

SUSTAINABLE SANTA FE COMMISSION

Tuesday February 18 2014
Councilors' Conference Room
Santa Fe, NM
2:30 p.m. to 4:30 p.m.

- A. CALL TO ORDER
- B. ROLL CALL
- C. APPROVAL OF AGENDA
- D. APPROVAL OF MINUTES October 29, 2013 and January 21, 2014
- E. COMMUNICATIONS FROM THE FLOOR (5 min)
- F. REPORT FROM, AND ASSIGNMENT OF ACTIONEER (5 min)
- G. STAFF COMMUNICATIONS (5 min)
 - 1. Community Scorecard
 - 2. Reusable Bag Outreach Update
- H. PRESENTATIONS
- I. DISCUSSION/ACTION ITEMS
 - 1. 2014 Strategic priorities and reestablishment of subcommittees (B. Sopoci-Belknap) (45 min)
 - Roles analysis
 - Planning session and survey results
 - New Administration planning
 - 2. Resolution in Opposition to PNM's Replacement Power Plan
 - 3. SUBCOMMITTEE REPORTS:
 - 4.1. COMMUNITY ENGAGEMENT (A. Romero) (5 min)
 - 4.2 SUSTAINABLE SANTA FE AWARDS SUBCOMMITTEE (K. Mortimer) (5 min)
 - 4.3 ENERGY SUBCOMMITTEE
- J. ITEMS FROM THE CHAIR (5 min)
- K. ITEMS FROM THE COMMISSION (5 min)
- L. ITEMS FOR NEXT AGENDA (5 min)
- M. ADJOURNMENT

Next Meeting: March 18, 2014

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.

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MINUTES OF THE

CITY OF SANTA FE

SUSTAINABLE SANTA FE COMMISSION February 18, 2014

CALL TO ORDER

A meeting of the City of Santa Fe Sustainable Santa Fe Commission was called to order by Bianca Sopoci-Belknap, Chair at 2:37 p.m. at the City Hall, City Councilors' Chambers, Santa Fe, New Mexico.

ROLL CALL

Roll call indicated the presence of a quorum for conducting official business as follows:

MEMBERS PRESENT:

Bianca Sopoci-Belknap, Chair Esha Chiocchio Amanda Evans Kim Kelly Louise Pape Andrea Romero Maria Rotunda Glenn Schiffbauer

MEMBERS ABSENT:

3 vacancies (1 youth member)

STAFF PRESENT:

Katherine Mortimer, Environmental Services Division

OTHERS PRESENT:

Phillip Chiocchio
John Alejandro, Jr. Solar Electric Light Fund
Jeff Ethan Green, Real Food Challenge
Seth Roffman, *Green Fire Times*Ashley Zappe, Americorps Member
Jo Ann G. Valdez, Stenographer

DRAFT: SUBJECT TO APPROVAL

APPROVAL OF AGENDA

The Agenda was amended – an update on the Climate Adaptation Plan was added under Presentations.

Commissioner Pape moved to approve the agenda as amended. Commissioner Schiffbauer seconded the motion. The motion passed unanimously by voice vote.

APPROVAL OF MINUTES:

October 29, 2013-Study Session

The following addition was made on page 6 under Key Opportunity Area, bullet #3

 Ban outdoor watering unless captured rainwater or gray water and other water initiatives and reduction opportunities

Commissioner Pape moved to approve the Minutes of the October 29, 2013 meeting as amended. Commissioner Evans seconded the motion. The motion passed unanimously by voice vote.

January 21, 2014

Commissioner Pape offered the following changes to the Minutes of the January 21, 2014 meeting:

Page 3, 4th paragraph, 2nd sentence, the word "impeding" was changed to: impedes

Page 6, 4th paragraph was changed to read: "Chair Sopoci-Belknap will check if this is **moot** and if not, the Commission will continue with this."

Commissioner Chiocchio moved to approve the Minutes of the January 21, 2014 meeting as amended. Commissioner Evans seconded the motion. The motion passed unanimously by voice vote.

COMMUNICATIONS FROM THE FLOOR

Introductions were made.

Commissioner Chiocchio introduced her father, Philip Chiocchio. Mr. Chiocchio gave a brief history of his background.

Jeff Ethan Green is with Real Food Challenge. He noted that they are holding the Southwest Regional Summit and Student Leadership retreat here in Santa Fe from February 27th until March 2nd at the Santa Fe University of Art and Design. The retreat is an opportunity to build community with other student sustainability leaders from around the region, share and learn about the food system, and develop leadership and organizing skills for projects and campaigns to further support local, sustainable fair food efforts. The retreat will include workshops and open time to explore challenges and opportunities with corporate food service; the Real Food Calculator food procurement assessment tool, resource-sharing and planning among all participating student leaders and groups. Those interested can contact him at ethan@realfoodchallenge.org or 505-501-5826.

Chair Sopoci-Belknap asked if this was open to the public or just college students.

Mr. Green said mainly for college students; however, the event on Saturday is open to the public.

Seth Roffman of *Green Fire Times* was present. He distributed the current issue noting that Commissioner Chiocchio wrote the lead article for this issue, which is focused on resilience in a changing climate. The next issue will be focused on the city of Espanola. The April issue will be themed around "Earth Month-New Mexico", in collaboration with the New Mexico Environmental Law Center and others.

Mr. Roffman mentioned that this will be the 58th issue of *Green Fire Times*.

REPORT FROM AND ASSIGNMENT OF ACTIONEER

Commissioner Kelly was the Actioneer for this meeting.

Chair Sopoci-Belknap reviewed the previous Actioneer report.

Chair Sopoci-Belknap asked if the Craig Allen video was uploaded to YouTube. Commissioner Chiocchio said they are working on compressing it and uploading it to YouTube.

Commissioner Pape said she sent Craig Allen an email asking if there were other videos but he is out of town until March 3rd.

Chair Sopoci-Belknap asked if someone from the Water Conservation Committee is going to attend a meeting.

Commissioner Kelly said they are scheduled to come to the next meeting.

Ms. Mortimer said she will check if they can attend the next meeting.

Commissioner Kelly noted that the Water Conservation Committee made a presentation to the BQL Committee on which water rebates have been successful. She said maybe they can present that information to the Commission.

