

APRIL 23, 2007

COUNTY OF SOLANO
GENERAL PLAN UPDATE

CAC WORKBOOK

CHAPTER 5 - HEALTH AND SAFETY

PRELIMINARY GOALS, POLICIES, AND PROGRAMS

The purpose of this Citizen Advisory Committee (CAC) meeting is to provide recommendations for refinement of health and safety goals and policies necessary to address major issues identified in the Health and Safety Background Report and January 22, 2007 CAC meeting. This workbook provides preliminary draft goals and policies for topics related to Health and Safety, as well as potential implementation measures for the CAC review. The preliminary draft goals, policies and programs will also be reviewed by the Technical Advisory Committee.

Maps contained within the Health and Safety Background Report may be consulted as a reference for certain policies.

The workbook provides spaces for comments from members of the CAC to clarify, refine, or add to these goals and policies and for comments on potential implementation programs. All comments received will be used in preparing draft goals, policies, implementation programs and related materials for review by the Planning Commission and Board of Supervisors and will be considered during preparation of the draft General Plan. The CAC will review the revised policies, goals and implementation programs at a later meeting. Policies proposed are more generalized than the existing general plan policies. Specific actions in the updated general plan will be outlined through implementation measures rather than in the policies.

Members of the CAC should review this workbook prior to the April 23rd meeting and come prepared to offer comments and suggestions at the meeting. Comments can be provided by making notes in the spaces provided following the preliminary draft goals and policies, or changes can be suggested by making notes directly on specific goals and policies. CAC members may also e-mail their proposed changes to Diane Bushman (dbushman@solanocounty.com) by Monday at 9:00 a.m., staff will assemble the comments for distribution at the CAC meeting (See Separate Instructions in Agenda Packet)

INTRODUCTION

This chapter of the Solano County General Plan is an integral part of the County's Vision to protect its people from natural hazards, promote public health, preserve air and water quality, and to guide development in a manner that respects the needs of both people and the environment. The following policies to promote public health, reduce risk associated with natural and human caused hazards, prepare for disasters, improve water and air quality, reduce noise impacts, and promote airport compatible land uses will assist the County to fulfill its vision to promote public health, safety and security. *[Note: This is an excerpt of the Health and Safety Chapter. Some of the topics listed in this paragraph will be addressed in future CAC meetings]*

GOAL STATEMENT

Goal HS-1: Minimize the potential for loss of life and property resulting from natural or human-caused hazards.

HAZARDS

FLOODING

PRELIMINARY POLICIES

(See Figure 4-3, Flood Hazards in Health and Safety Background Report)

- Policy HS-1:** Prevent or correct upstream land use practices that contribute to increased rates of surface water runoff.
- Policy HS-2:** Restore and maintain the natural functions of riparian corridors and water channels throughout the County to reduce flooding, convey stormwater flows, and improve water quality.
- Policy HS-3:** Require incorporation of stormwater retention devices in new developments capable of containing the stormwater runoff caused by a 100-year storm event.
- Policy HS-4:** Limit development within the primary floodplain (consisting of the stream channel and portions of the adjacent floodplain that carry the design flood flows of the stream). Land uses within the primary floodplain should be limited to agricultural and open space uses or other non-urban, low-capital investment uses.
- Policy HS-5:** Developments for human occupancy within the 100-year flood plain must be appropriately elevated and flood-proofed for the profile of a 100-year flood event.
- Policy HS-6:** Work with local, State, and federal agencies to improve flood control and drainage throughout the County.
- Policy HS-7:** Require new development proposals in dam, canal, or levee inundation areas to consider risk due to failure of these facilities and to include mitigations to bring this risk to a reasonable level.
- Policy HS-8:** Work with responsible parties to ensure dams, levees, and canals throughout the County are properly maintained and/or improved.

