Santa Fe County Economic Development Plan

-Appendix

September 10, 2013

Prepared By David Breecker Associates

Santa Fe County Economic Development Plan Appendix
Table of Contents

I.   SFC STAKEHOLDERS INTERVIEW LIST

Santa Fe County Commissioners:
Kathy Holian
Danny Mayfield
Robert Anaya
Liz Stefanics
Miguel Chavez
SFC Stakeholders Interviewees
Stakeholders Interview and Input List in alphabetical order by last name

- Jack Allston   JBA & Associates
- Monique Anair   SFCC
- Tim Armer, ED   North Central NM ED District
- Erick Aune   SFC
- Jon Barela   NM EDD Cabinet Secretary
- John Berkenfield   Rancho Las Golondrinas
- Simon Brackley   Santa Fe Chamber of Commerce
- Cynthia Delgado   City of Santa Fe CVB
- Robert Griego   SFC
- Randy Grissom   SFCC
- President Guzman   SFCC
- Sarah Ijadi   SFC
- Elizabeth Kuuttila   STC.UNM
- Marie Longserre   Santa Fe Business Incubator
- Alex Martinez   SER Jobs for Progress
- Maggie Lujan   SER Jobs for Progress
- Luis Duran   SER Jobs for Progress
- Suzette Lucero   SER Jobs for Progress
- Cara Michaliszyn   STC.UNM
- Beth Mills   SFC
- Hvtce Miller   SFC
- Michael Mykris   SBDC
- Kate Noble, MIX   City of Santa Fe
- Craig O'Hare   SFC
- Jenny Parks   NM Community Foundation
- Elisabeth Salinas   SFC
- Melynn Schuyler   Youthworks
- James Siebert   James W. Siebert & Associates, Inc.
- Duncan Sill   NCNMED
- Juan Torres   State of NM, Office of Economic Development
- Eric Vasquez   RDC
- Alan Webber   Author

Roundtable Discussions & Regional Meetings:

- Destiny Allison — El Dorado
- Deborah Avren — Tourism Consultant
- Claudia Borchert — City of Santa Fe, Water Division
- Simon Brackley — Santa Fe Chamber of Commerce
- Glenn Schiffbauer — Santa Fe Green Chamber of Commerce
- Felicity Broenan — Santa Fe Watershed Association
- Alexander Dzurec — Autotroph
- Debra Griego — SF Arts Commission
- Patricio Guerrerotiz — SFC
- Jon Hendry — IATSE Local 480
- Jason Hool — SF Studios
- Monique Jacobson — NM State Department of Tourism
- Liz Kellogg — SF Opera
- Nick Maniatis — NM Film Office
- Bob Martin — Lensic Performing Arts Center
- Mariel Nanasi — New Energy Economy
- Dirk Norris — NM Film Office
- Charlie O'Leary — SF Conservation Trust
- Doug Pushard — Harvest H2O
- Laura E. Sanchez — NM Green Chamber of Commerce
- Luke Spangenberg — New Solutions Energy
- Kris Swedin — Creative Santa Fe
- Yvette Tovar — NM Water Collaborative
- Debra Tuck — Farmers Market Institute
- Alton Walpole — Mountainair Films
- Daniel Werwath — Affordable housing consultant
- Regina Wheeler — Positive Solar
- Eric Witt — Film Consultant
- Destiny Allison — Arts Studio Tours El Dorado
- Alyson Gilman — Small business owner
- Brad Hill — Town of Edgewood, Mayor
- Diana and Mel Johnson- — Madrid Johnson Galleries
- Lori Lindsey — Madrid Merchants Assoc, MineShaft Tavern
- Myra Pancrazio — Estancia Valley Economic Development Assoc.
- Gail Snyder — Madrid Cultural Project
- Roger Taylor — Galisteo Community Citizen
- Kay Davis — Town of Edgewood

II.   COMPILATION OF IDEAS AND SCORING WITH METHODOLOGY

2.1 Introduction

This report 'Major Ideas Feasibility Testing, Scoring & Resource Identification Compilation of Ideas' is the fourth deliverable in the Santa Fe County Economic Development Plan consulting engagement. The focus of this document follows the contract deliverable. It is the last interim deliverable in advance of the full draft Economic Development Plan.

This is a working tool designed to collaboratively sift, rate and judge ideas generated from stakeholder interviews, roundtable discussions, national research of comparables, and team member ideation. By specification and design, this is a first filtering of the full universe of ideas based on aggregation of all information compiled to date. By its nature as a draft, it is designed for iteration to collectively hone and refine the list of final ideas for priority consideration in the Plan.

This document details the overall process of review, describes the method for filtering and evaluating ideas according to key criteria, and explains scoring variables for which a uniform analysis for all opportunities was used, thereby explaining the staged process that led to the selection of priority ideas for consideration.

2.2 Process Description and Methodology

This step in analysis evaluates the 'List of Ideas', which was the deliverable submitted previously. That document provided a full compilation of ideas in a sequence of sections, from broader more general topics to more specific. Headings in that spreadsheet are detailed at the end of this report, and included:
- Overarching:
  - Strategy & Principles
  - Systems & Infrastructure
- Target Industries: Agriculture, Arts/Culture, Eco-tourism/Outdoor Recreation, Green Industries, Film, and Health/Wellness
- GMAs: El Norte, El Centro, Galisteo and Estancia

The goal of this stage is to score, rate and rank ideas to determine the best ones and their value for Santa Fe County. The steps taken in this stage of analysis were as follows:
1. Develop vetting priorities and scoring criteria in coordination with County personnel.
2. Take the 'List of Ideas', and add new information and additional ideas gathered in the consultancy since that deliverable was provided.
3. Sort ideas by type and category, noting overlapping items. Merge/combine ideas that are similar in nature and/or have collective application.
4. Review ideas that are broad, general and/or cross cutting in nature. Highlight ideas for inclusion in the narrative and as guiding elements in shaping the overall strategy. These are in a dedicated tab. Criteria for highlighting were those that fulfilled a combination of: had been mentioned multiple times in interviews and roundtables, follow national trends and best practices, are congruent with the SGMP, build upon existing activities of the County, fit existing

funding activities in economic development by the County, were specified by County personnel/Commissioners, and/or were identified by the Consultants.

5. Vet all ideas in an initial prioritization. Store those which:
   a. Are already being addressed
   b. Are general or broad in nature, so do not lend themselves to be 'actionable' by SF County
   c. Have little, if any, role for the County or do not currently offer any anchor for accountability in a role for the County
   [Note: these have been stored and noted and are available for others to work on, support and/or advance.]
6. List all remaining ideas together in one area – placed on the scoring sheet.
   a. Conduct preliminary scoring of all ideas
   b. Review for accuracy and consistency and comparability
   c. Remove, merge, edit as indicated through analysis for parity in scoring
7. Review top scorers.
   a. Detail resource needs for the top scorers as possible at this stage.
8. Next steps to be taken.
   a. Prepare narrative for the Plan which details overarching ideas that constitute the strategy (see tab of ideas dedicated to those on spreadsheet). Enumerate top ideas and align them with SGMP goals, target industries and GMAs. Detail their resource needs.

2.3 Spreadsheet Explanation

The accompanying spreadsheet is created to be an interactive document, allowing the user to sort the list of ideas by the criteria of the columns. The name of each idea appears in the leftmost column. They are categorized by idea type, industry sector, GMA to which it applies, effort type (e.g., investment, policy) execution required, or combination of these values. This is a DRAFT for comment, feedback and interaction.

Santa Fe County Economic Development Plan - Scoring Model

This **SCORING MODEL** provides comparative review of Economic Development ideas and actions. They are rated for potential greatest value, impact and return for economic well-being and sustainability of Santa Fe County, the government and local residents. It provides a mechanism to demonstrate quantitative analysis of all ideas and potential actions under consideration to help in identifying priorities.

There are two tabs showing scored ideas: the first, "Scoring – rank by #," lists the ideas from highest score to lowest. The next, "Scoring – in order," groups the ideas by category.

The column headings are defined as follows:

 "Category (Overarching or Target Sector)" indicates the level at which the idea is most applicable, Overarching ideas are those that contribute Strategy, Vision, and/or General Systems & Infrastructure, and/or have cross cutting themes covering all or most of the Target Sectors. The target sector or industry, where appropriate, is indicated.

"Idea Name" describes the highest scoring ideas from results based upon the criteria of analysis detailed below. They are intended to be specific, discrete and actionable.

"Action Needed" follows the terminology from the last deliverable. It is to align with SGMP nomenclature and consultants' additions for what type of action is required by the County:

- P, Policy: indicates efforts requiring County support as rule adoption or change, ordinance adoption/change, or passage of a resolution.
- C, Collaboration: implies County would work/partner with other entities/organizations for the idea to be implemented.
- I, Investment: means County will expend resources in some manner to fully implement the idea. This means fiscal or similar resources.
- F, Facilitate: means the County will have staff time, but not investment (of money). It is similar to Collaboration above, but infers the County takes a leadership role and active consistent involvement.
- In few cases, an option is marked with more than one, 'Other' or 'All.'

Scoring Key with Criteria Defined: 5 is highest priority, 1 is lowest priority. Max total score = 50.

Scoring is not presented as a scientific evaluation. Rather, it is an exercise to structure information, foster an 'apples-to-apples' comparison, and frame discussion. Scores are comparative. Assumptions behind numbers are not set in stone; scorers can use additional knowledge to re-score/weight factors.

1) **Level of Effort:** what's required to capture the opportunity based on resources available, political will, time, etc., i.e. how difficult is this to do - whomever has to do it? This one is 'inversely rated' in that a good score is for less effort by the County. 5 = easy; 1 = difficult
2) **Cost for County:** i.e. how expensive in county resources – especially direct funding or specified resources by the County. This one is 'inversely rated' in that a good score is for less cost incurred by the County. 5 = cheap/quick; 1 = expensive/lengthy
3) **GRT Generation:** i.e. how much is it worth in tax revenue? 5 = greatest benefit; 1 = least
4) **Potential Job Creation/Retention:** 5 = many (i.e. > 50), 3 = medium (20-30); 1 = few (< 10)
5) **Alignment with SGMP goals:** How closely does the idea square up to goals previously stated in SGMP, including the sustainable advancement of Santa Fe County implementation of its plans? 5 = very close; 1 = not at all
6) **Other Potential Economic Benefit.** Does it create other economic value, such as wealth, betterment and prosperity for local people in Santa Fe and/or the region? 5 = high; 1 = low
7) **Collaboration Opportunity:** Can the idea be led by another entity with county support? 5 = high; 1 = low
8) **Leveraging Opportunity:** Can the County catalyze an effort with few of its resources with funding coming from or generated elsewhere? 5 = high potential for money to be leveraged; 3 = one-time opportunity only; 1 = least leveraging possibility
9) **Sustainability:** follows the SGMP definition. How 'green' something is and the extent to which it can continue into the future for generations to come. 5 = very; 1 = not much
10) **Alignment with Regional ED Goals:** What is the potential for synergy with other ED entities? 5 = high; 1 = low

The resulting scores indicate relative strength and priority of an idea. These figures are not absolute or 'scientifically derived' numbers. All 5s are in bold.

"Resources Needed" Column: shows a high-level assessment of the resources required for the top 30 scorers. What is required to advance the idea – funding, money, relationships, major steps, specific staff time, or other needs.

List of Ideas Spreadsheet
These are repeated from the previous deliverable as they define the other tabs in the excel file. The initial list of ideas was defined by the following qualities. An explanation of each column and the values in it is as follows:

Ideas: brief description of the idea is provided. What is listed labels the idea, providing a summary of the main point. Ideas are presented without context – some may presuppose existing infrastructure, for example. Some may be very easy to do in one day, and others are not possible even in a lifetime. The next stage, grading and filtration, will quantify and qualify any pre-requisites for an idea's potential and execution.

Overarching topics:
Strategies and Principles: These ideas are 'macro' and address both big thinking, 50,000 foot view, and also these efforts which match the fundamental theory of Santa Fe County in its economic efforts for a sustainable future.

General Systems and Infrastructure: Such efforts here are fundamental and foundational. They are often cross cutting and wide ranging. They can also be larger efforts and more expensive.

Target Industries: The existing five target industries with the inclusion of the recommended sixth, health and wellness, listed in alphabetical order.

An "X" indicates the idea impacts or works within a specific sector. Some ideas may cover more than one specific industry. General or over arching ideas are noted in other columns. For example, the idea of starting workforce development training at a younger age addresses workforce development generally, inclusive of all sectors and GMAs.

GMAs: Santa Fe County four geographic regions of the county are denoted from North to South. If an idea is closely aligned with a specific geographic area, that is noted. An example would be Aamodt is more tied to El Norte.

Action & Source:
Action: details the type of response needed to implement the idea requires:
> 'P' for Policy: indicates efforts that require County governmental support in the form of rule adoption or change, ordinance adoption or change, or passage of a resolution.
>
> 'C' for Collaboration: implies the County would likely need to partner with another local, regional or statewide entity and/or organizations for the idea to be fully implemented.
>
> 'I' for Investment: means the County will need to expend resources in some manner in order to fully implement the idea. This could mean fiscal resources, staff resources or both, and may or may not also invoke leveraged investment from other sources.

'Other' or 'All.' In a few instances, an idea is marked with 'Other' or 'All.'
Additional labels can be added to this descriptor, if helpful

Source: this column details idea origin:
'I' for Internal: developed by the consulting team, based on its research, experience, and internal ideation processes
'E' for External: ideas that arose in conversations between stakeholders (including individual interviews, and group roundtable discussions and facilitated brainstorming) and the consultants
'X' for Exogenous: ideas drawn from comparable communities, counties, and projects elsewhere, as adapted for SFC's attributes where applicable

Generated By: details the origin of the idea. This should be for internal use only and internal reference. It is NOT MEANT TO PROVE CITATION.

Notes & Other Mentions: This column notes when particular ideas have been mentioned by multiple sources or may further explain an idea or aspect of implementation.

Source Document (Dropbox link, internal use only): For internal use – provides a link to the source document.

2.4 Ideas Score sheet

Scoring Key:

1) Level of Effort
2) Cost for County
3) GRT Generation
4) Potential Job Creation/Retention
5) Alignment with SGMP goals
6) Other Potential Economic Benefit
7) Collaboration Opportunity
8) Leveraging Opportunity
9) Sustainability
10) Alignment with Regional ED Goals

Top Ideas Scored				Categories from Key:									
Category (Overarching or Target Sector)	Idea Name	Action Needed	Total Score (50 Max)	1	2	3	4	5	6	7	8	9	10
Multiple Sectors	Support development of cultural corridor from ABQ to Taos for tourism.	C	**44**	3	4	5	4	5	5	5	4	4	5
Overarching: Infrastructure & Systems, Strategy & Principles	Coordinate ED efforts with City, communicate and cooperate; collaborate selectively	C	**43**	2	3	5	5	5	5	4	4	5	5
Ecotourism and Outdoor Rec	Support efforts to grow recreational equipment companies: working with NM Partnership, RDC, BTI	C	**42**	3	3	4	5	5	5	4	3	5	5

Category	Description	Type	Score										
	and other means to attract design/innovation and manufacturing companies to the area.												
Green Industry	Encourage retrofits to develop Green Building sector	**Other**	**42**	5	5	4	4	5	4	3	4	5	3
Green Industry	Grow Training Center Corp: Collaborate w/SFCC to encourage entrepreneurial ventures and workforce training, especially in Microgrid systems, Bioponics, Algae/algal biofuels; evaluate new program in water conservation research.	**C**	**41**	4	2	3	4	5	5	5	4	5	4
Overarching: Infrastructure & Systems, Strategy & Principles	Impact Investing: Build County orientation to potential allocation of County investment corpus toward economic development efforts. e.g. Support local films through loans against project rebates. Also, evaluate fossil fuel divestment as evidence of SFC's seriousness of vision, and to attract target innovators and companies.	**Other**	**40**	4	5	3	3	5	5	2	4	5	4
Overarching: Infrastructure & Systems, Strategy & Principles	Support airport improvements (partner with City, regional stakeholders); create SFC visitor center there	**I**	**40**	3	3	4	4	3	5	4	4	5	5
Ecotourism and Outdoor Rec	Explore OTAB/LTAB collective efforts and potential merger. County could partner with City to better leverage available marketing dollars. Highlight and promote cultural festivities/activities in County (most websites address City events).Coordinate tourism marketing efforts across	**C**	**40**	2	5	3	3	5	4	5	5	5	3

Category	Description	Type	Score										
	County: include SF City, County, Pueblos.												
Green Industry	Green affordable housing: Support access to affordable financing for low-risk builders wanting to build green affordable housing.	I	**40**	2	4	4	4	5	5	4	4	5	3
Green Industry	Renewable investment: Earmark a portion of SFC's Qualified Energy Conservation Bonds allocation to industry-stimulating projects.	P	**40**	4	3	4	4	5	4	3	3	5	5
Overarching: Infrastructure & Systems, Strategy & Principles	Task force: Continue getting input from industry groups. Organize ad hoc task forces for specific purposes, e.g. ACE and Shoot Santa Fe	C	**39**	2	2	5	3	5	5	5	4	4	4
Overarching: Infrastructure & Systems, Strategy & Principles	Dedicate funds each year to a small-grants and sponsorship pool for targeted ED actions (e.g., Chimayo's signage for tourists; Madrid's toilets/welcome center.)	I	**39**	5	3	3	3	5	5	5	4	3	3
Ecotourism and Outdoor Rec	Support national sporting events and gatherings in Santa Fe County, esp. during the shoulder season. Consider sponsorship if that is what will make the difference. Needs to be driven by the private sector.	C, I	**38**	3	3	4	4	4	5	4	4	4	3
Green Industry	Allow for more access to black and gray water through favorable codes and policies to that effect. e.g. commercial graywater code, allow near zero water homes	P	**38**	2	3	4	4	5	5	3	2	5	5
Overarching: Infrastructure & Systems, Strategy &	Broadband: Support establishing ubiquitous, affordable high-speed broadband in targeted ED	I	**37**	2	3	3	4	4	5	3	3	5	5

Principles	areas, including establishment of wireless networks, ensure adequate connectivity to the CCD. Explore viability of CCD's connectivity to National Lambda Rail broadband.												
Health and Wellness	Convene a focus group to determine feasibility of SF as a health and wellness destination and explore ways to grow this target industry.	C	**37**	4	4	2	3	4	4	4	4	4	4
Overarching: Infrastructure & Systems, Strategy & Principles	County property: Lease portion of old judicial center to a developer for ED-congruent purposes.	Other	**36**	2	2	2	4	4	4	5	5	4	4
Overarching: Infrastructure & Systems, Strategy & Principles	Designate College Planning District as a Tax Increment Development District.	P	**36**	2	3	4	4	5	5	2	4	4	3
Overarching: Infrastructure & Systems, Strategy & Principles	Streamline business licensing/permitting.	P	**36**	4	4	4	2	4	4	1	4	5	4
Agriculture	Support expansion and availability of local food and local farmer's markets throughout county.	C	**36**	2	4	3	3	5	4	3	4	3	5
Film and Media	Form co-op production entity w/ SFCC, SFUAD, IAIA and others like Digital Filmmaking Institute/Bernalillo County NM Ecopedia for local content.	C	**36**	3	3	3	4	5	3	5	2	4	4
Film and Media	Explore with Shoot Santa Fe efforts co-funding a film/media coordinator, with range of skills to grow all aspects of the industry and help facilitate financing, like tax credits and other leveraged	C	**36**	1	3	4	5	5	3	4	3	3	5

Category	Description	Type	Score	1	2	3	4	5	6	7	8	9	10
	funding, focus on the SF region.												
Green Industry	Actively communicate SFC's water constraints and challenges and efforts for opportunities in meeting the challenge (Israel model for success).	Other	36	4	5	2	3	5	4	3	1	5	4
Overarching: Infrastructure & Systems, Strategy & Principles	Engage Internship programs like YouthWorks and AmeriCorps (also VISTA and RSVP) in County government, local agencies.	Other	35	3	2	3	3	4	4	4	4	4	4
Overarching: Infrastructure & Systems, Strategy & Principles	Partnership: Partner actively with local programs to enhance Target Industries (BizMIX, VAF, Accion, Loan Fund, NM Com Capital, Velocity/HD3). Participate in local forum for regional leadership on specific projects.	C	35	2	5	4	3	4	4	3	3	4	3
Overarching: Infrastructure & Systems, Strategy & Principles	Set aside portion of planning division budget to fund hiring contract grantwriters to catalyze/support community applications for federal grants (e.g., USDA, DOE). Fund would hire for specific applications of strategic value, partnership w/ local agencies, with the City and other opportunities.	C	35	2	2	3	3	4	4	5	5	4	3
Film and Media	Develop Media District: Work with IATSE, SF Studios and other key stakeholders. Use to grow post-production, digital, emerging media.	C	35	1	2	3	4	4	5	4	4	4	4
Green Industry	Aamodt opportunities: Convene a focus group that explores how to use	Other	35	2	3	3	4	5	4	3	3	5	3

Category	Description													
	Aamodt construction to promote water conservation and efficiency.													
Ecotourism and Outdoor Rec	Promote/develop County areas as year-round destinations, esp ski basin. Encourage more public access to open space, connect to tourism.	C	**34**	2	2	4	4	4	4	3	3	**5**	3
Green Industry	Renewables financing: Create/prototype feasible residential renewable energy financing district formula.	I	**34**	2	4	3	4	**5**	4	3	2	**5**	2
Green Industry	Develop showcase events around water conservation: Zero water pilot/ showcase home/living building challenge as city/county project. Water decathlon (based on solar decathlon in DC). Prize for zero water office park.	I	**34**	1	3	3	3	**5**	4	**5**	3	**5**	2
Green Industry	Support entrepreneurial solar power projects and solar installation initiatives.	C	**34**	4	**5**	2	3	**5**	3	3	1	**5**	3
Overarching: Infrastructure & Systems, Strategy & Principles	Procurement: review SFC procurement and facilities codes for maximum market stimulus and support of Target Industries. Support local businesses in SFC procurement with local preference. Adapt procurement code to maximize alignment with SGMP goals.	P	**33**	2	2	2	2	**5**	4	**5**	3	4	4
Overarching: Infrastructure & Systems, Strategy & Principles	Explore viability of creating a referendum process to pass a Local Option GRT increment LEDA.	P	**33**	4	3	**5**	4	4	**5**	1	1	**5**	1