Chair Sopoci-Belknap said the email chain regarding this included a suggestion that possibly someone from that Committee can regularly attend this Commission meetings.

STAFF COMMUNICATIONS

1. Community Scorecard

Ms. Mortimer noted that they were contacted by earthday.org for Santa Fe to be featured as one of the six cities in the US to pioneer the Green Cities campaign. The Green Cities campaign aims to help cities and communities accelerate their transition to a cleaner, healthier, and more economically sustainable future through improvements in efficiency and investments in renewable technology. Over the next two years, with a focus on Earth Day 2014 and 2015, Earth Day Network will work with a team of international partners to educate the public, mobilize support for important policy initiatives, and implement on-the-ground greening projects. Earth Day Network will develop and support practical local solutions that will reduce the city's carbon footprint and improve the quality of life for its citizens. They will work with the city to develop a series of programs and policies to help Santa Fe become more sustainable over a two year period. From potential new building code requirements, to LED re-lamping projects, the campaign will help the city of Santa Fe identify and implement solutions that will reduce greenhouse gases, save money, and add new jobs.

Ms. Mortimer said they have some ideas that they are particularly targeting but they do not pertain to Santa Fe because we've already done some, as in the LED re-lamping projects.

Commissioner Pape said this is an action item – for Ms. Mortimer to follow up with Nick Schiavo on the LED lighting projects.

Ms. Mortimer asked if any of the Commissioners would be interested in working on this with her. She said a teleconference will be scheduled to talk about what Santa Fe wants to do.

Commissioner Schiffbauer asked Ms. Mortimer if she knew who the other five cities are.

Ms. Mortimer said they did not tell her, but she knows that they are not targeting the big cities like Portland, New York and San Francisco. She mentioned that there is no formal commitment required from the city to become a Green Cities participant.

Commissioner Pape, Commissioner Kelly and Commissioner Evans were interested in working with Ms. Mortimer on this.

Ms. Zappe said Chair Sopoci-Belknap asked her to bring more details on how the community scorecard is developing and what the community scorecard is going to look like. She said the three main purposes of this is to measure the progress of the priorities that were set in the 2008 plan; provide feedback on the efficacy of programs and information to focus sustainability efforts where they are most needed in Santa Fe and give information for updating and refocusing the 2008 plan moving forward.

Ms. Zappe reviewed the information from the PowerPoint presentation entitled "Santa Fe Sustainability Report Card". Please see Exhibit "A" for the specifics of this presentation.

Ms. Zappe was acknowledged for the great job she has done on the progress of the community scorecard/report card.

Ms. Zappe asked the Commissioners to send their feedback and suggestions that they may have. She noted that this is a work in progress and some things will change before the final draft is done.

Mr. Alejandro Jr. volunteered to help with this project while Ms. Zappe goes on maternity leave.

2. Reusable Bag Outreach Update

Ms. Mortimer reported that the Reusable Bag Ordinance goes into effect on February 27th and there is an amendment to the Ordinance that is presently going through, and is likely

to pass, that will eliminate the .10 cent fee on paper bags and will provide for a 30-day period where the City will not enforce the Ordinance.

Ms. Mortimer said city staff will be going around to the stores and talking to people about the Ordinance to make sure they know that enforcement will start on March 27th. They will also help answer questions that might come up. Staff has been tabling at various stores on the weekends and will be doing that again this coming weekend. The city has also been giving out reusable bags and has more to give out.

Commissioner Pape asked Ms. Mortimer to explain what enforcement will look like.

Ms. Mortimer said initially they will issue warnings because the city only has one enforcement officer who will enforce this at over 700 retail establishments. The city will then do follow up visits to ensure that they are implementing the Reusable Bag Ordinance.

PRESENTATIONS

1. Climate Adaptation Plan Update

Commissioner Chiocchio reviewed a PowerPoint presentation on the Climate Adaptation Plan. Please see Exhibit "B" for the specifics of this presentation. *Of note, the larger version of the Climate Adaptation Plan can been seen in an email from Commissioner Chiocchio dated February 20, 2014.

In 2013, the Model Forest Policy Program, the Cumberland River Compact, and Headwaters Economics came together with the Santa Fe Watershed Association and the City of Santa Fe to create a climate adaptation plan for the Santa Fe watershed. This plan presents the results of a community team effort, deep and broad information gathering, critical analysis and thoughtful planning. The outcome will be a community that can better withstand impacts of climate upon their natural resources, economy and social structure in the decades to come.

Over the course of several months, the planning team studied the predicted climate shifts, as well as the forest, water and economic vulnerabilities of the area. From this information, they used a prioritization system to analyze the climate risks and determine the areas of highest priority. Perhaps not surprisingly, the resulting priorities include: reduced water supplies; increased risk of wildfire and forest degradation; flooding; and a dearth of job opportunities to retain and attract working families. Taking into consideration the pillars of sustainability, (environmental, stewardship, economic health and social justice) the planning

team developed five goals that address these issues and have the greatest chance of long-term success. The five goals are:

- 1) Support efforts that increase the water security and ecological integrity of the Santa Fe Watershed through conservation, infiltration, groundwater recharge, and reuse.
- 2) Work with the U.S. Forest Service, the City of Santa Fe and other organizations to improve forest health for resilience in the face of climate change.
- 3) Explore the workforce training needs to implement this plan.
- 4) Support efforts that increase energy efficiency and renewable energy to achieve a reduction in fossil fuel-derived and water consumptive energy sources by 45% by 2030.
- 5) Enhance financing systems that facilitate (equity) investments, emergency funds, and cash flow availability to fund climate adaptation and innovation initiatives.

In order to develop an adaptation action plan, the team listed all of the stressors and/or impacts for the watershed that were identified during the assessments and moved them into groups that could be addressed by the minimum number of goals. (Please see page 83 for the details.)

Commissioner Chiocchio said the Plan will need to be revised over time. She said the next step is to have the City and County adopt the Plan.

Commissioner Evans asked if there is a section that points to resources and best practices, and how this is being done in other parts of the country. She thinks this would be very helpful.

Commissioner Chiocchio said this is not included in the Plan right now but this is a good idea.

