

B

Type



Plans

B-154566

Permit Number

33250

Street Number

King Ridge Rd

Street Name

FTR

Community Code

109-260-014

APN

**COUNTY OF SONOMA - PERMIT AND RESOURCE MANAGEMENT DEPARTMENT**

2550 Ventura Avenue, Santa Rosa, CA 95403 (707) 565-1900 FAX (707) 565-1103

Please Print Your Name: **Jayson L. Pahlmeyer** Date Applied: **14/June/99**

**INFORMATION WITHIN HEAVY LINE TO BE COMPLETED BY APPLICANT**

**SITE LOCATION INFORMATION - PRINT CLEARLY**

Site Address: **33250 King Ridge Road** City: **Cazadero** ZIP: **95421**  
 Cross-Street: **Hauser Bridge Road** APN: **109-260-14** Project Phone #: ( ) none Project Fax #: ( ) none  
 Directions: **north end of King Ridge Road** Subd. Name: \_\_\_\_\_ Unit #: \_\_\_\_\_ Lot #: \_\_\_\_\_  
 Describe Project: **Water Pond - grading 14,000 cu y.** Living Area: \_\_\_\_\_ Garage: \_\_\_\_\_ Decks: \_\_\_\_\_ Contract Price: \_\_\_\_\_

**OWNER NAME AND ADDRESS** **APPLICANT NAME AND ADDRESS**

Name: **Jayson L. Pahlmeyer** Name: **Jayson L. Pahlmeyer**  
 Mailing Address: **P.O. Box 2410** Mailing Address: **P.O. Box 2410**  
 City: **Napa** State: **Cal.** ZIP: **94558** City: **Napa** State: **Cal** ZIP: **94558**  
 Day Ph: ( **707** ) **255-2321** Fax: ( **707** ) **255-6786** Day Ph: **707** **255-2321** Fax: **707** **255-6786**

**CONTRACTOR INFORMATION** **OTHER PERSONS (ARCHITECT, ENGINEER, ETC.)**

Company Name: \_\_\_\_\_ Name: **Lee Erickson**  
 Address: \_\_\_\_\_ Address: **P.O. Box 446**  
 City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_ City: **Valley Ford** State: **Cal.** ZIP: **94972**  
 Day Ph: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_ Day Ph: **707** **795-2498** Fax: ( ) **same**

**WORKER'S COMPENSATION DECLARATION**

I hereby affirm under penalty of perjury one of the following declarations:  
 I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.  
 I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:  
 Carrier: \_\_\_\_\_  
 Policy No: \_\_\_\_\_  
 (This section need not be completed if the permit is for one hundred dollars (\$100) or less.)  
 I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the worker's compensation laws of California, and agree that if I should become subject to the worker's compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.  
 Exp. Date: \_\_\_\_\_ Applicant: \_\_\_\_\_

**WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.**

**OWNER-BUILDER DECLARATION**

I hereby affirm under penalty of perjury that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500).):  
 I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044 Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)  
 I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.)  
 I am exempt under Sec. \_\_\_\_\_ B & P.C. for this reason \_\_\_\_\_  
 Date: **29/Sept/99** Owner: **Henry Heintz**

**LICENSED CONTRACTOR'S DECLARATION**

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.  
 Lic. Class \_\_\_\_\_ Lic. No. \_\_\_\_\_  
 Exp. Date \_\_\_\_\_ Contractor \_\_\_\_\_

**ASBESTOS DECLARATION**

Written asbestos notification pursuant to Part 61 of Title 40 of the Code of Federal Regulations is required when asbestos exists in buildings, or portions thereof, undergoing demolition. I hereby declare that demolition authorized by this permit is from construction that ( ) does ( ) does not contain asbestos, or that ( ) no demolition is authorized by this permit.  
 I certify that I have read this application and affirm under penalty of perjury that the above information is correct. I agree to comply with all applicable laws and regulations relating to building construction. I hereby authorize representatives of the County of Sonoma to enter upon the above-mentioned property for inspection purposes. If, at any time during the term of this permit, the Worker's Compensation provision of the Labor Code I should become subject to such provisions, I will forthwith comply. In the event I do not comply with the Workman's Compensation provisions of the Labor Code, my permit shall be deemed revoked.  
**NOTICE!! THIS PERMIT WILL EXPIRE 180 DAYS AFTER WORK IS NOT STARTED IN 180 DAYS OR IF WORK IS ABANDONED FOR MORE THAN 180 DAYS. A REQUEST FOR TIME EXTENSION MUST BE SUBMITTED IN WRITING TO THE BUILDING CODE ADMINISTRATOR WITHIN THE FIRST 180 DAYS OF THE PERMIT.**

PERMITTEE SIGNATURE: \_\_\_\_\_  
**P.O. Box 2410 Napa 94558**  
 ADDRESS CITY ZIP  
 Contractor  Owner  Agent for Contractor  Agent for Owner

Permit # **B154566** Area **9**  
 Permit Coordinator \_\_\_\_\_

**CONSTRUCTION LENDING DECLARATION**

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued. (Sec. 3097, Civ. C.)  
 Lenders Name: \_\_\_\_\_  
 Lenders Address: \_\_\_\_\_

**FOR DEPARTMENT USE**

Zoning: **PRO B6 240** File No: **None** Acres: **70**  
 Existing Use/Structures: **two houses, 40 Decks**  
 Proposed Use/Structures: **Vineyard Pond**  
 Zoning Min. Yard Requirements: Front  Left  Right  Back   
 NOTE: Fire Safe Standards require all parcels greater than 1 Acre to have a min. 30' setback unless mitigated.  Mitigation Required  Address subject to change  
 Approval for Permit Issuance: \_\_\_\_\_ Approval for Occupancy: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: **6/14/99**  
 Conditions: **prior to grading fish and game approval required**  
**erosion control must be installed Sept 15**

Sewer Connection:  Available  Fees Paid  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Road Encroachment:  Fees Paid **OFF COUNTY ROADS**  
 Approved by: **Angela Cidillo** Date: **6-14-99**

Septic System Permit/Clearance # **SEP 99-0876**  
 Approved by: **JM DONOVAN** Date: **6-15-99**

Flood Zone:  Yes  No 100 Year Flood Elevation: \_\_\_\_\_  
 Site Review \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Condition of Soil at Job Site:  Original  Engineered Fill  Loose Fill  
 Required Reports:  Geology  Soils  Compaction

Code Enforcement Violation  Yes  No  
 Work Authorized: **Grading water pond**  
 New  Addition  Alteration  Repair  Moving  Occ/Chg