Category	Description		Score										
Overarching Infrastructure & Systems, Strategy and Principles	Support efforts to develop affordable housing in SFC. Including for artists and seniors and film workers.	All	33	2	1	4	5	5	4	4	4	2	2
Green Industry	Allow for on-bill repayment of financing (county or third-party) for consumer water efficiency / recycling improvements.	I	32	2	4	3	4	5	4	1	1	5	3
Ecotourism and Outdoor Rec	Support establishment of better RV infrastructure in the County.	All	31	4	3	3	2	5	3	2	3	4	2
Ecotourism and Outdoor Rec	Improve way finding for trails and interconnect them, consider road improvements for bikers.	I	31	3	3	2	3	4	4	2	2	4	4
Agriculture	Pursue land restoration activities by capitalizing on SFC as a leading "Fire Resistant Community" and "urban-wilderness interface community."	I	30	3	4	2	4	3	3	3	3	4	1
Arts and Culture	Update BBER study: Partner with Creative Santa Fe, the City of Santa Fe to conduct a new BBER study on Arts and Culture in place of the one conducted in 2004.	I	30	4	4	1	1	5	2	4	3	3	3
Green Industry	Green incentives: Provide manufacturing and/or consumer incentives for businesses making products that fulfill sustainability mandates (i.e. rainwater catchment). This is a localized version of successful federal programs such as EnergyStar.	P	30	3	2	3	3	5	4	1	1	5	3
Arts and Culture	Explore how county can better support artists outside incorporated areas of the county. E.g. marketing, galleries and destinations other than Canyon Rd., biz training for	C, I	29	1	4	2	3	5	3	4	1	3	3

	artists, etc.												
Green Industry	Evaluate feasibility of mandate that Santa Fe County Buildings develop a pathway to net zero incorporating solar and other renewables	P	**27**	2	2	3	3	5	3	1	1	5	2
Green Industry	Support, in concept, the continued research into the viability and feasibility of a municipal utility in the Santa Fe region, including a potential outreach campaign to the public and funding for further studies.	All	**37**	1	2	5	4	5	4	5	4	4	3
Green Industry	Provide Phase 2 Funding for Microgrid Systems Lab	I	**40**	3	2	4	4	5	4	5	5	4	4
Film and Media	Work with Shoot Santa Fe to evaluate costs and benefits of applying for the available New Mexico PBS franchise.	C	**32**	5	4	1	2	3	3	5	2	3	4

2.5 List of Ideas Vetted

1 Develop state-wide education program to revive Native American and other low-water growing methods.
2 Invest in education targeting new technology and innovations in green industry, capitalizing on the higher than national avg. education level.
3 Utilize intellectual capital of retirees.
4 Better enforcement of animal control ordinances in county areas.
5 Madrid bike rental/bike tour.
6 More toilets, more parking in Madrid.
7 Support a Madrid Business/Community Center.
8 Get agricultural producers into higher value markets (make their own products, off-season strategy).
9 Create better mentor/internship programs for new farmers (especially young ones).
10 Create new grocery stores and build in-state distribution network to address food deserts and provide markets for local ag.
11 Promote more in-state food markets, hubs, cold storage, and distribution systems (beyond farmer's markets and school purchasing programs).
12 Create tours with pass (1-day limit with 4 location-options) for pre-purchase/booking.
13 Keep track of recent trends in arts and culture nationwide and globally.
14 Use storytelling from the local artists/entrepreneurs on tours, at events, etc.
15 LEED by example tour to promote LEED certified structures.

16 Convert SFC vehicle fleet to EVs.
17 Use open space for films (make sure to be culturally sensitive to Pueblos).
18 New land development code.
19 Price water according to values, i.e. special rate for growing food.
20 Develop tours which feature the archeology and heritage of Galisteo Basin.
21 Assist with implementation of Farm Trails program to promote Agritourism.
22 Have local folks be tour guides for open space tours.
23 Implement feed in tariffs for water.
24 Implement smart metering for water.
25 Require dual meters -- one rate for outdoor use/one rate for indoor use.
26 Offer commuter credit for employees who don't use a car to get to work.
27 Price water according to its value (including ecosystem services).
28 County commissioners vocalize support of ranching on federal land.
29 County commissioners vocalize support of ag exemption, continuation of pro-ag tax policy.
30 County commissioners vocalize support of sound ranching and land management practices.
31 Implement ordinances and policies to hold people accountable for spreading noxious weeds.
32 Impose a mill levy to generate funding for the control of noxious weeds.
33 Turn Valles Caldera into a National Park
34 Assist with development of community solar gardens.
35 Integrate local food more comprehensively with other approaches of economic development, including promoting tourism, farmers markets, and the creative economy.
36 Convene meetings, conferences, and online networks to facilitate more awareness and joint planning among food producers, buyers, and distributors.
37 Legal support programs to help farmers and ranchers preserve their properties.
38 Encourage conservation easements for productive land and water rights.
39 Offer incentives for value added food production.
40 Encourage/promote SNAP (food stamp) payment for CSA shares (community supported agriculture).
41 Get visitors to stay overnight by organizing multi-day festivals, concerts, races, etc.
42 Remove intermediaries to get visitors to spend directly at markets.
43 Create a think tank or incubator to develop ideas for creating authentic experiences as tourism attractions.
44 Develop outdoor recreation equipment industries as a cluster.
45 Review SpacePort Economic Development Plan for tourism ideas.
46 Emerging media (apps, video games) development in SFC.
47 Provide incubator space for small companies developing games or apps.
48 Apply for PBS license.
49 Create a low interest loan fund for film using unused bond capacity.
50 Use La Bajada Ranch as an outdoor rec center with camping, visitor center, open spaces center, etc.
51 Community development in villages with artists (e.g. Madrid) develop microeconomy.
52 Harvest graywater for Madrid ballfield upkeep.
53 Adequate broadband everywhere.

54   Develop the supply chain in target segments (i.e solar/wind energy, green building) to create more jobs and cut down transportation costs.

55   Address lack of housing and lodging in Edgewood.

56   "

57   Change procurement code to favor local vendors and permaculture."

58   Create a forum to work directly with entrepreneurs/sole proprietors to understand their needs/challenges

59   Develop SFCC/TCC's role in the entrepreneurial ecosystem.

60   Enhance networking opportunities to connect sustainable business with customers that care.

61   Develop resources for sole proprietors/entrepreneurs (big % of workforce in creative industry).

62   Provide business training for sole proprietors and businesses.

63   LANL/RDC/SFC workshops to get businesses "certified" for federal procurements.

64   Provide small business loan assistance for artists to start, sustain and promote business.

65   Explore a film co-financing partnership with NCNMEDD.

66   Establish Statewide Medical Education Council to address health professional workforce needs.

67   Promote County attractions as separate from the City

68   Encourage SFC company participation in NM Manufacturing Extension Program's "Made in New Mexico" program.

69   Encourage home-based business support.

70   Support Espanola Valley business incubator (RDC).

71   Trade power for water to address shortages.

72   Create long-term economic development public education program.

73   Community sustainability oriented workshops (think green leisure learning classes) offered low-cost/no cost. SFCC, nonprofits as partners.

74   Revise the Sustainable Land Development Code to align with SGMP goals and ease of process

75   Start workforce training with younger students (High school).

76   Experiment with co-op educational programs.

77   Food security systems, better utilization of productive land.

78   Partner with SFCC's new health center and training focus.

79   Re-establishment of FFA and 4-H programs to promote continuation of farming and ranching among younger generations.

80   Assist municipalities in designating an 'Arts and Culture District'.

81   Establish alliance/partnership with other top green businesses in other states to access new technology and learn best practices (i.e AZ).

82   Devise a way to inform well users of their usage--enforce well metering.

83   Farmers' Market in Madrid.

84   Collaborate with the City's Water Division: common codes and resources will be important to drive a local efficiency market, and industry.

85   Improve SFC building performance (energy and water).

86   Educate population about the meaning/importance of buying locally, especially in county areas outside of city.

87 SFC collaboration with tax assessor re: assessment of lands that are not in agricultural production due to water shortage.
88 Develop film tourism with Bonanza Creek Ranch.
89 Tie in with recent graduates from SFUAD, IAIA and SFCC for film production.
90 Visitor center in Madrid.
91 Have county or state take over the Madrid Coal Mine Museum.
92 Use Los Luceros property in Rio Arriba county as an in-patient drug treatment facility for Rio Arriba and SFC.
93 Work with RDC to attract/promote industries along the BTI supply chain.
94 Create "Santa Fe Investment Fund" to invest the resources necessary to pursue federal, state, and private funds (USDA, CDBG, etc.) that would perhaps create a micro loan fund for local businesses, including the agricultural sector.
95 Co-fund Competitions and Contests to stimulate innovation.
96 Support youth orgs: Boys and Girls Club, Girls Inc
97 Relax zoning to encourage pop-up stores
98 Echo Santa Fe's resolutions re: GMOs and GE crop ban
99 Support habitat restoration along Rio Grande as economic development opportunity.
100 Establish certification for products that are green and local.
101 Support use of EBT at Farmer's Markets and double value when used at markets
102 Support E85 Visa investment center in County (HD3 may be developing one in film)
103 Develop a microgrid workforce training center
104 Provide Phase 2 development funding to SFCC's Microgrid Systems Lab.
105 Municipalize SF grid.
106 Address increased obesity and diabetes by increasing the number of grocery stores and limiting new fast food establishments
107 Ensure that hospice and senior-specific care and facilities will be sufficient for an aging population
108 Create public wireless networks
109 Additional power to SF Studios and Media District
110 Increase services for drug and alcohol treatment
111 Address poor access to care by rural and poor communities with mobile and/or community health clinic
112 Awards for successful businesses to raise awareness (CEO of the year, entrepreneur, artist, non-profit, etc.). Foster collaboration between higher ed and local institutions to create awards, spotlight what works, and PR.
113 Partner with Christus St. Vincent to develop health sector, expand health services in the County and support one of the County's largest employers.
114 Expand SF Community College focus on health as a primary ED area (important to address public health needs).
115 Central staff for arts/culture enhancement in County with duties include organizing grants, business training, inform arts and culture-specific policy (can be in a local organization).
116 Evaluate NCNMEDD's aging care program, and use of its network of Senior Centers as services hubs.
117 Perform a cost/benefit analysis of preventative care initiatives; Promote healthy lifestyle behaviors, especially in schools and to poor communities to reduce chronic illness

118 Feature local offers/discounts on County websites. Connect County tourism websites with other regional ones. Direct SFC existing websites to coordinate with others and support local events and econ dev activities.

119 Noxious weed elimination: SFC partner with USDA/Soil and Water Conservation Service (SWCS); join in on-going education program for county residents on challenge and impact of noxious weeds.

120 Apply GIS system to manage/leverage available information (i.e. property tax, business size and employment) to increase efficiency, save money (in conducting research), and speed up decision making.

121 Incentivize EV ownership and establish EV charging stations in County.

122 Streamline film permitting process.

123 Institute a Building Energy Performance Standard. Establish and monitor higher standards for building energy performance; develop PR plan to explain why important and valuable

124 Make SFC a "Blue Zone" for health and wellness for senior population.

125 Expand SF Community College focus on health as a primary ED area (important to address public health needs).

126 Water R&D: County-supported (and possibly funded) water research center/Water RDD&D (research development and demonstration) center with SFCC.

127 Highlight and promote cultural festivities/activities in County (most websites address City events).Coordinate tourism marketing efforts across County: include SF City, County, Pueblos.

128 Pursue fossil fuel divestment as evidence of SFC's seriousness of vision, and to attract target innovators and companies.

129 Partner with NCNMEDD on film financing

130 Help local filmmakers with access to production financing, i.e. loans against state tax credits.

131 Affordable housing for film: Leverage unused county-owned properties, explore use for affordable housing. Consider innovative approaches like labor exchange.

132 Broadband: Connectivity to National Lambda Rail broadband at SFS

133 Apply for National Scenic Byway Program Grants to develop infrastructure in Madrid and/or Cerillos

III.   PEER COMMUNITIES REPORT

This report provides more details about peer communities discussed in the Santa Fe County Economic Development Plan.

Peer Communities with Best Practices
A study was conducted of peer communities to determine the best practices in economic development and how they can be applied to Santa Fe County. The study came up with several key findings.

- *Leverage Local Strengths*: All of the municipalities studied leveraged their existing strengths to grow their economy. Portland grew its clean tech industry out of a legacy manufacturing and semiconductor base, Dona Ana County uses its location to facilitate trade with Mexico, and Paducah turned a problem -- too much dilapidated housing -- into a strength as cheap property to attract artists. The quickest and easiest economic gains will be made by drawing on what makes an area unique.

- *Information Levels the Playing Field for Small Businesses*: Information is power, but for small businesses it can be prohibitively expensive to collect. In Pueblo County and Littleton, economic development programs focused on providing local businesses with consulting and information larger corporations can afford to do in house. The result was more sustainable job growth with better ties to the community. Successful programs focus on finding out what information small businesses need to grow and then help them to obtain it.

- *Intellectual Capital Is Key to Attracting Living Wage Jobs*: Portland, one of the country's leaders in clean and sustainable technology development, states that its deep and educated labor pool is one of the keys to attracting industries to the area. They developed their labor pool over years of partnerships with Portland State University and local community colleges. The same is true in Dona Ana County, which partners with New Mexico State University and in Littleton, which partners with local community colleges. To attract higher paid jobs, a successful plan will work to develop educational and research programs focused on key industries in the county and help businesses find qualified graduates from the programs.

- *Open Lines of Communication*: Public/private partnerships, like MVEDA in Dona Ana County, help to facilitate communication between businesses and government to help each know what is needed from the other. Lines of communication remove uncertainty and deepen ties to the community, making expansion projects easier and it less likely a business will move out of the county.

Communities were chosen either based on shared characteristics with Santa Fe County -- population, similar industry clusters – and/or because the community adopted an innovative approach to a challenge SFC has identified as a priority.

Comparison Chart

Municipality	Pop.	Income[1]	Poverty[2]	Education	Density[3]	Over 65	Under 18	Major Ethnic Groups[4]

---

[1] Median Per Household
[2] Percent Below Poverty Line
[3] People Per Square Mile

Santa Fe County, NM	144,170	$42,207	12%	86% High School 40% Bachelor's	68	17.2%	20%	43% White 50% Hispanic
Dona Ana County, NM	213,598	$37,223	19%	76% High School 25% Bachelor's	55	13%	26%	29% White 66% Hispanic
Pueblo County, CO	160,852	$41,283	15%	85% High School 25% Bachelor's	59	16%	24%	53% White 41% Hispanic
El Dorado County, CA	180,561	$51,484	7%	93% High School 30% Bachelor's	42	16%	21%	80% White 12% Hispanic
Paducah, KY	25,048	$31,220	18%	83% High School 20% Bachelor's	1,251	18%	22%	70% White 23% African Am
Littleton, CO	43,775	$50,583	6%	93% High School 42% Bachelor's	2,984	16%	22%	82% White 12% Hispanic
Portland, OR	603,106	$50,177	17%	90% High School 42% Bachelor's	4,375	10%	19%	72% White 9% Hispanic

3.1 Dona Ana County, NM – Mesilla Valley Economic Development Alliance

Population: 213,598
Per Capita Income: $37,223
Unemployment Rate: 7.1%

Sector Focus: Public/Private Partnership

Original Problem: Unable to attract large projects to the county

Success Factors: Infrastructure development, Educational resources, Close cooperation between business and government

Background
Dona Ana County is a community of 213,598 people that occupies 3,804 square miles in south-central New Mexico. The county's demographics and geography are similar to Santa Fe County. Economic development in Dona Ana is largely handled by the public/private Mesilla Valley Economic Development Alliance (MVEDA).

Economic Development Focus
MVEDA is a development organization with the mission to "grow the wealth of Dona Ana County through the creation of economic-based job opportunities for its residents."[5] It was founded in 1994 and provides business help relocating or expanding in the county. MVEDA offers help with information, connections, local regulations and laws, financing, and even finding the right employees. MVEDA also works to improve the community as a whole to make it more business friendly by supporting workforce training, infrastructure development, and promoting cross-border trade with Mexico.

Overview of the Mesilla Valley Economic Development Alliance
MVEDA uses regional marketing, contacts with existing businesses, and advisory roles with the county on economic development and capacity building to attract and retain businesses.

---

[4] White is "white alone", discounting Hispanics
[5] www.mveda.com/about-mveda/

- **Regional Marketing:** MVEDA uses an asset-based marketing approach that talks about the causes of businesses success, like an educated workforce and location to approach businesses. Many potential relocation prospects are met through attending trade shows in target industries.[6]
- **Contacts with Existing Businesses:** Directly interviews businesses operating in the county to better understand their needs and the business climate. It uses this information to introduce solutions and to engage state and local departments on the behalf of those businesses.
- **Development Advisory:** Offers help with positioning the community strategically to attract businesses and also offers business advisory, data analytics, and other support services along with business seminars and training.
- **Capacity Building:** Helps to meet infrastructure and supply chain needs and identify the ideal facilities for businesses.

Figure: Overview of MVEDA's Activities Photo: MVEDA FY 2012-13 Year-End
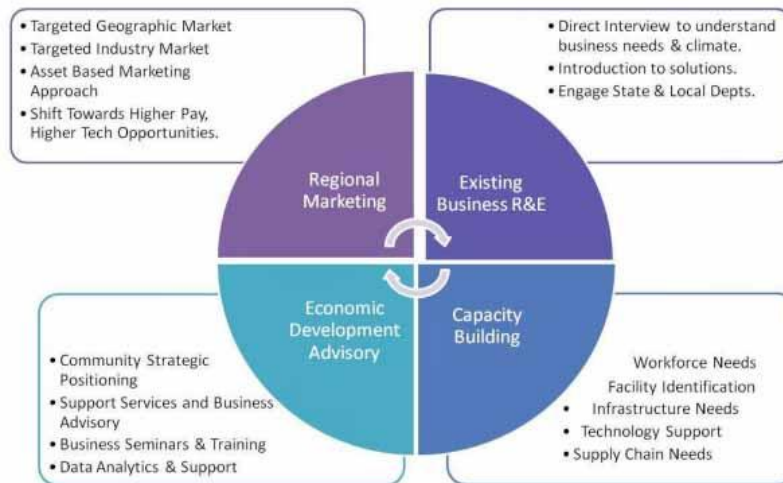
For FY 2012-2013, MVEDA contracted $157,847 of these services to the county.[7]
MVEDA also actively recruits businesses in target industries that pay higher than average salaries. These target industries include renewable energy, high technology, manufacturing, aerospace, financial and business services, digital media, and value-added agriculture.

Key Successes
Since 2003, companies that worked with MVEDA have started 68 expansion or relocation projects in the county. The new and expanding companies created more than 3,200 new jobs that pay their workers a total of $96 million a year.[8]

---

[6] Stockberger, Brook. "MVEDA works to attract, expand job opportunities." Las Cruces Sun News. 4 March 2013. www.lcsun-news.com/las_cruces-business/ci_22713495/mveda-works-attract-expand-job-opportunities
[7] "MVEDA Year-End Update." MVEDA. FY 2012-13. www.mveda.com/docs/Dona-Ana-County-Year-End-Report-2013.pdf
[8] www.mveda.com/about-mveda/

For FY 2012-2013, MVEDA attracted or expanded 20 businesses and businesses that worked with them:

- Generated 25 projects
- Completed 11 projects
- Created 443 jobs
- Invested almost $21 million of capital
- Generated $11.3 million in additional payroll[9]

Learning Highlights

- *Make it Easier for Businesses to Relocate and Expand:* Davin Lopez, President and CEO of MVEDA states that overhead costs and permitting and timing issues are some of the biggest issues facing businesses when determining where to relocate or expand.[10] By working with local governments and businesses, MVEDA streamlines the process and makes opening up business in Dona Ana County more competitive.
- *Facilitate Connections between Business Leaders and Government:* One of the services MVEDA-assisted businesses cite the most is the ability of the organization to connect their business to the local government and community.[11] Better connections speed permitting processes, help the companies find the right employees that can make their business a success.
- *Develop Community Infrastructure and Intellectual Capital:* The Santa Teresa Rail Yard and Intermodal Facility, which was a $400 million project developed by Union Pacific with the help of MVEDA has been a boon to the local economy. One MVEDA-assisted business, Interceramic, cited the overweight zone and rapid crossings at the facility for a decision to expand their operations in the county in the future.[12] This coupled with the development of a trained workforce through New Mexico State University and Dona Ana Community College makes the area more attractive for business overall.

3.2 El Dorado County, CA - Developing Sustainable Agriculture Through Agritourism

	Sector Focus:	Agriculture
	Original Problem:	Booms and busts in monoculture degraded the landscape and hurt small farmers
Population: 180,561 Median Family Income: $51,484 Unemployment Rate: 8.6%	Success Factors:	Collective action, Finding a unique selling proposition

---

[9] MVEDA Year-End Update." MVEDA. FY 2012-13. www.mveda.com/docs/Dona-Ana-County-Year-End-Report-2013.pdf
[10] Stockberger, Brook. "MVEDA works to attract, expand job opportunities." Las Cruces Sun News. 4 March 2013. www.lcsun-news.com/las_cruces-business/ci_22713495/mveda-works-attract-expand-job-opportunities
[11] www.mveda.com/about-mveda/what-our-customers-say/
[12] www.mveda.com/about-mveda/what-our-customers-say/

Background

El Dorado County, California is a community of 180,000 in the rural outskirts of the Sacramento metro area. The county has a long boom-and-bust connection to the land, starting with gold mining in the 1800s. Following the gold rush, wineries and then pear orchards populated the area, only to be decimated by disease and falling crop prices.