Mr. Alejandro Jr. noted that EESI.org out of Washington, D.C. has included a Climate Adaptation report in their newsletter. He offered to send it to Commissioner Chiocchio.

DISCUSSION/ACTION ITEMS

1. 2014 Strategic priorities and re-establishment of subcommittees

Planning session and survey results

The Commission was charged with the task of creating the Sustainable Santa Fe Plan and is now responsible for helping the City and the community implement the plan. Chair

Sopoci-Belknap drafted a survey to get feedback and insights on what they think is the best path forward to do this.

[A copy of the SSF Commission Direction Survey is hereby incorporated to these Minutes as Exhibit "C".]

• Roles analysis

Chair Sopoci-Belknap said a question came up at the Strategic Planning Session about the role of this Commission relative to the Governing Body and the City in terms of operations and the different departments. The survey includes a question on how effective the Commissioners feel the relationship between the Commission and the Governing Body is; and how effective the relationship between the Commission and other Departments is. The Commissioners were asked to provide any suggestions they may have to improve this.

• New Administration planning

Chair Sopoci-Belknap noted that Commissioner Pape identified some needs that the Commission sees for the incoming administration that would significantly shift the Commission's role and enable the Commission to do more in terms of influencing sustainability.

Commissioner Pape said having watched this process over the years and being a part of it, she thinks the Commission has an opportunity now with a new governing body coming in. She thinks the Commission can come up with suggestions and details about the process in order to have some environmental impact. Suggestions like getting a simple 1-page document out to City employees about the Sustainable SF Plan, the policies and broad principles and rules that can be applied over a period of years-to make the city a model. She said adaptation needs to be included. She thinks the Commission needs much more involvement in incorporating the rules and policies.

Commissioner Evans said she thought about requiring the heads of the City Departments to submit a monthly report on what they have done around sustainability issues in their department.

Chair Sopoci-Belknap said that is a great suggestion and it is important to get all these ideas out. She said possibly there can be an environmental impact report that can be done on a monthly basis, such as the fiscal impact reports that are done. She asked the Commissioners to fill out the survey so that the Commission can draft something together.

Ms. Mortimer suggested that they provide options for staff-give them 3 or 4 ways that they can do this.

Commissioner Kelly said the new City Manager and Mayor could change the role of the Commission.

Commissioner Pape asked if the Commissioners are interested in doing a simple brochure or statement about the policies for sustainability.

Chair Sopoci-Belknap said something that has been missing from all of this is an implementation plan and the Commission has no matrix or mechanism to go by, to quantify the Sustainable SF Plan. She said the Commission needs to make some clear goals and objectives and benchmarks that are realistic to move forward strategically.

She noted that the Sustainable SF Plan is outdated and needs to be updated and maybe the Commission can start with the scorecard that Ms. Zappe is working on.

Commissioner Kelly said a suggestion was made that department heads attend seminars that are related to their department on efficiency and environmental policies.

Chair Sopoci-Belknap said the Commission has not created training for a basic orientation for staff in the different departments.

Commissioner Chiocchio mentioned that she is developing the Climate Masters Course now and maybe we can send staff to that course.

Commissioner Evans said the Community College has developed some curriculum around this and she would be happy to help with this. She agreed with Commissioner Pape about developing some kind of brochure.

Commissioner Kelly noted that there are some ordinances that are created but never get to fruition. There also some ordinances that never come to this Commission and Commissioner Kelly wondered if there was some way to get some of these things to come before this Commission.

In response, Ms. Mortimer said there are a number of committees that some of these things have to go through and if it is not a controversial issue, there is a chance that this Commission will not be asked to discuss or even see some of the ordinances. She explained that the agendas for the different committees are published every week and this is a way that people can flag or track what is being discussed.

Commissioner Schiffbauer said the Commission has a great opportunity now with the Mayoral candidates to exhort the Commission's role.

Chair Sopoci-Belknap said this goes back to saying what the role of the Commission is.

Commissioner Pape said the Commission does not have the resources to look at every single decision that is made at the City but maybe the Commission can help define the list of considerations that can be made.

Mr. Alejandro Jr. asked if anyone is appointed to go to the City Council meetings.

Commissioner Pape said no.

Mr. Alejandro Jr. said he would be happy to go to the City Council meetings.

Ms. Mortimer said the Commission needs to be very clear on the process, the resources and be united on this, as a group.

Commissioner Romero said the Education and Outreach Subcommittee can hash this out at their next meeting.

Chair Sopoci-Belknap asked the Commissioners to fill out the survey. She noted that there is also a question on the role and procedures of staff - to better coordinate the process.

2. Resolution in Opposition to PNM's Replacement Power Plan

Chair Sopoci-Belknap asked if the Resolution went out with the Minutes.

The Commissioners said no.

Ms. Mortimer said the Commission discussed the Resolution at the December 2013 meeting, and that discussion is included in the Minutes of that meeting.

Chair Sopoci-Belknap reviewed the "Whereas" of the Resolution. She noted that the Resolution has gone through the Public Utilities Committee and the Finance Committee.

Commissioner Chiocchio moved to adopt the Resolution in opposition to PNM's Replacement Power Plan. Commissioner Pape seconded the motion. The motion passed unanimously by voice vote.

Due to time constraints, the following agenda items were not discussed.

- 3. SUBCOMMITTEE REPORTS
- 3.1 COMMUNITY ENGAGEMENT
- 3.2 SUSTAINABLE SANTA FE AWARDS SUBCOMMITTEE
- 3.3 ENERGY SUBCOMMITTEE

ITEMS FROM THE CHAIR

Chair Sopoci-Belknap noted that John Alejandro Jr. and English Bird will be appointed to the Commission. The Commissioners welcomed John Alejandro Jr. to the Commission. English Bird was not in attendance for this meeting.

ITEMS FROM THE COMMISSION

Commissioner Rotunda announced that she will be leaving and therefore this is her last Commission meeting. Chair Sopoci-Belknap thanked Commissioner Rotunda for serving on the Commission.

Ms. Mortimer said she did not know if the new Commissioners can be appointed by the next Commission meeting, so they may need Commissioner Rotunda to attend the next meeting.

Commissioner Pape acknowledged Commissioner Chiocchio and John Alejandro Jr. for the great job they did for Renewable Energy Day at the Roundhouse.