**FINALED**

Plans Approved  No Plans Subject to Field Inspection  
 Machine Space for Permit Fee # **012293** Fee **0154566**  
 Plancheck Cleared By: **K. Drake** Date: **6/14/99** SIERRA \$219.50  
 Plancheck Cleared By: **[Signature]** Date: **6/29/99** \*\*TTL \$219.50  
 Plancheck Cleared By: **[Signature]** Date: \_\_\_\_\_ CHECK \$219.50  
 Plancheck Cleared By: \_\_\_\_\_ Date: \_\_\_\_\_ CHNG \$0.00  

Type of Construction	Occupancy	No. of Stories	No. of Bedrooms

Auto. Fire Sprinklers Req'd	No. of Units	Certificate of Occupancy

 Final Date: \_\_\_\_\_ Inspector: \_\_\_\_\_

JOB ADDRESS: **33250 King Ridge Rd**  
 PERMIT NUMBER: **B154566**  
 INSPECTION AREA: **9**



# Required Cut/Fill Table For Grading Permits

BPC-008

Applicant  Owner  Architect \ Engineer

### Project Site Information

HUBI SCRRAGE  
Name

33230 KINGS RIDGE RD  
Address(es)

818 MENDOCINO AVE #100  
Mailing Address

CAZADERO, CA  
City/Town

SANTA ROSA CA 95401  
City/Town State/Zip

109-260-014  
Assessor's Parcel Number(s)

707 573 1872  
Phone Fax

PAHLMAYER VINEYARDS  
Project Name (if applicable)

[Signature]  
Signature

1/9/04  
Date

Please do not write in the shaded areas.

Cut	-		767	Cu. Yds.
Fill	+	779 Cu. Yds.		
Export	-			Cu. Yds.
Import	+			Cu. Yds.
Shrinkage	-			Cu. Yds.
Totals		779 Cu. Yds.	767	Cu. Yds.

Purpose or use of grading:

VINEYARD

Geotechnical report available? Yes  No

Geotechnical report included with application? Yes  No

Will more than 1 acre be denuded? Yes  No

----- **DO NOT WRITE BELOW THIS LINE - To Be Completed by PRMD Staff** -----

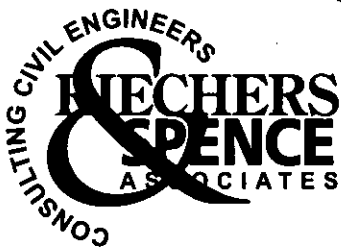
Total volume used for fee calculations Cu. Yds.

For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater. (Reference is 1998 California Building Code Section 3310.2)

Activity No. \_\_\_\_\_

## Sonoma County Permit and Resource Management Department

2550 Ventura Avenue ❖ Santa Rosa, CA ❖ 95403-2829 ❖ (707) 565-1900 ❖ Fax (707) 565-1103



#2102083.0  
January 18, 2006

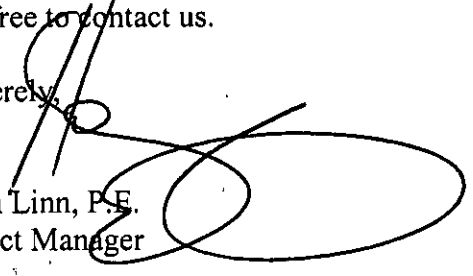
Scott Burkett,  
Senior Building Inspector  
Sonoma County Permit & Resource Management Department  
2550 Ventura Avenue  
Santa Rosa, CA 95403

RE: Pahlmeyer Vineyard  
As-Built Plans

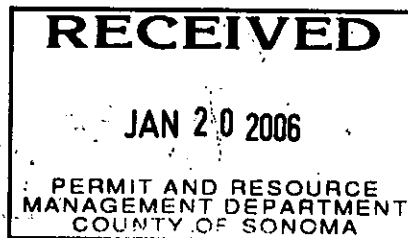
Dear Mr. Burkett:

The Pahlmeyer Vineyard As-Built Construction Plans dated 9/23/05 have been completed for the Pahlmeyer project at 33250 King Ridge Rd in Cazadero. The completed corrective construction is in conformance with County of Sonoma PRMD correction notice 7/24/02 (#B-154566) and PJC & Assoc. geotechnical Final Report 11/7/05. If you have any questions or concerns please feel free to contact us.

Sincerely,

  
Hugh Linn, P.E.  
Project Manager

HL:av





Job No. 21 02 083.0

Riechers  
Spence &  
Associates

September 27, 2002

CONSULTING  
CIVIL ENGINEERS  
PLANNERS  
SURVEYORS

Mr. Shems Peterson  
Permit Resource Management Department  
County of Sonoma  
2550 Ventura Avenue  
Santa Rosa, CA 95401

Re: Correction Notice (B-154565-9, July 24, 2002)  
33250 King Ridge Road  
APN 109-260-014

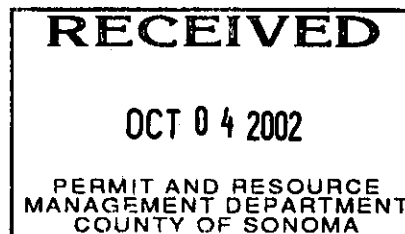
Riechers Spence and Associates has recently been contracted to address the "As-Built" survey and plans for the roads, dam modifications, and drainage improvements as required by your July 24<sup>th</sup> correction notice. We will also be coordinating with a licensed Geotechnical firm for the compaction testing noted as Item 2 on the same notice.

Riechers Spence & Associates will prepare a full set of as-built plans, grading, drainage and erosion control plans for the subject parcel and will coordinate the respective site visit and review by the Sonoma County Permit Resource Management Department for final approval. Please do not hesitate to contact our office with any questions you may have.

Sincerely,

Rick Swinth, P.E.  
Regional Manager

Cc: Ed Hogan, Pahlmeyer



County of Sonoma  
Permit And Resource Management Department  
2550 Ventura Avenue, Santa Rosa, CA 95403  
Construction Inspection Section

