

**Santa Clara Valley
Water Resources Protection Collaborative**

Outline

of Guidelines & Standards
for Land Use Near Streams

Definitions

of Surface and Groundwater
Quality and Quantity

Ratified October 30, 2003

Introduction

The Santa Clara Valley Water Resources Protection Collaborative has adopted a *Memorandum of Consensus for Mutual Cooperation to Jointly Develop and Implement Water and Watershed Resources Protection Measures, Guidelines and Standards in Santa Clara County*. In the *Memorandum*, Collaborative members agreed on a schedule (milestones) for interim work products.

The relevant milestones in the Collaborative's *Memorandum of Consensus* for Guidelines and Standards are to produce by October 30, 2003:

- An outline of water and watershed resources protection Guidelines and Standards for land use near streams.
- A definition of "surface and groundwater quality and quantity."

At the October 30, 2003 meeting, the Collaborative decided to include selected surface and groundwater quality and quantity issues in the following *Outline of Guidelines and Standards for Land Use Near Streams*.

Problem Matrix

To begin to focus the scope of the Guidelines and Standards, the Work Group reviewed 12 "Key Problems in Water Resources Protection" and 32 "Other Problems in Water Resources Protection" previously identified by Santa Clara Valley Water District staff. Dan Cloak Environmental Consulting reviewed the 44 problems with District staff (a 45th problem was added at this point) and prepared a *Matrix of Water Resources Protection Problems*.

The *Matrix* identified, for each problem:

- Relevant descriptions, objectives and "next steps" in the Santa Clara Basin Watershed Management Initiative's *Watershed Action Plan*.
- Relevant policies, practices, guidelines, and standards of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), the County of Santa Clara, and the 15 cities and towns within the County.
- Relevant District policies, guidelines, and standards.
- Other policies, guidelines, and standards, including California laws, California regulations, and guidebooks and manuals that are widely used by local agencies.
- Noted gaps and obstacles to producing and implementing guidelines and standards to resolve the identified problem.
- Possible outcomes of the Collaborative's efforts.

The Guidelines and Standards Work Group reviewed the *Matrix*. With the help of "linkage groupings" prepared by Trish Mulvey, the Work Group selected 11 problems to be the potential focus of the outline of *Guidelines and Standards for Land Use near Streams*. The Work Group noted that surface water quality was inextricably related to land use near streams, and

recommended that the definition of “surface and groundwater quality and quantity” should focus on groundwater quality issues. The Work Group selected nine problems relating to groundwater quality.

District staff endorsed this selection as a way of expediting the *Guidelines and Standards*, while noting that all of the 45 problems need to be addressed.

Tools

The Work Group also identified a number of potential problem-solving “tools”. These tools included CEQA, design and engineering, education, incentive programs, and stormwater NPDES permit requirements.

Guidelines and Standards Outline

The Outline seeks a balance between the need to demonstrate real progress in water resources protection with the need to develop and implement *Guidelines and Standards* within the timeframe set by the Collaborative.

The Outline links 45 problems identified by District staff (and prioritized by the Guidelines and Standards Work Group) with “tools” that the District, County, cities, and towns use to direct and control development and to protect the local environment. The *Guidelines and Standards* will recommend ways that these “tools” can be used to guide development reviews, development permitting, and municipal, District, and private operations that may affect water resources.

The Outline calls for guidelines for District Stewardship Plans and the District Comprehensive Plan, General Plans, Specific Plans, Ordinances and Zoning, and Environmental (CEQA) Review. Also included are Design Guidelines (which the District and municipalities can use in project design review) and Standard Details and Specifications (which the District and municipalities can use in engineering review, particularly for public projects). Where possible, existing design guidelines, standard details, and specifications will be incorporated or referenced.

An accompanying matrix provides a complementary view of the links between the “tools” and the 45 problems.

Outline

Front Matter

- Acknowledgements
- Glossary

How to Use

I. Introduction

- A. About the Water Resources Protection Collaborative
- B. Restoration concepts and examples:
Planning, urban development, and watershed management
- C. Purpose of the Guidelines and Standards
Designs & Standards for Landowner Maintenance & Construction

Problems addressed in this section

- Bed and bank erosion (#1)
- Channelization (#4)
- Damage to vegetation (#24)
- Development in floodplains (#2)
- Encroachment (#19)
- Grading (#13)
- Groundwater extractions: enviro. impact (#35)
- Groundwater extractions: management (#34)
- Groundwater extractions: water supply (#36)
- Groundwater pollution (#33)
- Hardening of channels (#5)
- Imperviousness (#18)
- Invasive plants (#20)
- Placement of trails in riparian corridor (#8)
- Private maintenance (#16)
- Trails/flood protection conflict (#30)
- Trails/maintenance conflict (#29)
- Urbanization impacts on aquatic species (#11)

