

Regional Plan Focus Group 2

Energy, Environment, & Water

September 24, 2009 - 4-7:30 p.m.

Coconino Community College Lone Tree Campus – 2800 S. Lone Tree Rd.

SWOT Analysis Results

ENERGY	
Strengths	Weaknesses
City & County environmental services department – education / incentives.	City/County programs are residential based-need commercial opportunities
Solar Resource-capturing this – what is the potential capture and feasibility?	Solar Incentives? Policy for use?
APS is forward thinking-good partner; ACC is pushing in the right direction	Tax incentives- exist but could be improved
Expertise & infrastructure (capability) here For solar & wind efficiency	Political leadership- advocating energy efficiency & remodels
Favorable community culture & community leaders	Low capital funding available
Educational expertise- CCC & NAU	Rental properties are NOT interested in energy efficiency
Solar & Wind capabilities	FUSD Education (K-12)
Public Transit w/ alternative fuels	Biomass, Bio Gas & Geo-thermal - potential
Community Partnerships –SEDI/CITY/COUNTY/FS	Public transit can increase service
Opportunities	Threats
Solar Resource	Political inconsistency
FUSD educational resources K-12	Tax structure
Learning from global best practices	State laws that prevent municipalities from adopting
SWEEP- SW Energy Efficiency Program-Jeff Slagal	Inertia & political opposition at state & local level
Focus econ. Development on “green” businesses –harvesting energy from renewable	Environmental conservation – wildlife & view sheds
	Special interest groups (AZ Builders) knock down legislation- political opposition – how to build bridges and buy-in?
National Energy producers are interested in AZ solar	Need strong renewable transmission capabilities (infrastructure)
Tribes & tribal land are interested & developing economic opportunity-have land; Include energy conservation design in site plans	

Environment	
Strengths	Weaknesses
Connections between agencies + city/county	Enforcement
Visionary county comprehensive plan	Lack of programmatic staff support
Existing regional plan as starting point	Inadequate public notification / public participation
Plentiful natural resources & wildlife	County sprawl - lot splits
Good water and air quality	Lack of cohesive plan
Recycling program	Adequacy of hazardous materials.
Opportunities	Threats
Need for education/ public relations	Development at periphery- creation of conflicts
Conservation lands system (Pima County Model)	Resources- e.g. city needs staff biologist
Meshing City/County plans with Federal / state plans	Invasive species- plants and animals
Gateway corridor definition/ clarification /protection incentives for protecting open space, developing with conservation focus.	Cumulative effects of devel. (death by 1000 cuts)
Tools to implement the plan	Push back by developers
Coordination between plan and ordinances	Potential USFS exchange adjacent to community
Education to visitors about waste	Desire of neighbors for Open Space vs. forest desire exchange
Improve recycling	Wildlife fragmentation
RP policies up to date	Increased waste stream
Biological assessment as part of development checklist	landfills

Water	
Strengths	Weaknesses
We are a leader in using reclaimed water and water conservation program	Need to increase storm water collection/ greywater collection and use. Conflict – with reclaim: the more personal collection, the less is available for public reclaim production. % currently? goal %?
Promotion of xeriscape/native landscaping	Need water for food production
Interest & promotion of local food production	Rules for watering?
Community has strong water conservation ethic	The current water conservation ethic can increase – become ‘norm’
	Water is inexpensive- current charge is for infrastructure
	Hydrology report needed
	Developments current water use
Opportunities	Threats
Require link between development and water use	Impact of global warming perception.
Address need for water collection / use	Requests such as ‘bottling water’
Flexible policies to reflect water supplies	Excessive water use-taking H2O out of community
Can accommodate growth if h2o is used more efficiently - NEED LAWS	Water as a commodity
Greywater code & permitting process-individual (DEQ rules)	Conflicts: Human rights-vs.-property rights City vs. County vs. US-State Law-Federal law
Sustainability as a priority – not a need to develop pipelines- make good use of what we have- rainwater harvesting-look at global best practices / historic Native American best practices	Population Growth
The development to water resources	Current regional aquifer use is not sustainable
Policies for water conservation – better our chance of a sustainable supply	Impact of septic on water quality
Attach numbers, timeline & progress	

Regional Plan Focus Group 2

Energy, Environment, & Water

September 24, 2009 - 4-7:30 p.m.