CORRECTION NOTICE

Permit # B-154565-9 Owner \_\_\_\_\_

Job Address 33250 KING RIDGE RD

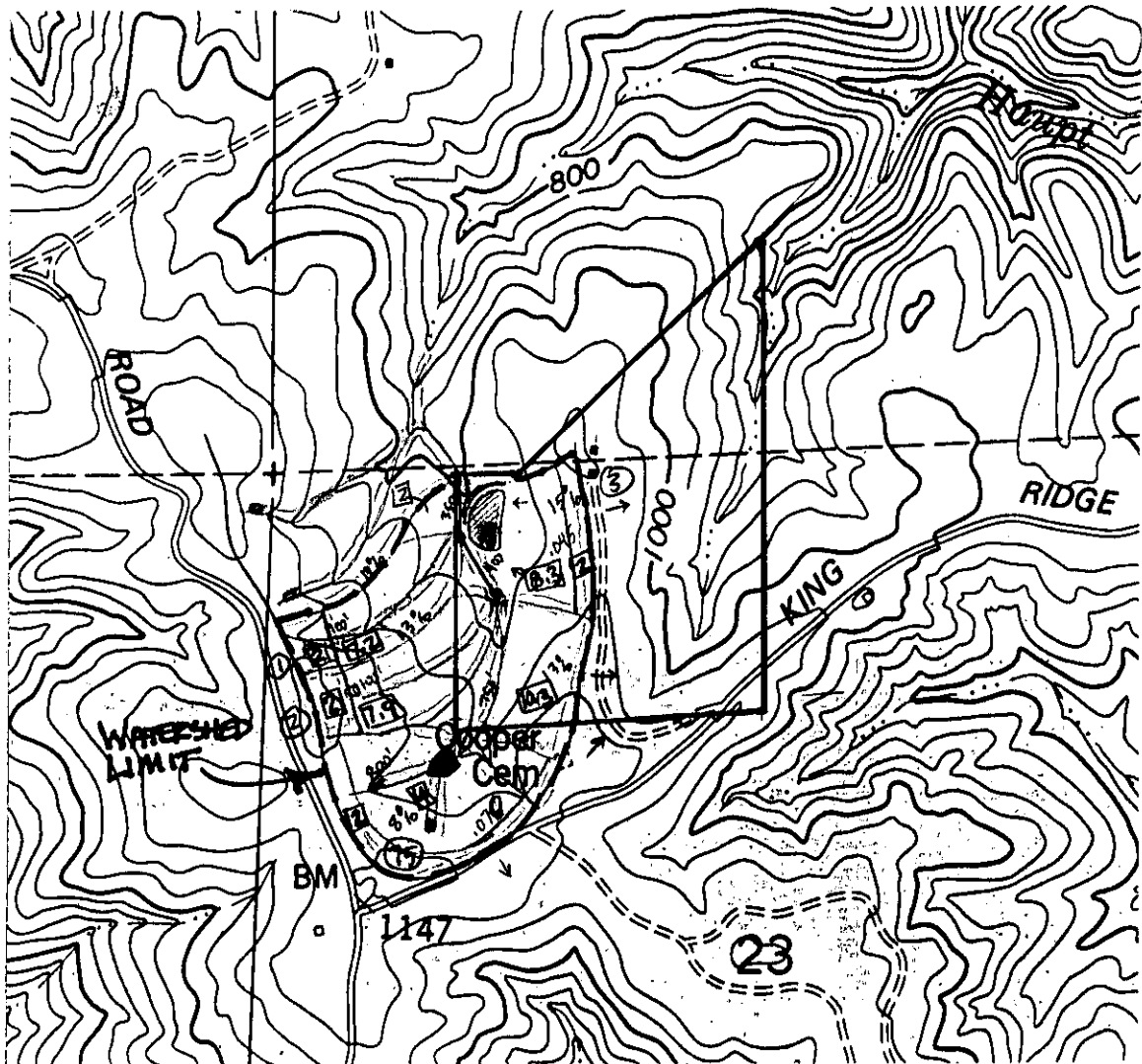
I have inspected work under the above permit and have observed the following code violations:

① PROVIDE "AS BUILT" PLANS FOR INSTACUATION OF  
FILL TO CREATE ROADS, AND INCREASED DAM WIDTH,  
AS WELL AS ANY OTHER CHANGES IN SLOPES,  
DRAINAGE PIPING, AND FILL PLACEMENT.

② GEO-TECH TO VERIFY COMPACTION OF ALL NEW  
AREAS OF FILL PLACEMENT, AS WELL AS  
PROVIDING FINAC REPORT, INCLUDING COMPACTION  
OF KEYWAYS, BENCHES, ETC RELATED TO  
RESEUIOR CONSTRUCTION.

Make corrections before proceeding with other work. When corrections have been made, call 565-3551 or 565-1679 for reinspection.

Date 7.24.02 Inspector 



TRIBUTARY	SLOPE	LENGTH	AREA
1	12%	1100'	9.2AC
2	13%	1100'	9.9AC
3	10%	650'	10.3AC
75a	8%	800'	16.0AC
b	4.6%	750'	10.3
c	2%	350'	2 (PIPE)
			58AC

### Pahlmeyer Vineyard Reservoir Watershed Area

Erickson Engineering Inc.  
 Valley Ford CA 94972-0446  
 707/795-2498 Voice/Fax

May 25, 1999  
 USGS 7.5min Quadrangle Map: Plantation  
 Scale: 1" = 1000' Contour Interval 40'

RUN DATE 05-25-1999

SONOMA COUNTY WATER AGENCY  
RATIONAL METHOD HYDROLOGY -- Version 2.0;01010

TIME 11:21:43

RECORD 1: WAYFAIRER RESERVOIR BYPASS

RECORD 2: KING RIDGE ROAD, CASADERO CA

RECORD 3: FILE NAME- WAYFAIRER

QUAD MAP- PLANTATION

ZONE-

WORK ORDER-

-----  
TRIBUTARY 1  
-----

REC	ELEV OR			DELTA			VARIABLES										COMMENTS		
NUM	CP	AR	SLOPE	DIST	C	TIME	AREA	K	ADD	TRIBS	CH	N	OR	Q	E	B	DP		
4	1	A	0.000	200.0	0.409	15.0	2.0	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	TOP OF WATERSHED
5	2	B	0.110	900.0	0.409	0.0	7.2	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	SWALE TO DI2
							SUM	SUM											
CP	AR	T10	T25	T100	I10	I25	I100	AREA	KCDA	V10	V25	V100	10	25	100	Q10	Q25	Q100	
1	A	15.0	15.0	15.0	1.72	1.97	2.41	2.0	1.6	0.0	0.0	0.0	0	0	0	2.8	3.2	3.9	TOP OF WATERSHED
2	B	19.4	19.3	19.1	1.50	1.72	2.12	9.2	7.5	3.4	3.5	3.6	0	0	0	11.3	13.0	16.0	SWALE TO DI2

-----  
TRIBUTARY 2  
-----

REC	ELEV OR			DELTA			VARIABLES										COMMENTS		
NUM	CP	AR	SLOPE	DIST	C	TIME	AREA	K	ADD	TRIBS	CH	N	OR	Q	E	B	DP		
6	1	A	0.000	200.0	0.423	15.0	2.0	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	TOP OF WS2
7	2	B	0.130	900.0	0.423	0.0	7.9	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	CHL2 TO DI1
							SUM	SUM											
CP	AR	T10	T25	T100	I10	I25	I100	AREA	KCDA	V10	V25	V100	10	25	100	Q10	Q25	Q100	
1	A	15.0	15.0	15.0	1.72	1.97	2.41	2.0	1.7	0.0	0.0	0.0	0	0	0	2.9	3.3	4.1	TOP OF WS2
2	B	18.9	18.9	18.7	1.52	1.74	2.14	9.9	8.4	3.8	3.9	4.0	0	0	0	12.7	14.6	18.0	CHL2 TO DI1