Economic Development Focus

Today, El Dorado County's rural economic development focuses on agritourism through its Farm Trails program and collectives like Apple Hill. Promoting tourism and farms themselves, rather than trying to compete in commodity food products allows farmers to differentiate their products, grow more diverse crops, and secure higher prices in the Sacramento area.

Overview of the Agritourism Programs

El Dorado Farm Trails

El Dorado Farm Trails was established in 1992 with a grant from the county board of supervisors to promote agriculture and eco-tourism. The program receives policy support as well as periodic financial support from the county supervisors. It works to promote and preserve small farms in the county and publishes an annual guide to local farms that reaches over 15,000 people.[13] The members of the farm trails program grow a wide variety of fruits and vegetables and the trail includes wineries, a microbrewery, a spa, Christmas tree farms, and vineyards. There are currently 100 different local farms that are part of the program.

Apple Hill

Apple Hill was founded by Gene Bolster after he was inspired during a trip to Oak Glenn in Southern California. Other key founding members were Dick Bethell, the county's pomology specialist and farm advisor, Ed Delifino, the county's agricultural commissioner, and Bob Tuck, a retired army general. The founders believed that consumers and producers of farm products in the county should be able to interact with each other without a middle man.[14] The collective started with press days where farmers would host members of the media on local ranches and farms and has since expanded to a significant tourist attraction in the county. Currently, Apple Hill also works to target urban customers with creative direct marketing to help secure higher prices for its farmers.

Key Successes

Over 750,000 people visit the small farms of El Dorado County each year and the attractions support vibrant hotels and other accommodations.[15]

Learning Highlights

---

[13] "El Dorado County Farm Trails Program." Connections, March 2010: www.sacog.org/rucs/newsletters/2010/03/text/el-dorado-county-farm-trails-program.html.

[14] "Apple Hill in El Dorado County." El Dorado County Visitor's Authority: visit-eldorado.com/apple-hill.php

[15] Tomiyoshi, Tricia. "Getting to the Core of Calif. Apple Country." The Washington Post. 11 September 2005: www.washingtonpost.com/wp-dyn/content/article/2005/09/09/AR2005090900693.html

- *Collective Action Helps Small Producers:* The marketing and rural environment set by the small producers of El Dorado County could never have been accomplished with each farm working alone. By collectively working together, they were able to differentiate their products, target customers, and open up new revenue streams, like tourism, that weren't available to them before.
- *Find a unique selling proposition:* The rural ambiance created by the farmers of El Dorado County has given the area national attention, allowing them to attract not only tourism, but also higher prices for their products in the Sacramento area. Their unique selling proposition (USP) of family farmers with a connection to the land delivering quality produce to consumers gives the farmers a less variable income and keeps them economically viable in the face of competition from larger farms that can sell produce cheaper using economies of scale.

3.3 Littleton, CO – Economic Gardening

Sector Focus:	Small Business Growth
Original Problem:	Slow economic growth
Success Factors:	Support of local politicians, awareness of the campaign, choosing the right companies

Population: 43,775
Per Capita Income: $50,583
Unemployment Rate: 5.2%

Background
Littleton is a town of 41,000 people located in the Denver metropolitan area. Littleton's form of place-based economic development, known as economic gardening, has been copied by small cities all over the nation.

Economic Development Focus
The economic gardening program was started in 1987 by Chris Gibbons and was based on research by David Birch at MIT and developed in conjunction with the Center for the New West. Economic gardening focuses on helping local entrepreneurs develop and grow their own businesses rather than recruiting large businesses because small businesses are responsible for creating the lion's share of new job growth. The program's goal is to provide the same information and tools that large corporations have at their disposal to local, fast-growing second-stage companies. Firms are chosen because of their potential growth rate, not by how large or small they are.

Overview of Economic Gardening
Littleton provides information, infrastructure, and connections to local entrepreneurs. The city council pays for the services from local taxes.

Information

Littleton's economic gardening program provides local businesses with information that is important, but prohibitively expensive for them to gather. This is the largest part of the program and up to ¾ of the time and money devoted to the program is used to provide businesses with information. The services offered include:

- Database services such as LexisNexis
- Marketing Lists
- Competitive Intelligence
- New product tracking
- Legislative research
- Answers to custom business questions
- Geographic Information Systems (GIS) software
- Training and seminars in advanced management techniques

Infrastructure

With the backing of the city council, the economic gardening program aims to develop the quality of life and intellectual infrastructure in the community to attract quality employers and employees.

Littleton has four times the national average of open space and every major drainage channel now has a walking trail. The city has also spent money to restore the historic county courthouse, and to widen sidewalks in downtown neighborhoods. "Startup companies often comment on the well-planned nature of the community as a factor in attracting talent to the area."[16]

Littleton also partners with the local community college and Colorado University to provide the curriculum, courses and training that develops knowledgeable managers and employees.

Connections

Littleton works with trade associations, think tanks, academic institutions, and other companies and CEOs to foster better connections between the companies in their community and the world.

Key Successes

From 1990 through 2009, Littleton's economic gardening program:

- Doubled the job base in Littleton from 15,000 to 30,000 jobs
- Quadrupled retail sales tax from $6 million to $21 million dollars
- Increased population in the community by 23%.

By comparison, while using the traditional economic development model employed by most communities in the 1970s and 1980s, Littleton only attracted 4,000 new jobs.
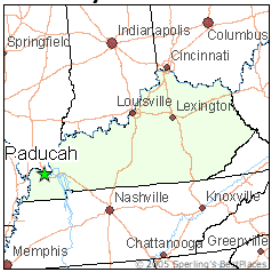
---

[16] Gibbons, Chris. "Littleton Colorado's Healthier Approach to Economic Development" Planetizen. 29 Nov. 2000. www.planetizen.com/node/7

Learning Highlights

- *Choose the Right Companies:* One of the biggest challenges faced by Littleton was how to choose the right companies. A huge number of factors can affect how fast a company grows, making picking targets difficult. Littleton found ideal companies will have developed some sort of innovation in product, process, or delivery method, have a potential or actual market outside the community, and be between 1 and 5 years old.

- *Economic Gardening Isn't a Quick Fix:* The economic gardening method won't gather huge headlines for local communities and won't be a quick fix to local unemployment problems. It takes time to develop the businesses and create jobs. But the payoff is higher paying jobs that can't be easily relocated to another county or city.

- *Buy-in From Elected Officials is Crucial:* Littleton views economic and community development as two sides of the same coin, and the city council has protected and funded the program for close to 25 years. The combination of community revitalization and a steady, consistent approach to business development is one of the major factors in Littleton's success.

- *Spreading Awareness:* Another major challenge faced by economic gardening is spreading awareness about the campaign and overcoming a lack of trust that government services can help a business. Littleton overcame this problem by working with trusted partners like the local chamber of commerce, universities, and trade groups.

- *Economic Gardening Alone Might Not Be Enough:* On May 7, 2013, the Littleton City Council voted on a new economic plan. The economic development plan switches focus from economic gardening to a more well-rounded approach. Concerns from local business leaders over business attraction and retention as well as Littleton's marketing led to the switch.[17] The new economic plan takes the lessons learned from economic gardening and applies them within a broader economic plan.

3.4 Paducah, KY – Economic Development Through the Arts

Population: 25,048
Per Capita Income: $21,027
Unemployment Rate: 7.9%

Sector Focus:	Arts
Original Problem:	Large supply of foreclosed and condemned housing in downtown
Success Factors:	Property ownership, cooperation to obtain affordable, flexible loans from Paducah Bank, relaxed zoning laws

Background

---

[17] City of Littleton: www.littletongov.org/index.aspx?page=219

Paducah, KY is a town of 25,000 at the confluence of the Tennessee and Ohio Rivers. Prior to 2000, Paducah's Lower Town suffered significantly from suburban flight. This caused a drop in population and increased unemployment and urban blight.

Economic Development Focus

Paducah's woes left Lower Town with many under-utilized, dilapidated, or condemned properties. To combat this and revitalize the local economy, Paducah began its artist relocation program. It was started by Mark Barone, a former working artist, and Thomas Barnett, and city planner. Program offers incentives to artists to relocate to Lower Town and relaxed zoning laws that allow for live/work spaces.[18] It has been a success since inception, has won numerous awards at the state and national level, including the Governor's Award in the Arts and the American Planning Association's National Planning Award,[19] and has generated $39.9 million in local economic activity.[20]

Overview of the Artist Relocation Program

Paducah made rundown housing in Lower Town affordable, sometimes selling abandoned properties for $1 to qualified applicants. Reimbursements for architectural or professional services are included and Paducah Bank helps secure no down payment, low interest loans to cover property refurbishing. In return, houses must be brought to code while maintaining the historic feel.

The properties have relaxed zoning laws enabling creation of live/work spaces. The artists are also supported in marketing and promotional materials for the arts district. Qualified artists are provided small financial assistance by the city. $2,500 for moving or start up business assistance to $25,000 restaurant incentive. Funds have emphasis on sustainability, galleries and businesses open to public, and artists that make a significant contribution to the community or have achieved notoriety.

Key Successes

In 2007, the program:
- Generated $39.9 million in local economic activity
  - $27.8 million from audiences
  - $10.9 from nonprofit arts and culture organizations
  - $1.1 million from artists themselves
- Generated $17.7 million in household income to residents
- Provided $3.6 million in local and state government revenue
- Supported 819 full-time equivalent jobs[21]

---

[18] "Artist Relocation Program." Paducah Renaissance Alliance. www.paducahalliance.org/artist-relocation-program/artist-incentives

[19] City of Paducah: paducahky.gov/paducah/city-awards

[20] Americans for the Arts. Arts and Economic Prosperity III. p. 3: www.ci.paducah.ky.us/paducah/files/GreaterPaducahKY_FinalReportw03.pdf

[21] Americans for the Arts. Arts and Economic Prosperity III. p. 3: www.ci.paducah.ky.us/paducah/files/GreaterPaducahKY_FinalReportw03.pdf

- Artists invested $35 million in the neighborhood's buildings, coupled with the city's $3 million investment[22]
- Over 100 artists currently live and work in Paducah and have created a vibrant community in Lower Town
- Property value, tax base, and tourism are up

Learning Highlights

- *Ownership is Essential:* Ownership of the properties helps build this community and ensures artists won't be priced out of their homes when property values rise. It is one of the most powerful ways Paducah attracted artists away from larger cities where they may not be able to afford to buy property.[23]
- *Local Businesses Have to Be on Board:* The whole project would not have been possible without the help of Paducah Bank. They offered loans on easy terms that covered building renovation and business startup costs, not just mortgages for the value of the property. Without this backing, the project would have lacked the funds to succeed.
- *Incentives Have to Make it Worthwhile:* Paducah offered many properties to artists at prices far below market values. It was what was needed to get the artists to move to the small town and open a business. Mike Barone reflected on the program, stating, "When you're going into these blighted areas, the incentive package has to be good enough where the artists can overlook the blight. And if it's not, you're not gonna get anyone to come."[24]

3.5 Portland, OR – Creating a Sustainable City

Sector Focus:	Clean Tech & Sustainability
Original Problem:	Job creation and median family income in the city lagged other comparable cities
Success Factors:	Focus on creating clusters & recruiting within those, "eco-districts" to serve as technology testing grounds, manufacturing base

Population: 603,106
Median Family Income: $50,177
Unemployment Rate: 6.9%

Background

Portland is the 28th largest city in the USA with a population of 603,106 people. It's widely renowned for its quality of life, but job growth and median family income in the city lagged behind the city's suburbs and San Francisco and Seattle, two comparable cities in the same

---

[22] Stodola, Sarah. "How to Save the Cities-Send in the Artists." The Fiscal Times. 4 June 2010. www.thefiscaltimes.com/Articles/2010/06/04/How-to-Save-the-Cities-Send-in-the-Artists.aspx#page1

[23] "New York, Paris, Paducah? Kentucky Attracts Artists." ABC News. abcnews.go.com/Entertainment/WNT/story?id=2748161&page=2#.UdRElPnV-Ih

[24] Stodola, Sarah. "How to Save the Cities—Send in the Artists." The Fiscal Times 4 June 2010. www.thefiscaltimes.com/Articles/2010/06/04/How-to-Save-the-Cities-Send-in-the-Artists.aspx#page1

region. To combat this, in 2010 the Portland Development Commission (PDC), a city agency, created the first economic development strategy in 15 years.

Economic Development Focus

The goal of the PDC is to create one of the world's most desirable and equitable cities by investing in job creation, innovation, and economic activity. Their focus is on investment in the fundamentals of economic development, including business expansion and retention, workforce training, innovation, catalytic projects, and an ecosystem that nurtures entrepreneurs and small businesses.[25] The commission has several major goals. One of the most important is organizing green clusters and investing in them.

Overview of Green Clusters

The PDC is organizing green clusters across a range of niches to help retain and grow companies. These clusters include renewable energy, green building, energy efficiency, electric vehicles, waste reduction, recycling, and electric vehicles. Portland aims to attract a few anchor companies in these niches and then help to recruit and build out their supply chains. By bringing all the resources needed by green firms together in one geographic area, it makes Portland even more attractive to firms looking to relocate. Portland has the advantage of a deep talent pool, receptive local market for new technologies, and a legacy manufacturing base that helps recruit these companies.[26]

To help these businesses, the PDC is creating the Oregon Sustainability Network, which is going to be an umbrella organization that helps to bring all of the companies in the cluster together. The network is going to track both supply chain and product development through ties to the business community. It also is going to develop ties to research institutions in the region to ensure product and process discovery are quickly converted into commercial opportunities for local businesses.[27]

Portland is also retrofitting buildings to expand demand in the region for energy efficient products. This helps to spur research, but also generates jobs for subcontractors and building specialists and helps the city save on energy costs.

Finally, the city is investing in the construction of three "ecodistricts" that are going to offer the opportunity to put into practice the latest innovations in green building infrastructure. Each district will test new techniques in power generation, waste and water treatment, and shared infrastructure.

Key Successes

In the past three years, Portland's economic plan has:

---

[25] Portland Development Commission: www.pdc.us/welcome.aspx
[26] Portland Development Commission. "Economic Development Strategy: Three Year Status Report" pdxeconomicdevelopment.com/docs/Portland-EcDev-Strategy-3-Year-Status-Report.pdf
[27] Portland Development Commission. "Economic Development Strategy" pdxeconomicdevelopment.com/docs/Portland-Ec-Dev-Strategy.pdf

- Retained 1,500 jobs and created 2,750 jobs through financial assistance to 176 local companies
- Recruited 19 new companies
- Leverages $740 million of investment
- Spurred 4,700 construction jobs
- Invested $75 million in 526 businesses

In the Green Clusters they have:
- Secured the North American Headquarters of wind power company Vestas
- Recruited SoloPower, a manufacturer of innovative flexible solar panels, and ReVolt Technology, a leader in energy storage
- Retained the North American Headquarters of Iberdrola Renewables, a major European wind power company, saving 375 jobs
- Launched "We Build Green Cities" to promote Portland's global leadership in green development, and clean energy
- Generated $2 million in increased sales for local manufacturers in wind energy supply chain by providing technical and marketing assistance to over 50 firms through MarketLink and the Oregon Manufacturing Extension Partnership[28]

Portland is also ranked at the greenest city in America by *Corporate Knights Magazine*.

Learning Highlights
- *Leverage Your Strengths*: Oregon's past manufacturing base and experience with semiconductors have made the city ideal for attracting the green power industry.[29] Access to inexpensive energy and water and the city's reputation also are key factors businesses consider when relocating to Portland.[30] Without access to these strengths, it would be much harder and more expensive to attract businesses in the target clusters to the area.
- *Craft policies to attract workers and industries:* Another key component of business relocation to Portland is the friendly regulatory environment for businesses in target clusters. Tax incentives and other assistance is offered to these businesses to relocate or expand. Additionally, long run investments in transit, social services, and other public projects has given the city a reputation for a good quality of life that attracts entrepreneurs and skilled workers alike, both of which are essential to attracting businesses.
- *Don't neglect the supply chain:* Economic development in Portland doesn't just revolve around target industries, it tries to capture their entire supply chain. This makes the area more attractive to other businesses in the same cluster without having to do more expensive recruiting. It also makes the supply chain greener by cutting down on transportation costs from one business to another.

---

[28] Portland Development Commission. "Economic Development Strategy: Three Year Status Report" pdxeconomicdevelopment.com/docs/Portland-EcDev-Strategy-3-Year-Status-Report.pdf
[29] pdxeconomicdevelopment.com/cluster-cleantech.html
[30] Portland Development Commission. "Economic Development Strategy" pdxeconomicdevelopment.com/docs/Portland-Ec-Dev-Strategy.pdf

- *Invest in Education:* One of the biggest keys to Portland's success is its educational system. Portland is home to a deep, skilled labor pool that businesses can pull from and Portland State University is home to world-class research and business centers dealing with social and environmental stewardship.

3.6 Pueblo County, CO – Aiding Local Businesses with Technology

Sector Focus:	Small Business Growth
Original Problem:	Local businesses are at an information disadvantage relative to larger corporations
Success Factors:	Trust of local businesses, Helpful staff, Free and easy to use

Population: 160,852
Median Household Income: $41,283
Unemployment Rate: 9.5%

Background
Pueblo County is a community of 160,000 people located in south-central Colorado. The county is one of the pioneers in using Geographic Information Systems (GIS) for town planning and to cultivate local businesses.

Economic Development Focus
Christopher Markuson, Pueblo's GIS manager, states the county uses their GIS technology to grow local businesses because "Businesses already in town are not fully focused on the bottom line… they're looking to improve business but also looking to do what's right by their employees."[31]

Pueblo County makes their GIS available on the county's website free of charge. Business owners can also schedule a free appointment with a consultant to get specialized advice and answers to specific questions.

Overview of the GIS Program
Geographic Information Systems take information from different databases and apply geographic coordinates to it. It allows analysis of disparate information that can be used for both town planning and economic development. Some examples of its uses are:
- Measuring the impact of putting more storm water into a local river
- The effects planting trees or expanding parking has on pedestrians and store owners
- Optimal locations for buildings
- Finding customers to target with advertising

The best way to picture the output of a GIS is to imagine the transparencies of the human body that are in high school biology textbooks. A map of the town is the base, then different sets of

---

[31] "Pueblo County, Colorado, Grows Economy with GIS." ArcNews Online. Spring 2010. www.esri.com/news/arcnews/spring10articles/pueblo-county-colorado.html

data can be added and subtracted from it. Visually laying the data on top of the map can yield powerful insights for businesses.

The data that comes from GIS is typically only available to larger corporations because of the high cost of collecting and analyzing it. By putting that same data in the hands of local businesses, Pueblo County is helping them to compete on both local and national levels.

Key Successes
As a direct result of use of the GIS software, through the end of 2009 the county tracked:
- 58 new jobs
- $2.8 million in new revenue in the county[32]

The county also won the Special Achievement in GIS Award at the ESRI National User Conference for vision, leadership, and innovative use of ESRI's GIS technology.[33] The software was also used to attract bids for a $900 million solar power plant on an old, unused military base.

There are also several businesses and non-profits that benefited directly from the use of Pueblo's GIS software:
- The GIS team and a local web-based business met and identified their top markets and the best ad placement across TV, radio, direct mail, and even subway platforms for better national market penetration. They also found out the top zip codes that were searching for their services to build an online advertising campaign. Sales boomed, and the company has created four new jobs in the county.
- Pueblo County Community Health Center Foundation raised funds more effectively by using the GIS to look through different characteristics to find the right donors to target. Demographic analysis along with mapping allowed them to get into the community and build a base of donors. The result was they reached their five-year funding goal of $15,000 in about one year.
- The local community college used GIS technology to concentrate its marketing efforts and grew enrollment by an astounding 17%.[34]

Learning Highlights
- *Need to Have the Trust of the Local Business Community:* Chris Markuson, the GIS manager, stated, "We have this amazing reputation around town as folks that are going to give you the real, truthful answers to your questions. We'll tell people no, the data doesn't support your plan to open a coffee shop where the area only has 30 potential customers around you. It's just not feasible and here's the evidence."[35] Without their reputation, business owners would be hesitant to trust county employees with major

---

[32] Pueblo County, Colorado, Grows Economy with GIS." ArcNews Online. Spring 2010. www.esri.com/news/arcnews/spring10articles/pueblo-county-colorado.html
[33] events.esri.com/uc/2009/sag/list/?fa=Press&SID=981
[34] Pueblo County, Colorado, Grows Economy with GIS." ArcNews Online. Spring 2010. www.esri.com/news/arcnews/spring10articles/pueblo-county-colorado.html
[35] Pueblo County, Colorado, Grows Economy with GIS." ArcNews Online. Spring 2010. www.esri.com/news/arcnews/spring10articles/pueblo-county-colorado.html

decisions. But by hiring quality personnel and providing great service and working with the business community, GIS technicians have a waiting list of entrepreneurs willing to work with them.

- *Information is one of the most valuable resources a business can receive:* Larger corporations, such as McDonald's, have complex algorithms that tell them were to place a restaurant. Unfortunately, without access to the same information, potential local restaurant and café owners compete at a huge disadvantage. This information gap is present in many industries. By making information low cost and easy to access through its website or appointment, Pueblo County has put local businesses that don't have the budget to finance research on more even footing with larger corporations.