Comments: _____

POTENTIAL IMPLEMENTATION PROGRAMS

- ▶ Implement land use controls limiting activities that often contribute to increased rates of surface water runoff such as overgrazing by livestock, clearing, and burning which can reduce natural vegetative cover.
- ▶ Limit the construction of extensive impermeable surfaces.
- ▶ Implement upstream land use controls to protect riparian corridors.
- ▶ Undertake/require periodic stream maintenance. (private property owners and public agencies)
- ▶ Adopt road construction standards for evacuation routes.
- ▶ Implement flood control and drainage improvements recommended in local agency plans, as well as recommendations made by the U.S. Army Corps of Engineers and the Reclamation Board of the State of California.
- ▶ Work with the Solano Water Agency to review existing developments contributing to increased runoff.
- ▶ Work with Solano Water Agency in preparing hydrological analysis of study area uplands, identifying the different watersheds which drain into the County, establishing flood-related objectives and priorities on a study area basis, and translating those into a coordinated series of flood-preventive measures for each watershed.
- ▶ Investigate flood-prone areas and work to improve drainage.
- ▶ Where new development is proposed within dam, canal, or levee inundation areas require the applicant to include information on the dam, canal, or levee with recommendations meant to protect development from the failure of these structures.

Additional Ideas:

SEISMIC SAFETY

PRELIMINARY POLICIES

(See Figure 4-2, Seismic Hazards in Health and Safety Background Report)

- Policy HS-9:** Require new development proposals in moderate or high seismic hazard areas to consider risks due to seismic activity and to include mitigations to bring this risk to a reasonable level.
- Policy HS-10:** Review and limit the location and intensity of development and placement of utilities in identified Alquist-Priolo Earthquake Fault Zones.
- Policy HS-11:** Identify and minimize potential hazards to life and property due to fault displacement at existing facilities located within an Alquist-Priolo Earthquake Fault Zone that attract numbers of people, are open to the general public, or provide essential community services.
- Policy HS-12:** Enforce the most recent International building codes (IBC) approved by the California Building Standards Commissions governing seismic safety and structural design to minimize earthquake damage.
- Policy HS-13:** Ensure that utilities, pipelines, or other public facilities located on or crossing active fault zones will not fail during seismic events or their failure will not cause undue risk to public safety in the event of an earthquake.
- Policy HS-14:** Require minimum setbacks for construction along creeks between the creek bank and structure, except for farm structures which are not dwellings or places of work, based upon the susceptibility of the bank to seismic shaking-induced lurching.

Comments:

POTENTIAL IMPLEMENTATION PROGRAMS

- ▶ Implement design requirements for utilities crossing earthquake fault zones.
- ▶ Create special landslide prevention and maintenance districts to provide funding for hillside stability improvements.
- ▶ Adopt and implement hillside slope/density and land capacity ordinances.
- ▶ Require precise or specific area plans in geologic hazard areas where development may occur.
- ▶ Coordinate with cities to gather and periodically assess new geologic data.
- ▶ Adopt and enforce the most current versions of the International Building codes (IBC), as modified by the California Building Standards Commission.
- ▶ Continue to obtain new information on local geologic hazards.
- ▶ Limit development of structures intended for human occupancy within 100 feet of an active fault trace to one-story wood-frame structures. Prevent the development of any structures intended for human occupancy within 50 feet of an active fault trace.
- ▶ Use the most updated version of hazard maps possible when assessing development proposals.
- ▶ Require owners of all existing or proposed oil, gas, water and sewer pipelines which cross active faults to file an operations plan, describing the probable effects of pipeline failure at the fault and the various emergency facilities and procedures which exist to ensure that failure does not threaten public safety.
- ▶ Require geotechnical investigation and recommendations, as needed, for buildings meant for public occupancy.
- ▶ Require geotechnical evaluation and recommendations prior to new development in moderate or higher hazard areas. Such geotechnical evaluation shall analyze the potential hazards from:

- Landslides
- Liquefaction
- Expansive Soils
- Steep Slopes
- Erosion
- Subsidence
- Alquist-Priolo Earthquake Fault Zones
- Tsunamis
- Seiches

Recommendations shall include mitigation to avoid or minimize the identified hazards. Costs related to providing or confirming required geotechnical reports will be borne by the applicant. *[Note: Thresholds triggering a geotechnical report and review are still in progress and will be decided after review by the Technical Advisory Committee]*

- ▶ Develop a geologic constraints and hazards database to be maintained in the County Geographic Information System (GIS). The GIS shall be used to identify areas containing hazards and constraints that could potentially impact the type or level of development allowed in these areas. Information maintained as part of the database may include:
 - Active faults
 - Relative seismic shaking hazards
 - Relative landslide susceptibility
 - Relative earthquake induced liquefaction susceptibility
 - Steep slope constraints
 - Moderate and high erosion hazards
 - Highly erodible soils

Additional Ideas:

LAND STABILITY

PRELIMINARY POLICIES

(See Appendix A, Landslide Susceptibility in Health and Safety Background Report and Figure 5-4 Shrink-Swell Potential in Geology and Soils Background Report)

Policy HS-15: Restrict the crossing of ground failure areas by new public and private transmission facilities, including power and water distribution lines, sewer lines, and gas and oil transmission lines.