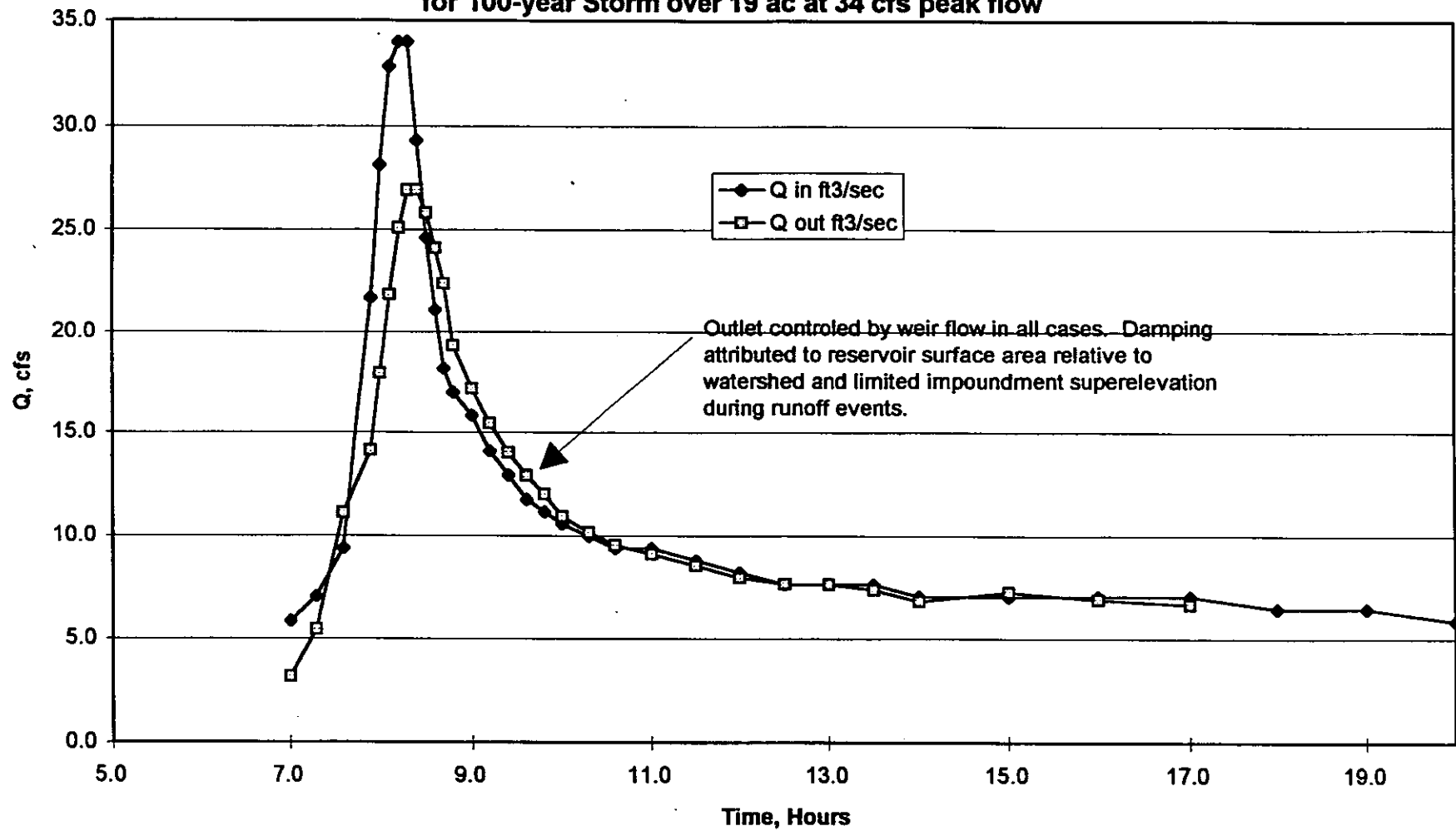
-----  
TRIBUTARY 3  
-----

REC	ELEV OR			DELTA			VARIABLES										COMMENTS		
NUM	CP	AR	SLOPE	DIST	C	TIME	AREA	K	ADD	TRIBS	CH	N	OR	Q	E	B	DP		
8	1	A	0.000	150.0	0.401	15.0	2.0	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	TOP EAST WS3
9	2	B	0.100	500.0	0.401	0.0	8.3	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	LOWER WS3
							SUM	SUM											
CP	AR	T10	T25	T100	I10	I25	I100	AREA	KCDA	V10	V25	V100	10	25	100	Q10	Q25	Q100	
1	A	15.0	15.0	15.0	1.72	1.97	2.41	2.0	1.6	0.0	0.0	0.0	0	0	0	2.8	3.2	3.9	TOP EAST WS3
2	B	17.5	17.4	17.4	1.59	1.82	2.23	10.3	8.3	3.4	3.4	3.5	0	0	0	13.1	15.0	18.5	LOWER WS3