- *Leverage the Information Available to You:* Pueblo County uses its GIS software for economic development, but it also uses it for property tax assessments, managing emergency services, and in nearly every county department. It allows the government to work more efficiently, save money, and even speeds up decision making. The benefits of the system extend far beyond economic development efforts.
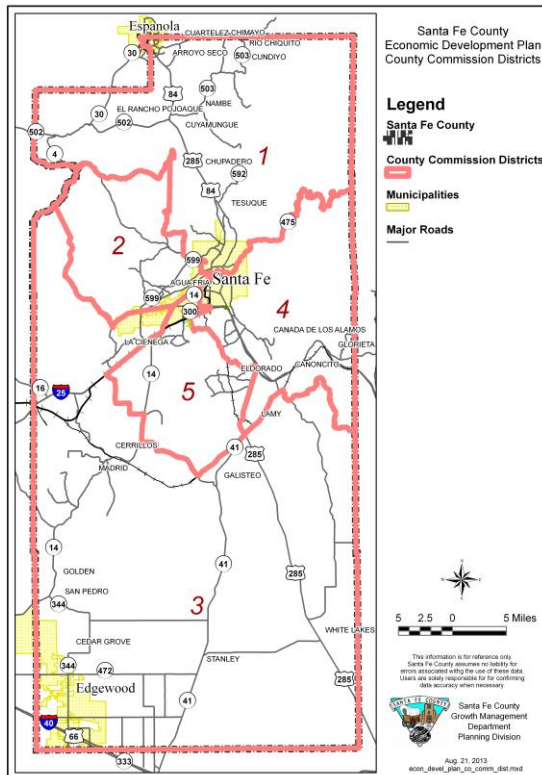
IV.   SANTA FE COUNTY OVERVIEW

This appendix contains additional data to reference for Chapter 4 – Santa Fe County. It provides charts and tables on projections for industry, employment and dwelling.

Map of County by Commissioner District

The map below details SFC by Commissioner District.

Employment Projections

The following table projects employment growth in the County from 2010 to 2030. Unincorporated areas and Pueblo percentage growth are projectected to outpace the City. El Centro is projected to generate 1,862 of the total 3,368 new jobs in unincorporated areas.

Table: Employment Projections in Santa Fe County by Region[36]

---

[36] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010.

Employment							
	2010	2015	2020	2025	2030	Total Change 2010-2030	Percent Change 2010-2030
Total County	64,250	67,083	69,916	72,750	75,583	11,333	17.60%
City of Santa Fe	54,162	56,161	58,127	60,060	61,960	7,799	14.40%
Pueblos	436	475	516	558	602	167	38.20%
Total Unincorporated	9,653	10,448	11,274	12,131	13,020	3,368	34.90%
Unincorporated County by Area:							
El Norte	2,666	2,849	3,036	3,229	3,428	762	28.60%
El Centro	4,904	5,341	5,797	6,272	6,766	1,862	38.00%
Galisteo	1,341	1,450	1,563	1,680	1,802	461	34.40%
Estancia	741	808	877	950	1,025	283	38.20%
Total Units	9,653	10,448	11,274	12,131	13,020	3,368	34.90%

Dwelling Units

The following table details projected growth for dwelling units. El Centro is projected to increase the most from 2010 to 2030 with 7,074 new dwelling units, an increase of 83%.

Table: Dwelling Unit Projections in Santa Fe County by Region[37]

Figure 2-2: Dwelling Unit Projections by Growth Management Area

Dwelling Units							
Unincorporated County by Area:	2010	2015	2020	2025	2030	Total Change 2010-2030	Percent Change 2010-2030
El Norte	7,977	8,304	8,881	9,472	9,747	1,770	22.20%
El Centro	8,571	10,950	12,883	14,606	15,645	7,074	82.50%
Galisteo	6,640	7,328	7,930	8,512	8,991	2,351	35.40%
Estancia	3,839	4,053	4,368	4,684	4,838	999	26.00%
Total Units	27,027	30,634	34,063	37,274	39,222	12,195	45.10%

Job Growth by Sector

The graph below plots major industries tracked by the census with growth in employment (workforce of Santa Fe County employed), compared to year 2000. Employment overall has grown, with negative growth beginning 2005. This trend reversed in most industries, as 2010-11 demonstrates. Growth can be documented in County target industries including Arts / Culture, Film/Media and Ecotourism reflected in segments labeled entertainment, recreation, accommodation, food services and others. Green industries are tracked by categories including utilities, construction, scientific services, and waste management.

The table below shows the numbers and values of employer and non-employer establishments in particular industries. It details number of employees and wages paid to employees. As far as data are available, the table shows leading industries in total revenue generation (industry value): retail trade, health care / social services, and tourism (accommodation and food services). These industries have the largest numbers of paid employees.

Table: Industries by no. of jobs and value[38]

---

[37] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010.

Industry	Number of employer establishments	Employer value ($1,000)	Annual payroll ($1,000)	Number of paid employees	Number of nonemployer establishments	Nonemployer value ($1,000)	Total value (nonemployer and employer values)
Manufacturing	153	D	34,524	980	416	18,079	-
Wholesale trade	134	D	D	g	N	N	-
Retail trade	887	2,426,284	261,596	9,949	1,093	71,570	2,497,854
Information	104	N	43,817	938	320	12,306	-
Real estate and rental and leasing	311	206,039	40,845	1,092	1,616	135,619	341,658
Professional, scientific, and technical services	698	D	D	h	3,156	131,652	-
Administrative, support, waste management and remediation services	226	103,540	42,851	1,615	1,001	22,585	126,125
Educational services	82	36,667	9,978	347	516	7,888	44,555
Health care and social assistance	518	809,433	318,049	8,465	1,350	41,838	851,271
Arts, entertainment, and recreation	125	165,108	43,999	1,400	1,924	58,053	223,161
Accommodation and food services	398	540,400	166,265	9,203	190	6,472	546,872
Other services (except public administration)	341	231,028	54,107	1,849	1,507	46,254	277,282

Notes:
D Withheld to avoid disclosing data for individual companies; data are included in higher level totals
g 1,000 to 2,499 employees
h 2,500 to 4,999 employees
b 20 to 99 employees
N Not available

---

[38] U.S. Census Bureau, Table EC0700A1

## V.   ASSESSMENT OF GMAS AND COMMUNITY ACTION PLAN

Assessment of Target GMA Dynamics

This chapter reviews the four growth management areas (GMAs) in Santa Fe County – El Norte, El Centro, Galisteo, and Estancia – to present demographic and economic basics, assess employment and economic development potential, and describe resources needed. Each section below also identifies potential policies, programs, and other roles for the County to support each area's development. SFC roles with respect to systems and infrastructure, and the target industries, which impact *all* GMAs, are detailed in those sections; see also the summary table below, mapping overall industry concentrations to GMAs.

The economic and demographic data gathered varies by year. The most recent information that could be found was used. In cases where information was older than five years, some extrapolations are made. These are noted. As newer data is released, information in this chapter can be updated. For example, the USDA agricultural census is due out in early 2014, which would update information which now dates from 2007.

The map below shows the sustainable development areas (SDAs) in the County, which are the noted areas for prioritized development.

Map: Sustainable Development Areas in SF County
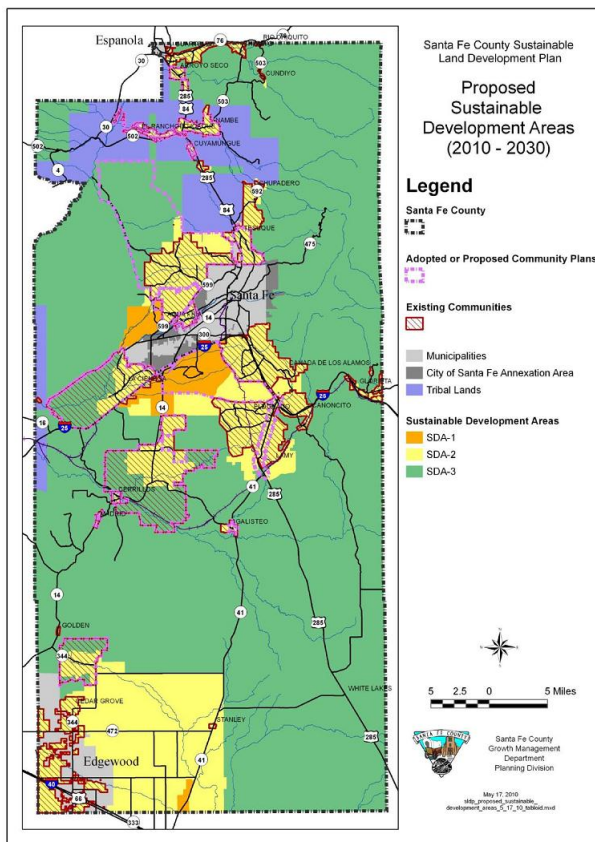
To begin our analysis of GMAs we will first provide an overview of the interest in economic development of communities in Santa Fe County outside of the City divided by GMA. This will provide background for the differences in economic development plans in GMAs and their communities.

County Community Action Plans

This analysis was conducted by identifying a series of major economic development elements. With this set of elements, each community plan was scored on a comparative basis, with subjective factors. To receive a high score, plans must have laid out specific details regarding what the community would do to achieve development goals. Plans that did not mention the identified factor or only briefly touched upon the topic received a lower score. This is not a 'bad' conclusion, it is just to verify what content was in which plans.

Scores for each element were summed for each community plan and used to compare the level of detail and focus on development across communities and Growth Management Areas (GMAs). The table below shows the results of this analysis.

Community Economic Development Elements

Scoring is on a scale of 1-5, based on the level of detail given to each development element (5 is high or extensive focus, 1 means little to no focus). The color code is as follows:
- Yellow denotes all items that received a 5
- Green for citations emphasized by a community as a lead factor in its own planning
- Purple is the highest Economic Development Score

		Housing[1]	Commercial[2]	Land Use/ Zoning	Density[3]	Recreation/ Open Spaces[4]	Public Services/ Infrastructure[5]	Water Management	Community Facilities[6]	Total Economic Development[7]	Average Total by GMA
El Norte	Pojoaque Valley	3	5	5	2	3	4	5	5	32	30.75
	Tesuque	4	4	5	3	5	4	3	2	30	
	Chimayo*	4	5	3	4	3	4	2	5	30	
	El Valle de Arroyo Seco	3	5	5	3	3	5	2	5	31	
El Centro	La Cienega/La Cieneguilla	4	3	5	4	4	5	5	5	35	32
	Community College District	5	4	5	5	5	5	5	5	39	
	Agua Fria	3	3	5	3	4	5	5	2	30	
	Tres Arroyos del Poniente	3	3	4	4	4	3	3	2	26	
	Santa Fe Northwest	4	2	5	4	4	5	4	2	30	
Galisteo	San Marcos	4	3	5	3	4	3	5	3	30	29.6
	US 285 South Highway	3	5	5	3	5	4	3	3	31	
	Los Cerrillos	4	4	3	3	3	4	4	4	29	
	Galisteo	3	4	5	4	4	3	4	3	30	
	Madrid	2	3	5	2	3	4	5	4	28	
Estancia	San Pedro	3	3	4	4	4	4	4	2	28	28

* Ratings based on minutes of Chimayo Community Planning meeting 2013, no community plan exists yet.
[1] Housing refers to specific housing development plans
[2] Commercial refers to specific commercial development plans
[3] Focus on density comes from specific mention, either low or high density. Generally, a higher density rating and a higher rating for housing and commercial development equates to a focus on greater density development, while a higher density rating but lower housing and commercial development ratings equates to a focus on achieving lower density.
[4] Recreation/Open space focus includes building trails and preservation of flora, fauna, views, natural areas, arroyos, etc.
[5] Public Services/Infrastructure includes such items as energy, utilities, roads, fire services, etc.

[6] Community facilities include places and structures open to the public (i.e. community centers, visitor centers, public restrooms, etc.)
[7] Sum of scores on each individual element.

From this analysis, a number of observations are made. In a comparison of GMAs, El Centro plans generated highest scores, suggesting these communities were more focused on developing specific plans for managing growth. This is understandable as the population of El Centro is expected to grow more quickly than any other GMA, and faces more land pressure from its proximity to the City of Santa Fe. The Community College District in El Centro, had the highest score from a plan and borders the City. Communities with lower scores tended to have lower growth expectations or expressed less interest in change in their community.

5.1 El Norte

El Norte is the northernmost region of Santa Fe County. It is a largely rural area, containing the majority of the county's Pueblo lands. The eastern third is National Forest, managed by the U.S. Forest Service. Census designated locations within the area include: Tesuque, Pojoaque, El Valle de Arroyo Seco, La Puebla, El Rancho and a portion of Espanola.

Much of El Norte is designated as Sustainable Development Area 3 (SDA-3) with some areas SDA-2 surrounding named communities.

Demographic & Economic Data

Demographic & Economic Character	Description
El Norte Population: 18,254	El Norte growth is slower than the rest of the County. Most growth comes near Espanola along U.S. Hwy 84/285. GMA expected growth is 18% 2010-2030, (less than 1% per year).
Per Capita Income - SFC:[39] $32,680	Community level data is available as follows: • Pojoaque: Per Capita Income $24,737 • Tesuque Pueblo: Per Capita Income $14,185 • Tesuque: Per Capita Income $70,294
Persons below poverty for SFC:[40] 15.6%	Value in communities with census reporting: • Pojoaque: 15% • Tesuque Pueblo: 16% • Tesuque: 5%

SWOT

Strengths: Open spaces; Cultural uniqueness; Rural character; Proximity to major economic centers; Historical resources; Arts background	**Weaknesses**: Lack of local high quality jobs; Residents forced to commute for work; Local resistance to development or change; Lack of youth agricultural programs; Poor and aging infrastructure; Lack of broadband in some

[39] U.S. Depart of Commerce. U.S. Census Bureau. State and County Quick Facts: SF County. 2013. http://quickfacts.census.gov/qfd/states/35/35049.html.
[40] ibid

	areas
Opportunities: Relative lack of competition for new local businesses; Support for existing businesses; Development of local services and retailers (construction, clothing, food, etc.); Development of tourism industry beyond casinos; Further contracts for local businesses with LANL; Extend reach of REDI Net; Collaboration between County and Pueblo communities; Promotion of large local events	**Threats:** Younger generations move away to the bigger cities; Loss of scenic open spaces to attract visitors and new residents; Disputes over water rights; Noxious weeds on agricultural lands; Uncertain use of BLM land for grazing; Perceived Lack of county funding for unincorporated communities; Drought

Employment Potential

Total official employment in El Norte is tracked at 2,666 (2010). Casinos on Pueblo lands have brought rapid economic growth. Cities of Gold, opened in 1995, reports 470 employees. Camel Rock Casino near Tesuque reports 425.[41] Buffalo Thunder adds even more. Economic tax benefit for the County is limited, but overall financial value is desirable.

Pojoaque Valley (Pojoaque, El Rancho, Nambe ~7,200 people) has traditionally been agriculturally based and remains rural. Pojoaque Valley residents, on average, are older with a higher proportion Hispanic and Native American than the rest of County, with less formal education and lower incomes. Pojoaque Valley jobs predominately are in education, government services, and tourism/entertainment. Only 3 jobs per 100 residents provide goods and services to locals compared to an average of 18 in most rural communities. Most people work elsewhere: nearly 40% of residents work in the City of Santa Fe, 30% in Los Alamos.[42]

Rio Tesuque includes about ~1,600 people. Little commercial activity exists and community members state preference for it to remain so. Five major businesses provide 270-300 jobs, the largest a lodge with ~120 employees, restaurant with ~50 employees, village market with ~40 employees, and foundry with ~30 employees. Education levels in Tesuque vary between the Pueblo and community. In the Pueblo, 22% did not complete high school and 35% have at least some college education. In the community of Tesuque, 45% have a graduate or professional degree; 16% have no more than high school diploma.[43]

El Valle de Arroyo Seco runs along U.S. Hwy 84/285 with most commercial activity to the north, touching Espanola. Espanola mostly lies in Rio Arriba County; city population is 10,500. Additional development is planned for this community and Espanola. A range of businesses are here.[44] No specific economic or action plan for Espanola was identified.

Major Economic Development Element Plan
Tesuque (El Norte) - Rural Character/ Open Space Preservation Plan - 2000

---

[41] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010.
www.santafecountynm.gov/userfiles/SustainableGrowthManagementPlan2010PDFsm.pdf
[42] United States Census Bureau. FactFinder2.
[43] United States Census Bureau. FactFinder2.
[44] El Valley de Arroyo Seco Community Plan. 2003.
www.santafecountynm.gov/userfiles/file/find/El_Valle_de_Arroyo_Seco_Highway_Corridor_Plan.pdf

Tesuque created a detailed plan to preserve open space, which they feel is a key aspect to maintaining the rural character of the community. They plan to use several potential mechanisms to preserve open space and will look to develop new zoning ordinances using the following mechanisms.

1. Transfer of Development Rights: Buying development rights from a "sending" property thereby protecting that property from development, while giving those rights to a "receiving" property that is now able to increase the density on the site beyond current zoning regulations.
2. Density Bonus Ratios: A conservation easement on a portion of a property for development allows for increased density on the remaining portions of the property that will be developed.
3. Land Purchases: Government agencies or non-profit land acquisition companies (land trusts) may purchase properties with the intention of protecting it from development.
4. Conservation Easements: Private landowners can maintain ownership of their property but give up certain development rights in return for tax benefits.
5. Scenic Highway Corridor Plan: Implement a plan for US 84/285 near Tesuque to preserve scenic nature of area such as views while driving on the highway.
6. Regulatory Strategies: Government may zone lands as open space or undevelopable for the benefit of general health and welfare of the public.

Resources Needed:

1. El Norte would benefit from updating infrastructure. Water systems through Aamodt will be important over the next decade. Increased access to internet supports home based and small businesses.
2. Business development assistance for local entities appears valuable, as the GMA statistically has enough population to support more commercial activity. A key goal should be getting this assistance closer to where people live, as well as financial education. A recent convening in Espanola with Finance New Mexico and other partners is a good step in this direction.
3. The region would benefit from youth agricultural programs to maintain the next generation. See challenges under the agricultural industry section for other items – such as federal land grazing, noxious weeds and water.
4. Promotion for artists and cultural events magnifies nascent activities. Small grants and assistance with connecting to funding would help grow local efforts.

5.2 El Centro

El Centro has the largest population in the County and includes City of Santa Fe. Consideration for this report is outside City limits. Thus, statistics reflect that. The GMA includes national forest covering eastern and western portions. City annexation impacts El Centro heavily, addressed in Chapter 4 on Santa Fe County. Most of El Centro is classified as Sustainable Development Area 1 (SDA-1). Communities in El Centro include: Village of Agua Fria, La Cienega/La Cieneguilla, Santa Fe Northwest, Community College District, Tres Arroyos del Poniente.

Demographic & Economic Data

Demographic & Economic Character   **Description**

El Centro Population: 21,341[45] (outside of urban zone) Santa Fe urban is 87,615.

Fastest growth among GMAs, 77% growth projected (excluding City) 2010-2030.

Per Capita Income - SFC: $32,680

Property values rising rapidly, attracting wealthier people. Most long time residents have lower incomes. Data for two communities in El Centro:

- Agua Fria: Per capita income $17,700
- La Cienega: Per capita income $22,103

Persons below poverty for SFC: 15.6%

No Pueblo lands; expanding suburban development. Poverty data is:

- Agua Fria: 35% of people below poverty line
- La Cienega: 17% below poverty line

SWOT

Strengths: Five communities have achieved Traditional and Contemporary Community status; Understand importance of cultural uniqueness to their success; Scenic natural areas; Rural character; Historical resources	**Weaknesses**: Local resistance to commercial development; Dependence on City of Santa Fe businesses; Lack of mixed use areas; Smaller demographic of young professionals than other communities
Opportunities: Implement sustainable development initiatives where growth is greatest; Community building through local mixed use areas; Develop light manufacturing industry; Further contracts for local businesses with LANL; Extend reach of REDI Net; Further support of Turquoise Trail Industrial Park development; Further support for film and digital media, green, and other target industries	**Threats:** Growth may decrease scenic qualities and rural character; Perceptions of insufficient workforce; Rise in property values push out long-time residents; Drought

Employment Potential

El Centro had total employment of 4,904 for unincorporated areas (2010), while the City had 54,162.[46]

Village of Agua Fria population was 2,050 and unemployment 6.6%. Education levels range from 33% with less than high school diploma to 30% with at least some college education. 25% of land is currently vacant with potential to be subdivided. Businesses include commercial, industrial (sand, gravel, concrete, waste services, several construction companies), home based and agricultural (community farm, equestrian center, feed store, produce sales, nursery).[47]

The Community College District (CCD) population was 1,200 (465 households) from the 2010 census. Growth has been and will continue to be anchored and/or driven by SFCC and Institute

---

[45] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010.
www.santafecountynm.gov/userfiles/SustainableGrowthManagementPlan2010PDFsm.pdf
[46] ibid
[47] Village of Agua Fria Community Plan. 2006. www.santafecountynm.gov/userfiles/file/find/
Agua_Fria_Community_Plan_as_adopted_by_Resolution_2006_116.pdf

of American Indian Arts. Student enrollment for both colleges in year 2020 is projected to be 20,460 (7,100 full-time equivalents). Principal employers include SFCC (274 full-time and 587 part-time workers) and Turquoise Trail Business Park (415 estimated in 2010).[48] Santa Fe Studios and BTI are also new, significant additions.

La Cienega unemployment was approximately 5% in 2010. 47% of people had at least some college education, while 23% have less than high school education.[49]

In Tres Arroyos del Poniente, residents' estimated 25% of households have home businesses. Aldea actively encourages home businesses. Few commercial businesses are there - a sawmill/lumberyard and a car repair business.[50]

Major Economic Development Element Plan
Community College District (El Centro) - Land Use Plan - 2000
The Land Use plan detailed by Community College District included four main premises with the goal of curtailing sprawling development.   The premises are: compact forms, designated centers, connections and community structure. Traditional communities of Santa Fe County are compact settlements showing signs of a unique community with opportunities to live, work, play and interact together. Modern subdivisions rarely offer these multiple opportunities.

