Livable Places **Update**

Emerging Trends in Community Planning and Design

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Can Clean Water Regulations Lead to More Successful Downtowns and Neighborhoods? The answer begins back in 1972, when the Clean Water Act made it illegal to discharge pollutants into the waters of the United States from any "point source" unless the discharge is in compliance with a NPDES (National Pollutant Discharge Elimination) permit.

This legislation led to some very positive changes -- factories no longer dump mucky toxic wastes and towns no longer dump sewage into our rivers, lakes, oceans and bays. The appeal of a clean river or lake has led to new waterfront development that is giving a huge economic boost to cities across the country. However times change and today, the major source of water pollution is urban runoff from rain and landscape irrigation that rolls along our streets, picking up pollutants and dumping them into our precious waterways.

To control this source of pollution, subsequent federal regulations encouraged cities to direct urban runoff into combined sewer systems. However, this strategy had the disadvantage of creating overflow problems during periods of heavy rains - leaving some of our favorite beaches polluted with sewage.

In response, the EPA began to permit something new - the MS4! Though it sounds like the title of a new TV drama, the MS4 is actually "a system of conveyances," owned by a government entity, that is used to "collect or convey stormwater. " Over the past decade, the management of stormwater has shifted from a "curb and gutter" strategy to requiring new development to retain and infiltrate its urban runoff water on each newly developed or redeveloped property through more landscaped-based measures, such as porous concrete, bio-swales, and green roofs.

The shift in how local governments manage stormwater was first felt by bigger cities and counties. (i.e., cities and counties over 100,000 in population). Because MS4 implementation guidelines favored an approach that required all new development projects to retain urban runoff water on site, this has had the unfortunate side effect of making many urban infill projects (Smart Growth) very costly and even impossible to carry out.

As of July of this year, smaller cities will join those required to use a "landscaped-based" approach to managing stormwater. Fortunately, new regulations, promulgated in February of 2012, now offer MS4 permits that provide multiple options for addressing urban runoff, with a neighborhood, district, or regional approach being one of them. The new regulations also give special consideration to multi-benefit projects. This creates an opportunity for complying with the law while also "greening" the streets or neighborhoods with an urban forest, planters, or a sunken park that address issues including recreation and climate change.

Many residents and businesses are likely to balk at the cost and the inconvenience of a neighborhood or district level approach to meeting new stormwater management requirements if it will mean that their streets will be dug up for the sole purpose of complying with an "annoying" federal law.

However, a handful of communities across the country have avoided this negative response from their residents by developing multi-purpose projects located in the public right of way. These projects contain urban runoff while also making a Plain Jane, auto-oriented street into an attractive, complete street for shoppers, pedestrians and cyclists. This assures clean waterways, it increases business activity on the street; enhances property values and sales tax revenues; and helps residents enjoy the health benefits of walking and biking.

An On-The-Ground Example: A development project in downtown Bainbridge Island, WA provides a great example of a project that will handily meet urban runoff requirements but was actually embraced by residents because it creates a great downtown - this in a community of about 25,000 that noted urban planner Mark Hinshaw describes as, "a smaller community where every inch of ground is frequently fought over by someone who believes that everything is just fine the way it is, thank you."

The target area for the project was a half-mile of roadway running through the downtown with a failing water and sewer infrastructure. Looking at photos of the street before it was improved, one would likely describe it as, "unattractive."

In the mid-90's, the city made the decision to keep development away from the pastoral parts of the community and direct it into the town center. Since then, new town houses, apartments and condominiums, and cottage houses have cropped up, not unlike what has been happening in downtowns across California. New civic facilities include a performing arts center, a city hall, and several museums have also been added.

Urban runoff regulations would have required that every new building retain its own runoff on site, in spite of the annoying fact that the city's overall plan of concentrating develop-

ment in the downtown district actually preserves existing water-absorbing, untouched natural areas.

Bainbridge Island's leaders were looking beyond addressing urban runoff, to make their downtown more appealing to visiting shoppers and to pedestrians and cyclists. The town accomplished this with a multi-purpose plan that accomplishes the desired community improvements while also preventing oil and other harmful substances from draining into Puget Sound. Today, nine rain gardens naturally absorb and filter water flowing from the street surface into stormwater planters and four swales along the south side of the street act in much the same way. New street trees bordering now-generous sidewalks are surrounded by porous pavement that assures that runoff water reaches their roots.

Bainbridge Island's multi-purpose complete street.

While trees and greenery have made the street a delightful place to be, the re-design also has added bike facilities, widened sidewalks, and provided new gathering areas and other amenities.

Mark Hinshaw believes that the Bainbridge Island project should now open the door for many other smaller communities interested in taking similar steps. And the highest compliment of all, our own LGC hero - the famous Dan Burden - has called this Bainbridge Island effort "one of the best remade streets I've seen anywhere in America."

What Can An Elected Official Do To Bring This Success Story Home? New Water Board regulations were adopted by the CA State Water Board and go into effect for cities under 100,000 this month. It's a good time to ask the question, "What is our city doing to comply with the new MS4 permit?"

* Because it is usually a public works engineer that is given the job of coming up with a compliance plan, elected officials should ask staff to join forces with the planning department to determine how they might work together to get more bang for the buck through a multi-benefit project that addresses additional streetside improvements.

* City elected leaders should set a policy that any contract for general plan amendments, a specific plan, a form-based code, a complete street, or other street improvement also address new MS4 requirements.

How Do We pay for the MS4 mandate? Cities that plan ahead rather than reacting after the fact will be in the most favorable position. The cities of Riverbank and Ventura are among a few that are doing just that.

With funding from the Prop. 84 Stormwater Grant Program, the City of Riverbank is developing a city-wide plan to green the city and address urban runoff at the same time. They are focusing specifically on areas with a potential for urban infill and redevelopment and want to make improvements in the public realm in those areas including parks and complete streets. Having a plan in place will allow the city to set up in-lieu fees providing developers an alternative solution to addressing an MS4 permit, in the event they find it difficult to address their drainage and stormwater mitigation needs on-site. At the same time, the plan offers the city an opportunity to finance the improvement of streets and parks that are in need of attention.

In Ventura, the City Council in 2008 directed staff to dedicate up to 20% of the Pavement Maintenance Plan (PMP) construction budget to incorporate green street elements into street paving projects with the goal of containing urban runoff; creating safe, attractive, and pedestrian-friendly streets; reducing flooding; and reducing greenhouse gas impacts. The current funding for the 5-year PMP is $16 million, with up to $3.2 million of these funds to be spent on green street improvements.

Architect Andres Duany, an author of the Ahwahnee Principles, warns that you will be told containing urban runoff in a new mixed-use development will cost extra up front but save in the long run. He warns, don't believe it. His experience in the now-famous Seaside Community in Florida was that the least expensive approaches to development all resulted in a community design that contains urban runoff on site. Fancy technology will cost more but in the end, the simple approach is even better. (*View*, Summer 2013, www.lalh.org)

This was also the experience in Davis' Village Homes. A landscape design that absorbs all runoff water on site is now a unique feature of the landscape and this strategy cost less - saving $800 per lot in 1975 dollars. Keeping it cheap and simple hasn't hurt the quality or popularity of either Seaside or Village Homes. Their uniqueness and special character have, over the years, resulted in highly popular neighborhoods where initially-affordable homes now sell for prices per square foot that far exceed those of houses in adjacent neighborhoods. (Corbett and Corbett, *A Better Place to Live*, Island Press)

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