-----  
TRIBUTARY 75  
-----

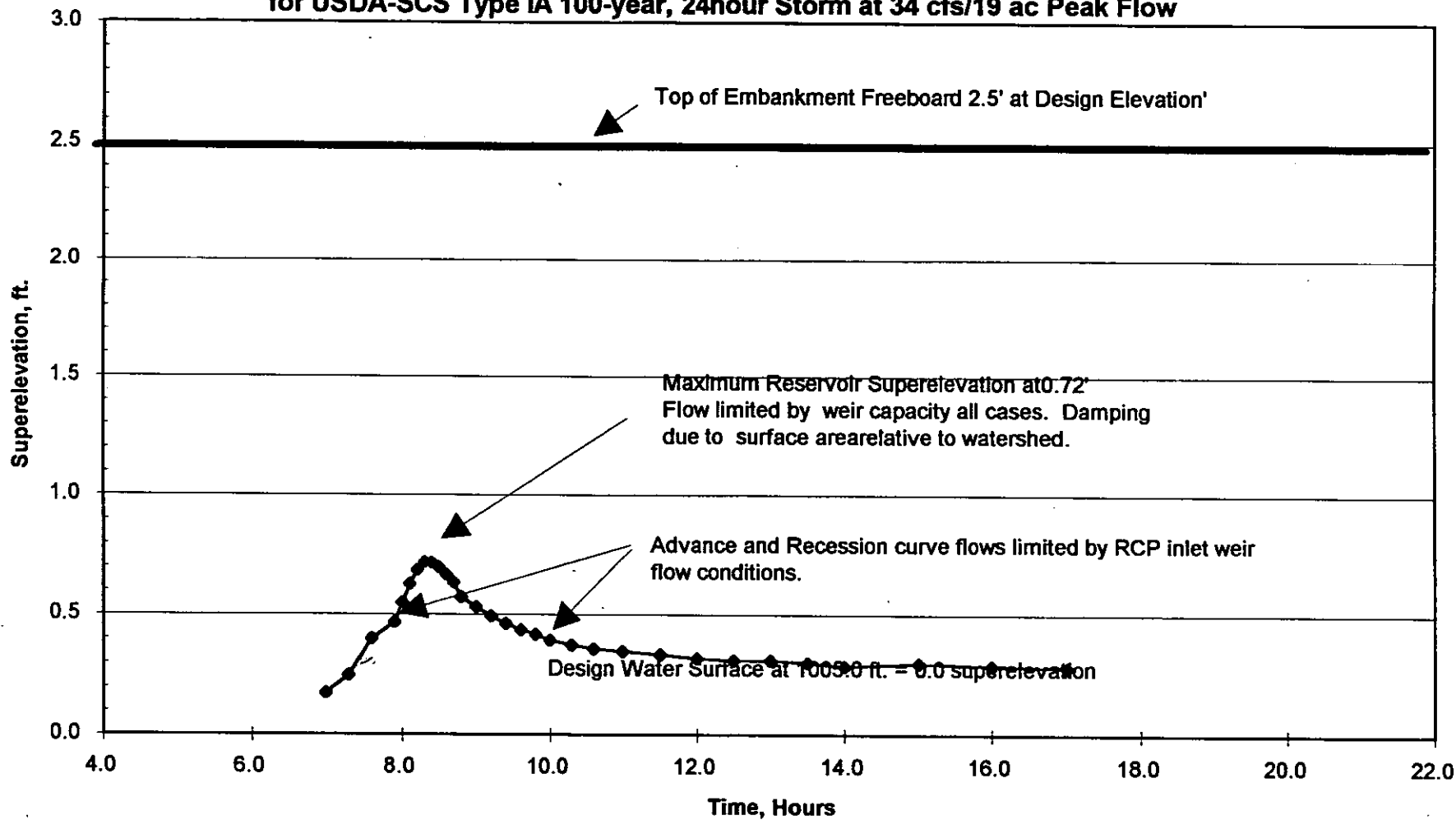
REC	ELEV OR			DELTA			VARIABLES										COMMENTS			
NUM	CP	AR	SLOPE	DIST	C	TIME	AREA	K	ADD	TRIBS	CH	N	OR	Q	E	B	DP			
10	1	A	0.000	100.0	0.383	15.0	2.0	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	TOP WS 75	
11	2	B	0.080	700.0	0.383	0.0	14.0	2.00	0	0	0	0	0	0	0.000	0.0	0.0	0.0	WEST OF CEMETERY	
12	3	C	0.066	750.0	0.423	0.0	10.3	2.00	2	0	0	0	0	0	0.000	0.0	0.0	0.0	CHL TO DI1	
13	4	D	0.020	400.0	0.423	0.0	0.0	2.00	1	3	0	0	0	0	0.015	0.0	0.0	0.0	PIPE DI1-DI2	
14	5	E	0.020	350.0	0.423	0.0	2.0	2.00	0	0	0	0	0	0	0.015	0.0	0.0	0.0	INLETS TO OUTLET	
							SUM	SUM												
CP	AR	T10	T25	T100	I10	I25	I100	AREA	KCDA	V10	V25	V100	10	25	100	Q10	Q25	Q100		
1	A	15.0	15.0	15.0	1.72	1.97	2.41	2.0	1.5	0.0	0.0	0.0	0	0	0	2.6	3.0	3.7	TOP WS 75	
2	B	18.5	18.4	18.3	1.54	1.76	2.17	16.0	12.3	3.4	3.4	3.5	0	0	0	18.9	21.6	26.6	WEST OF CEMETERY	
3	C	21.5	21.3	21.1	1.42	1.63	2.01	26.3	21.0	4.1	4.3	4.5	0	0	0	29.8	34.3	42.2	CHL TO DI1	
3	C	21.5	21.3	21.1	1.42	1.63	2.01	36.2	29.4	4.1	4.3	4.5	0	0	0	41.7	47.9	59.1	TRIBUTARIES ADDE	
4	D	22.2	22.0	21.7	1.40	1.61	1.98	36.2	29.4	9.8	10.1	10.7	28	29	32	41.7	47.9	59.1	PIPE DI1-DI2	
4	D	22.2	22.0	21.7	1.40	1.61	1.98	55.7	45.2	9.8	10.1	10.7	28	29	32	63.2	72.6	89.5	TRIBUTARIES ADDE	
5	E	22.7	22.5	22.2	1.38	1.59	1.96	57.7	46.9	10.8	11.2	11.8	33	34	37	64.7	74.4	91.8	INLETS TO OUTLET	
																	1.12	1.26	1.59	CEG/K

**Pahlmeyer Vineyard Reservoir at 33250 King Ridge Road  
Outlet Curve for 60" dia or 48" square Drop Inlet, 36" PVC Spillway and  
USDA-SCS Q100-24 Type IA Synthetic Hydrograph  
for 100-year Storm over 19 ac at 34 cfs peak flow**



Superelev (2)

**Pahlmeyer Vineyard Reservoir at 33250 King Ridge Road  
Principal/Emergency Spillway Modeling  
Water Surface Superelevation with 60" dia or 48" square inlet, 36" pipe  
for USDA-SCS Type IA 100-year, 24hour Storm at 34 cfs/19 ac Peak Flow**



Reservoir Stepwise Stage-Discharge Curve Evaluation  
 Weir/Orifice and Pipe-type Principal Spillway  
 USDA-SCS TR55 Synthetic Hydrograph  
 Q100-24 runoff flow, incremental elevation Calcs.

Erickson Engineering Inc.

USDA-SCS References:  
 NEH-5 Hydraulics  
 EWP-5 Conduit Outlets  
 TR-48 Gated Outlets  
 TR-55 Hydrology Estimation  
 Closed Conduit Spillways  
 Blaisdell 1980, ASCE Proceedings

File: Wayfarer.xls  
 Date: 30-May  
 Time: 03:39 PM  
 Landowner: Pahlmeyer Vineyards  
 Property: 33250 King Ridge Road  
 Project: Spillway Evaluation