Three distinct compact development forms are: Village Zones, Institutional Campuses and Employment Centers. Centers will be mixed use areas with residential, commercial and institutional uses with higher densities than surrounding areas. Each development form will be separated with well-defined edges and buffers. Connections between central areas will accessible by vehicles, buses, bicycles, equestrians, and pedestrians. This structure is designed to be more sustainable by keeping much of projected growth in the region from large lot development. Locations of focused development will be determined by natural landscapes in the area with a focus on protecting arroyos, mountains, and hillsides while developing the various forms of flatlands (grasslands, Juniper, etc.)

Resources Needed:

1. El Centro would benefit from more community development such as providing mixed use areas to house local business and decrease dependence on consumption in the City.
2. Better and more affordable broadband access would be valuable to local business development and new business opportunities.
3. Promotion of County based cultural events and artists would increase profitability, as well. Specific suggestions for other Target Industries located in El Centro can be found in the specific industry chapters.

---

[48] Community College District Plan. 2000.
www.santafecountynm.gov/userfiles/file/find/CCD_Plan_final_for_web.pdf
[49] United States Census Bureau. FactFinder2. La Cienega CDP. 2010.
http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none
[50] Tres Arroyos Del Poniente Community Plan. 2006.
www.santafecountynm.gov/userfiles/file/find/FinalDraft-CommunityPlan.pdf

5.3 Galisteo

Galisteo is traditionally rural with ranching and other agriculture. Northern parts face City suburban development pressures. Portions have been developed or have plans, classified as Sustainable Development Area 1 (SDA-1). Southern Galisteo is less developed, consisting largely of ranches and open space. Small communities are classified SDA-2, with the rest SDA-3 with small areas around the rural communities classified as SDA-2. Communities in this GMA include: Galisteo, San Marcos, Los Cerrillos, Madrid, Eldorado, Lamy with commercial attention to US 285 South Highway and Turquoise Trail/Highway 14.

Demographic & Economic Data

Demographic & Economic Character	Description
GMA Galisteo Population: 14,640[51]	Expected growth rate is between other GMAs. 32% over 2010-2030.[52]
Per Capita Income - SFC: $32,680	Northern Galisteo faces development pressure and increases property values, altering demographics. Communities with specific data: • Galisteo: Per Capita Income $27,719 • Madrid: Per Capita Income $21,350
Persons below poverty for SFC: 15.6%	Poverty rates vary tremendously • Galisteo: 7.5% • Madrid: 41%

SWOT

Strengths: Large arts and film potential; Rural character; Tourism; Historical resources	**Weaknesses**: Lack of water availability; Lack of planning done by suburban communities; Lack of local high quality jobs; Dependence on seasonal tourism; Lack of high speed broadband; Lack of utilities (water, waste water, natural gas); Aging infrastructure, such as roads, sewer, public buildings
Opportunities: Development of new water efficiency/water conservation measures; Securing water rights; Focus development on art and film industries; Support home businesses; Further develop tourism industry; Improvement of local infrastructure; Promote large events; Redefine suburban development patterns in areas closer to City	**Threats:** Drought; Unincorporated communities believe lack of funding threatens their viability; Inability to meet tourism demand through lack of lodging, dining options, etc.

---

[51] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010. www.santafecountynm.gov/userfiles/SustainableGrowthManagementPlan2010PDFsm.pdf
[52] Ibid

Employment Potential

This GMA lists total employment of 1,341. Galisteo as a census community reports 253 persons.[53] Education levels in the community vary: 18% have less than high school diploma, and 27% have at least some college education. Larger businesses, such as the Inn at Galisteo, have closed. Recent count identified more than twenty home based businesses, more than one fourth of workers. There is community interest for commercial efforts, including groceries or restaurant. A new community arts gallery opens fall, 2013. The village has 10 acres of community land with water rights.

In Cerrillos, people are highly educated: 81% of residents have a bachelor's degree. There are 4-5 tourist-oriented businesses in town. Many services are offered in this small community: medical care, construction, auto repair, restaurant, and barber shop.

Madrid is growing rapidly. Summer tourism fills the main street, but is seasonal. It faces shortage of water and several residents haul water for domestic use. Madrid Water Cooperative has issued a moratorium on new member hook-ups until new sources of water are added. Local job creation emphasizes self-employment. Incomes are below Santa Fe County averages. There is high self-employment; others drive to Albuquerque or the City.[54]

The San Marcos district has a commercial node at intersection of SR-14 and CR 44-45. This sets aside up to 60 acres of commercial zoning. The mixed use zone is intended to accommodate neighborhood-oriented, low-intensity retail sales and services - no strip development. San Marcos contracted well data, which indicated the water table varies between 15 and 500 feet in depth.[55] Water supply is precarious; New Mexico National Guard has trucked it into the Village in some drought years. Similar to Madrid, the district is limited by this lack of water.

Major Economic Development Element Plan
US 285 South Highway Corridor (Galisteo) - Community Crossroads Plan - 2004
US 285 South Highway created a detailed analysis of 9 different major crossroads all at varying stages of development. These 9 crossroads were selected as sites of potential value and development opportunities. Each site is reviewed by looking at current zoning including the current businesses located there, potential future zoning, potential for non-residential development, preferred development patterns, and specific goals for development of each crossroad. Common elements of concern include large developments that change the character of the community such as large scale strip development. Preferred development includes small retail operations, office buildings, small lodging such as a bed and breakfast, and dining options. Emphasis is given to avoiding development of natural areas such as arroyos and steep hillsides as well as providing safe pedestrian access to commercial sites and between commercial sites.

---

[53] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010.
www.santafecountynm.gov/userfiles/SustainableGrowthManagementPlan2010PDFsm.pdf
[54] United States Census Bureau. FactFinder2. Madrid CDP. 2010.
http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none
[55] San Marcos Community Plan. 2010. www.santafecountynm.gov/userfiles/Resolution2010-6.pdf

Resources Needed:

1. Galisteo GMA would benefit from a number of services. Highlighting tourism year round increasing visitors supports communities, reduces seasonal fluctuations, and fosters greater full time local employment. Better internet connectivity provides more opportunities for home based business. Linking tourist activities brings more people and keeps them there longer. Promoting local events, such as studio tours, leveraging existing activity.
2. Galisteo Village faces aging infrastructure and utilities which could attract investment but are current limitations. Collaboration for initiatives citizens are already doing accelerates progress. Advancing use of the community owned 10 acres is an exciting possibility.
3. For Madrid and Cerrillos, infrastructure support around water and sewer is valuable. Tourism support with public bathrooms, enhancement to the baseball field, and more parking would increase dollars spent.

5.4 Estancia

Estancia is the southernmost region of the County. It is largely rural, with recent growth in and around Edgewood, an incorporated area. Most people are closer to Albuquerque (25 miles from Edgewood) than the City of Santa Fe (60 miles away). Many in the area commute to Albuquerque or have home based businesses.

The west side of Estancia is SDA-2, in and around Edgewood. A small area along the County's southern border and Hwy 41 is SDA-1, near the interstate. Eastern Estancia is SDA-3. Communities in Estancia include: San Pedro, Cedar Grove, Edgewood, Stanley, and White Lakes.

Demographic & Economic Data

Demographic & Economic Character	Description
GMA Estancia Population: 10,023[56]	Expected growth rate between other GMAs. 22% over 2010-2030.[57]
Per Capita Income over previous 12 months for SFC: $32,680	• San Pedro and Cedar Grove: Per capita income $27,913. Edgewood: Per capita income $29,954
Persons below poverty for SFC: 15.6%	Poverty levels are only provided in: • San Pedro: 15% • Edgewood: 7% • Cedar Grove: 0% (reported)

SWOT

| Strengths: Edgewood continues growing both in population and jobs; Proximity to Albuquerque; Established irrigated agriculture; Large amount of land for residential subdivision | Weaknesses: Lack of high quality local jobs; Irregular and limited water availability; Reliance on Albuquerque for jobs; Inadequate internet speeds for common commercial uses; Poor infrastructure in aging roads, dirt roads, |

---

[56] Santa Fe County's Sustainable Growth Management Plan (SGMP). 2010. www.santafecountynm.gov/userfiles/SustainableGrowthManagementPlan2010PDFsm.pdf
[57] ibid

	and aging water
Opportunities: Collaboration between Edgewood and the County; Efficient water management to allow for both continued irrigated agriculture and urban development; Promotion of large events; Improvement of local infrastructure	**Threats:** Sprawling development patterns; Perception of few county resources going to unincorporated communities; Competition for water between agricultural and non-agricultural uses; Edgewood may have a development agenda different from the County

Employment Potential

Estancia GMA has been growing rapidly, largely around Edgewood. Edgewood is the economic center of Estancia GMA and regional hub for the three county valley, anchored by grocery stores and shopping, including WalMart. Since incorporating in 1999, the town counts 427 businesses registered.   Town unemployment rate is low at 5.5%. Education levels are above County averages, with 61% having at least some college education, including 16% holding a graduate/professional degree.[58]

The San Pedro Area cited 100 estimated residences in 2000, but has grown somewhat in the last decade, above GMA averages. Education levels are high with 85% of residents having at least some college education; 69% have a bachelor's degree.[59] Unemployment is low and income is above County averages, as are home values. Water availability varies, with wells ranging from 200 feet to 700-foot dry holes. The community has stated that importing water is only economically feasible with development on a large scale and high densities, which is against the vision outlined in their community plan.[60]

Cedar Grove consists of about 750 people. The unemployment rate is below County averages at 5%. Residents are highly educated with 89% having at least some college education; 11% have graduate/ professional degrees.

Resources Needed:

1. Notably, Estancia is cited as having a medical professional shortage. Growth of the local medical facility is planned.
2. There are regional efforts to foster more business development, particularly light manufacturing to reduce dependence on Albuquerque. Universal high-capacity broadband would support independent workers and home based businesses. It is spreading in the region, but still limited.
3. Multiple housing needs exist in Estancia. Housing rehabilitation, particularly for more energy efficiency, has been cited as a need. And, locating affordable housing in the region is encouraged. There is no commercial lodging in Estancia. Proponents note the GMA pays more in taxes than it receives in services.

---

[58] ibid
[59] United States Census Bureau. FactFinder2. San Pedro CDP. 2010.
http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none
[60] San Pedro Community Plan. 2001. www.santafecountynm.gov/userfiles/file/find/SanPedroPlan2001-5.pdf

Summary of Industry Sectors in Target GMAs

Santa Fe County is diverse with varying commercial activity, which affects the GMAs at different levels. In the table below, the target industries are geographically evaluated. This table considers concentration of the analyzed industries in each of the four GMAs. It uses a basic scale, Low – Medium – High, as a relative indicator in that GMA of industry presence, economic value and relative importance.

A "Low" indicates that industry today has little to no impact on the GMA's economy. Scorings are subjective from available data and stakeholder interviews. The 'leaders' (ranked high) are noted in Yellow.

	Agriculture	Arts and Culture	Ecotourism/Outdoor Recreation	Film/Media	Green Industry	Health and Wellness
El Norte	Medium	High	High	Low	Low	Medium
El Centro	Low	High	High	High	High	High
Galisteo	High	High	Medium	High	Medium	Low
Estancia	High	Low	Medium	Low	Low	Low

As evidenced from the table, there is greater concentration in El Centro, due to the City. Estancia has greater focus on agriculture, with potential for more recognition in Eco-tourism/Outdoor Recreation. Galisteo and El Norte are in a middle ground with niche opportunities in Film/Media and Green Industry.

VI.   SYSTEMS AND INFRASTRUCTURE SF COUNTY BROADBAND REPORT

Santa Fe County Broadband Report: August, 2013

Disclaimer: *This **Santa Fe County Broadband Report** was prepared by the First Mile Institute, to provide a 'snapshot' update on broadband initiatives, developments, needs and gaps in the County, and inform in the County's Economic Development Plan for 2013. This report is a single snapshot on specific topics. It is not suggested to be all-inclusive. New information and updates review projects/initiatives over time. This report includes notes from an August 19th County broadband discussion meeting in Santa Fe, as well as input from industry stakeholders.*

Introduction

Information technology and telecommunications networking are increasingly becoming fundamental elements in almost all social endeavors, and along with energy are the foundation upon which our local-global economy never rests. Few, including experts, adequately understand the implications and applications of our emerging, diverse information economy.

Yet it is critically important for the public sector as well as the private sector to begin to chart a path forward, as the basis for understandings, risk assessments. decision-making, investments and short to long term benefits, financially and socially.

Santa Fe County is in a unique position currently, to chart its path and to take small steps on a journey that can result in improved public-private cooperation, enhanced life-long educational opportunities and attainments, access to wide-ranging tele-health services, greater participatory governance, economic vitalization of existing and new large and small businesses and social enterprises, more energy efficiency, affordability and conservation, environmental sensing and stewarding, and a wealth of information and entertainment libraries and services. The path leads to new jobs creation and intelligent ripple-effect economic strategies and practices, as we become networked 21st Century communities of learning.

That's the bright side of the picture. The question is how do we get from here to there? There are many challenging issues and difficulties to overcome. It is important to start with what we know. What are the facts on the ground? Who are the 'players'? What resources and assets are in place and where are they? What are known 'gaps' and needs? What's being planned?

What should the roles and responsibilities of the County be? What should be next steps?

- Approximately 90 percent of Santa Fe County residents have access to wired Internet, with 63.5 percent of the population having a choice of three or more Internet providers.

- 13,917 residents in the County are without fixed broadband access, according to 2011 FCC data.

- Santa Fe County can play a leading role in kick-starting a next phase of broadband-based economic development, as an incubating source of regional eco-social vitalization.

To ensure common understanding on the topic, a few terms are defined:

- *Dark Fiber* refers to additional fiber optic cable in the same network that can be leased from a network service provider, or to fiber installations not owned or controlled by

traditional carriers.

- *Backhaul* refers to the intermediate links between the core network and small subnetworks at the edge of the telecom network.
- *Internet2* is a not-for-profit US computer networking consortium that operates an internet protocol network (Internet2 Network) that delivers network services for research and education, and provides a secure network testing and research environment.

Federal Funding & Support Programs

FCC Connect America Program

There may be Santa Fe County residents who qualify for Connect America subsidized services, at reduced rate ($9.99) broadband service from providers cooperating with the FCC in addressing the 'digital divide'. CenturyLink and Comcast are already participating and Windstream has announced that it will.

The Connect America Fund aims to connect 7 million unserved rural Americans to broadband in six years, and puts the nation on a path to connect all 19 million unserved rural residents by 2020. The FCC launched this unprecedented broadband expansion last year when it reformed and modernized the Universal Service Fund. In the first phase, about $115 million of public funding will be coupled with tens of millions more in private investment to quickly expand broadband infrastructure to rural communities in every region of the nation.

Last year only homes lacking 768 kbps downstream service were eligible for funding. A change to this year's program was to open up funding to homes that cannot get service at 3 Mbps downstream and 768 kbps upstream. Carriers can now collect $775 per line for homes lacking 768 kbps downstream service and $550 for homes lacking 3 Mbps downstream service.

FCC Tribal Mobility Fund

Santa Fe County pueblos are not currently designated as eligible for Tribal Mobility Fund Phase I support, but may in next rounds. This issue will likely be discussed at the Sept. 25-26 FCC Tribal Broadband meeting at IAIA, along with other important issues.

USDA RUS Awards

USDA RUS program funds are available for planning, as well as deployments. The Department of Agriculture's Rural Utilities Service (RUS) programs make low-interest loans and grants throughout the year, including through Community Connect, Distance Learning and Telemedicine awards.

ARRA NTIA-BTOP

Some ARRA broadband stimulus, funding to entities throughout the state, has been minimally used in Santa Fe County. In addition, the NTIA BTOP funded two public access computing and training centers in Santa Fe.

- Santa Fe Civic Housing Authority received an ARRA NTIA (PCC) award to establish a computer lab with training programs for is residents and neighbors.
- Boys and Girls Clubs of Santa Fe, as a partner with Zero Divide (San Francisco) received a

portion of a six state $1.4 million NTIA Sustainable Broadband Adoption (SBA) grant, for public-access computer labs and training.

State, County and City

New Mexico Department of Information Technology

In 2010, along with all other states and some territories, the NM DoIT was awarded $1.4 million in NTIA States Broadband Data and Development Program (SBDDP) funding for a two year project to gather and analyze data, and map broadband in New Mexico, with an additional $500,000 for five years of statewide broadband planning. Early in 2011 the NM DoIT received $2.9 million in supplemental funds to extend 'mapping and planning' work through end of 2014, with additional support for specified 'capacity-building' and 'technical assistance' programs.

By integrating comprehensive broadband data gathering, analysis and verification, GIS mapping, web site development, regional planning efforts, technical assistance, capacity-building projects and public outreach (including workshops and conferences), the new State Broadband Initiative (SBI), now led by Gar Clarke, can go far to improve coordination and decision-making among all broadband providers and stimulus awardees, state institutions, tribes, communities, along with the NTIA, RUS and FCC.

Gar Clarke has offered DoIT assistance to Santa Fe County, to create broadband maps, with fiber routes, tower locations, other technical facilities, anchor institutions, coverage areas and more. Ongoing coordination between the State and County will be valuable.

SF County BB Map and Mapping http://nmbbmapping.org/mapping/ and

www.doit.state.nm.us/broadband/map_gallery/county_focus/bb_availability_santafe.pdf#toolbar=1

NM Economic Development Department

The State's Economic Development Department is interested in broadband deployments and applications, and may be of assistance in development of financing strategies and resources.

Santa Fe County

SFC is currently considering its roles and responsibilities regarding enhanced broadband infrastructure, services and investments, as a key part of its Economic Development Plan.

The County should perform a County-wide needs assessment to determine where the current gaps are in broadband connectivity, and where the County should target resources, which could include an open fiber network extension from the REDI Net Point of Presence (POP) at the County Fairgrounds to Santa Fe Community College District; other anchor sites should also be considered as the basis and focus for greater countywide broadband planning considerations and initiatives.

County EDD is also considering broadband strategies to meets needs for online education and workforce development, new enterprises (media district, home-based businesses) and tele-health. The County has widely scattered properties and offices and currently works with a variety of ISPs for connectivity through a variety of contracts.

City of Santa Fe

City of Santa Fe has been variously planning a fiber initiative for many years, in part to interconnect with the REDI Net. The City is about to announce the selection of Cybermesa to undertake an open fiber network deployment within the city, with an initial $1 million City investment. CenturyLink, Plateau, NM DoIT and others may be involved in this initiative.

Santa Fe, like all other cities, has recently had to address and update its telecom ordinances, codes and franchise agreements. The Telecommunications Ordinance that the City approved two years ago, was problematic and resulted in Qwest filing a legal suit against the City, which has still not been finally settled. All communities and the County need similar specialized legal advice and helpful template documents, which the State may help with.
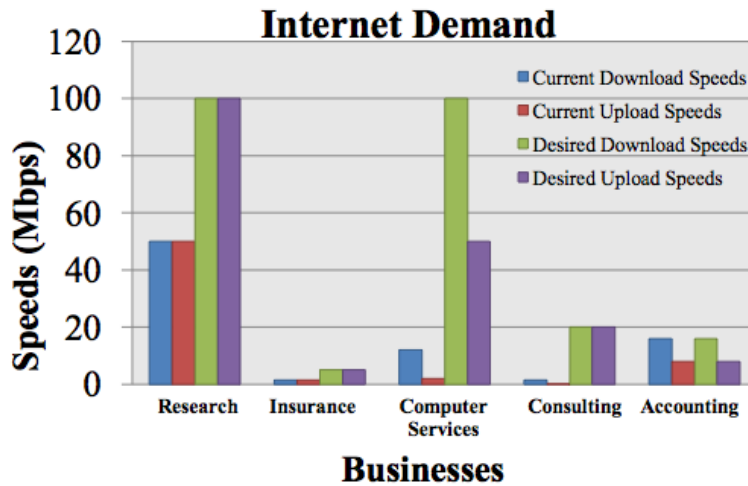

Figure 6: Surveyed Businesses Current and Future Internet Demands

(Note: the figure will be formatted for uniformity and clarity in the final document)

Information from 2012 City-contracted surveys indicated the existence of maximum connection speeds of 50 Mbps download and upload, and minimum speeds of 1.5 Mbps download and .007 Mbps upload. Cost per month for these services ranged from $65 to $3,200. In almost every case, higher speeds were needed either to increase business efficiency or to incentivize growth. The minimum desired download and upload speeds were 15 Mbps while the maximum desired download and upload speeds were 100 Mbps. Although the sample size was small, it was apparent that higher Internet speeds could be beneficial for the City's economic development.

Assets: There are seven available broadband technologies in the county: cable, copper wire, DSL, fiber, fixed wireless, mobile wireless and satellite. The City of Santa Fe is almost entirely covered using a mix of these. Within city limits, most users, commercial and residential, have access to at least 2-3Mbps of download speed and 1Mbps of upload speed.

Infrastructure exists in above ground and underground technologies. Underground infrastructure consists of three separate fiber optic networks controlled by PNM, Plateau, and Qwest Classic, a CenturyLink Company. Santa Fe is primarily serviced by the Century Link network, though both PNM and Plateau trade or lease capacity on limited scale. The Century

Link cable runs through a central office in town to a fiber hut (near Rodeo Fairgrounds). Point-to-point connections are made from the cable to nodes or neighborhoods and then extended with copper connection. Very few, if any, residential or commercial customers in Santa Fe enjoy direct fiber hook ups.

CenturyLink provides a number of wired and wireless services. Additionally, control over the primary fiber-optic network allows the company to lease network capacity to support the connections to other companies such as Level 3 and Zayo. Above ground infrastructure exists in the form of towers using a variety of radio frequencies to transmit voice and data. Wireless service towers are largely dependent on Century Link for backhaul capacity.

