



CITY CLERK'S OFFICE
Agenda DATE 6/9/16 TIME 1:50 PM
SERVED BY JEH
RECEIVED BY Debra Byr

SUSTAINABLE SANTA FE COMMISSION

Wednesday, June 15, 2016, 4:00 p.m.

Councilors' Conference Room, City Hall (200 Lincoln Avenue)

- A. CALL TO ORDER
- B. ROLL CALL
- C. APPROVAL OF AGENDA
- D. APPROVAL OF MINUTES: May 18, 2016
- E. COMMUNICATIONS FROM THE FLOOR
- F. REPORT FROM, AND ASSIGNMENT OF, ACTIONEER
- G. DISCUSSION/ACTION ITEMS
 - 1. Presentation: Stormwater Management Report, Melissa McDonald, City of Santa Fe
 - 2. Presentation: Public Bank Update, Mary Schruben, Banking on New Mexico
- H. ITEMS FROM THE CHAIR & CO-CHAIR
- I. ITEMS FROM THE COMMISSION
- J. ITEMS FROM STAFF
 - 1. Updates: Consultant contract; Urban Agriculture Ordinance; Verde Fund
- K. ITEMS FROM THE PUBLIC
- L. ITEMS FOR NEXT AGENDA
- M. ADJOURNMENT

Next Meeting: July 20, 2016

NOTE: Persons with disabilities in need of accommodations, contact the City Clerk's office at 955-6520, five (5) working days prior to meeting date.

**SUSTAINABLE SANTA FE COMMISSION
MEETING MINUTES-INDEX
JUNE 15, 2016**

		Page
Cover Page		0
Call to Order	The Sustainable Santa Fe Commission meeting was called to order by Ms. Beth Beloff, Chair at 4:03 p.m.	1
Roll Call	A quorum was declared by roll call.	1
Approval of the Agenda	Mr. McGowan moved to approve the Agenda as presented, with a second from Mr. Ciano which passed by voice vote.	1
Approval of the Minutes of May 18, 2016	Mr. McGowan moved to approve the minutes of May 18, 2016 as presented, with a second from Mr. Ciano which passed by voice vote.	1
Communications from the Floor	Information Only	2
Report from and Assignment of Actioneer	Discussion Only	2
Discussion/Action Items:		
1. Presentation: Stormwater Management Report(Melissa McDonald, City of Santa Fe)	Information Only	2,3
2. Presentation: Public Bank, Update (Mary Schruben, Banking on NM)	Information Only	3
Items from the Chair & Co-Chair	Discussion Only	3,4
Items from the Commission	Discussion Only	4
Items from the Staff		4
1. Updates: Consultant contract; Urban Agriculture Ordinance; Verde Fund	Discussion Only	
Items from the Public		4
Items for the Next Agenda	Discussion Only	4
Adjournment	There being no further business to come before the Sustainable Santa Fe Commission the meeting adjourned at 5:54 p.m.	4
Signatures		5

SUSTAINABLE SANTA FE COMMISSION
Wednesday June 15, 2016 4:00 p.m. to 6:00 p.m.
200 Lincoln Ave. Santa Fe, NM
City Councilor's Conference Room

A. Call to Order

The Sustainable Santa Fe Commission meeting was called to order by Ms. Beth Beloff, Chair at 4:03 p.m.
A quorum was declared by roll call.

B. Roll Call

Present:

Beth Beloff, Chair
Amanda Hatherly
Jack McGowan
Tejinder Ciano
Robb Young Hirsch (*by phone*)

Not Present/Excused:

Glenn Schiffbauer
Christian Casillas
Kathleen S. Holian
Linda Smith

Others Present:

Mary Schruben, Public Banking on New Mexico
James Keal, Retired
Joel Eignor, 285 Recyclables
Melissa McDonald, City of Santa Fe
Leroy Pacheco, City of Santa Fe
John Alejandro, Staff Liaison City of Santa Fe
Linda Vigil for Fran Lucero, Stenographer

C. Approval of Agenda

Chair Beloff mentioned that the presenters and Mr. Alejandro will need to leave by 5:00 therefore the meeting will run out of order.

MOTION: *Mr. McGowan moved to approve the Agenda as presented, with a second from Mr. Ciano which passed by voice vote.*

D. Approval of Minutes of May 18, 2016

MOTION: *Mr. McGowan moved to approve the minutes of May 18, 2016 as presented, with a second from Mr. Ciano which passed by voice vote.*

E. Communications form the Floor

Introductions were made by those present.

F. Report from and Assignment of Actioneer

Before the meeting Mr. Alejandro updated the status of the Actioneer List. (See Exhibit A) Only the items that need a status update will be discussed.

- Chair Beloff spoke to Ms. Randall and will discuss further what they could be integrated in Mr. Alejandro will continue his conversations with Ms. Randall and approach the schools individually to learn what programs will work or are currently in place.

A discussion was held about the building operator's certificate that PNM is willing to cover most of the cost. Mr. Alejandro explained that there is not additional money to fund these types of courses. A brief discussion was held about the different ways the City could attempt to fund the operators. Mr. Alejandro suggests having a meeting with the Department Directors and Council Members.

Mr. Hirsch (via phone) stated he can participate in the meeting Wednesday via phone as he is out of town. He would like to help with the funding. He would like to see it linked to the 25 year plan. Ms. Hatherly explained the Women of Green offered to help with the awards. There is a lot of work entailed.

A meeting will be held next Wednesday at 5:30 p.m. at Chair Beloff's home to discuss the SFCC Awards. Mr. Hirsch will join by phone, Mr. Alejandro will be out of town.

- Ms. Hatherly reported the Water Workshop is working on the next steps.

Chair Beloff reviewed the remaining auctioneer items. Mr. Casillas is out of the country and cannot report.

Mr. McGowan stated the Energy workgroup will meet in July.

G. Discussion /Action Items:

1.) Presentation: Stormwater Management Report (Melissa McDonald, City of Santa Fe)

Chair Beloff thanked Ms. McDonald for her well written report.(See Exhibit B) Ms. McDonald introduced herself and Mr. Pacheco. The key points were discussed as per the Resolution.

Ms. McDonald explained how the City has assessed the green projects currently in the works. The infiltration model is being driven by the EPA and all Water Quality entities.

Ms. McDonald reviewed the recommendations on Page 10 of her report.

- The need to improve and update the mapping of Stormwater structures. This will allow for better planning.

- Funding opportunities to fund these projects. Perhaps the Stormwater Fee may be reallocated just to stormwater and testing.
- Possible tax credits or incentives for developers.
- Grant writing and creating a body to look at the regional flood authority.
- Having a possible on call contract in public works and parks for prescreened contractors for a 4 year period to build green projects. It is a good way to monitor costs and monitor timelines.
- Streamlining the infiltration model. See Appendix B.

Ms. McDonald explained this is an opportunity to look at storm retention. Chair Beloff discussed the desire to reduce pollutants. A discussion was held about pesticides and the Integrated Pest Management system at the Parks. Mr. Alejandro stated there is inaccurate information circulating, he will contact the IPM and have him attend a meeting in the future to discuss and clarify.

Chair Beloff would like to hear more about the credit trading. Ms. McDonald will gather more information. Larger cities have different ways of distributing credits. Mr. Pacheco stated the intention is to get the recommendations in and the resolution passed by the end of July. Ms. McDonald explained the process will form a checklist for the projects.

Mr. Pacheco discussed his findings from private consultants who are excited about the educational part of it. A discussion was held about the mapping of trees and the data.

2.) Presentation: Public Bank Update (Mary Schruben, Banking on NM)

Ms. Schruben explained how the public bank in Santa Fe would operate. It would be a City owned bank that would hold City assets and pay interest on them. The loans could be for infrastructure projects and replace the bonding system.

A board would be formed to create policies and a mission statement. There would be monthly reports to show transparency. A feasibility study was done, the Council would create a taskforce to find members to make up the Board. The City would have to write a 5 year fiscal plan. The primary loans will be for CIP Projects. The idea is to conduct the City's day to day business. If the bank proves to be successful it can be centralized for all departments and their functions.