Coconino Community College Lone Tree Campus – 2800 S. Lone Tree Rd.

Public Focus Group Comments

How are we doing on Energy?

Efficiency
(building structure)

vs.

conservation vs.
(transport/smart growth)

renewable
(other sources)

- Local education expertise (CCC,NAU)
- Political leadership? Other types of energy production
- Public transit/ alter fuel – biogas (lf)
- Capital issues of N. AZ – limited tax base
- At all scales family -> region
- State laws preventing local from dev. Own laws for energy, transportation
- Inertia, political opposition local
- City has environmental service, BF, economic development
- But don't extend to commercial facilities
- But larger employers are working on own
- SWEEP
- Learn from global examples not national tribes/tribal lands
- Rental properties as weakness- not interested in EE
- Broader Vision
- Climate
- Jobs
- People- protection from rising energy costs
- Increase consumption vs. increase in rates
- Gas per unit going down- becoming more efficient
- Electric is less clear
- Imbalance of consumption vs. production
- Direction for political leaders- mixed
-

Is the City and County doing enough to protect the environment?

- No, need more wildlife policies
- Create culture of conservation/sustainability
- Land use-lacking direction on wildlife movement + tree protection resource
- Sprawl- lacking cohesive planning
- Creating a drive- only situation
- Don't understand plan very well



visionary Coconino County plan but not much vertical integration with City/County staff on the ground. Poor implementation.

Resistance on the part of the landowner

- Conflict between individual interests and greater public interest

Are the policies adequate? What is missing?

- Wildlife- urban+ wild lands (rural)
- Implementation and enforcement of plan goals and policies lacking
- View sheds- gateway corridors , buffalo park (a little late)
- View shed goal and parameters implementation plan and possibly an ordinance
- Define what does it mean? (gateway corridor)
- Values need to be in Plan otherwise they don't make it into Land Development Code
- Have to define and get community buy in
 - Includes efficient bureaucracy
 - Plan goals need to be communicated
 - Consistency and early by staff
- Directions of homes- energy consumption
- Waste stream- visitors-trash on private property or in bags that are left behind
- Septic systems/sewage treatment threat to water supply
- Flooding affects how septic systems work/fail
- Goals no teeth
- Air quality monitoring- local monitoring needed post data on web
- Subdivisions separate units not tied into greater plan, sprawl issue
- Staff understands policies and goals
- Propose ordinance on what to do with conflict of plans vs. wants
- Need buy in of property owners and community
- Viewsheds
- Wildlife protection
- Gateway corridors-define
- Fire wise communities
- Owners and developers need to know early in the process what the goals are.
- Long term: zero waste households

How does the City do on the Environmental Checklist?

- Public perception that plan has no teeth
 - Find way to better enforce, PR-outreach
 - More then 300' notification
 - Much more notice for cases and public participation
 -
- Biological assessment needed:
 - Both site specific checklist
 - And plan level assessment of resources

- Make available to developers for and lot owners
- Education to those that are unaware
- Regional wide conservation assessment
- Familiarize public with habitat issues

What role should conservation lands system play? And how?

- CLS important elements/tradeoffs
- Protection of meadows
- Issue of private land that already has zoning- could inform owners of elements , benefits of protecting
- Need guidelines to add to regulations
- Have spinoff from requirements that are recommendations
- Need to instill consciousness of conservation values
- CLS could impact future USFS trades
- Could discourage trades on conservation identified lands
 - Tradeoffs
- Do not need to trade off
- Cluster development to preserve open space
- Traffic issues a trade off , residential development could limit transportation alternatives
- Alternative energy projection in conservation areas
- Pick conservation areas, let development fill rest
- CLS can look in vision for longer then 10 years
- Long term wildlife planning is key
- Knowing the playing field is important
- Need residential community buy in
- Increasing density at periphery results in conflicts with conservation/ wildlife

Vegetation & Wildlife

- CLS- important elements/trade offs
- Meadow protection
- Mix of private/public – could not change zoning, but could still develop w/ in existing zoning
- CLS map w/ all elements, not separate maps
- Favor of map
- Inventory “ name it count it”
- Assess land for conservation values in a development
- CLS can be used as reason for bond passing
- Residents want to conserve our resources
 - New perspective – accepting consciousness
- Buy land for conservation, bond- as protecting private+ public land