Future Plans: City of Santa Fe is currently focused on a project to build out a primary fiber-optic network from the fiber hut to the central office. In the current environment, Century Link has primary control over Internet for the city. While its rates are regulated today, they may not be in the future. As such, the city would like to make it easier for people to find alternative providers. The City would not be a services competitor, but could invest in an open fiber line to facilitate interaction between providers and subscribers, by creating a more diverse marketplace.

Broadband Telecommunication Providers and Initiatives Tier One Carriers

There are (7+) primary Tier One Carriers (backhaul fiber providers) in New Mexico, with high-bandwidth fiber and wireless) infrastructure connections across the US. Infrastructure in Santa Fe County needs to appropriately interconnect with all or some as backhaul providers.

CenturyLink

(See extended description under ILECs, below)

AT&T

With the nation's largest 4G network, AT&T is a leading provider of wireless, Wi-Fi, high speed Internet, voice and cloud-based services, with extensive coverage in NM and Santa Fe County. In the first half of 2013, AT&T invested more than $35 million in its wireless and wired networks in NM, including launch of 4G LTE in Farmington, Gallup and Las Cruces and upgrades in Albuquerque. This investment builds on the nearly $175 million that AT&T has invested in its New Mexico wireless and wired networks from 2009 through 2012.

Level 3

The company provides core transport, IP, voice, video, and content delivery for most of the medium to large Internet carriers. It has facilities in Albuquerque and Las Cruces/El Paso.

Figure: Level 3 Route to Santa Fe

Zayo

Zayo Group acquired 360networks, a leading provider of fiber network and telecom services and intercity and metro fiber network, including three high-capacity PoP locations in Albuquerque and one in Santa Fe, in late 2011.

Verizon

Verizon Wireless is the largest wireless carrier in the US based on number of subscribers, building and operating a large-scale 4G LTE network, with coverage in most areas of NM.

Time Warner

TW Telecom provides business class managed voice, Internet and data network services, specializing in Ethernet and transport data networking, Internet access, local and long distance voice, VoIP and security, to enterprise organizations and communications services companies throughout the U.S. and globally. It has facilities in Albuquerque.

Sprint

Sprint Corporation is a US telecommunications holding company that provides wireless services and is a major global Internet carrier, operating an OC-192 Internet backbone. In July 2013, Sprint acquired Clearwire and its 4G WiMAX network, adding to its Sprint Nextel LTE network, with extensive roaming coverage in NM.

Cable Companies

Cable companies have also been required to have local/municipal franchise agreements, which often provide localities with franchise fees and public access TV channels and facilities, in exchange for use of right of ways. Many communities are currently, or have recently renewed their franchise agreements, typically for periods of 10-15 years. In some cases, larger communities have been able to negotiate for deployment of fiber optic I-Nets (institutional networks), for use by local government, schools, and non-commercial, public access media.

Local cable franchising may change as companies become broadband digital service providers,

providing Internet, VoIP and other digital services, as well as tiered package TV channels, but is an important issue for the County and municipalities, currently.

Comcast

Comcast is the largest cable company in the US, offering Xfinity triple play services in its fully digital markets, including Santa Fe and other parts of Santa Fe County.

US Cable

Serving the Espanola-Dixon area (and the Hobbs-Carlsbad area) in New Mexico, US Cable was awarded $ 4.5 million in RUS BIP funds. US Cable has been interested in extending Espanola infrastructure and services into Santa Fe County.

ILECs, CLECs & (W)ISPs

CenturyLink Communications, Inc.

Following a 2011 merger, Qwest Communications became Centurylink Communications.

CenturyLink is now the country's third largest telecommunications carrier/provider, with local service in 37 U.S. states. CenturyLink Communications, the largest of the Incumbent Local Exchange Carriers (ILECs) in the state of New Mexico, connects customers in its service areas through (80,000+) miles of fiber optic cable. The company has over 100 Gbps of bandwidth in/out of the state, with OC-192 connectivity to all but three of its central offices in NM.

CenturyLink's investments in New Mexico have focused on four key areas.

- Central office interconnection. CenturyLink now has interconnected each of its central offices in New Mexico to support broadband service delivery.

- Central office redundancy and diversity. The company built fiber routes to create a secondary backbone to enhance network reliability.

- Cable rehabilitation. CenturyLink replaced more than 150 miles of aging cable throughout New Mexico.

- Network and advanced telecommunications technology to improve the network and augment network capacity.

The company has announced that it currently sees its evolving future in four key growth areas:

- the company's paid video offering, PrismTV.

- fiber-to-the-tower to support wireless carriers' burgeoning demand for bandwidth

- broadband expansion.

- data hosting and cloud services.

CenturyLink is investing heavily in its fiber-to-the-node deployments, where the company runs fiber-optic cables to a neighborhood and uses copper loops to link homes to the node, giving customers download speeds of up to 20 megabits per second. CenturyLink now has approximately 150 FTTN deployments in NM, including in Santa Fe.

Their various DSL Internet speeds currently range from 1.5 mbps to about 12 mbps downstream, with 896kbps to 1.5 Mbps upstream, with pricing based on potential two-year contracts and bundling of services.

Windstream Communications Inc.

Windstream extends into northern Santa Fe County from their extensive Espanola service area, currently reaching to outside of Pojoaque, Chimayo, Los Alamos and San Ildefonso. Since 2005, Windstream Communication, has aggressively expanded its fiber network and broadband services to their entire NM serving area, which included areas around Espanola. Currently 100% of their customers have access to broadband via DSL or satellite services.

ENMR / Plateau

ENMR/Plateau Telecommunications, the largest telephone cooperative in New Mexico, with an extensive eastern NM service area. The company also serves as a CLEC throughout the state.

ENMR/Plateau received two separate ARRA broadband stimulus awards: $11.3 M. in NTIA-BTOP Infrastructure program funds and $16.5 M. from the NTIA-BTOP CCI program.

Interconnecting with its ILEC service area network, the company is building a statewide fiber backbone network along a route vis Las Vegas, Raton, Roswell, Springer and Tucumcari, providing connectivity to Community Technology Centers as well as to State and local anchor institutions, including school districts and colleges, healthcare facilities, public safety and government offices, at upgraded bandwidth and speeds. The statewide fiber deployment, with southern Santa Fe County interconnection possibility near Moriarty, is now complete.

 Plateau now has fiber to the Simms Building (NM DoIT) and to the Redi-Net POP on Rodeo Rd. in Santa Fe. Plateau is very interested in extending fiber to state agencies and other interested customers, on a case by case basis. Plateau also serves ranches in the eastern portion of Santa Fe County. In Santa Fe County and in other areas in the state where Plateau now has fiber infrastructure, it is able to offer Ethernet services via fiber and can do anything up to 1 Gbps or can go to 10 Gbps with the right equipment. Initial focus is on state agencies and anchors with TLS or MOE needs. Pricing depends on solutions but some pricing examples can be provided.

Addressing gaps must be based on knowing what common goals and priorities are for all parties. Plateau's current gaps include not having fiber to all the anchor locations in Santa Fe and Santa Fe County. Options to extend to other portions of the county and eliminating gaps would be evaluated based on a business case. ENMR/Plateau looks forward to working with the County on goals and priorities, getting confirmed customers, working on possible funding sources, on reasonable franchise agreements and on facilitated permitting processes.

REDI Net

REDINet (Regional Economic Development Initiative Network), with North Central New Mexico Economic Development District (NCNMEDD) as the fiscal agent, is now owned and operated by local and tribal governments through a Joint Powers Agreement (JPA).

REDI Net was made possible with a $10.5 M. ARRA NTIA-BTOP CCI grant. The high-bandwidth, open access, (150) mile fiber-optic 'middle-mile' network is now operational, and had a formal ribbon-cutting in Espanola on August 16. Current partners, with Board seats are: City of

Espanola, Los Alamos County, NCNMEDD, Pueblo of Ohkay Owingeh, Pueblo of Pojoaque, Pueblo of Santa Clara, Pueblo of Tesuque, Rio Arriba County and Santa Fe County. Pueblo of San Ildefonso is invited to join. All profits are to be reinvested in the network.

Initial active first-mile inter-connection service-provider partners include Kit Carson Telecom, ENMR/Plateau and Cibola, with more expected to join. Santa Fe County and City of Santa Fe are now considering ways to further extend and connect to the REDI Net in the near future, however, there is currently no explicit process in place to identify new service areas. This needs to be determined and finalized by the REDI Net Board.

REDI Net's southern termination point is at the corner of St. Francis and Paseo de Peralta in Santa Fe. It also has dark fiber access (not long-term) to the hut (near the Rodeo grounds), from where it could extend to the Community College and other sites. It extends from Pojoaque to Los Alamos via microwave transmission, circumventing San Ildefonso Pueblo RoW, and up to Dixon, where it connects with Kit Carson's broadband fiber network.

Blackrock Networks

Blackrock Networks serves the Los Alamos-Whiterock region, and may extend slightly into Santa Fe County.

Cibola

Cibola Wireless is the latest convergence of Cibola and Agavue networks and corporate structure. They have a 1000 subscriber regional service area, with large interest in Santa Fe County, along with service areas for broadband wireless throughout north-central NM. They are currently preparing to apply for RUS loan support for extended and upgraded services.

In 2012 Agavue/Cibola completed a network upgrade in Santa Fe, adding a new tower, and bringing 150additional Mbps to its local network. They have 3.65 GHz (802.16) AP's and 5.7GHz (802.11) AP's on the new tower, anticipating download speeds of up to 10 Mbps and upload speeds of up to 5 Mbps. This coverage will be for the south-southwest quadrants of Santa Fe, and most of the Eldorado area. Upon completion of REDI Net fiber backhaul to Santa Fe, they will do another network upgrade.

Agavue/Cibola Wireless received RUS Community Connect funding to establish Internet Community Centers in Cerrillos and Manzano two years ago, but with funding now ended they are facing the possibly of shutting down. They are seeking ongoing local community support.

Higher Speed Internet

With a base of operations in Edgewood, Higher Speed Internet currently provides wireless coverage in the Estancia, Edgewood, Stanley, Galisteo regions.

Lobo Internet Services

Lobo Internet Services, based in Moriarty, has wireless coverage in Albuquerque, Rio Rancho, in the east mountains, in Santa Fe, Edgewood, Stanley and Estancia.

Cyber Spectra

Cyber Spectra of NM, LLC, based in Espanola, has wireless coverage reaching San Ildefonso,

Pojoaque, Tesuque and surrounding areas.

La Canada Wireless Association

La Canada Wireless Association is a regional cooperative, with about 400 current members, serving a growing area from Santa Fe, Eldorado and Glorieta, to Lamy and Galisteo and surrounds. They pay too much for CenturyLink connectivity (DS-3), and would welcome alternate backhaul options.

CNSP

CNSP has service throughout Santa Fe County and the north-central NM region, including San Ildefonso, Tesuque and Pojoaque Pueblos, Nambe, Chimayo, Los Alamos, Santa Fe, Eldorado, Las Campanas, Cerrillos, Galisteo, Lamy and Edgewood, with towers on Tesuque and Pajarito Peaks and other sites. They resell DSL and offer wireless internet (down-load speeds up to 10 Mbps), business class broadband (up to 1 Gbps) and cellular phone service.

SentivaNet

SentivaNet, serving Pecos, Glorieta and Rowe, had Centurylink backhaul, but it was too costly. They now have a high-bandwidth wireless link from Cibola, via Tesuque Peak to Glorieta. They are considering service towards San Isidro, and other gap areas. They need affordable, alternate redundant backhaul, however, to assure continued service when severe weather and other problems occasionally cause service failures.

Cybermesa

Cyber Mesa is a CLEC based in Santa Fe, delivering large circuits across New Mexico, from Las Cruces to Taos. It is limited as to where it can provide regular phone lines for home or business, requiring that it has its own equipment in the local telecom Central Office. Cybermesa has equipment in Espanola, Santa Fe, Eldorado, Rio Rancho, Albuquerque, Roswell, Alamogordo and Silver City, where it can offer DSL, voice circuits, large data circuits, fixed wireless and long distance services.

Cybermesa will soon be offering wireless services to Abiquiú, Arroyo Seco, El Rito, Española, Hernandez, La Mesilla, Medanales, San Pedro, Santa Cruz, Sombrillo, Velarde, and the pueblos of Pojoaque, Santa Clara and Ohkay Owingeh. The areas surrounding San Ildefonso (including El Rancho) cannot be served due to a lack of line-of-sight. Cybermesa's new 65' tower is on the Black Mesa near Chamita approximately 6 miles northwest of downtown Espanola, from which it expects to be able to serve at least 500-1000 customers with current configuration. The tower, designed to serve residential, business, and institutional customers, is expected to be operational before Sept. 1. Cyber Mesa will be competing with Windstream Corp. in a lot of new areas. The tower will also provide cell phone service for Cricket Wireless, T-Mobile and Verizon Wireless customers, although it is not designed to improve cell phone service.

CyberMesa plans to provide added coverage to the Santa Fe Airport, where it already serves most businesses with high-speed Internet. CyberMesa also serves parts of the Eldorado and La Cienega, plus other areas in conjunction with the La Canada Wireless Association. A big issue for the company is identifying adequate demand to justify infrastructure investment.

CityLink Fiber

Albuquerque based CityLink Fiber, Inc. provides neutral, open access metropolitan dark fiber for a wide range of communications needs, and public and private sector users. The company designs, engineers, installs and maintains the fiber network for all of its customers.

CityLink has two extensive downtown Albuquerque fiber rings. It received a franchise from the City of Albuquerque to deploy fiber and provide services throughout the City, with schools to be connected at no cost. The firm provides advanced voice,video and data (Internet) services to residential and business users via its fiber optic network. The company is the first to bring Fiber to the Home (FTTH) to Albuquerque, supports open access networks and has a wholesale model that allows other service providers to make use of its fiber network. The service is symmetrical in its bandwidth offerings.

CityLink has interest in extending its open fiber networking to other areas, including to and within Bernalillo and within Santa Fe County. CityLink has a signed agreement from the City of Rio Rancho, and plans to begin providing fiber optic network services in Rio Rancho shortly.

CityLink Wireless (a offshoot of CityLink Fiber) has a wireless network around the Albuquerque and East Mountains area. Wireless speeds start around 20Mb/s symmetrical, using both licensed and unlicensed technologies.

PNM

Public Service Company of NM, is in the energy transmission and provision business.

It has rights-of-way, towers and poles, and increasingly deploys wireless and fiber optic lines to manage and monitor its operations. It does not want to be in the (regulated) telecommunications business, but it does at times develop and share fiber infrastructure with others (governments, tribes, companies, etc.), via individualized contractual agreements.

UNM: National LambdaRail Network and Internet2

Founded by the U.S. research and education community, NLRN is an ultra high-performance, 12,000-mile innovation platform for a wide range of academic disciplines and public-private partnerships. NLR's network consists of leased optical fiber activated using Dense Wave Division Multiplexing (DWDM), enabling each fiber pair to support about 32 wavelengths or networks, which enable an ultra-high data transmission rate of 320 gigabits/second.

UNM's Albuquerque Gigapop (ABQ-G) is an aggregation point for the NLRN, providing high-bandwidth accessibility to New Mexico institutions, with particular focus on research and education within the state. ABQ-G was designed and implemented as a high-tech connection for research and education between rural and urban institutions in New Mexico, and serves as an essential link between Native American Indian reservations, schools, hospitals and emergency services, reduces network costs for members and contributes to economic development. With the five-fold level of Internet access increase, this interconnection network puts New Mexico at the forefront of national bandwidth connectivity.

UNM is also a partner, user and network aggregation point for Internet2. Santa Fe Studios has QMOE connection to the NLRN via UNM.

Albuquerque

As the State's largest city, Albuquerque is a center for cross-country and cross-state fiber transport and connectivity. It is also the key location for co-location and data centers, as well as for the state's leading research university, UNM.

Fixed Wireless and Cellular Provision

Many of the Tier One Carriers, ILECs, CLECs and ISPs listed in this report, provide or partner to provide wireless services. Many also have roaming agreements with other cellular wireless providers, and many are acquiring additional spectrum for new markets and enhances services. An incomplete list of additional companies providing services in New Mexico include:

- Consumer Cellular
- Cricket Communications: parent Company, Leap Communications was acquired by AT&T
- T-Mobile: subsidiary of Deutsche Telecom, merged with Metro PCS in 2013.
- TeleCommunications Systems, Inc. (TCS)
- Ztar Mobile
- GlobalStar: Satellite phone company

Satellite Communications

Various satellite service provider names include: Wildblue, Dish, Star Band, ViaSt, Skycasters, DirecTV and Hughes. Asymetrical bandwidth and services provision (voice, video and internet) is a choice for many, especially in rural areas without other means of access to broadband services.

ARRA broadband stimulus funds were awarded for systems and services upgrades to:

- Hughes Network Systems received $58.8 million (nationwide) from RUS-BIP.
- Wildblue Communications received $19.5 million (west/mid-west) from RUS BIP.

Tribal Broadband Initiatives

New Mexico tribal communities will hopefully benefit from the FCC's recently established Office of Tribal Affairs and Policy, and from the Native Nations Broadband Task Force, which now includes representatives of Pueblos (Joe Garcia, former Ohkay Owingeh Gov.) and Navajo Nation (Brian Tagaban, Exec. Dir. of the Navajo Nation Telecom. Regulatory Commission).

Pueblos

Eight of the 19 pueblos in New Mexico are located in the four county north-central NM region. All of them are variously involved in broadband deployments. Many have been recipients of USDA RUS and NTIA broadband grants and ARRA stimulus awards. Most of the Pueblos are in need of improved broadband competion and services, as well as training and access centers.

A major constraint to countywide fiber infrastructure expansion is difficulty of negotiations with tribal entities, especially over RoW, fees and environmental/cultural impacts. This is not entirely prohibitive but does represent a potential barrier to improved access.

Tesuque

The Tesuque Pueblo and the Tribal Police Department developed a Master Plan for wireless and fiber networking five years ago. They were a 'pilot' site for rollout of the State's TRAX records management system, and deployed an E-911 dispatch system via connection to the State of Nevada. They recognized the need for wide-ranging and long-term training and education programs to be conducted at their Multi-Juristictional Facility, which includes networked computer learning labs. The Pueblo is a REDI Net partner, and will benefit over coming years from connections to and applications of this open fiber initiative.

Pojoaque

Qwest Communications was granted authority to continue to provide telecommunications services in the Pojoaque area, following a long, contentious period, a few years ago.

Pojoaque High School and Pojoaque Valley Schools have long-held licenses for Instructional Television Fixed Service (white space), which have value for newly allocated wireless spectrum services provision, which the FCC is soon planning to offer via auction. The district also owns towers in Santa Fe, leasing use to Clearwire, Sprint and others.

The Pueblo is a REDI Net partner, and will benefit over coming years from connections to and applications of this open fiber initiative.

Nambe

Nambé Pueblo leases space on its towers to wireless-communications companies to extend cellular phone service into much of the Pojoaque Valley area. As needs for a variety of networking services and applications is growing, the entire region is interested in ways to utilize fiber optic backbone and local networking capabilities. Granting of right of way easements, continue to be a difficulty.

San Ildefonso

San Ildefonso Pueblo was awarded $ 1.2 M. in ARRA RUS-BIP funding for development and extension of its Tewa Communications (TewaCom) wireless network. The Pueblo's TewaCom, an initial partner on the REDI Net open fiber network, was to provide wireless Internet service to over 2400 households in the 1000 square mile upper Rio Grande Valley, including San Ildefonso Pueblo, El Rancho, Jaconita and Jacona, to the El Rito Highway. TewaCom recently let its subscribers know that it would be closing at the end of August 2013.

In 2005, the Pueblo de San Ildefonso was awarded a prior USDA RUS grant. The Pueblo chose the San Ildefonso Enterprise Corporation (SIEC) to execute the grant. SIEC then created Tewa Communications to offer services to the public under the name TewaCom Wireless. TewaCom Wireless formed a partnership with Motorola Canopy to deploy its broadband network.

Other Entities and Initiatives

Galisteo Basin Preserve

There is buried fiber throughout the developed areas of the Galisteo Basin Preserve, and they are now working with La Canada Wireless Assoc. on partnered access.

Santa Fe Community College

Santa Fe Community College (SFCC), requiring improved network connectivity and more affordable broadband pricing, is working with the County and others to determine ways to connect with REDI Net or other options. SFCC is a leader in education and workforce training in fields that match the economic development sectors that the County is championing.

The Community College District is a large area that also includes or adjoins the new Santa Fe Studios, off Hwy. 14, the Rancho Viejo development, IAIA (Institute of American Indian Arts), and the nearby State Penitentiary, State Department of Public Safety and National Guard facility.

There is also a need to bring high-bandwidth (fiber) to the planned multi-institution education centers site near Santa Fe University of Art and Design (SFUAD) and other nearby entities.

Issues to be Addressed

This (draft) report and working meeting provide a rapid assessment response to immediate Santa Fe County needs for broadband information. The four following questions were the agenda for the recent working meeting, and are addressed in the prior resource listing sections. Number 4 is expanded upon below, and should be explored/addressed in greater detail.

1. What broadband telecommunication networking infrastructure and resources are in place?

 2. What are current plans and proposals for new infrastructure and services?

3. What level of connectivity is needed to support ED objectives regionally and in communities?

4. How can closing determined gaps be accomplished, and what is the role of the County?

- Current broadband bandwidth provision via available wired and wireless technologies, is not adequate to meet determined future-serving needs, with higher bandwidth and backhaul access needing to be more affordably priced. New models are needed.

- While broadband services availability in the low-density rural areas of the County is less than that in the more densely populated communities, a number of broadband providers are investing in and deploying enhanced rural wired and wireless systems and services. Rural take-rates are too low to provide adequate return on these investments, however, placing some projects at risk. Broadband adoption programs are needed.