Commissioner Chiocchio said the next Climate Masters Course is scheduled for March 3^{rd} to April 2^{nd} .

Commissioner Chiocchio said she started working with David Groenfeldt of the Water-Culture Institute on developing a Water Ethics Charter and he would like to come to the next Commission meeting.

Commissioner Evans noted that she is working with a group of people on creating a HERS rating for water, called "WRS".

ITEMS FOR NEXT AGENDA

- 1) Water Conservation Committee representative
- 2) David Groenfeldt of the Water Culture Institute

ADJOURNMENT

Schedule next meeting/adjournment

The next meeting is scheduled for March 18, 2014 from 2:30 p.m. to 4:30 p.m.

Having no further business to discuss, the meeting adjourned at 4:35 p.m.

Approved by:

Bianca Sopoci-Belknap, Chair

Respectively submitted by:

Jo Ann G. Valdez, Stenographer,



Santa Fe Sustainability Report Card

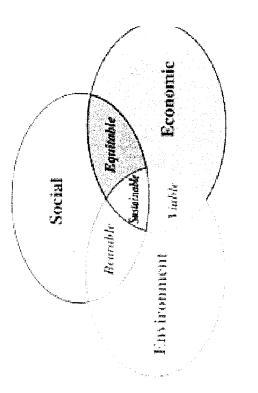
 Annually measures progress of priorities in 2008 plan Provides feedback on the efficacy of programs, and information to focus sustainability efforts where they are most needed in Santa Fe

Gives information for updating and refocusing the 2008 plan moving forward

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Santa Fe Sustainability Report Card

Climate Change predictions (overview, precipitation/snowpack trem Climate Change Resiliency (including vulnerabilities and adaptation PMM increases the percentage of renewable energy it provides PNM decreases coal and natural das sources of energy Green House Gas Emissions. Manatton and Adaptation CUZe Emissions Total in Santa he



Environmental and Resource Management

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Sustainable Economics

Section 19 Person

Reduce Consumption Per Capita

Instructor Portion of Water Benewably Sourced Reduce Total Censumption of Water

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Conservation Education Programs Beach Increasing Humbers of Residents

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Diversion Increases as Lanchil Malecials Decrease Increase Sesyching Percentage of Societists

Geric Emissions are Reduced Through Waste Management Practices

Cay Tree Campy is Washing

Santa Fe River Water Quarity Remains High

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Sociale is increasing in when density appropriate to population growth Public transit is mineralingly utilized

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Vehicle Miles Traveled a reduced

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Farmer's Marker is utilized ford Security and Health

Community Gardens one evaluable

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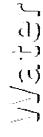
Social Perticipation

Voter Participation

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Sustainable Santa Fe Report Card 2013

Environmental and Resource Management



COAL	Consumption Per Capita is Reduced	Total Consumption is Reduced	Portion Renewably Sourced Increased	More Reclaimed Water is Utilized	Water efficiency incentives are utilized	Conservation Education Reaches Increasing Numbers of Residents
PROGRESS	- -	9		-	-	-
TOPIC	Per Capita Consumption	Fetal Consumption	Renowable Water Source	Recipimed Water	Efficiency Incontives	Education

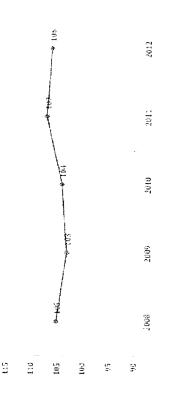
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Water Use Per Capita

Goal, Consumption Per Capua is Reduced

In 2012, Sama Feans used at: average of 15th gallons per capita per day (CPCFD: Bonree: Innuari Biner Repair, City of Sama Fe Water Division and is defented as defented by dividing the amount of water supplied to the City of Sana Fe Water Division and its celeminated by dividing the amount of water supplied to the City of Sana Fe by the population of water division customers served and includes no; only ics dential bit also commercial, and irrigation water. Compared to other othes in the region, this is one of the lowest GPCPD values, and we have maintained a GPCPD value of just over (60 gallons for several years now. However, our population is growing and it is important to also consider the total water used by the city when planning sustainable and cli mate-adapted water use.

Gallons Per Day Per Capita



Total Water Consumption

City of Santa Fe Water Division Customer Demand (Acre-feet)

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Goal. Total Consumption is Reduced

While Santa Fe's gallons per capita value has remained low, in order to prefect our groundwater and adapt to the new chinate we must reduce our total water use.

While city population has grown 1.3% from 2010 to 2912, our total water demand has uncreased 7.6% on the same

fShince: http://www.sontafenm.gov/how_mach_ water_dc_we_use_neports_and_studiesf

Sustainable Santa Fe Report Card 2013

Environmental and Resource Management

Waste

 IQPHIC
 PROGRESS
 SIGHL

 Putal Waste
 Decrease Waste Per Capita

 Recycling Participation
 100% of Santa Fe City Residents participate in the recycling program

 Recycling Participation
 100% of Santa Fe City Residents participate in the recycling program

 Recycling Participate
 Increase Recycling Percentage in MSW

 Diversion
 Diversion Increases as Landfill Materials Decrease

 Embosions
 Reduce GHG Emission Through Waste Management Practices

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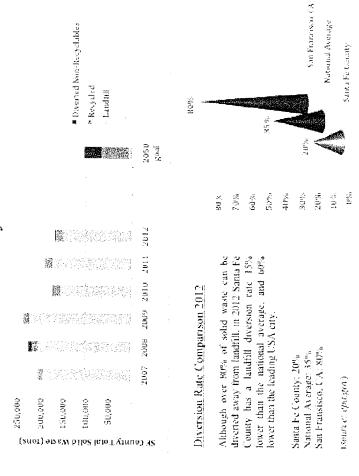
Diversion Totals

Geal. Development increases as Landfill Materials Decrease

The diversion programs at the Buckman Road Recycling and Transfer Station are designed to redirect solid waste that would be put in the fandfill toward new, beneficial uses. Recycling is one type of diversion, in which materials such as plastics, metals, glass, and paper are solid for use in other products. Other materials that are not recyclable, however, can also being diverted for reuse, including computers and electronics, breycle parts, household hazardous waste, reusable construction waste such as clean fill dirt, and compostable green waste.