Ms. Schruben explained Santa Fe would be the first in the country to have this bank. San Francisco attempted it, however their housing crisis closed it down. There is a legal opinion written by a law firm here that did not find anything that needs to be changed because it is a Charter City.

Chair Beloff asked what if the Governing Body favors the idea. Ms. Schruben stated the Mayor and most of the Councilors would like to see it happen, however they would like to review a business plan first.

H. Items from the Chair and Co-Chair

Chair Beloff discussed her recent trip to China for the Climate Summit for Mayors. The Mayor's flight was delayed. Councilor Ives was there for another meeting and was able to meet for some events. Chinese Mayors were sincere in addressing climate change. They are looking at quantifying carbon risks in their stock exchange and they have consideration for the quality of life.

The most gratifying conversations were with the Mayor of Ft. Collins who is a mechanical engineer and teaches at CSU. There was a good talk about micro hydrate systems. They offered the Commission a chance to visit and tour the campus.

Mr. McGowan discussed a model that was created by a software development company that worked with renewables. They created a project that launched retrofits that paid for itself.

A discussion was held about the models for car sharing and zip cars. Mr. McGowan explained the former governor of Colorado he is really articulate about energy. Chair Beloff encouraged the trip to Ft. Collins, she will discuss with the Mayor as well.

A discussion was held about the possibilities for linking to LANL and utilizing that alliance. Chair Beloff discussed the possibility of writing a letter to the Mayor, Council and City Manager to hold a requirement or competition for all departments to come up with carbon neutral plans. Perhaps even have a key chief innovation person for the City that could plan for the future.

I. Items from the Commission

There were no other items from the Commission.

J. Items from the Staff

1.) Updates: Consultant Contract; Urban Agriculture Ordinance; Verde Fund

Mr. Alejandro updated the Commission on the consultant contract, it is currently with the Procurement Department. They are reviewing it and will present it to Council and follow the process. It will have to follow Procurement Standards but should be complete by the end of the month.

The Urban Agriculture Ordinance is being reviewed by the Land Use department and the City Attorney. It is scheduled to be on the Planning Commissions agenda.

The City Manager will schedule with staff then beginning planning.

K. Items from the Public

Mr. Eignor thanked Mr. Alejandro, Mr. Schiffbauer and Mr. Ciano for speaking up at a recent meeting.

L. Items for the Next Agenda

Mr. Hirsch would like to add discussion or schedule a time for a workshop that would be professionally facilitated before September it would work in conjunction with Earthworks.

M. Adjournment

There being no further business to come before the Sustainable Santa Fe Commission the meeting adjourned at 5:54 p.m.

SIGNATURES:



Beth Beloff, Chair



Linda Vigil for Fran Lucero, Stenographer

Actioneer's Report May 18, 2016
Submitted by Linda Smith

Carry-Forward

- John will copy the commission on the "energy report cards" that are in development for city facilities when they are sent to city staff. **ONGOING**
- John will continue working with SFPS to identify ways to integrate sustainability issues/programs into the schools. **ONGOING**
- John to distribute slides of the Ecoponex presentation. **COMPLETED**
- Beth & Amanda to meet as Amanda is available. Meeting to be called for SSFC awards discussion to include Rob Hirsch, John Alejandro, Beth Beloff, Amanda Hatherly and Women of Green people and others if they are interested. **STATUS?**
- All review and comment on Jemz y Sangre Regional Water Draft Report. In particular, need feedback on agricultural water rights. **STATUS?**
- Amanda to help Kathy with Water Workshop at SFCC. **STATUS?**

New

- Beth to circulate New Energy Economy's summary of the PNM rate case. **COMPLETED**
- John to circulate committee reports to all committees, as presented/provided at May 18th SSFC meeting. Also, John to distribute work timeline. **COMPLETED**
- John to explore city/county regional water planning workshop; Find City Council sponsor; Commissioner Holian to talk to County. **COMMISSIONER HOLIAN HAS DISCUSSED WITH COUNCILOR IVES. TBD NEXT STEPS.**
- Christian to send education/outreach info for late-Aug solar/energy-efficiency educational events through SF Community College.
- Christian to invite presenter on carbon stocks/offsets for July meeting aligned with SSFC monthly meeting.
- All to consider attending the BCC waste ordinance on May 31 to lend your voice; Beth to send electronic invitation to all Commissioners. **COMPLETED**
- Commissioner Holian to arrange for presentation on County's Agricultural plan at June meeting. **JOHN IS SCHEDULING ERIN ORTIGOZA OF SF COUNTY FOR JULY 20 MEETING.**



2016

Toward an Infiltration Model



Wesley McDonald
River Watershed and Trails Section
6/2/2016

EXHIBIT

B

tabbles

City of Santa Fe, New Mexico

memo

Date: June 13, 2016

To: Sustainable Santa Fe Commission

From: Melissa A. McDonald, RLA River & Watershed Coordinator

RE: RESOLUTION #2016-25: PRELIMINARY REPORT AND RECOMMENDATIONS FOR
STORMWATER POLICY UPDATE (MELISSA A. MCDONALD)

Background:

Attached, please find the draft preliminary report that the governing body formally requested per Resolution #2016-25 dated March 31, 2016. The report includes recommendations for transitioning from a conventional stormwater-management model to an approach that is more suited to currently accepted green-infrastructure strategies and low-impact-development techniques.

Briefly, the report describes

- 1) The evolving regulatory environment
- 2) An infiltration approach to stormwater management
- 3) Recommendations in the following areas:
 - Data driven decision making: GIS mapping, assessments, and data collection
 - Funding mechanisms and opportunities
 - Policy guideline updates

Actions:

The preliminary report concludes that the city has been doing a good job to date, but more progress can be made to support an infiltration approach to stormwater management. Staff requests commission review and consideration of recommendations.

Table of Contents

Preliminary Report	Page 1 – 8
Recommendations	Page 10
Appendix A: Survey Charts	Page 11
Appendix B: Watershed Protection Guidelines	Page 12 – 13
Appendix C: Stormwater Retention Credit Trading	Page 14 - 15
References and Research	Page 16 – 17
Resolution # 2016-25	Page 18 – 23

An Infiltration Model for Stormwater Management

A Preliminary Report for the City of Santa Fe, New Mexico (DRAFT, 6_2_16)

This preliminary report requested by a resolution of the governing body of the City of Santa Fe on March 31, 2016 (Res. #2016-25) is charged with researching, evaluating, and reporting on the city's stormwater policies. This report is also responsible for making policy recommendations with respect to the use of green infrastructure (GI) strategies and low-impact development (LID) techniques for city parks, public works projects, and other public places. In addition, as per the resolution, this report must address stormwater within the context of the furthering of the City of Santa Fe's "environmental and sustainability policies and goals."

In an average year, an estimated 730 million gallons of precipitation fall on Santa Fe's roofs. Another 435 million gallons of water land on our streets, roads, and parking surfaces. In all, over one billion gallons (3,578 acre feet) of water fall on our city's impervious surfaces in various forms of rain and snow. This significant quantity represents a resource that is just beginning to be tapped. It is the intent of this report to describe the transition toward utilizing this mostly ignored resource.

A Model for Stormwater Management

Previous Approaches

Post-WWII development in most US cities treated stormwater as a nuisance that should be diverted as quickly as possible from the built environment. The approach dramatically changed the natural hydrologic cycle by rendering vast areas of the built environment impervious to stormwater, increasing pollutants, and damaging downstream watersheds and their associated river systems. Over time and in light of increasingly rigorous federal environmental regulations, many municipalities have looked for better ways to manage stormwater.

Since the 1990's, the City of Santa Fe replaced the diversion model of stormwater-management for private development, with a detention/retention, ponding model to mitigate offsite erosion concerns. After years of success using this approach, research shows that this model of stormwater management can be further improved by infiltration.

The New Model

Santa Fe will look different in 20 years because of the stormwater-management methods that we choose today. For Santa Fe the choice is between allowing stormwater to infiltrate safely into the soil or allow soil to continue to erode.

