# San Luis Climate Change Adaptation Strategies



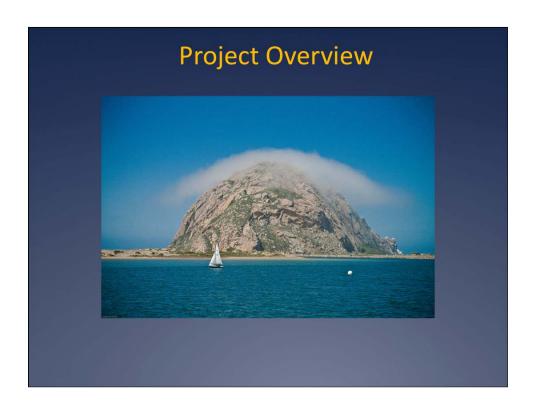
Judy Corbett & Kate Meis Local Government Commission

Local Government Dinner Forum June 17, 2010

#### **Presentation Overview**

- 1. Project Overview
- 2. Stakeholder Meeting
- Recommended Strategies/Implementation Discussion









#### Stakeholders:

Larry Allen
Aeron Arlin Genet
Penny Borenstein
Michael Boswell
Ellen Carroll
Claire Clark
Fred Collins
Nora De Cuir
Lewis Euler
Warren Frace
Joy Fitzhugh

Adrienne Greve Kami Griffin Melissa Guise Greg Haas John Hamon Gordon Hensley Bob Hill Eugene Jud Melissa Locke Jan Marx Carrie Mattingly

Wade McKinney Mike Multari Kim Murray Paavo Ogren Jim Patterson Christine Rogers Tammy Seale Chuck Stevenson Michael Winn

## Stakeholder Meeting

#### Break Out Tables:

- #1 Water Supply/Wastewater
- #2 Health/Emergency Preparedness
- #3 Infrastructure
- #4 Agriculture & Related Tourism
- #5 Coastal Marine/Coastal Tourism

#### Discussion Topics:

- •Top 5 Issues
- •Who/What is impacted by the threat
- •Concerns about the threat
- •Overall severity of the problem
- •Strategies and actions
- •Who is responsible
- •What we have
- •What is needed





#### **Water Strategies**

- 1. Collaborate with regulatory agencies
- 2. Monitor agricultural water (keep data confidential)
- 3. Conduct cooperative basin planning
- 4. Collaborative lobbying/avoid litigation
- 5. Educate and engage the public
- 6. Improve stormwater management programs





## Water Strategies Implementation

#### 1. Collaborate with regulatory agencies\*

- Cities & the county work with water agencies and regional planning agencies
- Identify important watersheds and areas subject to flooding
- Cities cooperating PR, Templeton, SLO Co & Ci to share water from Nacimiento Lake
- Co & cities going through water master plan update, incorporate CC
- Saltwater intrusion- barrier Prop 218...significant cost
- Groundwater- need consistent policy from the state/Fed...work with State and Fed to address barriers
- Retention reservoirs in permeable areas
- Requirement- All new subdivisions need to retain runoffenforce



## Water Strategies Implementation

#### 1. Collaborate with regulatory agencies (cont)\*

- · Work with the Cal EMA
- Drought resistant landscaping
- Barrier- No cohesive state water policy
- Barrier- no cooperation from Monterey Co. for muscle monitoring (regional cooperation)
- Barrier- agency competition (state and federal agencies)- work with SGC? Need permits from multiple agencies

\*Strategies developed by participants at the June 17th Elected Dinner Forum



## Water Strategies Implementation

#### 2. Monitor agricultural water (keep data confidential)\*

- Cities & the county work with water agencies, mutual water companies and regional planning agencies
- Clean water act- limits on pharmaceuticals
- Put pressure on Ag industry to reduce water use



## Water Strategies Implementation

#### 3. Conduct cooperative basin planning\*

- Cities & the county work with water agencies and regional planning agencies
- Preserve watersheds
- More utilization of groundwater management ordinances

\*Strategies developed by participants at the June 17th Elected Dinner Forum



## Water Strategies Implementation

#### 4. Collaborative lobbying to avoid litigation\*

- Cities & the county work with water agencies and regional planning agencies
- Work with fed/state