For a sustannable future, we need to increase the amount of waste that is beneficially diverted, and decrease the amount of our waste that is sent to landfill. The goal set by the STAR Communities sustannable cities rating system is "Zero Waste," to have 100% of waste recycled or diverted, by 2650. Santa Fe County is successfully decreasing the amount of solid waste sent to landfill and increasing the percentage of waste that is diverted (*source: NM Environment Department 2015 untitud report*), but not currently at a rate sufficient to meet the 2950 goal.

Santa Fe County Solid Waste



How To Collect Report Card Data WASTE

Waste Per Capita

- 1) Total SF County waste is available here:
- http://www.nmeny.state.nm.us/swb/AnnualReportsandForms.htm
- City specific waste data is available in SF Trends, which are available on the City website.
- Mational Average can be found on the EPA's website:

http://www.epa.gov/epawaste/nenhaz/municipal/index.htm
To calculate tons per year per capita, take the national average lbs per
person per day provided on the fact sheet (2007 example: 4.65 lbs per
person per day), then multiply by 365 to get lbs per year (1697 lbs per
person per year), then convert lbs to tons (85 tons per person per year)

Recycling Participation

 This data comes from the Environmental Services department (Cindy Padilla, 2013). It will be difficult to collect every year.

Landfill and Diversion

1) Landfill and diversion totals can be found:

http://www.nmenv.state.nm.us/swb/AnnualReportsandForms.htm

Recycling and Diversion Totals

- Total SF County waste is available here:
- http://www.nmenv.state.nm.us/swb/AnnualReportsandForms.htm
- 2] The "Total MSW" column refers to how many tons of MSW were put in the landfall. The "Recycling Tonnage" and "Diversion Tonnages" are in addition to that (according to Danita at the BURRT station 2013 http://www.sfs.wind.org

Emissions

- 1) Emissions data is calculated using the WaRM tool from EPA:
- http://epa.gov/epawaste/tonserve/tools/warm/index.html
- This data will be difficult to obtain annually, as sfawma has not updated it in their annual report since 2010.



January 16th, 2013

Dear Parents,

Nava Elementary is offering an Earth Care program that will help our children grow and learn through a "hands-on" learning experiences and activities. Earth Care programs provide a positive learning experience for youth to develop responsibility and community engagement through organized garden and environmental activities.

The Earth Care program combines a unique garden based and environmental curriculum, community service, and service-based learning into a fun and exciting enrichment program for youth. This program is designed to incorporate science, math, language arts and geography and other subject area disciplines into the "hands-on" gardening and environmental activities. Earth Care curriculum draws from proven national programs such as Junior Master Gardeners, The Growing Classroom, Project Learning Tree and Earth Force and is correlated to academic standards. Nava Elementary needs your help to make the Earth Care program a success! Here are some ways you can become involved.

I am willing to:

Donate money or gardening equiprVolunteer my time to assist childre	ces, arbors, and other structures this spring. ment and/or supplies for use in the garden and classroom. on in the garden or classroom this spring. d community members for support through donations and
Parent	Child
Email	Phone #
My child's teacher is	

Thank you, Casey Moir Earth Care Educator, Nava Elementary School (978) 290-2792 casey@earthcarenm.org 1 2 3 4 5

Yes! O O O O Not a Great Idea

Submit

Never submit passwords through Google Forms.

Google Drive

Report Abuse - Terms of Service - Additional Terms



January 16th, 2013

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casey@earthcarenm.org

Assist in building garden beds, fences, arbors, a Donate money or gardening equipment and/or Volunteer my time to assist children in the gardening businesses and community gifts for the garden program.	supplies for use in the garden and classroom. den or classroom this spring.
Parent	Child
Email	Phone #
My child's teacher is	
Thank you, Casey Moir Earth Care Educator, Nava Elementary School (978) 290-2792	

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1	2	3	4	5	
Yes! O	0	0	0	0	Not a Great Idea

What do you think of the idea of creating an annual "Implementation Plan" that articulates annual objectives in each section of the Plan and sets the direction for the work of SSF and other City departments.

Currently, the Plan outlines general ideas in each section. Tracking on progress has been difficult because some of the ideas are applicable and others are not. Annual implementation goals/objectives would provide strategic direction and measurable outcomes for our work.



January 16th, 2013

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Parent	Child
Email	Phone #
My child's teacher is	

Thank you, Casey Moir Earth Care Educator, Nava Elementary School (978) 290-2792 casey@earthcarenm.org

SSF Commission Direction Survey City staff) Do you have suggestions to improve our Committee structure? * **POLICY INITIATIVES** A couple different approaches were proposed for our strategic direction on policy initiatives moving forward. Please assess each. Review sustainability related policies to determine if policies exist that have not yet been successfully implemented. Focus on trouble-shooting for implementation in order to address lowest hanging fruit. 1 2 3 4 5 Yes! O O O O Not a Great Idea Identify inefficiencies - unused, or wasted resources and propose policies to reduce inefficiencies and save money.



Green Cities Campaign Santa Fe, New Mexico

Background

The Green Cities campaign is an international initiative to help cities accelerate their transition to a cleaner, more sustainable future through improvements in efficiency, investments in renewable energy, and regulation reform. In partnership with a select number of cities, Earth Day Network will develop and support practical local solutions that will reduce the city's carbon footprint and improve the quality of life for its citizens.

Santa Fe, New Mexico

Santa Fe has been chosen as one of six cities in the US to pioneer the Green Cities campaign. The city was selected for several reasons: its size, interest in sustainability, ongoing programs, and potential to be a leader in the Green Cities movement.

In collaboration with the city of Santa Fe and several local non-profit partners, the Green Cities campaign will work with the city to develop a series of programs and policies to help Santa Fe become more sustainable over a two year period. From potential new building code requirements, to LED relamping projects, the campaign will help the city of Santa Fe identify and implement solutions that will reduce greenhouse gases, save money, and add new jobs.

Along the way, the campaign will engage local citizens by organizing dialogues and activities to educate the public, improve government transparency, and solicit community input. In addition the campaign will utilize the platform of Earth Day to promote the work of Santa Fe and Earth Day Network will highlight the city's accomplishments in official Earth Day communications material.