In contrast, the retention/detention approach tends to hold back stormwater in wider and deeper ponding structures. In addition to being unattractive and potentially unsafe (due to the potential for drowning in ponding structures), the ponding approach loses significant quantities of water to evaporation, creates an environment that is inhospitable to plant growth, and is less effective at reducing pollutants downstream than the infiltration model. For these reasons, the infiltration model is generally recommended as the preferred go-to approach for managing stormwater.

Infiltration is accomplished by using green infrastructure (GI) strategies and low impact development (LID) techniques. Strategies associated with GI include green streets, infiltration buffers, parks, river-

corridor improvements, and wetlands/bosques. Techniques associated with LID include rain gardens, infiltration basins, bioswales, curb cuts, and porous-material wicks. With respect to interdepartmental cooperation, GI will often require multiple city departments, while LID will likely involve fewer departments and divisions.

The Benefits of Infiltration

Using GI strategies on large-scale projects and LID techniques on a smaller scale, stormwater will infiltrate absorbent soils for the benefit of the local community as well as downstream water users. Like previous approaches to stormwater management, the infiltration model diverts stormwater from structure, and also provides the following ecological benefit:

- Reduces water pollutants in surface water, groundwater, and arroyo systems,
- Establishes and supports native vegetation,
- Recharges aquifers,
- Builds soil and slows erosion
- Creates shade and wind protection
- Increases biodiversity
- Supports wildlife
- Reduces ecological harm caused by development
- Provides positive outdoor experiences for the community

Although it is difficult to estimate an economic value to preservation and conservation of the Santa Fe River, the benefits of stormwater infiltration to the city's wellbeing are measureable. Since the City of Santa Fe was founded on the Santa Fe River, it seems that the traditional connections among human settlement, river, and watershed are better respected by an approach to stormwater that conserves water, produces vegetation, and slows stream flow velocity.

From an economic sustainability standpoint, a successful stormwater-management program also has real benefits. When water quality is high, this results in lower water production costs. In the city's case this would be largely effluent production from the wastewater treatment plant. In addition, each year the Public Works Department spends millions of dollars protecting city-owned infrastructure from damaging storm flows. Our streets and maintenance departments are regularly cleaning out excessive sediment flows and erosion that damage our streets, river and arroyos after larger storm events. Efforts that slow these flows and trap sediments will greatly reduce overall erosion-project costs. Also, local employment is created by all stormwater projects, and with these jobs unskilled workers gain skills that can make them better wage earners in the future, local small businesses are often hired, and gross-receipts tax revenues go up. Further, visitors tend to report positively about their experiences of places with enjoyable river walks, street trees, and attractive vegetation, so the aesthetic results of effective stormwater management would likely help broaden the tourism sector of our local economy. Meanwhile, these same benefits improve the local quality of life, and this makes Santa Fe an outstanding place to live, work, and raise a family.

Finally, it is critical to report on another benefit of the stormwater infiltration model: compliance with new Environmental Protection Agency (EPA) rules and State of New Mexico requirements from both the Office of the State Engineer and the New Mexico Environment Department's Water Quality Division. As water-quality and water-access issues continue to represent high priorities for federal and state

regulators, municipalities must evolve or face fines, costly health issues, and intensified undesirable scrutiny not only from governmental agencies, but also from community groups, neighborhood organizations, and the media.

Success at the City

Land Use Department began to move away from the straight diversion method decades ago and has been specifying ponding and retention/detention on new construction in private developments ever since. The department has been quick to encourage concepts like porous-stone wicking and on-contour swaling as alternatives to the kind of deep-and-wide ponding that often leads to significant evaporation and drowning of plant material

Public Works Division and the Parks Department have designed and constructed many cutting edge projects including trail and river-restoration projects in the Santa Fe River and contributing arroyos including: Railyard Park; Parque del Rio; SWAN Park; Alameda Rain Gardens; Arroyo and River improvements; and innovative design plans soon to be built at Salvador Pérez Park and Acequia Trail Underpass Project.

The Stormwater Division has been successful at monitoring stormwater, BMPs, and SWPPP from the pre-development stage of any project to the substantially complete phase. Essentially, the infiltration approach expands the concepts that the Stormwater Division has been applying for many years. From the application of best-management practices (BMPs) to Stormwater Pollution Prevent Plans (SWPPPs) and associated compliance, the Stormwater Division has a long history of successful TMDL prevention.

A project built collaboratively by the Streets and Drainage Maintenance Department, Stormwater Division, and Water Conservation Department received an EPA People's Choice Award (2014) for a recent example of LID at the intersection of Saint Michael's Drive and Calle Lorca. There, a curb cut diverts stormwater into a median where a significant quantity of stormwater is absorbed during every precipitation event.

The governing body and the people of Santa Fe have a long history of supporting the river. Often partnering with non-profit organizations, like YouthWorks and the Santa Fe Watershed Association, neighborhood groups, and enthusiastic citizens, events like the annual Fishing Derby and Love Your River Day are becoming lasting traditions for a community whose lifeblood has always been its river and watershed.

The all-volunteer Santa Fe River Commission is also busy on a number of stormwater-related fronts. The commission currently is studying how salting on roads affects riparian vegetation and water quality, which includes a salt-tolerant plant list for contractors. It is also helping to develop an outreach effort accompanied by educational materials about rain gardens, an increasingly popular LID technique. They have recently received a small grant and will continue to look for other opportunities to work with nonprofit partners and the city.

In addition, this infiltration approach to stormwater dovetails effectively with Santa Fe's goal of achieving carbon neutrality by 2040, by increasing permeable surfaces in public spaces, reducing pollutant loads in the Santa Fe River and the city's aquifers, encouraging water conservation, creating ecological resilience, and reducing carbon emissions (by reducing water pumping and irrigation needs).

Navigating the Evolving Regulatory Environment

Recent changes in the regulatory framework are pointing municipalities toward addressing water-pollutant levels in watersheds. Specifically the EPA's Municipal Separated Storm Sewer Systems (MS4) permit may soon require:

- Regulations implemented at the land-use development stage
- Strict limits on quantity and quality of stormwater discharge
- Rigorous monitoring of stormwater discharges to ensure water quality
- Green Infrastructure and Low Impact development to control sediment, velocity, and pollution
- Watershed based permitting

To date, almost every urban reach of the Santa Fe River has been listed as an impaired waterway under Section 303(d) of the federal Water Quality Act, and this impaired rating is attributable primarily to stormwater flows. This can result in the adoption of Total Maximum Daily Loads (TMDLs) by the New Mexico Environment Department and the New Mexico Water Quality Control Commission and can trigger more restrictive permit requirements.

The MS4 permit is likely the mechanism for achieving reductions in TMDL contaminants. Water samples will be collected after storm events to identify stormwater pollutants entering our river and arroyo systems. The City of Santa Fe is currently collaborating on the new MS4 permit requirements with Santa Fe County and NMDOT and plans to continue to do so.

Drainage Plans, GIS Mapping and Data Collection

In 1993, the Albuquerque engineering firm Bohannan and Huston, Inc. produced a detailed drainage management plan for the City of Santa Fe. After 23 years, much of the hydrological analysis would be useful with respect to mapping and data collection, but a significant portion will be outdated given the recent relative growth of the City of Santa Fe. The current GIS mapping system with respect to stormwater is in need of updating and expansion. In 2005 Smith Engineering identified some drain inlets and outfalls in downtown area of the city. However, an increased and better data collection is needed for drainage structures, drain boxes, inlets, out falls, catch basins, curb cuts, culverts and drainpipes that exist in the field. The city has just completed an update to the 2012 arroyo assessment/study with the Santa Fe Watershed Association, which identified and prioritized high-risk erosion problems within our arroyo and river systems. This data is currently being entered into the city's GIS mapping system. In addition, the GIS department has compiled extensive data on major arroyo, terrain, and Federal Emergency Management Agency (FEMA) maps.

An updated look at stormwater management in coordination with new technologies could significantly improve drainage project planning. Many projects that the city undertakes involve several divisions and departments. This scenario will naturally create potential for duplicative efforts. By creating a clear stormwater plan that includes pre- and post- development analysis, many of these efforts can be streamlined and identified and thus reducing duplication. It would be essential to bring the GIS department in at the beginning of such a plan to allow for good documentation and to avoid future complications as systems change.