## Water Strategies Implementation

#### 5. Educate and engage the public\*

- Drought resistant landscaping
- Educating industry groups
- Approach individual sectors (business, agriculture, etc.)
- Promote incentives (ex. PG&E, Atascadero regional water co)
- Neighborhood/community (peer to peer learning)- tours, competition
- Citizen report line for infractions
- Native and drought tolerant landscaping- Cities/County set a good example, educational programs/incentives
- Educate industry groups

\*Strategies developed by participants at the June 17th Elected Dinner Forum



## Water Strategies Implementation

#### 6. Stormwater management programs\*

- Low Impact Development
- Groundwater Management Policies
- Catch Urban Runoff
- Natural Filtration
- Educating public (livestock 30' from water for filtration)

#### Other<sup>3</sup>

- Grey Water (County has an ordinance)
- Water Recycling
- Desalinization
- Reclamation plants (for parks, golf courses etc)
- Eliminate ocean outfalls

#### Infrastructure Strategies

- Undertake a comprehensive assessment of flood control infrastructure and update with consideration of climate change projections
- 2. Conserve open space and update local coastal plans
- 3. Introduce new technologies for communication
- 4. Create incentives for alternative energy
- 5. Smart land use planning

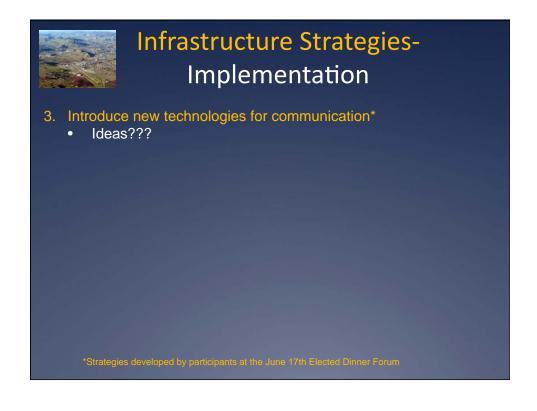




### Infrastructure Strategies-Implementation

- Undertake a comprehensive assessment of flood control infrastructure and update with consideration of climate change projections\*
  - Assess flood control infrastructure
  - Building new dams (SLO)
  - Less pavement/ hardscape into creeks so there is opportunity for the water to percolate
  - SLO maintenance structure so there is record of age etc.
  - Barrier- cost
  - Incorporate CC into consideration of what would be upgraded
  - Facilitate CSDs from accepting flood control powers in their jurisdiction, barrier- liability
  - Encourage alternative modes
  - When you replace pavements, do so with pervious pavements







## Infrastructure Strategies-Implementation

#### 4. Create incentives for alternative energy\*

- CA First/AB 811
- Homestar
- PG&E programs
- SoCalGas programs
- Securing vehicle incentives for vehicle fuels and infrastructure
- EECBG- retrofitting municipal buildings
- School district retrofits
- County & cities can promote these programs
- Education/programs/incentives about energy conservation, lifestyle changes...school programs...educate on full cycle use of energy

\*Strategies developed by participants at the June 17th Elected Dinner Forum



### Infrastructure Strategies-Implementation

#### 5. Smart land use planning\*

- Compact Development,
- Parking policies
- Jobs/housing balance,
- Reduce heat island effect,
- Don't build in areas at risk
- City ordinance to reduce light pollution
- Alternative transportation, transit oriented development, bike/ walk options with new development...locate housing near city centers
- Change street design- Stormwater management, rain gardens, groundwater recharge

# Health & Emergency Preparedness Strategies

- 1. Adapt regulations and enforcement for air quality
- 2. Undertake Long-term planning for water supply
- 3. Promote healthy lifestyle practices, and increase the number of medical personnel
- 4. Increase social services and mental health services
- 5. Increase local food production





## Health & Emergency Preparedness Strategies

#### **Implementation**

- 1. Adapt regulations and enforcement for air quality\*
  - Air Pollution Control District regulations- on ozone, PM
  - SB 375
  - Fund chipping events in low density areas so they don't burn brush (work with APCD)...then use for compost/groundcover
  - Be aware of vulnerable populations- ID where they are located, develop buddy systems, work with medical providers etc.



