormwater infrastructure is not considered until the end of the planning process. Though resiliency requires understanding stormwater infrastructure needs, it is not included in the regional planning process.

**Proposal.** Integrate stormwater infrastructure needs into the regional transportation planning process along with land-use and housing needs. For example, the Metropolitan Transportation Commission, who manages this process in the Bay Area (Plan Bay Area), would then gather information on drainage infrastructure location, condition, and adequacy to determine its ability to protect the region's transportation systems and communities, and gather information on stormwater treatment capacity to determine the ability to treat polluted runoff from transportation facilities.

This paper describes:

- **Setting.** Current setting for regional planning in the State
- **Objectives.** Objectives for proposed legislation

- **Benefits.** Benefits of having stormwater integrated into the regional transportation planning process
- **Implementation.** Measures that regional transportation planning agencies would have to do to meet the proposed legislative requirements

For the purposes of this legislative proposal, the term "stormwater" includes stormwater quality (removing pollutants to protect groundwater recharge and environmental habitat value) and stormwater quantity (protecting communities from excessive stormwater with regional-scale flood protection facilities and local-scale municipal drainage systems).

### **Legislative Objectives**

**Awareness.** Increase awareness of the importance stormwater planning plays within the regions of the State.

**Integration.** Include stormwater planning when considering the region's transportation, land use, and housing needs.

**Multi-Benefit.** Develop a more cost effective, multi-benefit approach to regional planning.

**Resiliency.** Increase resiliency to climate change, as it relates to stormwater (e.g. rising sea levels, increasing storm intensities, and higher storm surge).

**Environment.** Improve stormwater quality and increase infiltration for better watershed health.

### **Background**

#### **Regulatory Setting for Regional Planning.**

Stormwater Quality Planning. The State's Regional Water Quality Control Boards issue stormwater permits to cities and counties requiring them to reduce pollutants in the stormwater flowing through their jurisdiction. Each municipality is generally responsible for meeting the requirements within their jurisdictional boundary. As a result, stormwater quality planning has been performed at a local government level. Some recent permit requirements have encouraged larger scale planning efforts. For example, in Southern California jurisdictions are encouraged to develop watershed plans with measures that will meet pollutant reduction targets on a watershed scale.

Green Infrastructure Planning. Stormwater treatment occurs as stormwater drains through a green infrastructure facility, such as a bio-retention basin, grassy swale, rain garden, or other similar vegetated drainage system with specifically designed soils. The Water Board's long-range goal is that stormwater landing on any impervious surface will be treated. This will be achieved as the built environment (transportation, commercial, residential, and public buildings) is rebuilt over the next 50 years. Cities and counties are required to develop a Green Infrastructure Plan designed to reduce pollutants through building stormwater treatment projects. Green Infrastructure Plans are a stormwater permit requirement and each one is unique to the jurisdiction.

Pollutant Attainment Planning. The Clean Water Act identifies water bodies that are impaired, requiring development of attainment plans to meet water quality objectives.

These attainment plans are written into the Regional Board's stormwater permits, adding to the requirements cities and counties must face to improve stormwater quality. These attainment plans (total maximum daily loads) are performed at a watershed scale.

Stormwater Quality Mitigation Planning. All private development and public projects are required to mitigate their project's impact on stormwater. It is sometimes difficult to mitigate a project's impact on the project site, and Regional Boards allow for Alternative Compliance, where mitigation can occur at an alternative location. Mitigation planning is done at the local level on a project by project basis.

### **Transportation Setting for Regional Planning.**

Regional Transportation Planning. Each Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency must develop a Regional Transportation Plan, a long-range framework for improvements to the region's transportation network, every four or five years. This historically was focused solely on the movement of goods and services to sustain the region's economy and provide mobility for its residents. SB 375 required MPOs to also develop a Regional Housing Needs Allocation, a determination of housing needs for all income levels, and then complete a Sustainable Communities Strategy that integrates transportation planning with housing and land-use needs.

Transportation and Stormwater. Transportation systems consist of paved surfaces that generate substantial amounts of stormwater runoff creating downstream erosion and impacts to watershed health. Cars, buses, and trucks generate pollutants such as tire particles, brake dust, and oil residue, negatively impacting water quality standards in State water bodies. Stormwater impacts are often mitigated at the project level, when a transportation system improvement is being planned and developed. Aside from representing a substantial portion of impervious surfaces in a watershed, transportation systems are often a significant element of the region's stormwater conveyance system.

**Water Supply Setting for Regional Planning.** After the recent drought years in California, there was a lot of discussion about the availability of water for human use. In 2014 the legislature passed the Sustainable Groundwater Management Act which requires the establishment of Groundwater Sustainability Agencies who in turn must develop plans to manage their groundwater basin sustainably. There was also a resultant interest in stormwater capture and utilizing stormwater as a resource to augment water supply. Green infrastructure projects benefit water supply by increasing stormwater infiltration and recharging groundwater basins. Groundwater planning is occurring through Groundwater Sustainability Plans on a groundwater basin by basin, or subbasin by subbasin, basis.

### **Stormwater Setting for Regional Planning.**

Watershed-scale Planning. Flood control districts plan for large-scale flood events and operate flood protection facilities that serve entire watersheds or subwatershed's, but only have jurisdiction within their County and planning is done at a county level. There

are some joint powers authorities that plan flood protection infrastructure for several counties that share a large drainage basin, or portion of a large drainage basin.

Municipal-scale Planning. Local drainage facilities that serve local communities and cities, the pipes that drain local roads and properties, are planned by the local community or city. These local planned drainage systems often drain into the watershed-scale flood control district facilities.