Trade offs of adopting CLS

- Its not a “trade off” keeping natural resources is an asset
- Flagstaff is “beautiful” = money
- Low density \$ trade off
- CLS Id’s where development can build
- Traffic issues
- Route around town/ limited transportation
- Solar / wind limitations in CLS
- Keep areas separate – large areas set aside
- Communicate larger vision / locking in areas set aside for development / conservation
- Real estate community buy in
- Higher density areas will have to be established

What is missing on Plan? re: wildlife and vegetation

- Density on the outskirts of town. How can we account for current resources and still develop?
- Demonstrate / educate residents where they are is a viable wildlife corridor
- LDC- education element
- CLS – “education element”
- Homeowners association education
- Agency collaboration
- “ No Don’t define it, will lose it” broad feel-good goals- cannot stand test of time. Need fully functioning program
- Are hazard waste policies adequate?
- Need to address plastic waste
- Environmental policies need to be revisited
- Views
- Native plants
- Development impacts
- Invasive plants
- Need to date policies—new issues
- Need to provide incentive or ways to offset the time/ \$ spent pre- construction on site- specific biologist assistant.
- Wildlife education (bear in RV example) – conflicts
- HOA’s should be required to educate members
- CLS needs education component

How well do the existing policies work? Should there be a link between development and water supply?

- County did address w/ a policy- “not done very well”
- Linked to a state program?
- Linked to a 100 year plan?
- A sustainable plan
 - Define



- Surface/greywater
- Water quality – link with the environment
- City could craft a policy based on above ideas
 - Increased water conservation to achieve goal
 - Reclaimed water
 - Conservation
 - Encourage use of home greywater even if it reduces quantity of City effluent.
 - Water is a human right, a basic element (wildlife + ecosystem) uses as well
 - Want to see sustainability
 - Better than 100 years
 - Competitions for some pot of water
 - Need accurate studies
 - Global best practices (kim)
 - Local neighbors (tribes)
 - Rainwater harvesting type strategies, not just pipelines

Property rights vs. water rights? How do we use water?

- Timing of development tied to availability of water->policy
- Greater conservation goals w/ discourage lawns, golf courses, numbers + % timeline
- Enact native plants
- Flexible policies to respond to (eg global warming effects) -> policy
- We can accommodate- growth (lots of)if we figure out water source
- Nexus between supply 2 growth required.
- September

Policy Statement Ideas:

- Energy commission – regional
 - Info clearing house
 - Policy recommendation (city, county and others)
- Balance between renewable production & consumption
 - Outside of utilities
- Reducing fossil fuel based energy usage in all sectors
- Expanding use of renewable energy
- Retention & expansion of renewable and energy efficiency businesses
- Partnership for training in EE & RE
- Increase funding sources through penalizing inefficient practices
- Implement building codes w / highest efficiency w/ consideration for short term and long term affordability.
- Incentives for retrofitting existing buildings
- Flagstaff gets 100% of energy from renewable
- GHG reduction goal in Regional Plan
- Every building should be harvesting/ recycling h20
- Tie energy efficiency
- to conserving resources.+



Energy commission- similar to Tucson/regional

- City Council, county, COG
- Creates policy, review for region
- Local control over production- re in regional including all types of RE- job opps.
- Funding spruces-. Strategy
- Santa Monica building program is funded by fines for not recycling / reusing/reducing post construction waste.
- Can lead out to homeowners for EE/RE
- Ways for residential to borrow for EE/RE
- Incentives for retrofitting existing buildings
- 100% energy from renewables eliminate constantly burning pilots
- All goals driven by need to reduce GHG emissions
- An assumption
- Need to create goal to reduce.