# Health & Emergency Preparedness Strategies Implementation

- 2. Undertake Long-term planning for water supply\*
  - City/County/Water Agency/Regional Planning agency collaboration

\*Strategies developed by participants at the June 17th Elected Dinner Forum



# Health & Emergency Preparedness Strategies Implementation

- 3. Promote healthy lifestyle practices, and increase the number of medical personnel\*
  - Smart Growth Policies (walkable, bikeable communities)
  - Local food
  - Ban smoking in public spaces



# Health & Emergency Preparedness Strategies Implementation

- 4. Increase social services and mental health services\*
  - County mental & response programs to respond to natural disasters
  - · Barrier- budget

\*Strategies developed by participants at the June 17th Elected Dinner Forum



# Health & Emergency Preparedness Strategies Implementation

- Increase local food production\*
  - Zoning for community gardens and farmers markets
  - Ordinances to allow chickens and home gardens
  - Efficient use of land, energy efficient
  - Lobby local school districts & other institutions (state hospitals, jails, and other state agencies) to only buy local
  - Education shoppers

### **Agriculture Strategies**

- 1. Conserve water
- 2. Reduce GHG emissions
- Provide tools and economic incentives to improve land use planning
- 4. Address cultural differences that lead to conflicts and housing shortages
- 5. Collaborate with farmers, ranchers and residents for fire management
- 6. Strengthen community and cultural ties through education



# Agriculture Strategies Implementation

#### 1. Conserve water\*

- Encourage drought resistant crops
- Incentives for reducing water use
- Rainwater harvesting
- Conservation
- BMPs
- Technology



# Agriculture Strategies Implementation

#### 2. Reduce GHG emissions\*

- Local Climate Action Plans
- Local Food! FMT
- GHG inventories
- EE, Fuel efficiency, solar panels, carbon sequestration

\*Strategies developed by participants at the June 17th Elected Dinner Forum



# Agriculture Strategies Implementation

## 3. Provide tools and economic incentives to improve land use planning\*

- Crop rotation- work with UCCE and Cal Poly
- Deny building in areas of risk
- Zone changes- analyze flood zones
- Williamson act- state save!!!
- Land banks, conservation and agriculture easements
- Estate planning for preservation of agriculture



# Agriculture Strategies Implementation

- 4. Address cultural differences that lead to conflicts and housing shortages\*
  - Provide affordable housing for workforce (ex. farm workers), lack of understanding of health regulations
  - Combat NIMBYs
  - Changes in temperature could mean increased pesticide use and the impacts to workers and water
  - Organic farming!
  - · Drought resistant crops
  - · GM species?

\*Strategies developed by participants at the June 17th Elected Dinner Forum



# Agriculture Strategies Implementation

- Collaborate with farmers, ranchers and residents for fire management\*
  - Neighboring land use types
  - Rural/urban connection- impact of burning on close residents...
     be aware of contradicting needs
  - Fire management



# Agriculture Strategies Implementation

- 6. Strengthen community and cultural ties through education\*
  - Have the dialogue...ongoing...have tribes at the table
  - Adapt to changing demographics

\*Strategies developed by participants at the June 17th Elected Dinner Forum

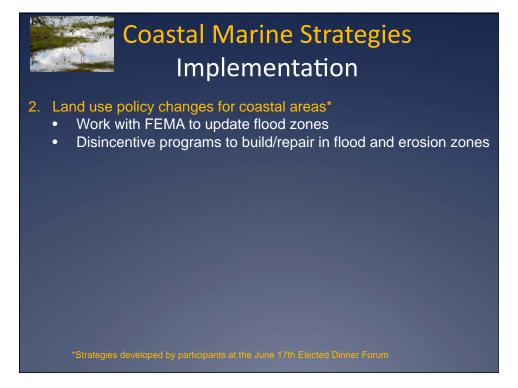
#### **Coastal Marine Strategies**

- Identify high risk areas and map failing infrastructure and prioritize
- 2. Land use policy changes for coastal areas
- Protect species migration corridors and destinations/ adjacent habitat
- 4. New crop identification and suitability studies
- 5. Saltwater barriers and well relocation





- Prioritize infrastructure to repairs
- Plan alternate routes





# Coastal Marine Strategies Implementation

- 3. Protect species migration corridors and destinations/adjacent habitat\*
  - Develop policies for existing and new development to account for growing coastal hazards (National Estuary Program)
  - · Identify key habitat and tax incentives to preserve
  - Resist off shore oil drilling

\*Strategies developed by participants at the June 17th Elected Dinner Forum



# Coastal Marine Strategies Implementation

- 4. New crop identification and suitability studies\*
  - Work with UCCE and Cal Poly