Funding and True Costs

Dollars saved upstream often mean increased costs downstream. A true - cost accounting of watershed protection would need to measure all of the positive effects of both models. The economic benefits of investing in stormwater harvesting are as hard to precisely quantify, as they are difficult to deny. With the completion of the first phase of the Santa Fe River Trail, efforts to bring back the Santa Fe River over the last few decades have paid off.

Currently, some City of Santa Fe stormwater projects are funded through Capital Improvement Projects (CIP) funds, and the occasional grant. The city is looking at how the stormwater fee is structured and what it is used for. Funding mechanisms have varied among bonds, CIP funds, taxes, impact fees / districts, and stormwater fees. Over the last several decades, one of the chief sources of funding for stormwater projects has been revenue from the issuing of municipal bonds.

During the research phase of the production of this report, the funding methodologies of many different urban areas were considered including Bend, OR, Los Angeles, CA, San Diego, CA, San Francisco, CA, Tucson, AZ, and Washington, D.C. Some municipalities, such as Bend, San Francisco, and Los Angeles have generated revenue with similar mechanisms in which stormwater fees are related to impervious-surfaces associated with development.

In Washington, D.C. properties generate Stormwater Retention Credits (SRCs) for the application of voluntary GI strategies. Property owners trade SRCs in a market with developers who use them to meet regulatory requirements for their projects. This revenue incentivizes the installation of GI and LID as it prevents surface-water pollution.

When the benefits of the infiltration model are factored into budgetary analyses and true-cost accounting is applied to fiscal analyses, GI and LID are cost competitive compared to the diversion and retention approaches. Recent work by the EPA highlights these findings reported by cities like Los Angeles, CA and Tucson, AZ.

Across the West, it appears that cities have more stormwater work than they can afford. In this context, most cities use a cooperative, inter-agency approach to meeting regulatory, design, construction, planning, education, and inspection needs. All interviewed cities agreed that regulatory agencies were more lenient with respect to the imposing fines as long as reasonable plans are in place and in progress.

Proposed Arroyo and Flood Control District

The resolution behind this report also directed staff to facilitate collaboration among city departments to consider the creation of an Arroyo and Flood Control District that would work in cooperation with Santa Fe County. Such an authority would have greater jurisdictional abilities as it pertains to holding water. This district would work with private property owners to solve erosion and flooding problems not only for problems that threaten municipal infrastructure, but also for those that may not. Given such an authority, it is possible that more cooperative financial arrangements would be created in which private-public partnerships can succeed, especially within the evolving regulatory environment. Creating a flood control district may not require an official agreement with Santa Fe County. During the legal department's investigation of this question, it was discovered that the city could create its own district independent of the county. According to New Mexico statute, municipalities have an opportunity to levy taxes for flood control purposes. Funds associated with this effort could be used for projects within or outside the municipal boundary. By adopting this section NMSA 3-41-1 to 3-41-5, 1978 into our code the

city could consider a mill levy for stormwater of up to five dollars per \$1,000. (For details about the flexibility in the tax code, please see 3-41-1.)

Creating New Guidelines and Benchmarks

According to a recent internal survey of city employees who work with stormwater or in related departments, cooperation among departments could be improved, but this was not seen as the largest barrier to the infiltration model, see Appendix A. A much larger percentage of respondents said a lack of education and training was the number-one barrier to the use of GI strategies and LID techniques.

Making project managers aware of the potential opportunity for infiltration and how to site such structures would greatly benefit the city. When project managers ask for GI and LID techniques to be included in the programmatic planning, it is more likely that infiltration will be incorporated by consultants and design professionals. Educational tools including training sessions, web-based videos, and design manuals should be used and if necessary created. By making these learning tools available, we would increase the overall education of our management staff. A city-created design manual or a reference list to existing links on the web would also increase staff's knowledge base. Additionally, contracts with local nonprofit organizations, city-sanctioned committees, and city staff could work in cooperation to produce these relevant materials and keep the overall costs down.

Also shown in appendix A, installation and maintenance costs were significant concerns for city-staff survey respondents. No matter what training media are used, given a high rate of turnover for seasonal workers, it is clear that regular education and training would be a benefit at this level too. Requiring site-specific maintenance instructions from engineering and landscape-architecture consultants and/or firms for city projects would be beneficial and inexpensive. Instructional methods also include training sessions, videos, and manuals that provide better training. The videos could be made available on the city's website, so that anyone could download them from the field.

The City of Santa Fe is fortunate to have various nonprofit partners working to improve our quality of life and environment. Our nonprofit partners work with staff to organize across cleanup efforts across the city. Similarly, the City of Tucson, AZ recently joined efforts with the nonprofit Watershed Management Group to create "monsoon squads" that clean out LID structures such as raingardens, energy dissipaters, drain boxes etc. These volunteers coordinate and work with staff to clean out structures after larger storm events and on a regular schedule throughout the year. The City of Santa Fe has had great success with the Adopt-the-River program with at least three cleanup days per year and hundreds of volunteers coming out to clean our river.

Santa Fe Beautiful has had good success with cleanup days throughout the city. Expansions of these efforts into the Adopt-a-Arroyo program would greatly increase our ability to maintain these GI and LID structures. Aligning cleanups with our recently updated Arroyo Assessment would maximize our efforts.

Internally it is clear that private-public partnerships and cooperative efforts that include the work of a variety of nonprofit organizations can be very successful. These joint efforts strengthen our community, and the organizations themselves often have significant capacities to write successful grant proposals. City dollars are stretched by these partnerships, especially when it comes to public education, environmental improvements, and increased community spirit.

With respect to city projects, there is no standard set of guidelines or performance goals that would encourage the design and installation of GI and LID. In order to encourage the use of and streamline the design process for an infiltration model, specific stormwater-management guidelines and protocols should be created. Although it is not the intent to complete these guidelines in this report, appendix B provides a draft for consideration.

Many cities include river and riparian-area goals as well as water-quality benchmarks in their sustainability plans. These performance goals and benchmarks are helpful in the context of building public support. The Sustainable Santa Fe Commission's 2040 plan, will seek to move the city toward a percentage increase of overall infiltration and a percentage decrease in sedimentation & TMDLs. This will be done in cooperation with the efforts of the Santa Fe River Commission and the Santa Fe Water Conservation Committee. Planning efforts are in place and will be presented as part of the of the 2040 plans.

Conclusions

For Santa Fe, like any other city, what happens next is a question of priorities. In the current budgetary environment, one can imagine stormwater being categorized as a less-than-essential service. Over the course of time, however, the land-use decisions of today will seem essential to future generations. If the Santa Fe River and its contributing arroyos were to continue to become increasingly eroded by excessive runoff, the cost of doing nothing now would be very real later. With every large storm, delayed erosion-control projects become more expensive in real dollars due to the additional channelization, incision, and sedimentation associated with major precipitation-events.

Not only will the degradation of our watershed worsen if we continue to rely only on conventional engineering, but the benefits of stormwater infiltration will also be lost if we do not support this relatively new approach. For a long time, conventional engineering solutions will be among the tools in our community's multifaceted stormwater-management toolbox, but it is time to encourage a stormwater-infiltration model whenever possible.

The recommendations attached provide a starting point for ensuring that the adoption of an infiltration model is successful. Certainly, they are not the only recommendations that could be made, and obviously adopting all of the recommendations would not be necessary in order to make a successful transition to the consistent use of GI strategies and LID techniques. But the city would clearly benefit by the concerted effort described in this preliminary report.

Recommendations

Recommendation 1: Update the GIS Stormwater Infrastructure Map by contracting with a surveying company to GPS-indicate stormwater features (estimated budget \$150,000). Use this map for interdepartmental cooperation and to collaborate with other agencies to manage water quality through a combination of conventional and green infrastructure strategies as it relates to permit requirements.