II. Guidelines for District Stewardship Plans & District Comprehensive Plan (to be developed)

III. Guidelines for General Plans

- A. Diagrams and Plan Proposals
- B. Goals
- C. Objectives
- D. Policies
- E. Standards
- F. Implementation Measures

IV. Guidelines for Specific Plans

- A. When a Specific Plan may be needed
- B. Diagrams and Plan Proposals
- C. Goals and Objectives
- D. Policies
- E. Programs
- F. Land Use Regulations
- G. Design Standards
- H. Infrastructure Plans
- I. Implementation Plans

Problems addressed in this section

- Bed and bank erosion (#1)
- Channelization (#4)
- Damage to vegetation (#24)
- Development in floodplains (#2)
- Encroachment (#19)
- Hardening of channels (#5)
- Placement of trails in riparian corridor (#8)
- Trails/flood protection conflict (#30)
- Trails/maintenance conflict (#29)
- Urbanization impacts on aquatic species (#11)

V. Guidelines for Zoning and Ordinances

- A. Purposes of zoning overlays
- B. Zoning, Design Standards, and Design Review
- C. Floodplain management ordinances and zoning
- D. Special Ecological Area zoning
- E. Mapping floodplains and Special Ecological Areas
- F. Allowable uses
- G. Nonconforming uses, conditional use permits, and performance standards
- H. Standards for development in floodplains
- I. Standards for development in Special Ecological Areas
- J. Sample language for zoning ordinances

Problems addressed in this section

- Bed and bank erosion (#1)
- Development in floodplains (#2)
- Encroachment (#19)
- Erosion from outfalls (#39)
- Grading (#13)
- Invasive plants (#20)
- Private maintenance (#16)
- Problems for creekside property owners (#12)
- Sediment (#14)
- Urbanization impacts on aquatic species (#11)

VI. Guidelines for CEQA Review & Documentation

- A. Information required to assess impacts to water resources
- B. Procedures and resources for obtaining information
- C. Interpretations of certain CEQA checklist questions
- D. Standards for “potentially significant impact”
- E. Standards for “mitigation to a level of insignificance”
- F. Standards for “significant and unavoidable impact”
- G. Assessing cumulative impacts to water resources

Problems addressed in this section

- Abandoned wells (#37)
- Bed and bank erosion (#1)
- Development in floodplains (#2)
- Encroachment (#19)
- Erosion from outfalls (#39)
- Grading (#13)
- Groundwater extractions: enviro. impact (#35)
- Groundwater extractions: management (#34)
- Groundwater extractions: water supply (#36)
- Groundwater pollution (#33)
- Nutrients and pesticides in groundwater (#45)
- Sediment (#14)
- Urbanization impacts on aquatic species (#11)

VII. Design Guidelines

Diagrams, sketches, and/or descriptions for:

- A. Floodproofing strategies and techniques
- B. Design for riparian and streambank protection
- C. Location of structures, fences, and other elements
- D. Application to channelized and unchannelized reaches
- E. Drainage design (detention/retention, outfalls, stilling basins)

Problems addressed in this section

- Bed and bank erosion (#1)
- Channelization (#4)
- Development in floodplains (#2)
- Encroachment (#19)
- Erosion from outfalls (#39)
- Hardening of channels (#5)
- Invasive plants (#20)
- Sediment: (#14)
- Urbanization impacts on aquatic species (#11)

VIII. Standard Details and Specifications

- A. Drainage structures
- B. Stream maintenance

Problems addressed in this section

- Bed and bank erosion (#1)
- Channelization (#4)
- Detention basins (#17)
- Erosion from outfalls (#39)
- Hardening of channels (#5)
- Invasive Plants (#20)
- Peak flows (#25)
- Private Maintenance (#16)
- Problems for creekside property owners (#12)
- Pump discharges (#15)
- Sediment (#14)
- Urbanization impacts on aquatic species (#11)

IX. Support Existing/Other Standards; Enforcement, Coordination, Education & Involvement

X. Assessment of Effectiveness

Potential uses of planning and development review “tools” that the District, municipalities, and private landowners can use to guide development, permitting and operations and to address water resources protection problems