Policy HS-16: Make information about soils with a high shrink-swell potential readily available. Require proper foundation designs in these areas.

Policy HS-17: Evaluate the feasibility of lowering the groundwater table in some areas to protect prime agricultural lands or provide for safe and acceptable development.

Comments:

POTENTIAL IMPLEMENTATION PROGRAMS

- ▶ Conduct site investigations in areas underlain by a combination of prime agricultural soils and high water tables and in areas underlain by bay mud.

- ▶ Establish special development review procedures for unstable land areas.

Additional Ideas:

FIRE

PRELIMINARY POLICIES

(See Figure 4-1, Wildland Fire Hazard Areas in Health and Safety Background Report)

Policy HS-18: Require that structures be built in fire defensible spaces and limit the construction of public roadways in high or very high wildfire risk areas.

Policy HS-19: Prohibit non farm-related residential development and road construction for public use in areas of extreme wildfire risk.

Policy HS-20: Require new residential developments in high and very high wildfire risk areas to incorporate fire safety building methods and site planning techniques into the development.

Policy HS-21: Work with fire districts or other agencies and property owners to coordinate efforts to prevent wildfires and grassfires through fire protection measures such as consolidation of fuel buildup abatement efforts, fire fighting equipment access, and water service provision.

Policy HS-22: Seek an appropriate balance between preventing and fighting fires and retaining the County's valuable visual and natural resources.

Comments:

POTENTIAL IMPLEMENTATION PROGRAMS

- ▶ Work with fire districts to ensure appropriate water supply and other requirements to support firefighting are provided in new subdivisions.
- ▶ Update the general plan map and designations to restrict non farm-related residential development in extreme wildfire risk areas.
- ▶ In high and very high wildfire risk areas, require clustering or placement of dwelling units on individual properties to provide for more localized and effective fire protection measures and to create defensible spaces.
- ▶ Require all new development to comply with fire district requirements. Such requirements may include using sprinkler systems, providing adequate on-site water supplies, using fire-resistant building materials, or other site design specifications.
- ▶ Create fire buffers along heavily traveled roads by thinning, mowing, disking or controlled burning of roadside grass.

Additional Ideas:

HAZARDOUS MATERIALS

PRELIMINARY POLICIES

Policy HS-23: Minimize the risks associated with transporting, storing, and using hazardous materials through careful land use planning and coordination with responsible federal, State, or County agencies.

Policy HS-24: Work to reduce the health risks associated with naturally occurring hazardous materials such as radon, asbestos, or mercury.

Comments: _____

Policy HS-26: Plan and designate evacuation and aid routes. Work to create a comprehensive circulation system that is effective in allowing emergency access to and from all parts of the County and which provides alternative routes during unexpected events such as flooding, fires, or hazardous materials accidents that require evacuation.

Policy HS-27: Promote public education and awareness regarding what to do, where to go, and how to evacuate in the event of a catastrophic disaster, such as wildfires, earthquakes, or toxic material spills.

Policy HS-28: Encourage full coordination and communication between local, State and federal governments regarding disaster planning and preparedness.

Comments: _____

POTENTIAL IMPLEMENTATION PROGRAMS

- ▶ Use the countywide emergency operations and response plans from the Solano County Office of Emergency Services for information on evacuation routes, cooperation, and other specific recommendations and strategies for emergency response.
- ▶ Implement the County’s Emergency Response Plan.
- ▶ Participate in local and State-sponsored earthquake preparedness programs.
- ▶ Improve public education and awareness regarding what to do in case of a catastrophe, and promote public education and awareness programs for each type of natural disaster potentially impacting the County.
- ▶ Encourage full coordination and communication between local, State and federal governments regarding disaster planning and preparedness.

- ▶ Continue to encourage most growth near cities and services. (Also addressed within land use and facilities and services topics.)
- ▶ Coordinate with public health agencies to provide public outreach and education on how lifestyle changes can affect health.

Additional Ideas:

PRELIMINARY DRAFT FOR CAC