Success stories from the city of Santa Fe will be shared with other city participants as well as other neighboring cities throughout the year to cultivate a support network and build a database of expertise on Green Cities.

Becoming a Green Cities Participant

There is no formal commitment required from the city to become a Green Cities participant. The next step in becoming a participant is setting up a conversation with the appropriate city official(s) and Earth Day Network.

Please contact the Director of Earth Day, Franklin Russell, via email, russell@earthday.org, or phone 202-518-0044, ext. 43, to set up a meeting.



FORMS I AND WATER SANDARD. A PLANT DRIFTE SANDARD.

Santa Fe Watershed Association

FOREST AND WATER CLIMATE ADAPTATION: A PLAN FOR THE SANTA FE WATERSHED

Santa Fe Watershed Association

City of Santa Fe

Model Forest Policy Program

Cumberland River Compact

December 30, 2013

Author:

Esha Chiocchio

Editors:

Gwen Griffith, Toby Thaler, Todd Crossett, Alyx Perry, and Ray Rasker























Model Forest Policy Program

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GLOSSARY OF TERMS AND ABBREVIATIONS

Acequia: A community operated watercourse used in Spain and former Spanish colonies in

the Americas for irrigation. Also known as a ditch.

Acre feet (af): The volume of water that is needed to cover an area of one acre to a depth of one

foot. 43,560 cubic feet or 325,851.429 US gallons.

Arroyo: A watercourse or gulch with a nearly flat floor that is usually dry, except after

heavy rains.

Mayordomo: An elected official responsible for the day-to-day management of an acequia.

Parciantes: Members of an acequia who maintain and draw water from their affiliated

acequia.

ASR: Aquifer Storage and Recovery

BCC: Board of County Commissioners

BDD: Buckman Direct Diversion
BLM: Bureau of Land Management

BOR: Bureau of Reclamation
CIP: Capital Improvement Plan
CNG: Compressed Natural Gas

CWA: Clean Water Act
CS: Community Solar

CSU: Climate Solutions University
DNR: Department of Natural Resources

EERE: Energy Efficiency and Renewable Energy

EPA: Environmental Protection Agency
ESA: Environmental Species Act
EUE: Efficient Use of Energy Act
FDSI: Forest Drought Stress Index

FEMA: Federal Emergency Management Agency

GCC: Green Chamber of Commerce GCM: General Circulation Models

GUEP: Georgetown University Energy Prize

GPCD: Gallons per Capita per Day GPS: Global Positioning System

LEED: Leadership in Energy and Environmental Design

LLC: Limited Liability Corporation
NDVI: Vegetation Greenness Index
NEE: New Energy Economy

NMED: New Mexico Environment Department

NPDES: National Pollutant Discharge Elimination System

PNM: Public Utility of New Mexico
PPA: Power Purchase Agreement
PRC: Public Regulation Commission
PV: Photovoltaic (solar panels)

QWEL: Qualified Water Efficient Landscaper

REC: Renewable Energy Credit

SC: Sierra Club

SFAHAB: Santa Fe Area Homebuilders Association

SFCC: Santa Fe Community College SFPP: Santa Fe Public Power

SFWA: Santa Fe Watershed Association
SSFC: Sustainable Santa Fe Commission
SWQB: Surface Water Quality Bureau
TMDL: Total Maximum Daily Loads
TNC: The Nature Conservancy

WQ: Water Quality

WUI: Wildland Urban Interface

UN: United Nations

USDA: United States Department of Agriculture

USFS: United States Forest Service

USFWS: United States Fish and Wildlife Service

FOREWORD

In 2013, the Model Forest Policy Program (MFPP), the Cumberland River Compact, and Headwaters Economics came together with the Santa Fe Watershed Association and the City of Santa Fe to create a climate adaptation plan for the Santa Fe watershed. Development of the plan came about because all parties, led by MFPP, recognized the critical need for local community resilience against the impacts of climate change by protecting forest and water resources. This climate adaptation plan for the Santa Fe watershed presents the results of a community team effort, deep and broad information gathering, critical analysis and thoughtful planning. The Santa Fe Watershed Association took the local leadership role to engage with the Climate Solutions University: Forest and Water Strategies program (CSU) and lead their community toward climate resilience with an adaptation plan that addresses their local climate risks and fits their local conditions and culture. This achievement was made possible by the guidance and coaching of the Climate Solutions University: Forest and Water Strategies program (CSU) created by the Model Forest Policy Program in partnership with the Cumberland River Compact and the assistance of Headwaters Economics. The goal of CSU is to empower communities to become leaders in climate resilience using a cost effective distance-learning program. The result of this collaborative effort is a powerful climate adaptation plan that the community can support and implement in coming years. The outcome will be a community that can better withstand impacts of climate upon their natural resources, economy and social structure in the decades to come.

ACKNOWLEDGEMENTS

A big thank you to those who contributed their time and expertise to the creation of this plan, specifically, the members of the planning team. Additional thanks to Jamey, Zubin and Ciela Stillings for their time and support.

Support from Climate Solutions University would not have been possible without the major funding of The Kresge Foundation and other funders, which allowed CSU to develop the in-depth curriculum and provide grants for local community participation.

The team that leads the CSU program includes: Nancy Gilliam, Gwen Griffith, Todd Crossett, Toby Thaler, Alyx Perry, Margaret Hall, Jeff Morris, Ray Rasker, Vanitha Sivarajan, Josh Dye, and Mike Johnson.

Thank you to the CSU community representatives in PA, OR, MI, and AK for their suggestions, inspiration and expertise.

EXECUTIVE SUMMARY

Long periods of drought, unprecedented storm events, warmer average temperatures, rising seas, unpredictable weather patterns - we are already seeing the impacts of a changing climate. Whether we like it or not, we are entering a period of warming on a global scale that is shifting weather patterns everywhere.

Here in the southwestern United States, these changes are being expressed through reduced snow pack, shifting precipitation patterns, decreased water supplies, and increased temperatures. As a result, we have already experienced catastrophic wildfires, flooding and reduced agricultural yields. Trends we expect to continue.