- Greater public-private cooperation is needed to address the many enhanced broadband needs and gaps in the County, including on aggregation of demand, technology and applications training, infrastructure and financial planning, permitting processes and RoW agreements facilitation, and innovative risk-reducing investment strategies.

- Phased strategies are needed to successfully realize the broadband requirements of County economic development targeted industries and initiatives, including: creation of a Media District, growing the region's arts, crafts and cultural economy, promotion of sustainable eco-cultural tourism, vitalizing cottage industries and home-based businesses, attraction of clean 'green' companies and utilities, support for area agriculture, science and technology ventures, provision of tele-health, wellness and tele-education services and personal 'pro-sumer' communications.

- Sound financial and economic modeling and strategic planning is needed in order to make appropriate technology decisions, market assessments and incrementally phased deployments. An open networking initiative, if properly structured, could pay its way and feed into a County broadband fund (though a State Fund would be better scaled).

- Applications and eco-social returns should drive broadband decision-making, not simply technical infrastructure and systems. Wherever possible, integrated approached for infrastructure projects (broadband, transportation, energy, water, other utilities) should be attempted, with augmenting maps, geo-spatial database development and 'open' public decision-support processes.

- Informed decision-making, on the part of the public and of State, County, municipal and tribal elected officials and staffs, is needed to intelligently address the complex and often confusing issues that surround our broadband future. There is need for improved public communications, educational workshops and special events, low cost efforts that go a long way towards buy-in and realization of the best of plans.

Case Study Examples and Online Resources

The County's roles, responsibilities and actions are very specific to regional place and context. Few broadband initiatives can be referred to as good case study examples, but many projects now in development can be learned from, based on what they are doing successfully, but more especially from what mistakes have been or are being made.

Some of the most often cited community and regional broadband initiatives across the country differ from the situation here, in that they built upon existing municipal or regional electric utilities, much as the Kit Carson Electric Coop is doing in their Taos centered service area.

A few key resources and links to examples of local/regional open fiber projects follow:

- New Mexico Broadband Program www.doit.state.nm.us/broadband

- Federal Communications Commission www.fcc.gov

- USDA RUS www.rurdev.usda.gov/rustelecomprograms.html

- NTIA www.ntia.doc.gov/category/broadband

- 1st-Mile Institutewww.1st-mile.org/nm-broadband.html

- New Mexico Integrated Strategic Broadband Initiative (2008) www.nmlegis.gov/Sessions/InterimCommittees/ITOC/2008/october/NM-ISBI-Report_Final.pdf

- Broadband for Economic Development Group Members (LinkedIn group) group-digests@linkedin.com

- Community Broadband Networks www.muninetworks.org

- Design Nine, Inc., a broadband planning and project management firm, has worked on a number of regional 'open networking' projects, including The Wired Road, Palm Coast Florida, and others. (RL is a Design Nine planner) www.designnine.com/projects.html

- Danville, VA www.ndanville.com/in-the-community/economic-development

- UTOPIA, open fiber initiative in Utah www.utopianet.org/about-utopia

VII.   TARGET INDUSTRIES

7.1 Agriculture
Major Players:

Organization	Description
SFC Agricultural Extension Service	Housed within NM State University, program addresses local agricultural management and production needs.[61]
Regional Economic Development Initiative (REDI)	REDI covers counties of Santa Fe, Rio Arriba, Los Alamos and Taos. The Strategic Plan, completed in 2008, is a 25-year plan for regional economic development. Cluster strategies developed include agriculture. REDI completed study of greatest areas for potential impact in region and strategies for cluster development.[62]
Farm to Table New Mexico	NGO promoting locally based agriculture through education, community outreach and networking. Enhances marketing for farmers; encourages family farming, farmers' markets and preservation of agricultural traditions; influences public policy; and, furthers understanding of links between farming, food, health and local economies. Seeks to address industry challenges listed in report.[63]
SF Farmer's Market & Farmer's Market Institute	SF Farmer's Market is largest in the state, with 150+ active vendors. Farmer's Market Institute is an educational organization founded in 2002 to support SF Farmers' Market. Purpose is to fund, build and manage permanent farmers' market building in Railyard; implement programs to promote agriculture and land based traditions in northern NM; and educate consumers about cultural, nutritional and economic benefits of buying local.[64]
La Montanita Coop	Community-owned, consumer grocery store cooperative; 6th largest in nation. Continues decade's long commitment to local farmers and producers with its regional Co-op Trade/Food-Shed Project. Initiative creating wholesale markets and providing product pick-up and distribution, supply delivery service and refrigerated storage for local farmers and producers, thereby decreasing the infrastructure gap that limits many County farmers.[65]
Flowering Tree Permaculture Institute	Teaches agriculture and sustainability courses tailored to the high desert climate of Northern New Mexico.[66]
Sostenga! Center for Sustainable Food, Agriculture, & Environment at No NM College	Provides research, hands-on-learning and operates a certified commercial kitchen available to food processors. Commercial kitchen was reportedly out of funds in 2013 and program's future is in question. Strong resource for traditional agricultural efforts.[67]
Edible Santa Fe	Quarterly publication promoting abundance of local foods in northern NM. Publication aims to connect consumers with local growers, retailers, chefs, and

[61] Santa Fe County Agricultural Extension Office. http://santafeextension.nmsu.edu/agandhort.html
[62] Social Enterprise Associates and NM Regional Economic Development Initiative. A Path Forward for REDI and Northern NM Agricultural Cluster: December 2010.
[63] REDI: www.nnmredi.org/agriculture-cluster.php
[64] Santa Fe Farmer's Market Institute: http://farmersmarketinstitute.org/about-the-institute/mission-statement/
[65] REDI: www.nnmredi.org/agriculture-cluster.php
[66] Flowering Tree Permaculture Institute: www.facebook.com/FloweringTreePermaculture/info
[67] Sostenga Center: www.sostengalavida.com/page/page/3912967.htm

	food artisans, enabling relationships to grow and thrive in a mutually beneficial, healthful, and economically viable way.[68]
For the Love of Bees	Offers beekeeping classes in Santa Fe.[69]
New Mexico Acequia Association	Primary focus is preserving historic communal irrigation systems that support the culture and livelihood of thousands of farmers and ranchers in NM. Connects farmers and ranchers with USDA funds to upgrade, maintain their properties.[70]
Dreaming New Mexico/Bioneers	Promotes local, sustainable food systems and ecological agriculture through research, advocacy and education.[71]
New Mexico Department of Agriculture	Provides USDA/NOP-accredited organic certification for farmers, ranchers and processors/handlers throughout the state.[72]
New Farmer Program	There are more than one grant program in the region to help new farmers. This is one.

Government Support:

USDA provides both practical support for farmers through the County Agricultural Extension Office and funding support through many types of grants. The USDA's Know Your Farmer/Know Your Food Initiative has provided over $900,000 to fund 11 different projects in SFC since 2009. Available federal grant dollars do shift with policy and priorities, and securing those funds depends on designing a project that aligns favorably with those priorities. NGOs can provide a crucial link between agency dollars and project communities

Table xx.xx USDA Projects in Santa Fe County

Name	Funds Awarded	Type of Award
Red Mesa Meats	$12,500	Value Added Producer Grant
La Montanita Rural Co-op Development Hub	$225,000	Rural Cooperative Development Grant
New Mexico's Own	$400,000	Rural Business Enterprise Grant
Funds a community-based research project to asses barriers that keep low-income residents from purchasing locally grown foods	$24,904	Community Food Project Competitive Grant
Walk-in cooler construction at Espanola's Farmers Market	$20,000	Specialty Crop Block Grant
Pojoaque Farmers Market Expansion	$35,526	Farmer's Market Promotion Program Grant
Hasbidito Community Food Planning Project	$25,000	Community Food Project Competitive Grant
Farm to Chef Project to increase sales of	$98,334	Farmers Market Promotion Program

---

[68] Edible Santa Fe: http://ediblesantafe.com/
[69] For the Love of Bees: www.fortheloveofbees.com
[70] REDI: www.nnmredi.org/agriculture-cluster.php
[71] Bioneers: www.bioneers.org/programs/restorative-food-systems
[72] www.nmda.nmsu.edu/marketing/organic-program

farm products to restaurants		Grant
EBT expansion project to increase number and access at state farmers markets	$26,070	Farmers Market Promotion Program Grant
Professional Development and consumer outreach project to improve purchase of local foods by low-income and WIC families	$54,086	Farmers Market Promotion Program Grant
Fruit and Vegetable Prescription Program for Low-Income New Mexicans	$14,814	Farmers Market Promotion Program

7.2 Arts and Culture
Major Players:

Organization	Description
Art Markets in City of Santa Fe	
Santa Fe Indian Market	Has been held since 1922; features 1,100+ artists, selling work to audience of 100,000 people for two-day outdoor show. Many artists are so well known and highly collected they sell out in a few hours. Santa Fe estimates that Indian Market brings in more than $80 million in revenue annually.[73]
Santa Fe Spanish Market	Started in 1926, now the largest exhibition and sale of traditional Spanish Colonial Art forms and Hispanic Arts in US with over 250 native NM artists. Held annually. Winter event just moved to ABQ.
Fiesta de Santa Fe	Distinctive open-air arts and crafts market features unique hand-made jewelry, pottery, chic clothing, stylish leather, paintings, photography, handsome wood products, hand blown glass, and countless other items.
International Folk Art Market	Started in 2004, with intention of "changing lives by preserving traditions." Largest international folk art market in world; features over 160 artists from 47 countries. In 2008, average booth sales were $13,000; overall market sales exceeded $2 million.
Museums/ Gallery	
El Rancho de las Golondrinas	Living history museum on 200 acres in rural farming valley south of SF. Museum, dedicated to history, heritage and culture of 18th and 19th century NM, opened in 1972. Special festivals and weekend events offer celebrations, music, dance and aspects of life in Spanish, Mexican and Territorial periods of Southwest.
Georgia O'Keeffe Museum	The most visited art museum in the state of NM, it is the only museum in the world dedicated to an internationally known American woman artist.
Shidoni Foundry	Shidoni - a greeting to a friend in Navajo - is a gallery with 8 acres of sculpture gardens and bronze art foundry along Rio Tesuque in former apple orchard. Visitors see indoor art galleries with 140 + artists nation-wide.
Dance Art Museum of the Americas	First major national dance museum in the west region. It is dedicated to keeping historical dance arts flourishing with the historic, multicultural community of SFC.
Institute of Am Indian Art (IAIA)	Institution of higher learning focused on art for Native Americans. Free tuition. Expanding its course offerings. Offers degrees in New Media Arts, which includes coursework in digital film production and postproduction. It is the only four-year fine arts degree devoted to Native American and Alaska Native arts.

---

[73] Brockman, Joshua. "Art Sales Uneven At Santa Fe's Indian Market." NPR, 01 Oct. 2009. Web. 30 June 2013.

Wheelwright Museum of American Indian	Housed in an octagonal-shaped building that takes its inspiration from the Navajo "hooghan," the Wheelwright Museum of the American Indian is dedicated to displaying exemplary works of art in the Native American tradition.
Museum of Indian Arts and Culture	A premier repository of Native art and material culture and tells the stories of the people of the Southwest from pre-history through contemporary art.
Museum of Spanish Colonial Art	Only museum in country dedicated to exhibiting and interpreting art of Spanish colonial period including Hispanic NM. Museum houses collection of over 3,700 pieces, including historically significant and contemporary works.
NM Museum of Art	Building dates from 1917, but its architects looked to the past, and based the design on the 300 year-old mission churches at Acoma and other pueblos. The museum changed its name over the years, as it grew and redefined its mission. The current name, NM Museum of Art adopted in 2007 to reflect breadth of NM art. Previous name, "The Museum of Fine Arts," adopted in 1962.
Awakening Museum	The Awakening was a piece of artwork by Jean Claude Gaugy. He worked on the piece for nearly 13 years by painting 400 wood panels on 8,000 square feet of ceilings, doors, and walls – all now part of the museum.
Children's Museum	Offers education and entertainment for families with interactive programs and exhibits.
Palace of the Governors	Constructed by the Spanish in 1610, now a living history museum. It is the nation's oldest public building still in use.
Museum of International Folk Art	Since opening in 1953, museum has gained national and international recognition as home to world's largest collection of folk art. In 2003, celebrated 50 years.
Educational Institutions	Include Santa Fe University of Art and Design, Santa Fe Art Institute, and Santa Fe Community College.

Wages:

Compared to the $24.18/hr national median wage in the art industry, SFC artists on average earn higher wages. This explains higher payroll tax revenue in SFC compared to other counties with comparative size of the workforce. [74] More research on median figures and the distribution of income is needed to better understand this data with details in the table below.

Industry	Employment	Percent of industry employment	Hourly mean wage	Annual mean wage
Independent Artists, Writers and Performers	30,410	62%	$33.75	$70,210
Performing Arts Companies	56,370	48%	$28.22	$58,690
Specialized Design Services	54,350	47%	$27.42	$57,040

7.3 Ecotourism and Outdoor Recreation
Major Players:

Organization	Description
Attractions and Tourism	

---

[74] "27-1013 Fine Artists, Including Painters, Sculptors, and Illustrators." *U.S. Bureau of Labor Statistics*. U.S. Bureau of Labor Statistics, 2013. Web. 11 July 2013

Santa Fe National Forest	Forest headquarters are located in Santa Fe and six ranger stations and two satellite offices. 1.5 million annual visit count, which includes ticket sales to Ski Santa Fe.
Ski Santa Fe	Offers 1,725 vertical feet of skiing across 660 acres and 77 trails including a freestyle terrain park. Services include ski and snowboard lessons and children's activities.
Santa Fe Botanical Gardens	New, to be detailed
Pueblos	
Pojoaque	Operates POEH Cultural Center and Museum, Flea Market at the Downs and racetrack, Buffalo Thunder Resort and Casino, Towa Golfcourse and Pueblo's Cities of Gold Casino. Poeh Cultural Center leads vocational/educational approach teaching Native Studio art to Indian students as part of a process of cultural regeneration. Annual dances open to the public are Feast Day in December and Reyes Day in January on the plaza.
Tesuque	Operates Tesuque Flea Market and Tesuque Farms Agriculture Initiative. Tesuque dances are open to public held in winter. In November, Harvest dances. December, the Deer and Buffalo Dances, known for excellence of costumes and authenticity of execution.
Nambe	Performs dances and other ceremonies at Nambe Falls around July 4. October feast day attract large audience for dances and scenery.
Santa Clara	Offers tours of pre-historic cliff dwellings and other outdoor activities at Puye Cliffs. Dances and community festivals. In June, St. Anthony's Feast Day features Comanche Dances. In August, Harvest Dances and Corn Dances are performed in honor of the patron saint, St. Clare.
San Ildefonso	Well known for black-on-black pottery, which was revived in 1920s. A particularly important festival is Buffalo Deer Dance feast day in January. Other dances held in June, July and September. Many painters of Pueblo have depicted these and other ceremonies in their watercolor paintings.
Outdoor Recreation Equipment Retailers and Manufacturers	
Outdoor Recreation Retailers	REI, High Desert Angler, Alpine Sports Inc, Sangre de Cristo Mountain Works, and Sports Authority are outdoors retailers in Santa Fe
Bicycle Technologies International	2nd largest US wholesale supplier of bicycle parts. With help of State, City of Santa Fe, and County, BTI is expanding its facility and planning to double its workforce from 50 to 100 employees over the next five years.
Select Tours and Outfitters	
Historic Walks of Santa Fe	Offers tours of Santa Fe, Taos, Chimayo, Bandelier and 8 Northern Pueblos.
Ride the Dream	A Harley-Davidson motorcycle tour operator based in Santa Fe
Santa Fe Rafting Companies	Kokopelli Rafting Adventure, Santa Fe Rafting and New Mexico River Adventures provide rafting tours in Northern New Mexico
Santa Fe Mountain Adventures	Provides customized adult, family and corporate tours that include outdoors, arts, culinary and historic activities.
Wild Vistas Adventures LLC	Provides wilderness survival training and outdoor excursions.

Official Travel Site of Santa Fe	Hosts a listing of approx. 50 tours and operators.
Santa Fe School of Cooking and Market	Offers a range of hands-on and demonstration classes, and restaurant walking tours that celebrate the culinary traditions of Santa Fe.
Beer, Wine and Spirits	
Wineries	Estrella del Norte Falcon Meadery and Winery Vino Del Corazon Quixote Distillery and Winery
Breweries	Santa Fe Brewing Company Second Street Brewery Blue Corn Café and Brewery Duel Brewing 3 Hard Cider companies launching in the region
Distilleries	Santa Fe Spirits Quixote Distillery and Winery Los Alamos and Taos also have distillers
Events and Festivals	
Annual events and festivals	Major annual Santa Fe events, particularly City of Santa Fe events, are detailed in the Arts and Culture section above
Other Santa Fe Events	Wine and Chile Festival New Mexico Jazz Festival Rodeo de Santa Fe Rodeo de Galisteo La Tierra Torture Mountain Bike race Santa Fe Century road bike race
Edgewood and South County Events	End of Trail Cowboy Action Shooting World Championship and Wild West Jubilee Wildlife West Nature Park

This following section includes tables highlighting eco-tourism and outdoor recreation. Data is taken from "New Mexico Tourism Department Quarterly Report." New Mexico Tourism Department. 2012.

The table below lists top attractions by number of visits. Note figures reflect recreational visits and include ticket sales to downhill ski areas within the forests.

Table: Select Top Attractions in or near Santa Fe County

Top Attractions (In or Near Santa Fe County With 100K+ Visits)	Annual Visits
Santa Fe National Forest	1,496,000
Carson National Forest	960,000
Cochiti Lake Recreation Area	300,000
Bandelier National Monument	193,914
Storrie Lake State Park	136,352
New Mexico History Museum/Palace of the Governors	108,838
Santa Fe Indian Market	100,000

The chart details four years of tourism revenue by category. NM Statewide Tourism sales rose 6% in 2011 over 2010. $5.5 billion in sales surpassed pre-recession 2008 with Lodging and Food & Beverage sales higher. Gasoline sales grew fastest due to high prices. Spending associated with second homes is estimated to be nearly 10% of total.

Chart: New Mexico Tourism Sales
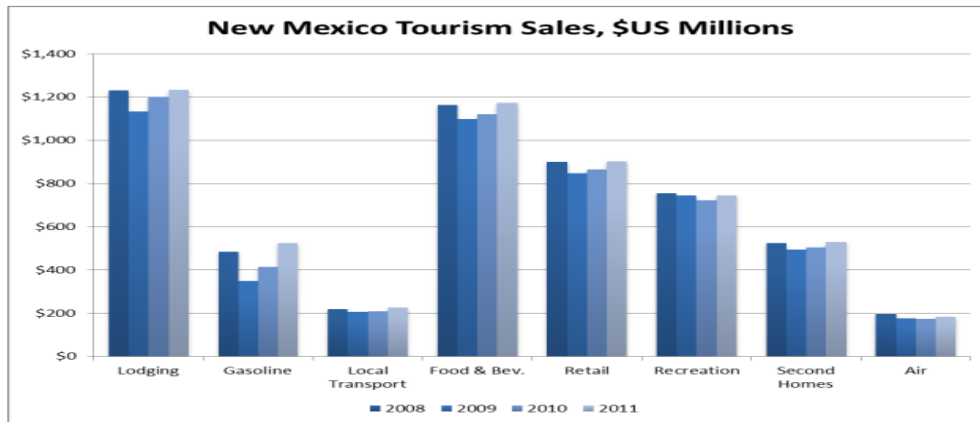
The percentage of primary overnight visitors engaging in outdoor activities or cultural has remained somewhat constant in the County. When NM scores are compared to regional and national averages, the state has high activity level for cultural activities, but lags surrounding neighbors for outdoor activities (Arizona, Colorado and Utah).

Table: NMTD Quarterly Research Report October 2012

Outdoor Activity and Culture Indexes (for primary overnight visitors)		CY 2010	CY 2011
Outdoor Activity Index*	New Mexico	33.6	34.6
	Competitive Set	44.0	44.4
	U.S.	24.1	24.1
Culture Index**	New Mexico	60.2	56.7
	Competitive Set	44.2	44.0
	U.S.	39.0	39.2

* Outdoor Activity Index is cumulative total of % of Primary overnight visitors who engaged in Hiking/backpacking, Camping, Fishing, Mountain Climbing, Golf, Skiing/snowboarding, Hunting, Biking or Rafting.
** Culture Index is cumulative total of % of Primary overnight visitors who attended either a Museum, Landmark/historic site, Art gallery, Winery, Theater, Fair/exhibition/festival, Rock/pop concert, Symphony, Opera or Rodeo.

7.4 Film and Media
Major Players:

Organization	Description
IATSE Local 480	NM Chapter of International Alliance of Theatrical Stage Employees, Moving Picture Technicians, Artists and Allied Crafts represents "below the line" workers in film and television. Its offices are in City of Santa Fe.
Santa Fe Community	Offers AAS degree in Film and certification in Film Crew, providing opportunities for students to work with local filmmakers and producers.

College (SFCC)	
The Institute of American Indian Arts (IAIA)	Offers degrees in New Media Arts, which includes coursework in digital film production and post production. It is the only four-year fine arts degree devoted to Native American and Alaska Native arts.
Santa Fe University of Art and Design (SFUAD)	Private four-year institution offering degrees in Film, New Media Arts and related fields such as film scoring and screenwriting. Primary focus is on creative "Above the Line" positions such as directing, editing, cinematography, producing, screenwriting, etc.
Big House Props & Costumes	Located in City of Santa Fe, locally owned business supports film projects by providing costumes and props.
Santa Fe Film Festival	Annual four-day event includes curated film exhibition, panels on industry topics, workshops and networking opportunities. Offers educational and community development programs, and includes in its mission promotion of NM filmmakers.
Santa Fe Independent Film Festival	Started in 2009 by independent filmmakers, festival specifically promotes independent filmmakers. 2012 festival drew 5,000+.