The following was submitted at the Focus Group – Energy Section:



Regional Plan - Energy Element Draft
Proposal by Friends of Flagstaff's Future
September 2009

Goal 1: Reduce fossil-fuel-based energy usage for buildings, process and transportation

Rationale: Fossil fuels have significantly risen in price over the last decade. They are a finite resource and given their production in the US for over 100 years, it is likely that prices will continue to rise. It has also become a scientific consensus that the associated carbon emissions are the cause of climate change and must be substantially reduced. Efficiency efforts are acknowledged to be the most reliable, most immediate, and most cost-effective means to reduce energy usage. Oil is now mostly an imported resource, with substantial national security and economic implications, which could be largely mitigated by more efficient and alternately fueled vehicles. Efficiency efforts will produce local jobs with reasonable wages building on local workforce training activities, increase housing affordability for lower income families, and protect all residents from rising fuel prices over the 50-100 year life of new buildings.

Policy 1a: Implement building codes with the highest level of efficiency considering future expected price increases, cost to install, and housing affordability (for residential buildings).

Strategy 1a1: Strengthen Flagstaff and County building codes for both residential and commercial applications.

Policy 1b: Identify resources to implement an extensive efficiency upgrade program for existing buildings.

Strategy 1b1: Leverage grants, utility efficiency funding, and/or other sources to provide financing or grants or a combination with repayment on a sliding scale based on income.

Policy 1c: Promote and encourage with appropriate partnerships innovation in building practices to achieve higher efficiency.

Strategy 1c1: Draw on community expertise in energy, building practice and building science, particularly at NAU and CCC to identify the next most favorable opportunities for efficiency improvements to build them into homes on a trial and voluntary basis. For example, improved windows, higher wall insulation, advanced air sealing techniques.

Policy 1d: Promote and encourage the use of public and alternative transportation.

Strategy 1d1: Increase service frequency of the public transit within the region.

Strategy 1d2: Expand the number of bus stops.

Strategy 1d3: Develop a complete interconnectivity of bike lanes within the Region.

Strategy 1d4: Develop a public transportation system to connect with other regions in AZ.

Policy 1e: Promote and encourage the use of fuel efficient vehicles and vehicles that use renewable fuels and/or electricity.

Strategy 1e1: For vehicles 1) with EPA mileage over 35 mpg, or 2) using a renewable fuel (eg E85, recycled grease, biodiesel), or 3) a plug-in hybrid or electric vehicle, provide free/preferred parking at public locations and events and retail locations.

Strategy 1e2: Implement a gasoline fee refundable to the local community to encourage greater fuel efficiency and provide funding revenue for energy efficiency programs.

Policy 1f: Identify resources to reduce process energy use in manufacturing, food preparation, and other process applications in the region.

Strategy 1f1: Leverage utility and DOE funds to improve efficiency in major energy users and public facilities (government, schools)

Goal 2: Expand use of renewable energy

Rationale: In conjunction with efficiency efforts, the remaining energy requirements can be met, in whole or in part, with renewable resources indigenous to the region. The implementation of efficiency measures will make renewable energy systems more effective, thus increasing the return on investment from wind and solar systems. These resources address the carbon

emissions/climate change issue. They also provide energy cost stability and create high-skilled jobs.

Policy 2a: Provide information and analysis of solar electric, solar thermal, and wind systems
Strategy 2a1: Develop one-stop information source, such as web site, to provide an access to information related to cost and savings, available incentives, programs, and providers of renewable systems.

Policy 2b: Promote and encourage the use of renewable energy system with appropriate partners

Strategy 2b1: Incorporate into building codes requirements for the minimal infrastructure to allow for retrofitting of solar hot water.

Strategy 2b2: Require that suitable buildings (residential and commercial) be provided with a bid for solar electric and hot water (if applicable) at construction.

Strategy 2b3: Highlight and promote both owners and contractors who install renewable systems.

Strategy 2b4: Increase proportion of energy that comes from renewable sources through utility offerings.

Strategy 2b5: Establish utility scale renewable energy projects.

Goal 3: Promote, retain, and reward existing and attract new businesses that specialize in energy efficiency and/or renewable energy.

Rationale: The greater Flagstaff Region needs good-paying, professional jobs that these businesses provide. In addition, the expertise in renewables and energy efficiencies allows the Region to implement the goals #1 and 2.

Policy 3a: Provide incentives for attracting companies that align with the Goal 3.

Policy 3b: Reward existing companies that align with the Goal 3.

Goal 4: Develop partnerships for training for jobs in the energy efficiency and renewable energy areas.