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	Problem	General Plans			Specific Area Plans	Ordn'cs & Zoning	CEQA	Design Guidelines	Std. Details & Specs.	Support Existing/ Other Standards	Enforcement, Coordination, Education & Involvement
		Diagrams & Planning Proposals	Goals & Objectives	Policies Standards, & Impl'tn Measures							
2	Development in floodplain	✓	✓	✓	✓	✓	✓	✓			
19	Encroachment	✓	✓	✓	✓	✓	✓	✓			
16	Private maintenance		✓	✓		✓			✓		✓
12	Problems of creekside property owners					✓			✓		✓
20	Invasive plants		✓			✓		✓	✓	✓	✓
21	Human/pet presence										✓
27	Feral animals										✓
22	Homelessness: pollution										✓
23	Homelessness: damage to vegetation										✓
28	Vandalism										✓
3	Trash: Aesthetics									✓	✓
26	Trash: Environmental Impacts									✓	✓
8	Placement of trails in riparian corridor	✓			✓					✓	✓
24	Damage to vegetation				✓					✓	✓
29	Trails/maintenance conflict	✓			✓					✓	
30	Trails/flood protection conflict	✓			✓					✓	
1	Bed and bank erosion	✓	✓	✓	✓	✓	✓	✓	✓		
11	Urbanization impacts on aquatic life	✓	✓	✓	✓	✓	✓	✓	✓		
4	Channelization	✓	✓	✓	✓				✓		
5	Hardening of channels		✓	✓	✓				✓	✓	
7	Sediment: environmental impact									✓	
6	Stormwater runoff pollution									✓	✓
13	Grading		✓	✓		✓	✓			✓	✓
40	Livestock									✓	

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		Diagrams & Planning Proposals	Goals & Objectives	Policies Standards, & Impl'tn Measures							
25	Peak flows								✓	✓	
41	Non-point pollution									✓	
42	Rural roads									✓	
39	Erosion from outfalls					✓	✓	✓	✓	✓	
14	Sediment: flood protection					✓	✓	✓	✓	✓	
31	Irrigation runoff									✓	
9	<i>Infiltration of contaminated storm water</i>									✓	
33	<i>Groundwater pollution</i>	✓	✓	✓			✓			✓	✓
32	Storm water infiltration devices									✓	
37	Abandoned wells						✓			✓	
45	<i>Nutrients and pesticides in groundwater</i>						✓			✓	
17	Detention basins							✓			
18	Imperviousness		✓	✓						✓	
15	Pump discharges							✓			
10	<i>Septic systems</i>									✓	✓
34	<i>Groundwater extractions: management</i>		✓	✓			✓				✓
35	<i>Groundwater extractions:enviro. impact</i>		✓	✓			✓				✓
36	<i>Groundwater extractions: water supply</i>		✓	✓			✓				✓
38	Artesian wells						✓				
43	Water conservation									✓	✓
44	Loss of recharge									✓	

Notes: Order and grouping of problems is from Trish Mulvey's "Linkage Groupings," 9/30/03.
 Problems in **bold** were selected by the Guidelines and Standards Work Group to be included in Guidelines and Standards for Land Use Near Streams.
 Problems in *italics* were selected by the Guidelines and Standards Work Group to be included in the definition of Groundwater Quality and Quantity.
 See the "Water Resources Protection Matrix" for more detail on references to existing Guidelines & Standards.

**Santa Clara Valley
Water Resources Protection Collaborative**

Definitions

Surface Water Quality

For the purposes of the Water Resources Protection Collaborative, **surface water quality** means that:

- Surface waters attain the applicable standards established by the Regional Water Quality Control Boards for the San Francisco Bay Region or the Central Coast Region.*
- Water quality is sufficient to sustain beneficial uses, such as aquatic habitat, municipal water supply, and recreation.
- Water quality is protected so that beneficial uses are not degraded or threatened.

Surface Water Quantity

For the purposes of the Water Resources Protection Collaborative, **surface water quantity** means sufficient water supplies for municipal and industrial supply, agricultural supply, groundwater recharge, in-stream habitat, and other uses.

Groundwater Quality.

For the purposes of the Water Resources Protection Collaborative, **groundwater quality** means protection of the existing quality of the Santa Clara Valley's groundwater resources so as to prevent degradation, to protect from the threat of degradation, and to preserve the resource for all present and future uses.

Groundwater Quantity.

For the purposes of the Water Resources Protection Collaborative, **groundwater quantity** means sustaining the District's ability to manage the groundwater basin so as to prevent overdrafts and subsidence and to provide storage and supply.

* Standards are specified in the Water Quality Control Plans (Basin Plans) for the San Francisco Bay Region (available at <http://www.swrcb.ca.gov/rwqcb2/basinplan.htm>), and Central Coast Region (<http://www.swrcb.ca.gov/rwqcb3/BasinPlan/Index.htm>).