

# Get the 411on281...**EIS**

ALAMO RMA  
Alamo Regional Mobility Authority



THE LATEST ON THE US 281 ENVIRONMENTAL IMPACT STATEMENT

October 2010

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## Request a Speaker!

If you belong to a group or association that would like more information about the US 281 EIS process, we want to visit with you!

[Submit your request here](#) and we will get back to you to coordinate a speaker for your next meeting.

As preparations for the US 281 Draft EIS continue, we're interviewing members of the [Community Advisory Committee \(CAC\)](#) to learn more about what the community wants to know about the US 281 EIS. Read more about the CAC interviews in the "CAC Corner" of this e-newsletter. The feedback we receive from the Committee, along with your comments, will provide article topics for this e-newsletter. So when you read this e-newsletter and a question or comment comes to mind, please take a moment to share it with us by [email](#) or submitting your question or comment [here](#). Please also remember to visit us on the [411on281/EIS](#) website.

This e-newsletter includes information about stormwater management strategies being considered for the US 281 EIS and an update on the [US 281 Super Street](#). Next month, we'll update you on design refinements to the Draft EIS build alternatives.

We always want to know what you think about the e-Newsletter; please [click here](#) to send us an email **We look forward to hearing from you!**

Sincerely,

[Alamo Regional Mobility Authority](#)

## Water Quality and Stormwater Management Strategies for US 281 EIS

The US 281 EIS Team is considering some innovative water quality and stormwater management approaches for possible application in the US 281 Project Corridor. The Corridor lies within the Edwards Aquifer Recharge Zone as defined by the [Texas Commission on Environmental Quality](#). Corridor transportation improvements must comply with the rules set forth by Texas Commission on Environmental Quality pertaining to development and storm water quality. The rules state that all storm water runoff must be treated by stormwater facilities to remove a certain percentage of the pollutant load contained within the runoff. Texas Commission on Environmental Quality refers to these pollutants as Total Suspended Solids.

Stormwater treatment facilities are traditionally comprised of mostly large, unsightly ponds that meet the Texas Commission on Environmental Quality requirements, but take up large amounts of valuable land and require heavy maintenance in order to maintain the aesthetics of the pond as well as its function. Most roadways in Texas manage or treat stormwater with collection inlets that convey the stormwater in pipes or box culverts, ultimately releasing it in large, "end-of-pipe" facilities located at the bottom of drainage areas. Conventional construction and storm drain system design typically alter natural hydrologic (water movement) functions by discouraging infiltration and groundwater recharge and increasing runoff flow rate and total runoff volume. The increased runoff flow rates are addressed with detention basins, but they do not address the additional runoff volume. It is this additional runoff volume that used to soak into the ground that is now on the surface that ultimately has a negative impact on the downstream environmental conditions. The conventional methods are generally unattractive depositories for trash and are oftentimes out of scale with the surrounding neighborhood and community.



US 281 Concrete Stormwater Vault

Alternatively, "distributed" water quality and stormwater management techniques address the hydrologic changes of impervious cover near the location of the precipitation impact (as opposed to the "end-of-pipe" methods) and make use of a multitude of several smaller Integrated Management Practices located throughout the watershed. Some technical journals refer to these techniques as Low Impact Development. These methods address water quality, runoff rate and runoff volume. Through the use of vegetation, soil amendments and grading they provide more distributed "storage" within the watershed which decreases the downstream impact of an increased impervious cover. These methods focus on Landscape Integrated Design into the overall stormwater management plan. The distributed



Interviews  
Held with  
the US 281  
EIS Community  
Advisory Committee  
Members

Members of the US 281 Environmental Impact Statement's (EIS) [Community Advisory Committee](#) were interviewed recently to provide feedback on the public participation process and get a better sense of the issues that are of concern to them. Tim Sueltenfuss of Smith/Associates and Linda Ximenes of Ximenes & Associates, both members of the US 281 EIS team, conducted the interviews at locations determined by the person being interviewed.

The interviews consisted of a series of questions intended to gain information regarding their perspective on the public participation process, the EIS process in general, suggestions for improving the process and ways to help the Committee communicate better with their constituents. Committee members appreciated being consulted at this point in the process and were frank about their concerns and appreciation about what has been done to date for the US 281 EIS.