34 cfs from 19 ac watershed

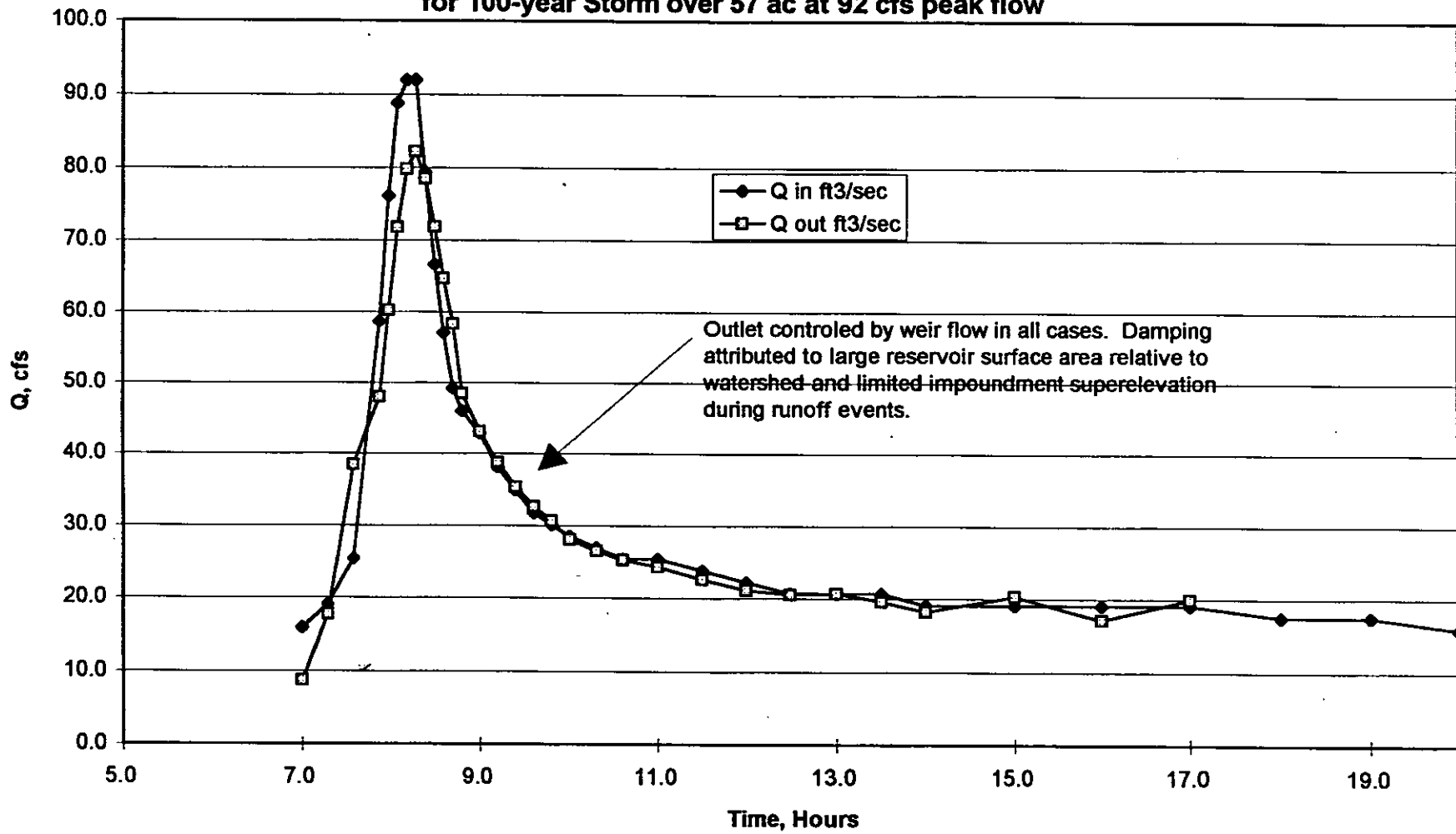
INPUT PARAMETERS										
Inlet dia, ft	5.08			n <sup>2</sup> :	0.012					
Inlet ht, ft	4.00			upper SS:1	2.5			Top elev.	1007.5	
Pipe dia, ft	3.00			lower SS:1	2.5			Toe elev.	990.0	
Outlet dia, ft	3.00			Topwidth:	15.0			Tailwater	0.0	
Outlet ht, ft	0.00			Freeboard:	2.0			Reservoir Stage-Storage		
pipe area sq ft	7.07			Em Fboard:	2.0			ac./ft:	1.65289256	
SPILLWAY CALCULATIONS										
Horizontal length:	63.8		Vertical:	11.5		Net:	64.8			
Head, pond-tail	18.5									
HEADLOSS FACTORS:										
enter:	0.5	pipe:	0.006	Summation K:	3.21					
in bend:	1.3	riser:	0.003	Grates, dec % area:	0.10					
out bend:	0	outlet:	0.006	PIPE-FULL FLOW, CFS:	124.6					
INITIAL CONDITIONS										
				Stage, ft:	0.100					
				Qout, cfs:	1.6					
Time, hr.	Q in ft <sup>3</sup> /sec	Incr. V ft <sup>3</sup>	Surcharge V ft <sup>3</sup>	Incr. h, ft.	Total h, ft.	Qweir ft <sup>3</sup> /sec	Qor <sup>2</sup> ft <sup>3</sup> /sec	Qpipe ft <sup>3</sup> /sec	Qmin = Q out ft <sup>3</sup> /sec	Outlet superlev. ft.
7.0	5.9	5275	12475	0.073	0.173	3.2	36.6	125.3	3.2	0.02
7.3	7.0	6398	12598	0.075	0.248	5.5	43.8	125.6	5.5	0.05
7.6	8.4	10832	18032	0.150	0.399	11.2	55.5	126.2	11.2	0.19
7.9	21.7	4935	12135	0.069	0.467	14.2	60.1	126.5	14.2	0.31
8.0	28.1	5856	13056	0.081	0.549	18.1	65.1	126.8	18.1	0.50
8.1	32.8	6616	12716	0.077	0.625	22.0	69.5	127.1	22.0	0.74
8.2	34.0	4316	11516	0.060	0.685	25.2	72.8	127.3	25.2	0.88
8.3	34.0	2307	9507	0.032	0.717	27.0	74.4	127.5	27.0	1.12
8.4	29.3	-26	7174	0.000	0.717	27.0	74.4	127.5	27.0	1.12
8.5	24.6	-1498	5704	-0.021	0.696	25.9	73.3	127.4	25.9	1.03
8.6	21.1	-2237	4963	-0.031	0.665	24.1	71.7	127.3	24.1	0.89
8.7	18.2	-2359	4841	-0.033	0.632	22.4	69.9	127.1	22.4	0.77
8.8	17.0	-4294	2906	-0.080	0.573	19.3	66.5	126.9	19.3	0.57
9.0	15.8	-3124	4076	-0.043	0.529	17.1	64.0	126.7	17.1	0.45
9.2	14.1	-2631	4569	-0.037	0.493	15.4	61.7	126.6	15.4	0.36
9.4	12.9	-2220	4980	-0.031	0.462	14.0	59.7	126.5	14.0	0.30
9.6	11.7	-1829	5371	-0.025	0.436	12.8	56.1	126.4	12.8	0.26
9.8	11.1	-1433	5767	-0.020	0.417	12.0	56.7	126.3	12.0	0.22
10.0	10.6	-1845	5355	-0.026	0.391	10.9	55.0	126.2	10.9	0.18
10.3	10.0	-1304	5896	-0.018	0.373	10.1	53.7	126.1	10.1	0.16
10.6	9.4	-1086	6115	-0.015	0.358	9.5	52.8	126.1	9.5	0.14
11.0	9.4	-789	6411	-0.011	0.347	9.1	51.8	126.0	9.1	0.13
11.5	8.8	-1062	6138	-0.015	0.332	8.5	50.7	125.9	8.5	0.11
12.0	8.2	-1084	6116	-0.015	0.317	7.9	49.5	125.9	7.9	0.10
12.5	7.5	-581	6819	-0.008	0.309	7.6	48.9	125.9	7.6	0.09
13.0	7.6	-38	7162	-0.001	0.308	7.6	48.8	125.9	7.6	0.09
13.5	7.6	-530	6670	-0.007	0.301	7.4	48.2	125.8	7.4	0.08
14.0	7.0	-1139	6061	-0.018	0.285	6.8	46.9	125.8	6.8	0.07
15.0	7.0	919	6119	0.013	0.298	7.2	48.0	125.8	7.2	0.06
16.0	7.0	-738	6462	-0.010	0.288	6.9	47.2	125.8	6.9	0.07
17.0	7.0	-480	6740	-0.008	0.281	6.6	46.8	125.7	6.6	0.07
18.0	6.4									
19.0	6.4									
20.0	5.9									
21.0	5.3									
22.0	5.3									
23.0	9.0									
<b>MAXIMUM VALUES</b>	<b>34.0 CFS</b>	<b>0.41 AC-FT</b>	<b>0.72 FT</b>					<b>27.0 CFS</b>	<b>1.12 FT</b>	