Fortunately, there is something we can do about it. Seeing these patterns taking hold, The Santa Fe Watershed Association (SFWA) contracted with the Model Forest Policy Program (MFPP) to develop a climate adaptation plan through their Climate Solutions University (CSU) planning process. A team of experts from the greater Santa Fe community worked with CSU to develop this plan from a holistic perspective to identify the most pressing vulnerabilities and create an action plan to add long-term resilience to the Watershed and Santa Fe community.

Over the course of several months, the planning team studied the predicted climate shifts as well as the forest, water and economic vulnerabilities of the area. From this information, they used a prioritization system to analyze the climate risks and determine the areas of highest priority. Perhaps not surprisingly, the resulting priorities include: reduced water supplies; increased risk of wildfire and forest degradation; flooding; and a dearth of job opportunities to retain and attract working families. Taking into consideration the pillars of sustainability, (environmental stewardship, economic health and social justice) the planning team developed five goals that

GOAL It Support efforts that increase the water security and ecological integrity of the Santa Fe Watershed through conservation, infiltration, groundwater recharge, and reuse.

GOAL 2: Work with the U.S. Forest Service; the City of Same Reanthollic organizations to improve to est health to a calling a business as almost continue.

GOALE 30 Explore the workforce training needs to simplement this plant

GOAL 4: Support efforts that increase energy efficiency and renewable energy (EERE) to achieve a reduction in fossil fuel-derived and water consumptive energy sources by 45% by 2030.

GOAL 5: Bohance financing systems that well into (equity) investments, semengency funds, and cash flow availability to fund climate adaptation and important.

address these issues and have the greatest chance of long-term success.

The implementation of these goals will take time and resources. However, it is imperative that we continue to tackle the vulnerabilities we know exist on multiple levels. History tells us that when communities are faced with changes such as these, there are three potential strategies and outcomes: 1) they do nothing and are subject to the environmental impacts that ultimately destroy their cities, 2) they migrate from the area, or 3) they proactively work to adapt to the changes and ultimately thrive. What do we want for Santa Fe?

Through climate adaptation planning we can increase the resilience of our landscapes while improving our economy and creating new job opportunities. Specific strategies are available to safeguard water resources and reduce hazards from storms, fires and floods. These strategies include increasing rainwater infiltration, developing water reuse systems, expanding forest thinning treatments, improving the functionality of our rivers and arroyos and developing long-term financing structures that enable all of this work to be implemented.

As this plan is put into practice, its progress should be continually monitored and evaluated to determine if benchmarks are being met and changes should be made. This is a living document that provides suggestions to strengthen our resilience given the information that we have today. With time, conditions and resources may change, requiring a nimble approach to the implementation of the action steps.

Our overarching goal is to ensure that Santa Fe thrives for centuries to come. What will be your role in shaping Santa Fe's future?

INTRODUCTION



Photo 1: A patio at the Randal Davey Audubon Center exemplifies the adobe architecture of Santa Fe. Source: Esha Chiocchio.

Community Introduction

The Santa Fe River watershed is nestled at the southern tip of the Sangre de Cristo Mountains in the high desert region of north-central New Mexico. At an elevation of 7,000 feet, the city of Santa Fe enjoys four distinct seasons and the recreation activities that go with them: skiing, cycling, hiking, horseback riding, and more. Santa Fe has long been known for its artist community and boasts the third largest art market in the country (behind the much larger cities of New York and Los Angeles). It is also home to three annual events that bring thousands of visitors to our fine city: the Indian Market, the Spanish Market and the Folk Art Market. Hundreds more come to experience our world-renown *plein-aire* opera house, numerous concerts of all genres, and countless lectures by some of the world's most influential thinkers.

With so much emphasis on art and culture, much of Santa Fe's economy is dependent on tourism. People come to enjoy the charming adobe architecture, the winding streets, the galleries and museums and the mountains that provide such beauty and beckon us outdoors.

However, those mountains, and the forests that cover them, also represent a lynchpin for the community. When they are healthy and functioning optimally, they provide our drinking water, habitat for countless species, help stabilize soils, influence weather patterns, help cool the microclimate and generally provide a certain degree of stability. Due to a convergence of factors, namely a century-long policy of fire suppression and an increase in temperatures due to climate change, these critical forests are at risk. Throughout the west, catastrophic forest fires and insect infestations have decimated huge swaths of forested lands, some frighteningly close to the Santa Fe watershed. With high tree densities due to fire-suppression, and increased temperatures due to climate change, these forests burn hotter than they would normally, leaving little life in their wake. In addition to the loss of forest cover and habitat, fires of this nature destroy the trees and vegetation that once stabilized the slopes, presenting significant flooding risks that can quickly fill reservoirs with sediment and debris, reducing the water storage capacity for the community.

As temperatures rise, another risk presents itself in the lower elevations of the watershed: desiccation. Similar to the situation in our forests, a convergence of century-long bioregionally inappropriate management practices and global climate shifts have slowly moved water out of the watershed, reducing groundwater supplies and soil moisture levels. In short, Santa Fe's infrastructure was designed to move water out of the streets and away from buildings as quickly as possible. However, in a city that only receives 12 inches of rain per year, the trees, plants and soil are in need of as much moisture as they can get.

Planning for a Changing Climate

In order to create a plan that increases the resiliency of the Santa Fe watershed in the face of a changing climate, the Santa Fe Watershed Association (SFWA) partnered with the Model Forest Policy Program (MFPP) to undergo a planning process through their Climate Solutions University (CSU) program.

The SFWA works to build vibrant, resilient ecosystems within the Santa Fe Watershed using a holistic approach of restoration, education, stewardship, and advocacy. SFWA staff builds alliances among decision makers, community members, business owners, and other organizations to promote smart resource planning and use, especially regarding water, within the watershed.

With this mission in mind, SFWA partnered with CSU to undergo a nine month planning process to develop a climate adaptation plan that would increase the resiliency of the Santa Fe watershed and reduce the risks and impacts of fire, flooding, drought and the economic hardships associated with the predicted impacts of climate change in the region.

The development of this climate adaptation plan was made possible through the guidance of the CSU staff and the Santa Fe watershed planning team, led by Esha Chiocchio. During the planning process, CSU presented bi-weekly webinars and engaged in coaching calls to help guide the team in gathering and synthesizing the necessary information. The Santa Fe planning team collaborated

to produce this plan via bi-monthly meetings, email correspondence, webinars, and data exchange.