A report summarizing the results of the interviews is being produced and will be shared at the CAC meeting on October 6, 2010. More details on the interviews will be provided in the next E-newsletter.

For more information about the Committee, please contact the CAC facilitator, Linda Ximenes, at: 210-354-2925 or by email at [US281EIS@AlamoRMA.org](mailto:US281EIS@AlamoRMA.org).



*Para recibir este boletín en español, favor de llamar al 210.495-5256.*



US 281 Concrete Rip-Rap Slope

Integrated Management Practices mimic the existing condition "water balance" between the amount of rainfall that leaves as runoff and the amount that is placed into the groundwater "bank" for slow release at a later time and over an extended period of time. The distributed methods tend to provide a better "base flow" condition to the receiving waterways (duration and frequency) which typically helps the overall habitat value.

With the recent innovations of distributed Integrated Management Practices technology and methodology, new stormwater facilities are being used that meet the Texas Commission on Environmental Quality requirements for Total Suspended Solids removal and also provide a much gentler and aesthetically pleasing environment. These methods have also been approved to be used within the Edwards Aquifer Recharge Zone by the Texas Commission on Environmental Quality. These facilities typically require traditional landscape maintenance which would be performed regularly anyway.

Low Impact Development is a basic principle that is modeled after nature with the goal to manage rainfall/runoff at the source using uniformly distributed and dispersed, small, cost-effective stormwater structures and landscape features. Low Impact Development's goal is to mimic the predevelopment hydrology of a project site or property by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Low Impact Development relies heavily on smarter and advanced technologies because the emphasis of Low Impact Development is to make the land a project or development sits on act hydrologically like it was undeveloped land. These sustainable site design techniques also help to minimize or eliminate the need and cost for landscape irrigation.

Low Impact Development designs move the design focus away from a "collect, convey and discharge the runoff as quickly as you can" strategy to one that focuses on "slow down, soak up and spread out" the runoff which treats stormwater near the precipitation impact instead of passing it onto another downstream parcel of land or stormwater network. The strategy includes, among other things, infiltration ("soak away") trenches, open vegetated road swales, vegetated biofiltration areas, pretreatment media vaults, permeable friction pavement, permeable sidewalks, oil/grease removal, urban forest landscape practices, and soil amendments that store and filter runoff. Typically, this strategy is accomplished at an equivalent or reduced cost over conventional stormwater collection and treatment and provides increased benefits to communities and the environment. Each Integrated Management Practice has certain strong points or "performance capabilities" that are attractive; some function well in controlling the runoff volume, others help with regulating the peak flow rate, and others help with water quality. The new Low Impact Development strategy is also a great way to "green up" a community, using vegetation to make our communities more attractive.



LID improvements along the roadway

So why are we considering Low Impact Development for the US 281 Project Corridor? Simply put, distributed water quality and innovative stormwater management techniques help keep rainwater on site, slowly releasing it, and allowing for natural physical, chemical and biological processes to do their job in avoiding environmental impacts and expensive treatment systems. The associated vegetation and landscaping also offers human "quality of life" opportunities by greening the US 281 Project Corridor, thus contributing to livability, value, sense of place, and aesthetics.



Check back next month for information on design refinements to the Draft EIS build alternatives.

For information on the US 281 EIS go to the [411on281/EIS](http://411on281/EIS) website for information on the processes.

When will the 281 Super Street be completed?

As you may have seen and driven already, the 281 Super Street opening the four intersections in phases. Although there have been weather delays, construction crews continue to move forward. The Encino Rio and Marshall Road intersections have been completed and are now fully functional.

During the first weekend of October, construction crews will begin working on the Evans Road intersection. To help minimize disruption to the day time traffic traveling on US 281 North to commercial and residential areas around the Evans Road intersection, construction crews will work at night to complete the intersection. [Click here](#) to learn more about the Evans Road lane closures.

Weather permitting, during the second weekend of October construction crews will complete the last of the four intersections, Stone Oak Parkway. Be sure to visit [www.411on281.com](http://www.411on281.com) next week to view a complete construction schedule.

Once all four intersections are open, the US 281 Super Street will officially be completed. We look forward to finally bringing relief to one of the most congested corridors in Bexar County. As always, we would like to hear your thoughts on the Super Street project.

*[Click here](#) for the latest information and videos and [click here](#) for answers to frequently asked questions about the US 281 Super Street!*