Recommendation 2: Funding opportunities should be explored through the following :

- a. An arroyo and watershed protection and improvement bond initiatives should be considered within the next two years.
- b. Appropriations of the current stormwater fee should be directed to stormwater and watershed programs to meet our permit requirements, sampling and water quality testing, assessments, educational and outreach materials, BMPs and CIP projects
- c. Further research on fees and incentives that could be assessed on new developments that take into account the effect of impervious surfaces on the watershed. This could include a stormwater credit system.
- d. Grant-writing consultants and/or grant-writing training for staff should also be considered, especially as larger grants for water infrastructure are becoming more likely after recently publicized water-systems failures nationwide. In an effort to aggressively pursue grants, college interns should be assigned to research, develop, and obtain grant monies for these efforts.
- e. Consider a mill levy for stormwater. (For details about the flexibility in the tax code, please see 3-41-1.) Significant property taxes could be levied for flood control purposes as per NMSA 3-41-1, 1978, and should be considered.
- f. Set-up a separate research committee and/or commission a professional study to evaluate the pros and cons of a Regional Flood Authority.
- g. Create an on-call contract for minor drainage improvements and repair-projects with specific skill sets and experience to work within the river, arroyo and drainage ways.

Recommendation 3: Encourage the use of and streamline the design process for an infiltration model, specific stormwater-management goals should be created by:

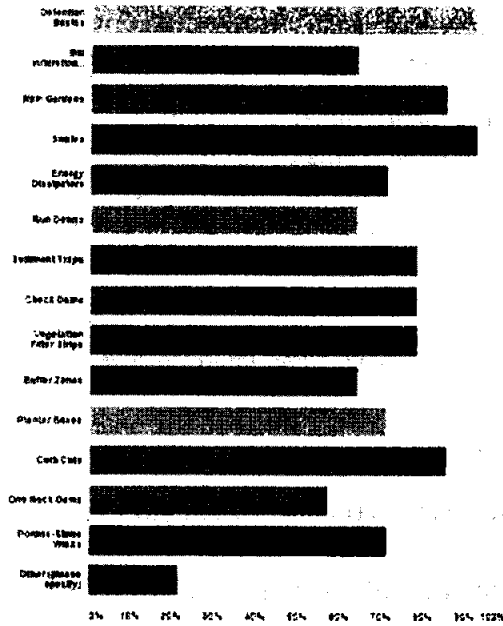
- a. Creating Watershed Protection Guidelines see appendix B, the purpose of these guidelines would be further the concepts and intent for green infrastructure and low-impact-development is to slow, filter, infiltrate, and eventually discharge stormwater.
- b. Ensuring that periodic training sessions, manuals, and other instructions cover the long-term financial benefits of the infiltration model. This big-picture context would also serve to develop Interdepartmental cooperation by describing infiltration as a common goal.
- c. Providing potential educational tools including training sessions, web-based videos, and how-to manuals.
- d. Requiring site-specific maintenance instructions from engineering and landscape-architecture consultants and/or firms.
- e. In order to evaluate, improve, and encourage projects that use the infiltration model, benchmarks should be developed.

Recommendation 4: Amend the city's terrain management code to include a greater emphasis on infiltration and to stay up-to-date with regulatory changes. Staff shall provide suggested revisions.

Appendix A

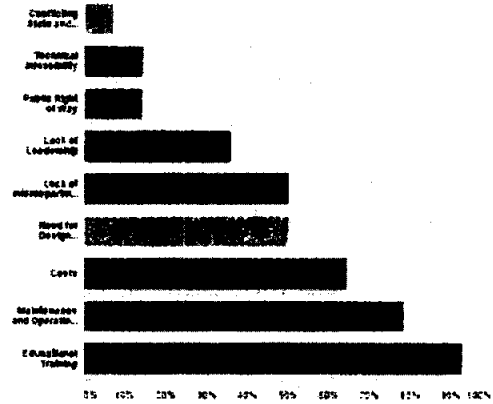
Are you familiar with the following LID techniques? Please check all that apply.

Worksheet 16 - Step 40.1



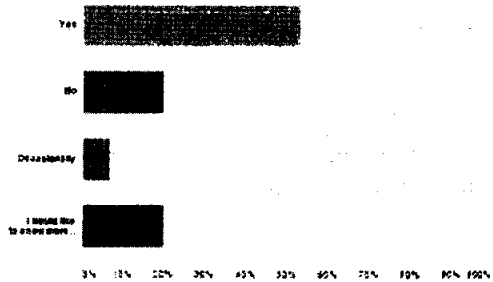
What do you see as the barriers to instituting green infrastructure and low impact development techniques?

Worksheet 16 - Step 40.2



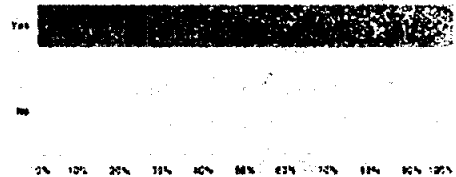
Would you say your project planning process currently includes green infrastructure approaches that considers stormwater to be a resource rather than a nuisance?

Worksheet 16 - Step 40.3



Do you feel your department / division would benefit from additional training in LID techniques?

Worksheet 16 - Step 40.4



APPENDIX B

Watershed Protection Guidelines (DRAFT)

Purpose:

The purpose of these guidelines is to incorporate green infrastructure (GI) and low impact development (LID) techniques into the City of Santa Fe's public projects wherever possible. The guidelines apply to new construction, renovation, and refurbishment of all publicly funded projects: parks, facilities, roadway, drainage projects, stormwater management projects, public rights-of-way, trails, sidewalks, parking lots, and medians. The guidelines are intended to encourage infiltration strategies and techniques that improve water quality by reducing flow volumes, runoff velocities, and the turbidity caused by erosion. They are also formulated to ensure that GI and LID practices are considered early in the design process, and that they are built in an effective manner that minimizes maintenance.

The Basic Principle: The design concepts and intent for GI and LID to slow, filter, infiltrate, and eventually discharge stormwater.

Watershed Protection Goals: Where possible, these guidelines should be required for all public projects:

- 1) Runoff from impermeable surfaces should be directed through LID techniques before it enters storm drains or natural drainage ways.
- 2) The sizing of LID techniques can be determined by the application of runoff coefficients to the following basic formula:

Runoff Volume (gallons) = Runoff Depth (inches) X Collection Area (sqft) X 0.623 x Runoff Co-efficient

- 3) All basins are required to have a percolation test to determine infiltration rates before and after construction. Infiltration basins shall be designed to drain within 24 hours of the latest rainfall event. Soil type should be considered. Ponding or impoundments may be subject to the Office of the New Mexico State Engineer water-law requirements.
- 4) Basins shall accept up to a maximum of 12" of stormwater (8" preferred) when plant material is present to avoid plant and root rot.
- 5) The bottom of infiltration basins should be loosened to a minimum depth of 12" and if necessary mixed with sand, mulch, compost, or other amendments to increase percolation.
- 6) Stormwater should be directed to provide supplemental irrigation for plant establishment.

Procedures

Projects shall include watershed protection goals in the scope of work. The project manager leading the project team for the city shall document that at each stage of project development, 30%, 60% and 90%, the following protocols have been considered by the engineer, landscape architect, or other qualified consulting firm performing the drainage design:

Planning Programming:

At 30% submittal, the consultants shall include:

- ☐ Determination of the size of runoff from a design storm.
- ☐ Identification of infiltration methods that are proposed;
- ☐ Conceptual grading to maximize water-quality improvement;
- ☐ Mapping of existing drain inlets, outfalls, catch basins, piping, curb cuts, and utilities (underground and aboveground);
- ☐ Conceptual grading should seek to minimize conflicts between utilities and LID techniques;
- ☐ Conceptual details for water ingress and egress from infiltration structures;
- ☐ Landscape concepts showing vegetation to maximize utilization of stormwater runoff.
- ☐ Public projects shall consider the requirements of private developments as listed in Article 14-8.2, Watershed Protection Guidelines, Landscape Design Guidelines for Medians and Planting Strips, and Landscape Irrigation Design Standards as they relate to stormwater.
- ☐ All work must conform to local, state, federal and tribal laws where applicable permit requirements or code exist.