7.5 Green Industry

Water Major Players:

Organization	Description
EAWSD	EAWSD provides water services to almost 3,000 customer accounts in the unincorporated area around Eldorado in Santa Fe County, New Mexico. They encourage water conservation practice by efficient rate-structure and education about water shortage and alternative ways to save water.
WWTP	The City of Santa Fe Paseo Real Wastewater Treatment Plant (WWTP) practices a conventional treatment process and has a design flow of 13 million gallons per day. The WWTP serves a population of over 65,000 residents, but the city of Santa Fe is also a tourist destination, and the WWTP handles the increased flows generated by the numerous visitors.
New Mexico Acequia Association	NMAA has the Land and Water Program which does many of its workshops and technical assistance. They also run pilot project to test new methodology in preserving farmland and water.

Energy Major Players:

Organization	Description
Current C	Current C Energy Systems educates clients about their energy use and develops energy saving strategies. Main services include energy conservation activities, and implementing projects that increase energy efficiency. They can also create renewable energy generation projects.
Positive Energy Solar	Positive Energy Solar offer affordable solar panels, inverters, and mounting to residential, businesses, and government. They commit to high quality service, technology, project financing and competitive pricing. Positive Energy Solar has been serving the community since 1997.
Bella Solar	Bella Solar has been in the business for over 30 years and is solar-certified. They provide product and services using both extensive electrical background and thorough building proficiency. Bella Solar offers solar modules, inverters, and

	racking.
Valverde Energy	Valverde Energy has been serving the community for three decades and commits to creating quality designs and installations while supplying excellent customer service through highly skilled staff and trades-people.
Solar Logic, LLC	Founded in 2008, SolarLogic was funded by the City of Santa Fe – Economic Development Division. The mission of SolarLogic is to increase and speed the adaptation of solar energy system among residential and commercial entities, along with local job creation.
Santa Fe Micro-grid & Smart Systems Lab	The Lab's mission is to accelerate the commercial deployment of micro-grid systems worldwide; and it is distinctive in its systems-level approach to all aspects of the challenges, and global scope of activity (including industrial, emerging, and developing economy applications).

Green Building Major Players:

Organization	Description
Santa Fe Area Home Builders Association	The Green Building Council works with the City of Santa Fe and other agencies to actively promote green building and green building practices
Local Non-profits	Green Chamber of Commerce (SF Chapter), Build Green NM (for tax credits), U.S. Green Building Council (USGBC) developed LEED
City of Santa Fe	Sustainable Santa Fe Plan and The Sustainable Santa Fe Commission
SFCC	Trades and Advanced Technologies and Sustainable Technologies programs
Santa Fe AIA Chapter	Local architects through the American Institute of Architects (AIA) have produced national award winning projects in LEED, remodeling, zero emission, and other recognitions

Aamodt Settlement Summary

Congress approved the settlement governing water rights in the Pojoaque Basin. Pueblo, federal, state, Santa Fe city and county officials signed off on the settlement in March. The New Mexico Office of the State Engineer has prioritized acequia water rights and now is contacting well owners to adjudicate and finalize well-water rights. Some well owners are protesting the offers, claiming that the state has not shown that the use of wells to irrigate trees and gardens causes "irreparable harm" to other water rights users.

The state has until June 2016 to build a substantial part of the regional water system that is key to the Aamodt settlement. The water system must be completed by June 2021 or the settlement can be voided and the federal court will decide the remaining water rights.

There are four types of non-pueblo well permits designated by the age of the wells:

1.   Pre-Basin Wells (prior to 1956)

2.   1956-1982 Wells

3.   Post-1982 Wells that signed the Post-1982 Well Agreement

4.   Post-1982 Wells that did not sign the Post-1982 Well Agreement

The Post-1982 Well Agreement is supposed to limit any wells built after 1982 to only 0.5 acre feet / year (afy) and indoor use only, but some exceptions were granted whereby owners were allowed 0.7 afy. There are 1,299 pre-1983 wells (type 1 and 2) and 915 post 1982 wells (types 3 and 4) in Pojoaque Basin.

Well permit owners must decide between three options or they will be subject to priority administration whereby Pueblos have priority rights. Permit owners can:

1. Connect to the county water utility, when available

2. Keep the well in perpetuity and reduce use

3. Reduce use and agree that upon transfer of the permit, the successor will connect

The new regional water system (RWS) will provide safe and reliable potable water to the residents of the Pojoaque Basin. The project will reduce reliance on groundwater and allow the Pueblos and others to utilize water rights from the settlement agreement for drinking, fire suppression and future growth.

RWS requires designing Rio Grande diversion facilities; treatment, transmission, storage and distribution facilities; and well fields. Construction will be funded by federal funds ($106.4 million), State ($49.5 million) and Santa Fe County ($21.4 million). The Aamodt Settlement Pueblos' Fund ($62.5 million) will purchase water rights, improve water-related infrastructure for the Pueblos and to pay for the Pueblos' share of ongoing operation and maintenance.

Each phase of RWS will provide jobs in the region: environmental and geological surveys, design, engineering, construction, maintenance, legal, etc. Additionally, the improved infrastructure will allow for growth and development of the Pojoaque Basin.

7.6 Health and Wellness
Major Players:

Organization	Description
Medical Facilities	
Christus St. Vincent Hospital	Largest private employer in SF, 2,000+ employees, 380 staff physicians, 268 hospital beds. The largest hospital facility between Albuquerque (60 miles) and Pueblo, Colorado (280 miles). The major regional medical center for 19,000 square-mile area covering seven counties. Serves 300,000+; the region's only Level III trauma center (resources for emergency resuscitation, surgery and intensive care of most trauma patients, no specialists).
Physicians Medical Center of Santa Fe	Physicians Medical Center of Santa Fe 19 beds Santa Fe PHS Indian Hospital has four beds
La Familia Medical Center	Provides affordable, comprehensive medical, dental and health services regardless of income or ability to pay. Staff of 140, two clinics, and dental clinic at SF Community College. Offers health care for homeless, diabetes management and education, immunization, birth control, women's health, teen clinic, reduced-price prescription program and behavioral health services.
Hospice	
5 providers: **Ambercare, Vistacare, PMS, Del Corazon** and **Heritage** County lacks "bricks-and-mortar" hospice facility	

Alternative Medicine and Wellness	
Southwest Acupuncture College	Offers Master of Science in Oriental Medicine and Master of Science in Acupuncture. Original Santa Fe branch founded in 1980.
Santa Fe School of Massage	Faculty of 20 teachers and 4 administrators. Graduated 1,350 students since 1979.
New Mexico Academy of Healing Arts	Employs 13 faculty; founded in 1979.
Santa Fe Community College	Prioritization of health and wellness as a focus area for the College and growing programs, facilities and certifications on a range of health and wellness topics.
Santa Fe Soul Health and Healing Center	Holistic and preventative health care facility offers acupuncture, chiropractic and alternative therapies.
Others	• According to a heat map of NM acupuncturists from acupuncturetoday.com 190 acupuncturists in Zip Codes first digits 875 (extends beyond County). • NM Department of Workforce Solutions estimated 265 massage therapists and 95 chiropractors working in Northern NM in 2010 • **Upaya Zen Center, Mountain Cloud Zen Center** offer meditation and training. • Holistic healing centers present in County, **Light Institute** and **Integrative Holistic Healing Center** • Spas include **Ten Thousand Waves**, **Absolute Nirvana**, **The Bishop's Lodge Ranch Resort & Spa**, and **La Posada De Santa Fe Resort & Spa**

The following table highlights wages and typical education requirements for select health care occupations. Wages increase dramatically based on level of education.

Table: Wages and Education Requirements in New Mexico[75]

Wages and Typical Education Requirements for Select Health Care Occupations in New Mexico, 2010

Occupation	Average Hourly Wage	Typical Education Requirement
Home Health Aides	$9.30	Short-Term On-the-Job Training
Nursing Aides, Orderlies, and Attendants	$11.84	Short-Term On-the-Job Training
Medical Assistants	$13.31	Moderate-Term On-the-Job Training
Pharmacy Technicians	$14.04	Moderate-Term On-the-Job Training
Mental Health and Substance Abuse Social Workers	$20.39	Master's Degree
Educational, Vocational, and School Counselors	$26.71	Master's Degree
Clinical, Counseling, and School Psychologists	$28.20	Master's Degree
Registered Nurses	$31.78	Associate's Degree
Speech-Language Pathologists	$32.88	Master's Degree
Occupational Health and Safety Specialists	$33.24	Bachelor's Degree
Physical Therapists	$33.77	Master's Degree
Pharmacists	$51.64	First Professional Degree
Family and General Practitioners	$93.47	First Professional Degree

Source: NMDWS Occupational Employment Survey.

---

[75] New Mexico Department of Workforce Solutions. "The Pulse of the Healthcare Industry in New Mexico." Regional Review. 2012.

The table below is an example of the career path for Physical Therapists, indicative of the wages and educational requirements of many health care occupations in New Mexico. A person on track to become a Physical Therapist in New Mexico might start their career earning the statewide average of $26,591 per year as a Physical Therapy Aide with short-term on-the-job training. Upon completing a 2-year associate degree and the licensing requirement, they could become a Physical Therapy Assistant and earn $42,033 per year (28% more than average per capita income in County of $32,680). If they complete a master's degree with an additional licensing requirement then they could become a Physical Therapist and earn $67,811 annually (double County per capita income).

Table: Statewide Physical Therapist Career Track[76]

Physical Therapy Aide 31-2022	Physical Therapy Assistant 31-2021	Physical Therapist 29-1123
Employment (2009):	Employment (2009):	Employment (2009):
289	335	960
Proj. Employment (2019):	Proj. Employment (2019):	Proj. Employment (2019):
380	425	1,241
Projected Annual Openings:	Projected Annual Openings:	Projected Annual Openings:
9	9	28
Mean Wage (2009):	Mean Wage (2009):	Mean Wage (2009):
$26,591	$42,033	$67,811
Min. Education Requirement	Min. Education Requirement	Min. Education Requirement
Short-term on-the-job training *1 Month or Less*	Associate degree *At Least 2 Years*	Master's degree *1 to 2 Years Post BA/BS*
Licensing Requirement	Licensing Requirement	Licensing Requirement
No	Yes	Yes
Residency/Completion of Time Requirement	Residency/Completion of Time Requirement	Residency/Completion of Time Requirement
No	No	No

Licensing Requirement: http://www.rld.state.nm.us/physicaltherapy/index.html.
Rules: 16.20.1-11 NMAC

The following table details wages for select health care occupations in the nation, state and regions of New Mexico. Many health care occupations in Northern NM earned substantially less on average than national figures: Clinical, Counseling & School Psychologists (16% less), Psychologists, All Other (23%), Dental Specialists (22%), Physician Assistants (13%) and Registered Nurses (5%).

Table: Employment and Average Annual Wages for Primary Health Care Occupations[77]

---

[76] New Mexico Department of Workforce Solutions. "NM WARP Final Report." New Mexico Workforce Assessment and Recommendation Partnership. January 2012.
[77] New Mexico Department of Workforce Solutions. "NM WARP Final Report." New Mexico Workforce Assessment and Recommendation Partnership. January 2012.

SOC	Occupation Title	United States Emp. 2009	Avg. Annual Wage	New Mexico Emp. 2009	Avg. Annual Wage	Central NM Emp. 2009	Avg. Annual Wage	Eastern NM Emp. 2009	Avg. Annual Wage	Northern NM Emp. 2009	Avg. Annual Wage	Southwestern NM Emp. 2009	Avg. Annual Wage
19-3031	Clinical, Counseling & School Psychologists	98,330	$72,957	2,652	$62,433	1,824	$65,813	159	$49,046	304	$61,409	292	$48,008
19-3032	Industrial-Organizational Psychologists	1,710	$103,487	**	**	**	**	0	0	**	**	**	**
19-3039	Psychologists, All Other	10,260	$84,973	270	$82,875	164	$88,735	**	**	64	$65,832	**	**
29-1021	Dentists, General	86,270	$158,253	631	$176,121	320	$193,735	**	$203,221	180	$166,462	82	$143,061
29-1022	Oral and Maxillofacial Surgeons	5,390	$212,595	80	**	**	**	**	**	0	0	0	0
29-1023	Orthodontists	5,410	$208,034	**	**	**	**	0	0	**	**	0	0
29-1024	Prosthodontists	660	$126,522	0	0	0	0	0	0	0	0	0	0
29-1029	Dentists, All Other Specialists	5,010	$154,944	43	$134,311	**	**	0	0	19	$121,457	0	0
29-1051	Pharmacists	267,860	$107,584	1,569	$103,064	933	$98,144	206	$108,393	272	$114,990	148	$106,898
29-1062	Family & General Practitioners	99,000	$170,058	1,612	$177,665	495	$184,442	288	$171,276	520	$171,713	305	$180,542
29-1063	Internists, General	48,270	$185,636	757	$207,853	645	$212,291	**	**	56	$184,637	**	**
29-1064	Obstetricians & Gynecologists	20,380	$206,299	375	$173,155	276	$169,319	**	$210,533	**	**	31	$182,426
29-1065	Pediatricians, General	29,460	$162,854	185	$171,652	**	**	**	$173,926	12	**	51	$184,418
29-1066	Psychiatrists	22,210	$165,124	156	$176,313	72	$189,543	**	**	60	$177,822	**	**
29-1067	Surgeons	44,560	$221,735	337	$224,520		$218,316	**	**	**	**		$227,596
29-1069	Physicians and Surgeons, All Other	274,160	$175,415	788	$199,216	409	$200,991	**	**	214	$203,176	**	**
29-1071	Physician Assistants	76,900	$85,589	811	$66,611	310	$56,116	207	$74,626	215	$74,768	61	$73,866
29-1141	Registered Nurses	2,583,770	$67,125	13,521	$64,118	6,469	$66,975	1,574	$58,758	3,066	$63,647	2,085	$60,406
29-1171	Nurse Practitioners	**	**	**	**	**	**	**	**	**	**	**	**
29-1122	Occupational Therapists	97,840	$71,312	508	$69,204	231	$58,908	68	$116,871	86	$69,465	102	$64,794
29-1123	Physical Therapists	174,490	$76,902	960	$67,811	478	$64,523	121	$83,435	172	$75,985	168	$58,805
29-2021	Dental Hygienists	173,900	$68,467	894	$73,734	460	$75,518	69	$72,098	187	$76,523	137	$64,468
29-2061	LPNs & LVNs	728,670	$41,266	5,374	$50,205	3,139	$56,587	705	$38,931	1,102	$42,644	284	$40,966

Sources: NM Dept. of Workforce Solutions - Quarterly Census of Employment & Wages (QCEW) industry-wide employment estimates and NM Occupational and Employment Wage Statistics (OES). See the First Interim Report Appendix for detailed methodology.

(Note: the table will be edited for clarity and visual appeal in the final)

VIII.   BIBLIOGRAPHY

Agriculture: Bell, Beverly. *Putting the Culture Back in Agriculture: Reviving Native Food and Farming Traditions*. Nation of Change, 5 June 2013. www.nationofchange.org/putting-culture-back-agriculture-reviving-native-food-and-farming-traditions-1370445482

Agriculture: *Bioneers*. www.bioneers.org

Agriculture: Clancy, Kate, Gigi DiGiacomo, Miguel I. Gómez, Michael S. Hand, Shermain D. Hardesty, Robert P. King, Larry Lev, and Edward W. McLaughlin. *Comparing the Structure, Size, and Performance of Local and Mainstream Supply Chains*. U.S. Department of Agriculture Economic Research Service, June 2010. PDF File.

Agriculture: *Dreaming New Mexico*. www.dreamingnewmexico.org/food/ff-fair-trade

Agriculture: *La Montanita Co-op*. www.lamontanita.coop

Agriculture: Matlock, Staci. *NMSU aims to get more New Mexico farmers counted in census*. Santa Fe, NM: The New Mexican, 7 May 2013. www.santafenewmexican.com/news/local_news/article_d34f5b6a-d39b-56c4-b6e4-53a981fa24f7.html

Agriculture: *New Mexico Acequia Association*. www.lasacequias.org

Agriculture: *New Mexico Alpaca Breeders*. www.newmexicoalpacabreeders.org/alpaca-farms

Agriculture: *New Mexico Department of Agriculture Organic Program*. www.nmda.nmsu.edu/marketing/organic-program

Agriculture: *Northern New Mexico Regional Economic Development Initiative*. www.nnmredi.org/agriculture-cluster.php

Agriculture: *Santa Fe Community Farm*. http://santafecommunityfarm.org/

Agriculture: Santa Fe Food Policy Council. *2012 Community Food Assessment Interim Report.* PDF

Agriculture: Shuman, Michael. *Prospects for Food Localization in New Mexico*. 2010.PDF File.

Agriculture: Slutz, Shasta. *Trends in New Mexico Agriculture*. Las Cruces, NM: New Mexico State University, 2010. http://aces.nmsu.edu/academics/aeab/trends-in-new-mexico-agr.html

Agriculture: Social Enterprise Associates. *A Path Forward for Northern New Mexico's Agricultural Economic Cluster*. Northern New Mexico Regional Economic Development Initiative, December 2010. PDF File.

Agriculture: Steinhaus, Kurt. *Los Alamos Connect Helps Inventor With Irrigation Management Breakthrough*. Finance New Mexico, June 2013. http://financenewmexico.org/articles/starting-or-growing-a-business/los-alamos-connect-helps-inventor-with-irrigation-management-breakthrough/

Agriculture: US Department of Agriculture. *County Profile: Santa Fe County New Mexico*. 2007 Census of Agriculture, 4 February 2009. PDF File.

Agriculture: US Department of Agriculture. *Know Your Farmer, Know Your Food*. PDF File.

Film: *Albuquerque Studios*. www.abqstudios.com

Film: Boyd, Dan. *Senate Approves Bill Expanding NM Film Rebate Program*. Albuquerque, NM: The Albuquerque Journal, 11 March 2013.

Film: Clausing, Jeri. *Film Productions on Rise in New Mexico*, Associated Press, 2 May, 2013. www.nmnewsfeed.com/albuquerque/film-productions-on-rise-in-new-mexico-6

Film: David Breeker and Associates. *Strategy and Implementation Path for a Regional Media Industries Cluster: Roadmap for Santa Fe County*, 12 February, 2010. PDF File.

Film: Ernst & Young. *Economic and Fiscal Impacts of the New Mexico Production Tax Credit*, Prepared for the New Mexico State Film Office and State Investment Council, January 2009.

Film: *Garson Studios*. http://garsonstudios.com

Film: Hedry, John. *The Current State of the New Mexico Film Business*, 2013. PDF File.

Film: *Motion Picture Association of America*. http://mpaa.org

Film: New Mexico Film Industries Strategy Project. *Preliminary Strategic Plan: altMediaNM*. State of New Mexico, Office of Bill Richardson, Governor. Release version 1.5, 2004.

Film: *New Mexico Film Office*. www.nmfilm.com

Film: *Santa Fe Studios*. www.santafestudios.com

Santa Fe County Community Business Plan. Updated Aug. 31, 2007. www.santafecountynm.gov/userfiles/CountyBusinessPlanUpdate2007.pdf

Santa Fe County Fiscal Year 2013 Budget. *Section IV-3 Revenue Description and History.* 2013
        www.santafecountynm.gov/userfiles/file/asd/FY2013/SectionIV-3-Revenue-Description-
        and-History.pdf

Santa Fe County Sustainable Growth Management Plan (SGMP). 2010.
        www.santafecountynm.gov/userfiles/SustainableGrowthManagementPlan2010PDFsm.p
        df

Town of Edgewood. *Business and Labor.* 2013. www.edgewood-
        nm.gov/testwp/community/community-resources/business-labor/

Town of Edgewood. *Business Registrations.* 2013. www.edgewood-
        nm.gov/testwp/community/community-resources/businesses-edgewood-nm

United States Census Bureau. *State and County Quick Facts: Santa Fe County.* 2013.
        http://quickfacts.census.gov/qfd/states/35/35049.html

United States Census Bureau. American FactFinder2. *Community Facts.* 2010.
        http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none

El Valley de Arroyo Seco Highway Corridor Plan. 2003.
        www.santafecountynm.gov/userfiles/file/find/El_Valle_de_Arroyo_Seco_Highway_Corri
        dor_Plan.pdf

Galisteo Community Plan. 2012.
        www.santafecountynm.gov/userfiles/GCPBCCApproved2292012.pdf

Los Cerrillos Community Plan. 1999. www.santafecountynm.gov/userfiles/LosCerrillosPlan.pdf

Madrid Community Plan. 2008. www.santafecountynm.gov/userfiles/MadridFINAL.pdf

Pojoaque Valley Community Plan. 2007.
        www.santafecountynm.gov/userfiles/CPFINAL%20PLAN%20-AUG2007.pdf

Rio Tesuque Community Plan. 2000. www.santafecountynm.gov/userfiles/RioTesuquePlan.pdf

San Marcos Community Plan. 2010. www.santafecountynm.gov/userfiles/Resolution2010-6.pdf

San Pedro Community Plan. 2001
        www.santafecountynm.gov/userfiles/file/find/SanPedroPlan2001-5.pdf

Santa Fe Northwest Community Plan. 1999.
        www.santafecountynm.gov/userfiles/file/find/SantaFeNorthwestCommunityAreaPlan19
        99.pdf

Tres Arroyos Del Poniente Community Plan. 2006.
        www.santafecountynm.gov/userfiles/file/find/FinalDraft-CommunityPlan.pdf

The Santa Fe Community College District Plan. 2000.
        www.santafecountynm.gov/userfiles/file/find/CCD_Plan_final_for_web.pdf

Village of Agua Fria Community Plan. 2006.
        www.santafecountynm.gov/userfiles/file/find/Agua_Fria_Community_Plan_as_adopted
        _by_Resolution_2006_116.pdf