

Sonoma Valley Stormwater Management and Groundwater Recharge Scoping Study

Issues and Objectives



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Issues: Flood hazards

- Large floods: reported damages & flood mapping center on Kenwood, Schellville, and Sonoma
- Small floods: dispersed effects



Issues: Flood hazards

- Kenwood: alluvial fan, sediment deposition
- Sonoma: undersized infrastructure
- Schellville: San Pablo Bay tide levels combined with low gradient, sediment deposition

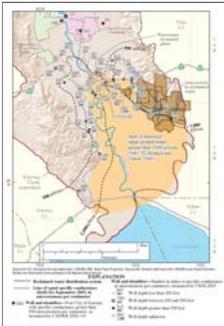


Issues: Groundwater



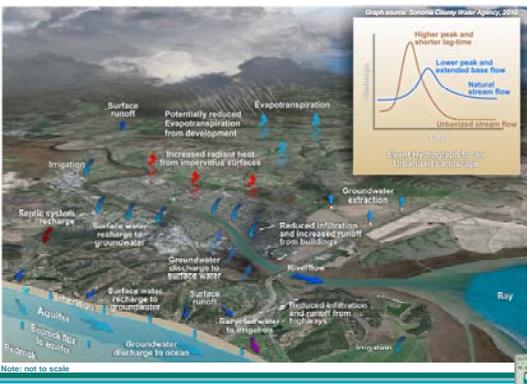
- Groundwater conditions study and management plan completed
- Declining groundwater levels
 - El Verano
 - Southern Sonoma Valley
 - Carriger Creek

Issues: Groundwater Quality



- Shifting salinity in the south
- Of Concern:
 - Arsenic
 - Boron
 - Iron
 - Manganese

Conceptual Hydrologic Cycle of Sonoma Valley



Issues

Questions to consider:

- Does this presentation fairly sum up your sense of the flood and groundwater issues for the Sonoma Valley?
- Are there any subset of these issues that you would like to see this project focus on?



Objectives: Planning Lingo

Project development

- Objectives - what we want to accomplish
- Constraints - things that limit choice

Project selection

- Ranking criteria - what will decide which project concepts are selected for further development



Core Project Objectives

- Flood hazard reduction
 - Improve management of stormwater that contributes, directly or indirectly, to reduced flood hazards.
- Groundwater recharge
 - Increase beneficial recharge of groundwater, whether or not that recharged groundwater is directly accessible as water supply.



Sonoma Valley - Project Types

- **Singular**
 - Any project that meets essential core objectives.
- **Multi-part**
 - Multiple “elements” that function physically as stand-alone projects may be combined to collectively address core and selected supporting objectives.



Supporting Project Objectives

- Water quality
- Water supply
- System sustainability
- Ecosystem
- Agricultural land
- Open space
- Community benefits

- **Water quality**
 - Improve water quality of surface and/or groundwater supplies
- **Water supply**
 - Increase or improve water supply availability, reliability and flexibility for domestic, municipal, industrial and agricultural use and for the environment
- **System sustainability**
 - Support energy and water efficiency and climate change resiliency of water management systems and developed supplies



Supporting Project Objectives

- Water quality
- Water supply
- System sustainability
- Ecosystem
- Agricultural land
- Open space
- Community benefits

- **Ecosystem**
 - Improve ecosystem function and/or enhance habitat, especially for special status species
- **Agricultural land**
 - Preserve agricultural land uses
- **Open space**
 - Preserve and/or enhance open space
- **Community benefits**
 - Create and/or enhance recreation, public access, education, etc.



Supporting Project Objectives

Water quality

Water supply

System sustainability

Ecosystem

Agricultural land

Open space

Community benefits

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Open space

Community benefits

The ideal project lives here!

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Supporting Project Objectives

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Questions to consider:

- Are these the right supporting objectives?
- How important are each of them?
- Are some more important to you than others?

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