Pipe Entrance Cavitation Check: Vmax (ft/s): 3.83  
 Head at entrance, ft: -13.44 OK! > -25 ft.

ASSUMPTIONS by column:  
 A, B: USDA-SCS TR55 Synthetic Hydrograph, Type 1A storm for specific waters  
 C: Incremental time \* (Qin-Qout)  
 D: Incremental h for specific reservoir. Specify as ac.ft/ft between outlet and to  
 E,F: Summation of incremental h = reservoir water surface above outlet elevatio  
 G,H,I: Outlet flow using Weir, Orifice, or Pipe flow equations.  
 J: Outlet flow = min flow from Weir, Orifice, or Pipe constraints.

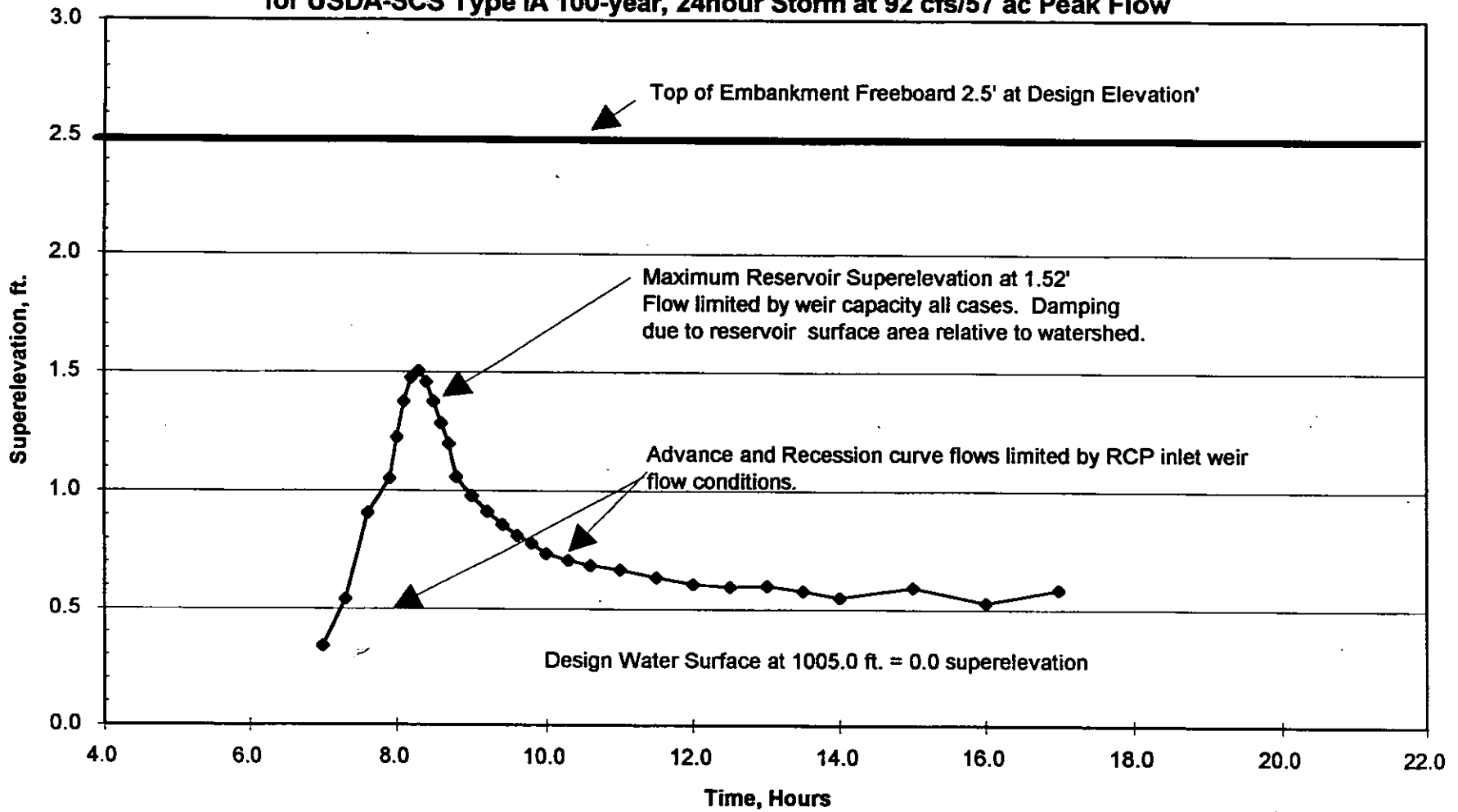
NOTES:  
 Set input parameters to match geometry of embankment and desired spillway.  
 Change Qin values to match synthetic hydrograph for watershed of interest.  
 Reservoir stage-storage constant (ac-ft/ft) must match site conditions.  
 Set initial stage condition to reflect start of period conditions.  
 Surcharge volume shows instantaneous water storage above design water surface.  
 Differential area under inlet and outlet rate curves is proportional to surcharge storage volume.  
 Compare Qw, Qo, and Qp columns to determine limiting flow condition for any time period.  
 Adjust parameters to prevent orifice control of output flow to prevent erratic stage curve.  
 Adjust spillway geometry to obtain desired peak flows, max surcharge height, and output flow elevation.  
 Use 123 PRINTGRAPH to document flow rate and stage curves.