The local Santa Fe planning team consists of the following individuals:

Claudia Borchert, Water Resources Coordinator, City of Santa Fe Water Division

Felicity Broennan, Executive Director, Santa Fe Watershed Association

Esha Chiocchio, Climate Solutions Coordinator, Santa Fe Watershed Association; Vice-chair, Sustainable Santa Fe Commission (SSFC); and Chair, SSFC Energy Committee

Carl Dickens, President, La Cienega Valley Association

Brian Drypolcher, River and Watershed Coordinator, City of Santa Fe

Melissa Houser, Conservation and Stewardship Coordinator, Santa Fe Conservation Trust

Jan-Willem Jansens, Owner/Principle, Ecotone

Dale Lyons, Former Water Resources Coordinator, City of Santa Fe Water Division. Current Director of Fresh Water Programs, The Nature Conservancy

Katherine Mortimer, Sustainable Santa Fe Programs Manager, City of Santa Fe

Charlie Nylander, President, Water Matters, LLC.; Chair, Jemez y Sangre Regional Water Planning Council; Chair, Española Basin Technical Advisory Group; and Chair, Española Basin Regional Issues Forum

Mary Orr, Wildlife Biologist, U.S. Forest Service, Santa Fe National Forest

José Varela-Lopez President, Santa Fe-Pojaque Soil and Conservation District and member of the La Cienega Valley Association.

In addition to the core team, a group of advisors provided their expertise for specific portions of the plan. These include:

Bill Armstrong, United States Forest Service

Jon Boe, United States Forest Service

Ben Gurule, Santa Fe Parks Division Director

Katherine Harris Tijerina, Railyard Stewards Executive Director

Melissa McDonald, Santa Fe Water Conservation Committee

Mariel Nanasi, New Energy Economy Executive Director

Craig O'Hare, Santa Fe County Energy Programs Specialist

Grace Perez, Santa Fe Water Conservation Committee

Alex Puglisi, City of Santa Fe Water Division

Teresa Seamster, Sierra Club

Lara Wood Miller, The Nature Conservancy

Bob Wood, Urban Forest planner, City of Santa Fe



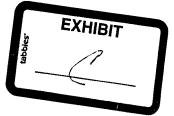
Photo 2: Children playing in the Santa Fe River during the spring flow of 2012. Source: Esha Chiocchio.

DEVELOPING AN ADAPTATION ACTION PLAN

In order to develop an adaptation action plan, the team listed all of the stressors and/or impacts for the watershed that were identified during the assessments and wrote them onto orange sticky notes. We then moved them into groups that could be addressed by the minimum number of goals. We then began brainstorming goals that would address each of the stressors to create a more resilient environment, economy and society and wrote a couple of the goals onto purple sticky notes. While many of the stressors are addressed by multiple goals, it was our objective to address all of the stressors through the development of our goals for the plan. During the process, we considered the following stressors:

- → Decreased ground water supplies
- → Decreased surface water supplies
- → Erosion of arroyos
- → Erosion of the Santa Fe River
- → Increased evaporation
- → Soil desiccation
- → Drying wetlands
- → Drying wells
- → Drying springs
- → More intense storms (harder/faster rainfall patterns)
- → Energy intensive water sources
- → Brain drain (educated youth moving elsewhere to find work)
- → Invasive tree species
- → Fragmented wildlife corridors
- → Reduced agricultural capacity
- → Economic impacts to water processing facilities

- → Increased risk of Catastrophic forest fires
- → Wildland Urban Interface (WUI) fire risks
- → Economic impacts to insurance companies
- → Economic impacts to building and home sales
- → Flooding
- → Higher temperatures
- → Bark beetle/insect infestations
- → Decreased tourism revenues
- → Later snowfall
- → Earlier snow melt
- → Decreased snow pack
- → Water intensive energy production



SSF Commission Direction Survey

Please take 20 minutes to complete the survey below. The SSF Commission was charged with the task of creating the Sustainable Santa Fe Plan and now is responsible for helping the City and the Community implement the Plan. Our group work in January was valuable AND we need folks' individual insights as well in order to determine the best path forward. Thank you for your time and attention.

* Required

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Please explain your answer. Do you have any suggestions for improvements?

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How ef	fect	ive	ie H	ne r	elationship between the Commission and other Departments?
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1	2	3	4	5	
Low O	0	0	0	0	High
Please	exp	olaiı	ı yo	ur a	answer. Do you have any suggestions for improvements?

CURRENT PROJECTS

Please Rank these Current Projects in terms of importance to our mission

These are projects that are carried over from 2014 and continue to use time/resources. Please see info sheet for reference.

	Need to Continue with More Resources to Ensure Success	Need to Continue at Same Level	Need to Continue in Scaled Back Form	We Should Continue our Support but End our Involvement	I don't know enough about this to say
COMMUNITY ENGAGEMENT: Sustainable SF Awards	0	0	0	0	0
COMMUNITY ENGAGEMENT: Sustainable SF Website	0	0	0	0	0

COMMUINITY ENGAGEMENT: Green Fire Times Column	0	0	0	0	0
POLICY INITIATIVES: Community Solar	0	0	0	0	0
POLICY INITIATIVES: Re-Usable Bag Ordinance	0	0	0	0	0
CAPACITY- BUILDING/PROGRESS ASSESSMENT: Community Scorecard	0	0	0	0	0

COMMITTEES

Which Committee Do You Prefer to Serve On? *

We have 9 seats. If we agree that SSF should have all of the below functions, we need to allocate Commission resources as well as staff resources to all three areas. Ideally 3 Commissioners per committee with support from other community members and partners as well as staff. Please rank your interest level in each.

	High	Medium	Low
Community Engagement (help with events, website updates, Green Fire Times article, SSF Awards)	0	0	0
Policy Initiatives (Community Solar, Re-usable Bag, Pursuing opportunities (un-implemented resolutions, inefficiencies, etc)	Ο	0	0
Capacity- Building/Progress Assessment (Community Scorecard, Reporting back to Councilors, Meeting with Departments, Providing training for	0	0	0