Integrated Water Planning. Regional planning is required through the Integrated Regional Water Management Plan process, where infrastructure planning for water supply, wastewater, stormwater, and habitat are supposed to be integrated. There are about 50 IRWMP areas in the State and the degree of true integration varies, with some successfully producing integrated projects and others simply producing a joint list of infrastructure projects individually planned by each service provider. In some areas stormwater planning was not successfully integrated with water supply and wastewater planning. Senate Bill 985 now requires that regional Storm Water Resource Plans, when completed, must be appended to the Integrated Regional Water Management Plan in the area.

**Resiliency Setting for Regional Planning.** Our climate is changing, requiring agencies to now consider infrastructure resiliency in regional planning efforts; resiliency as it relates to stormwater (for the purposes of this legislative proposal, resiliency is limited to stormwater related impacts). Sea levels will rise, storm intensities will be greater, storm runoff volumes will increase, storm surge will be higher, and with more energy in the system watershed erosion will increase. Flood protection agencies traditionally and currently plan for terrestrial-based flooding. With climate change, these agencies will have a number of new impacts to address:

- Increasing terrestrial-based flooding
- Increasing water surface elevations at tidal influenced receiving water bodies causing water to back up into low-lying communities and nowhere for local drainage systems to drain to
- Rising groundwater levels influenced by tides, reducing soil stability for infrastructure and development in shoreline communities
- Increasing storm surge and wave energy
- Stormwater will be where it has never been before, requiring modifications to long-held plans in the transportation, housing, land use, and other impacted sectors.

Our regional planning efforts will have to include measures to adapt to the change in climate and these increasing impacts of stormwater.

### **Benefits of Integrated Stormwater Planning**

**Cost Effective Transportation Mitigation.** Every significant transportation project must mitigate its impacts on the environment, including impacts to stormwater quality and any additional stormwater quantity generated by increased impervious surfaces.

These impacts are typically mitigated on a project by project basis and can be very costly. Costs can escalate significantly if mitigation is not available within the project limits and must be located somewhere off-site. Regional stormwater planning, integrated with regional transportation planning, can identify locations close to transportation projects that can be used for project mitigation, reducing project costs. And with buy-in by the Regional Board, larger scale mitigation sites can be identified to mitigate for multiple transportation projects as part of their Alternative Compliance program, reducing project costs even more.

**Protecting Transportation Investment.** Understanding the projected impacts of future stormwater and climate change impacts on transportation systems allows regional transportation plans to include strategies that will protect existing transportation systems and plan for new resilient transportation projects.

**Groundwater Recharge Co-benefit.** A large stormwater treatment facility identified for mitigation purposes would have significant groundwater recharge capacity if located in permeable soils. If coordinated with a local water district that utilizes groundwater as part of their supply portfolio, there could be joint funding of the stormwater treatment project in addition to co-benefits, a win-win.

**Stormwater Treatment Planning Information.** Storm Water Resource Plans have been completed, or are being worked on, in most areas of the State. The State requires agencies to have an adopted Storm Water Resource Plan to apply for bond funds approved after July 2016. The Plans identify opportunities to use public lands (roads, buildings, parks, etc.) to capture, clean, store, and treat stormwater runoff. Most of these Plans are fairly large in scale, as the State has encouraged local government agencies with small watersheds to group them together. A lot of information is available to begin an integrated regional transportation planning effort.

### **Implementing Regional Transportation Planning (what do we have to do?)**

**Applicable Regions.** The proposed requirement to integrate stormwater into regional transportation planning would only apply in urban areas of the State, those regions that are within or covered by a metropolitan planning organization. This legislative proposal does **NOT** apply to regional transportation planning agencies outside the jurisdiction of a MPO, which excludes many Northern California and Sierra Foothill counties.

**Build on Existing Information.** Every region in the State has information regarding the existing impacts of stormwater on transportation systems and the impact of transportation systems on stormwater, in addition to projected future impacts due to climate change. The extent of information available on these topics varies from region to region. The intent of the proposed legislation is to utilize existing studies and information as much as possible, identify what further information is needed (if applicable), and work with local agencies on a plan to develop the information over a reasonable period of time.

**Transportation Impacts.** Regional transportation plans would have to identify impacts on stormwater from planned changes to existing transportation infrastructure and impacts of proposed new transportation projects. Based on the impacts, measures would also be identified to mitigate those impacts to stormwater quality and stormwater quantity. Where measures identify stormwater treatment as mitigation for reduced stormwater quality, then areas would be set aside to construct stormwater treatment facilities. Where measures identify stormwater retention as mitigation for increased stormwater quantities, then areas would be set aside to construct stormwater retention facilities. Stormwater treatment and stormwater retention facilities could co-exist at the same location if planned and sized properly.

**Stormwater/Climate Change Impacts.** Regional transportation plans would have to identify impacts on their transportation system from the present and future effects of stormwater. The impacts of projected flood waters on existing transportation infrastructure and planned new transportation projects would be identified. In addition the impacts of projected rises in sea level or tidal influenced areas on existing transportation infrastructure and planned new transportation projects would also be identified. Under this proposal, the regional transportation plan would include measures to mitigate these climate change induced impacts on the existing and proposed transportation system, resulting in a more resilient system.

**Transportation Funding.** Integrating stormwater into the regional transportation planning process is not meant to modify or change current funding formulas for or funding streams to regional transportation systems and projects. There is no intent to divert transportation funding from transportation projects to stormwater projects. Every transportation project stands on its own merits, and project funding is allocated by the governing transportation entity based on their priorities. However, it is believed this integration will lead to transportation funding being leveraged to attract stormwater funding for multi-benefit projects, resulting in a net savings for transportation projects.