At 60% submittal, the consultants shall include:

- ☐ Detailed plans and cross sections of drainage structures indicating the extent and depth of infiltration areas, slopes, and areas of stormwater flow and overflow;
- ☐ A grading and drainage plan;
- ☐ Preliminary planting plan;
- ☐ A utility plan created in coordination with utility representatives showing proposed modifications.

At 90% submittal, the consultant shall provide construction documents:

- ☐ These documents should be detailed and descriptive enough to allow contractors to build any drainage or stormwater structures;
- ☐ Final construction notes shall include estimated final water catchment and infiltration numbers.
- ☐ All proposed drainage structures including drain boxes, inlets, out falls, catch basins, culverts, drainage swales, and piping shall be indicated for construction purposes and verification as part of the as-built submittal.
- ☐ The project manager shall be responsible for the documentation of review-team comments to ensure compliance with watershed performance goals. Final sign-off on stormwater compliance shall be documented on the cover page of all public projects by the signature of the River and Watershed Coordinator.

Projects that do not apply:

- Pavement maintenance activities such as top-layer of asphalt grinding and repaving within the existing footprint;
- Filling pot holes;
- Interior remodeling projects;
- Utility repair work, trenching and patching.

Eligible Green Infrastructure (GI)

Stormwater green infrastructure helps protect the District's water bodies by reducing stormwater runoff. Common GI includes:

Green Roofs

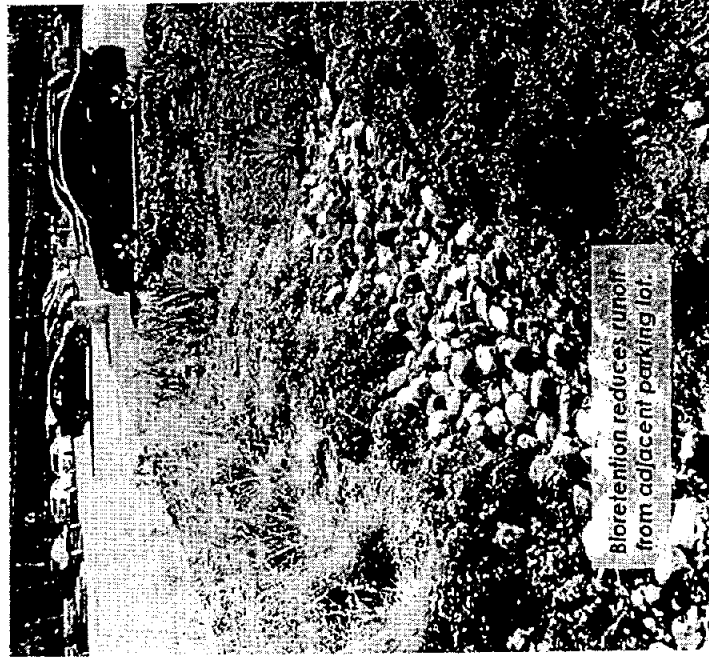
Permeable Pavement

Bioretention

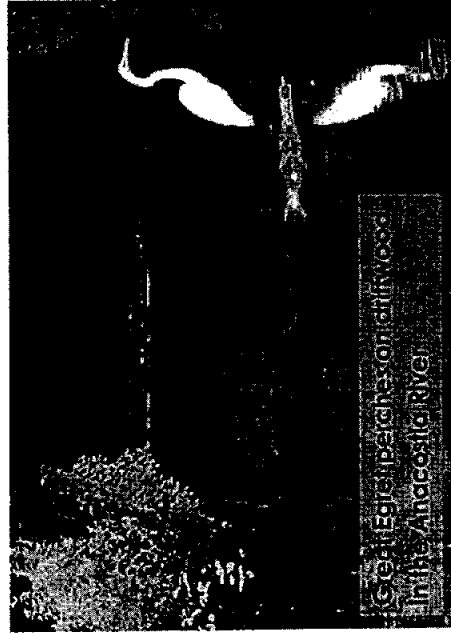
Rainwater Harvesting

DDOE's Stormwater Management Guidebook includes design standards and other technical specifications for GI, referred to as stormwater retention Best Management Practices.

See ddoe.dc.gov/swregs



DDOE is hard at work to restore full use of the Anacostia and Potomac Rivers and Rock Creek to District residents, visitors, and businesses. The SRC trading and RiverSmart Rewards programs are important parts of that effort.



SRC Trading

Website: ddoe.dc.gov/src

Email: src.trading@dc.gov

RiverSmart Rewards

Web: ddoe.dc.gov/riversmartrewards

Email: riversmart.rewards@dc.gov

1200 First Street NE, 5th Floor
Washington, DC 20002
Phone: 202-535-2600

FOR INFORMATION, CALL:

Para obtener información llame al:

Pour de plus amples renseignements, veuillez appeler le:

로 문의하십시오. ; Để biết thêm thông tin, vui lòng gọi:

詳情請致電 (202) 535-1934.

Stormwater Retention Credit Trading & RiverSmart Rewards

Reduce Runoff | Make Money
Save The River



Making the District's rivers and streams healthier has never been more rewarding. By installing rain gardens, green roofs, and other stormwater retention green infrastructure, you can earn money by selling Stormwater Retention Credits (SRCs) and save money on your water bill.

You Can Generate and Sell SRCs

- Sell your SRCs in an open market to regulated development sites that can buy and use SRCs to meet their retention requirements.
- Use DDOE's SRC database, public registry, template sales contract, and other tools to make this easy.

You Can Earn a RiverSmart Rewards Discount

- Earn a discount of up to 55% off DDOE's Stormwater Fee and up to 4% off DC Water's Clean Rivers Impervious Area Charge. Both fees are collected on the DC Water utility bill and based on the amount of impervious surface on your property.

DDOE certifies SRCs and approves RiverSmart Rewards discounts for 3 year periods.

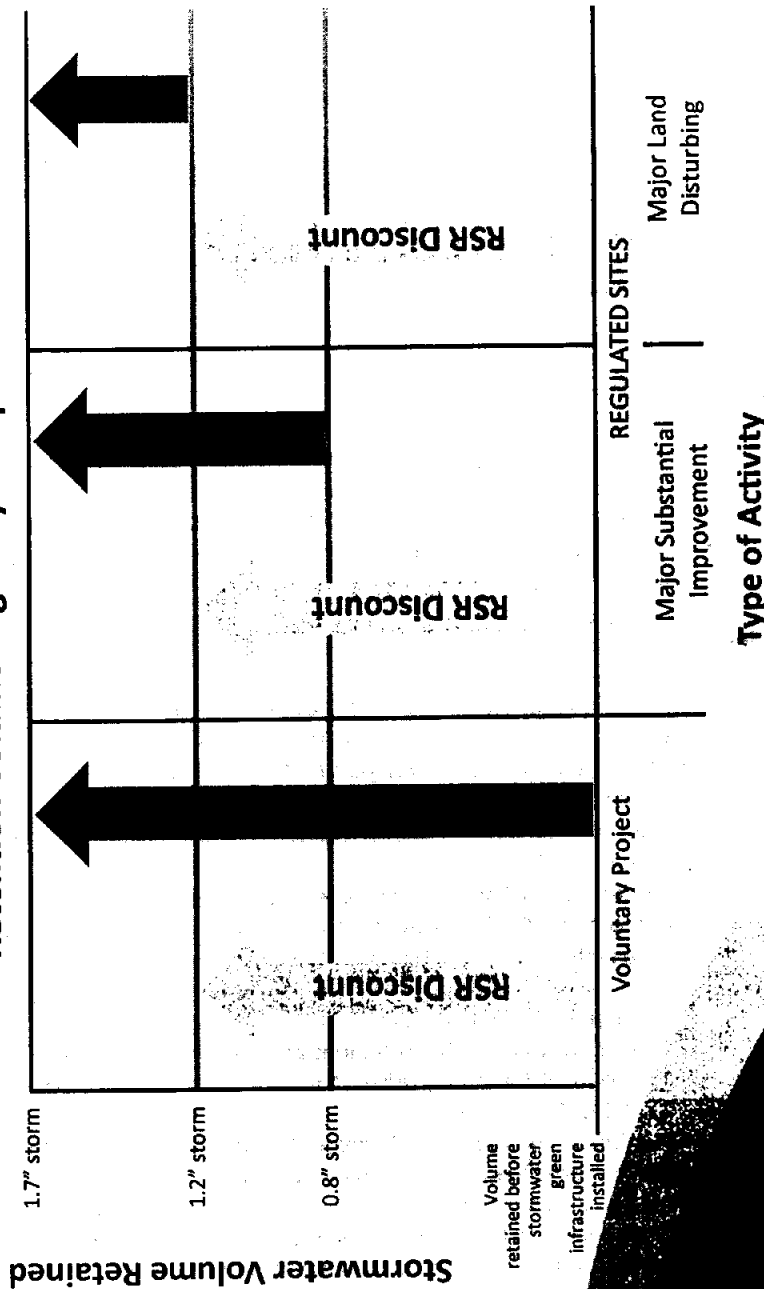
Permeable pavement installed at a parking lot reduces runoff from the property.

Eligibility Requirements

To receive a Stormwater Fee discount and/or generate SRCs, you must:

- **Design stormwater green infrastructure (GI) in accordance with the Stormwater Management Guidebook** – Typically, this is demonstrated with a DDOE-approved Stormwater Management Plan (SWMP). Projects only applying for a discount do not need a formal SWMP.*
- **Install GI before applying for SRCs or a discount** – GI must also pass DDOE inspection.
- **Provide on-going maintenance** – Proper maintenance ensures optimal performance of GI.
- **Capture stormwater runoff** – The maximum Stormwater Fee discount is awarded to sites that retain a 1.2" storm. However, GI that retains up to a 1.7" storm is eligible for SRC certification. DDOE will only certify SRCs for retention in excess of regulatory requirements or existing retention (see figure below).

Retention Volume Eligibility Comparison



Permeable pavement installed at a parking lot reduces runoff from the property.

References and Research

Guides and Manuals:

- City of Los Angeles, CA, Department of Building and Safety Guidelines for Stormwater Infiltration, 2008, Reference No: LABC Sec 7013.9 & 7013.10 Document No. P/BC 2008/118
- City of El Paso, Engineering Department, Drainage Design Manual, May 2013
- City of Tucson Green Streets, Suggested Technical Best Practices, by Watershed Management Group, Published December 2013
- City of Philadelphia Green Streets Design Manual, www.phillywatersheds.org/what_were_doing/gsdm
- County of San Diego Sneak Preview of Green Streets Guidance, Construction Management Association of America San Diego Chapter, René Vidales, PE, Program Coordinator, Stuart Kuhn, PE, Civil Engineer, Watershed Protection Program County of San Diego July 23, 2015
- Right Place, Right Project Green, Stormwater Infrastructure Program Department of Natural Resources and Parks, Wastewater Treatment Division, A Community Guide to Partnership Opportunities

Reports:

- Green Infrastructure for Los Angeles: Addressing Urban Runoff and Water Supply Through Low Impact Development, Haan-Fawn Chau, April 17, 2009
- Banking on Green: A Joint Report by American Rivers, the Water Environment Federation, the American Society of Landscape Architects and ECOnorthwest April 2012
- Green Infrastructure for Southwestern Neighborhoods, Watershed Management Group, Version 1.2, October 2012
- Barriers to Low Impact Development, Laura Podolsky, Prepared by the Local Government Commission for the Southern California Stormwater Monitoring Coalition September 2012
- Green Infrastructure & Economic Development: Strategies to Foster Opportunity for Marginalized Communities, Massachusetts Institute of Technology (MIT), Community Innovators Green Economic Development Initiative, March 2013
- Green Infrastructure Opportunities and Barriers in the Greater Los Angeles Region An Evaluation of State and Regional Regulatory Drivers that Influence the Costs and Benefits of Green Infrastructure, August 2013, EPA 833-R-13-001
- Municipal Separate Storm Sewer System Permits: Post-Construction Performance Standards and Water Quality Based Requirements. A Compendium of Permitting Approaches, EPA 833-R-14-003, June 2014
- Case Studies Analyzing the Economic Benefits of Low Impact Development and Green Infrastructure and Green Infrastructure Programs, U.S. Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds, Nonpoint Source Control Branch (4503T), 1200 Pennsylvania Ave., NW Washington, DC 20460, August 2014
- Estimating Predevelopment Hydrology for Urbanized Areas in New Mexico Prepared for
- U.S. Environmental Protection Agency, Office of Wastewater Management Water Permits Division Municipal Branch, Tetra Tech March 2015
- Tools, Strategies and Lessons Learned from EPA Green Infrastructure Technical Assistance Projects, U.S. Environmental Protection Agency, EPA 832-R-15-016, December 2015
- Potential Storm-Water Projects Assessment CITY OF SANTA FE NEW MEXICO PUBLIC WORKS DEPARTMENT, Streets and Drainage Maintenance Division Potential Storm-Water Projects, November 2015

Presentations:

- Watershed Based MS4 Permitting Pilot in the Middle Rio Grande, 9/2010, Sarah Holcomb, Point Source Regulation Section, sarah.holcomb@state.nm.us and Heidi Henderson, Monitoring and Assessment Section, heidi.henderson@state.nm.us
- E2RC, Santa Fe Area Homebuilders Association lecture, August 2015.

- Inspections and Maintenance of BMPs: Old Problems, New Solutions, Stormwater Solutions Webinar, April 13, 2016, ARCADIS, Design & Consultancy for natural built assists
- CITY OF SANTA FE, GREEN INFRASTRUCTURE WORKSHOP, November 30, 2012, Federal Grant Identification Number: 10--PA--11031600--078 Recipient Organization: City Of Santa Fe, New Mexico Data Universal Numbering System Number:069420818

Ordinances, Resolutions, Permits:

- Los Angeles Low Impact Development ordinances, NO 181899, NO 173494, http://planning.lacounty.gov/assets/upl/data/ord_green-building-final-ordinances.pdf
- \$3 Billion dollars General Obligation Bond, SAVE OUR STREETS BOND, City of Los Angeles, CA, Enrique C. Zaldivar, Director Bureau of Sanitation
- Resolution approving the Green Streets Policy for the National Capital Region. National Capital Region Transportation Planning Board, 777 North Capitol Street, N.E. Washington, D.C. 20002
- Municipal Separate Storm Sewer System (MS4) General Permit, US EPA Region 6
- Cleveland, Ohio, Ordinance number 798-11, An ordinance to provide consideration of Complete and Green Street elements in all construction projects with in the public right-of-way, Gary Singletary, 9/14/11
- City of Tucson, Arizona, Department of Transportation, Active Practices Guidelines, Gary Wittwer, August 2013

White Papers:

- Water Resources and Community and Regional Planning Programs, Katherine Labadie, The University of New Mexico Albuquerque, New Mexico, May 2010
- Solving Flooding Challenges with Green Stormwater Infrastructure in the Airport Wash Area, Prepared for Ward 1, City of Tucson, By Watershed Management Group, Inc. In collaboration with Pima County Regional Flood Control District, May 2015
- New Mexico Interstate Stream Commission Comment on NPDES Permit NO NMROA000, Rolf Schmidt Peterson, Rio Grande Basin Manager, February 29, 2016

Interviews:

- Harry Cooper, RLA, Flood Control District of Maricopa County, Phoenix, AZ, February 26, 2016
- Kenneth Francis, Santa Fe Surroundings, April 12, 2016
- Tyler J. Ashton, Wilson & Company, April 12, 2016
- Steven King, PE & Sara Lavy of Parametrix Inc., April 21, 2016
- J. Rob von Rohr, PE & Justin Lyons, PE of Biohabitats, Inc., April 18, 2016
- Wendy Edde, Stormwater Division, Bend, Oregon
- Estevan Tineo, PE & Elizabeth Calbold, PE of of Transportation, City of Tucson AZ, May 2, 2016
- Gary Wittwer, RLA, of Department of Transportation, City of Tucson AZ, May 3, 2016
- Wing Tam, City of Los Angeles, May 6, 2016
- Andy Otto, Santa Fe Watershed Association, May 12, 2016
- Matthew Espie & Emily Rice, Stormwater Retention Credit Trading & RiverSmart Rewards, District Department of the Environment, May 31, 2016

Websites/Links:

- www.epa.gov/polluted-runoff-nonpoint-source-pollution/urban-runoff-low-impact-development
- <https://www.epa.gov/region8/green-infrastructure>

1 CITY OF SANTA FE, NEW MEXICO

2 RESOLUTION NO. 2016-25

3 INTRODUCED BY:

4
5 Councilor Peter N. Ives

Mayor Javier M. Gonzales

6 Councilor Joseph M. Maestas

Councilor Patti Bushee

7 Councilor Carmichael Dominguez

8
9
10 A RESOLUTION

11 DIRECTING THE CITY MANAGER TO DEVELOP A STORMWATER
12 MANAGEMENT PROGRAM THAT UPDATES THE CITY'S STORMWATER
13 MANAGEMENT POLICIES IN FURTHERANCE OF THE CITY'S ENVIRONMENTAL
14 PROTECTION AND SUSTAINABILITY POLICIES AND GOALS.

15
16 WHEREAS, the City of Santa Fe and the State of New Mexico [have]are in arid climates
17 and have experienced drought conditions for many years, putting strains on available water
18 resources, riparian areas and aquifer recharge; and

19 WHEREAS, stormwater management by the Public Works Department's Streets and
20 Drainage Division is accomplished through the operation and maintenance of the City's drainage
21 infrastructure (arroyos, streets, curbs, drainage structures, culverts, erosion control structures,
22 washouts, etc.); and

23 WHEREAS, minimizing pollutants in stormwater is essential for maintaining
24 compliance with the Environmental Protection Agency's (EPA) Clean Water Act, the EPA's new
25 clean water rule (2015), the National Pollutant Discharge Elimination System (NPDES) and

1 Municipal Separate Storm Sewer System (MS4) permit program; and

2 **WHEREAS**, green infrastructure is an approach to stormwater management that
3 protects, restores, or mimics the natural water cycle and reduces the need for conventional
4 infrastructure by reducing stormwater volume, and improve[ing] water quality by reducing
5 pollutant loads, stream bank erosion, and sedimentation; and

6 **WHEREAS**, the urban reaches of the Santa Fe River have been listed as an impaired
7 waterbody for specific contaminants under Section 303(d) of the federal Water Quality Act (aka.,
8 Clean Water Act) attributed primarily to stormwater flows; and

9 **WHEREAS**, this impairment will result in the adoption of Total Maximum Daily Loads
10 (TMDLs) by the New Mexico Environment Department and the New Mexico Water Quality
11 Control Commission for these contaminants; and

12 **WHEREAS**, these TMDLs will result in more restrictive permit requirements and
13 controls for any current or new point source and non-point sources to the Santa Fe River,
14 including the City's MS4 (Stormwater) Permit in the future; and

15 **WHEREAS**, through the Public Works Department's River, Watershed & Trails
16 Division, the Water Division, and the Santa Fe River Commission the City is currently
17 implementing the Alameda Rain Gardens, a green infrastructure program; and

18 **WHEREAS**, the City's Land Use Department has implemented green codes that
19 encourage infiltration and green infrastructure measures; and

20 **WHEREAS**, the City's Water Conservation Office has created rebates and incentives for
21 passive and active rainwater systems; and

22 **WHEREAS**, green infrastructure must be a part of the Sustainable Santa Fe
23 Commission's 2040 goals; and

24 **WHEREAS**, the City should continue to explore all available means to encourage and
25 incentivize private individuals, commercial enterprises and governmental entities to use rainwater

1 resources; and

2 **WHEREAS**, the City should work to ensure the availability of all legal supplies of water
3 for the benefit of the City of Santa Fe; and

4 **WHEREAS**, the City will ensure its long-term sustainability and build resiliency within
5 the City of Santa Fe by ensuring that it uses all water resources legally available; and

6 **WHEREAS**, rain events are increasing in intensity and quantity in Santa Fe, and the City
7 needs to develop and implement its long-term plan to deal with stormwater to ensure that it does
8 not degrade the water quality of the SF River and its tributaries, is not destructive to private or
9 public property and infrastructure, and ensure that it is used in beneficial ways; and

10 **WHEREAS**, the City should promote and emphasize utilizing green infrastructure to
11 slow down runoff, increase stormwater infiltration, prevent the transport of pollutants from urban
12 and commercial areas, and maximize the benefits derived from precipitation events; and

13 **WHEREAS**, the City should explore the expansion of its urban trails system along
14 existing arroyos to promote healthy lifestyles and public safety; and

15 **WHEREAS**, implementing this Resolution, increasing green infrastructure, and
16 managing stormwater as a resource will promote the well-being and health of the people of Santa
17 Fe and will help build community; and

18 **WHEREAS**, if the City needs to contract with a third party to explore the matters set
19 forth herein, the Stormwater Section funds can be used to accomplish the purposes of this
20 Resolution.

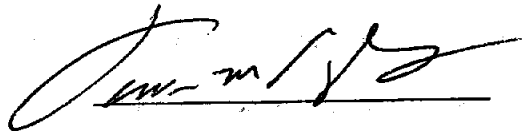
21 **NOW THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE**
22 **CITY OF SANTA FE** that under guidance of the city manager, city staff is directed to research,
23 evaluate and report on current stormwater management policies that:

- 24 1. Employ and promote green infrastructure in all city infrastructure projects and
25 improvements;

2. Examine and implement ways to slow stormwater down, making it less destructive, and allowing it to infiltrate better;
3. Foster the Santa Fe River Commission's participation in the Santa Fe River Corridor Master Plan;
4. Promote and further the City's urban watershed policy, employing green infrastructure improvements in all Public Works projects (roads, parks, trails, etc.) to infiltrate stormwater, and use it more productively in parks and public places to decrease irrigation costs and prevent the runoff of fertilizers, waste-products and other contaminants;
5. Examine ways in which stormwater can be used productively in Santa Fe;
6. Facilitate collaboration among the Public Works Department, Parks and Recreation Department, Public Utilities Department, City Land Use Department, and private stakeholders to evaluate the creation of a Santa Fe Arroyo and Flood Control District, in cooperation with the County of Santa Fe;
7. Evaluate the nature and extent [and] for the possible expansion of City jurisdiction over arroyos and other waterways throughout the City of Santa Fe, allowing for improved arroyo management by the city and the extension of trail systems;
8. Develop a thorough and mapped understanding of the current stormwater system, including existing city drop inlets, storm drains, pipes, and outlet structures that flow directly into the arroyo system and the Santa Fe River;
9. Consider how Public Works projects and private developments can create opportunities for an integrated approach to stormwater management;
10. Provide recommendations from staff that would coordinate the efforts of the above mentioned departments, commissions, committees and other entities to maximize opportunities, while eliminating duplicative efforts.

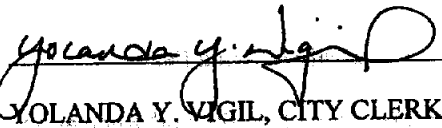
1 **BE IT FURTHER RESOLVED** that the City Manager shall present a preliminary
2 report with recommendations for the development of an updated stormwater policy within 120
3 days of the adoption of this resolution.

4 **PASSED, APPROVED AND ADOPTED** this 30th day of March, 2016.

5
6 

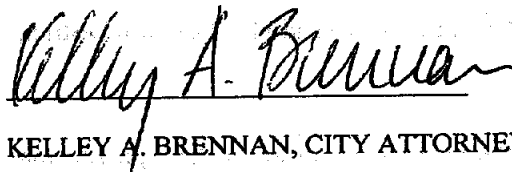
7 **JAVIER M. GONZALES, MAYOR**

8 **ATTEST:**

9
10 

11 **YOLANDA Y. VIGIL, CITY CLERK**

12 **APPROVED AS TO FORM:**

13 

14
15 **KELLEY A. BRENNAN, CITY ATTORNEY**