**Pahlmeyer Vineyard Reservoir at 33250 King Ridge Road  
Outlet Curve for 60" dia or 4' square Drop Inlet, 36" PVC Spillway and  
USDA-SCS Q100-24 Type IA Synthetic Hydrograph  
for 100-year Storm over 57 ac at 92 cfs peak flow**



# Superelev

**Pahlmeyer Vineyard Reservoir at 33250 King Ridge Road  
Principal/Emergency Spillway Modeling  
Water Surface Superelevation with 60" dia or 48" square inlet, 36" pipe  
for USDA-SCS Type IA 100-year, 24hour Storm at 92 cfs/57 ac Peak Flow**



File: Wayfarer.xls  
 Date: 30-May  
 Time: 03:31 PM  
 Landowner: Pahlmeyer Vineyards  
 Property: 33250 King Ridge Road  
 Project: Spillway Evaluation

92 cfs from 57 ac watershed

INPUT PARAMETERS										
Inlet dia, ft:	5.08	n <sup>2</sup> :	0.012							
Inlet ht, ft:	4.00	upper SS:1	2.5	Top elev.	1007.5					
Pipe dia, ft:	3.00	lower SS:1	2.5	Toe elev.	990.0					
Outlet dia, ft:	3.00	Topwidth:	15.0	Tailwater	0.0					
Outlet ht, ft:	0.00	Freeboard:	2.0	Reservoir Stage-Storage						
pipe area sq ft:	7.07	Em Fboard:	2.0	ac./ft:	1.65289256					
SPILLWAY CALCULATIONS										
Horizontal length:	63.8	Vertical:	11.5	Net:	64.8					
Head, pond-tail:	15.6									
HEADLOSS FACTORS:										
enter:	0.5	pipe:	0.006	Summation K:	3.21					
in bend:	1.3	riser:	0.003	Grates, dec % area:	0.10					
out bend:	0	outlet:	0.006	PIPE-FULL FLOW, CFS:	124.6					
INITIAL CONDITIONS										
				Stage, ft:	0.100					
				Qout, cfs:	1.6					
Time, hr.	Q in ft <sup>3</sup> /sec	Incr. V ft <sup>3</sup>	Surcharge V ft <sup>3</sup>	Incr. h, ft	Total h, ft	Qweir ft <sup>3</sup> /sec	Qorf ft <sup>3</sup> /sec	Qpipe ft <sup>3</sup> /sec	Q out ft <sup>3</sup> /sec	Outlet superelev, ft
7.0	18.9	17155	24355	0.238	0.338	8.8	51.1	126.0	8.8	0.12
7.3	19.0	14526	21725	0.202	0.640	17.7	64.6	126.8	17.7	0.48
7.6	25.4	26320	33520	0.366	0.906	38.4	83.7	128.2	38.4	2.26
7.9	56.7	10459	17859	0.145	1.051	48.0	90.1	128.8	48.0	3.53
8.0	76.1	12431	19631	0.173	1.223	60.2	97.2	129.4	60.2	5.57
8.1	88.8	10862	18062	0.151	1.374	71.7	103.1	130.0	71.7	7.89
8.2	92.0	7300	14500	0.101	1.476	79.8	106.8	130.4	79.8	9.77
8.3	92.0	2107	9307	0.029	1.505	82.2	107.8	130.5	82.2	10.37
8.4	79.3	-3320	3880	-0.046	1.459	78.4	106.2	130.4	78.4	9.44
8.5	66.6	-5968	1232	-0.083	1.378	71.9	103.1	130.0	71.9	7.92
8.6	57.1	-6737	483	-0.094	1.282	64.6	99.6	129.7	64.6	6.41
8.7	49.2	-6142	1058	-0.085	1.197	58.3	96.2	129.3	58.3	5.22
8.8	46.0	-10002	-2802	-0.139	1.058	48.5	90.4	128.8	48.5	3.60
9.0	42.8	-5786	1434	-0.080	0.978	43.1	86.9	128.5	43.1	2.85
9.2	38.1	-4737	2463	-0.066	0.912	38.8	84.0	128.2	38.8	2.31
9.4	34.9	-3946	3254	-0.055	0.856	35.3	81.4	128.0	35.3	1.92
9.6	31.7	-3181	4019	-0.044	0.813	32.7	79.3	127.8	32.7	1.64
9.8	30.1	-2382	4818	-0.033	0.780	30.7	77.7	127.7	30.7	1.44
10.0	28.6	-3156	4044	-0.044	0.736	28.1	75.4	127.5	28.1	1.21
10.3	27.0	-2117	5083	-0.029	0.707	26.5	73.9	127.4	26.5	1.07
10.6	25.4	-1563	5637	-0.022	0.685	25.3	72.8	127.3	25.3	0.96
11.0	25.4	-1204	5996	-0.017	0.669	24.3	71.9	127.3	24.3	0.91
11.5	23.8	-2406	4795	-0.033	0.636	22.5	70.1	127.1	22.5	0.78
12.0	22.2	-2019	5181	-0.028	0.607	21.1	68.5	127.0	21.1	0.68
12.5	20.6	-790	6410	-0.011	0.596	20.6	67.9	127.0	20.6	0.64
13.0	20.6	233	7433	0.003	0.599	20.7	68.1	127.0	20.7	0.65
13.5	20.6	-1495	5705	-0.021	0.579	19.6	66.9	126.9	19.6	0.59
14.0	19.0	-2014	5186	-0.028	0.561	18.2	65.2	126.8	18.2	0.51
15.0	19.0	3039	10239	0.042	0.593	20.3	67.7	127.0	20.3	0.63
16.0	19.0	-4633	2567	-0.064	0.529	17.1	63.9	126.7	17.1	0.45
17.0	19.0	4062	11292	0.057	0.565	19.9	67.3	127.0	19.9	0.61
18.0	17.4									
19.0	17.4									
20.0	15.9									
21.0	14.3									
22.0	14.3									
23.0	8.0									
<b>MAXIMUM</b>	<b>92.0</b>	<b>0.77</b>	<b>1.50</b>	<b>82.2</b>	<b>103.7</b>					
<b>VALUES</b>	<b>CFS</b>	<b>AC-FT</b>	<b>FT</b>	<b>CFS</b>	<b>FT</b>					

Pipe Entrance Cavitation Check

Vmax f/s: 11.63

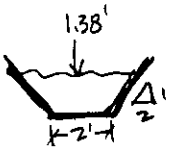

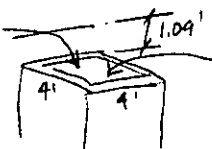
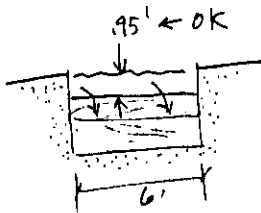
Head at entrance, ft: -15.50 OK if > -25 ft.

ASSUMPTIONS by column:

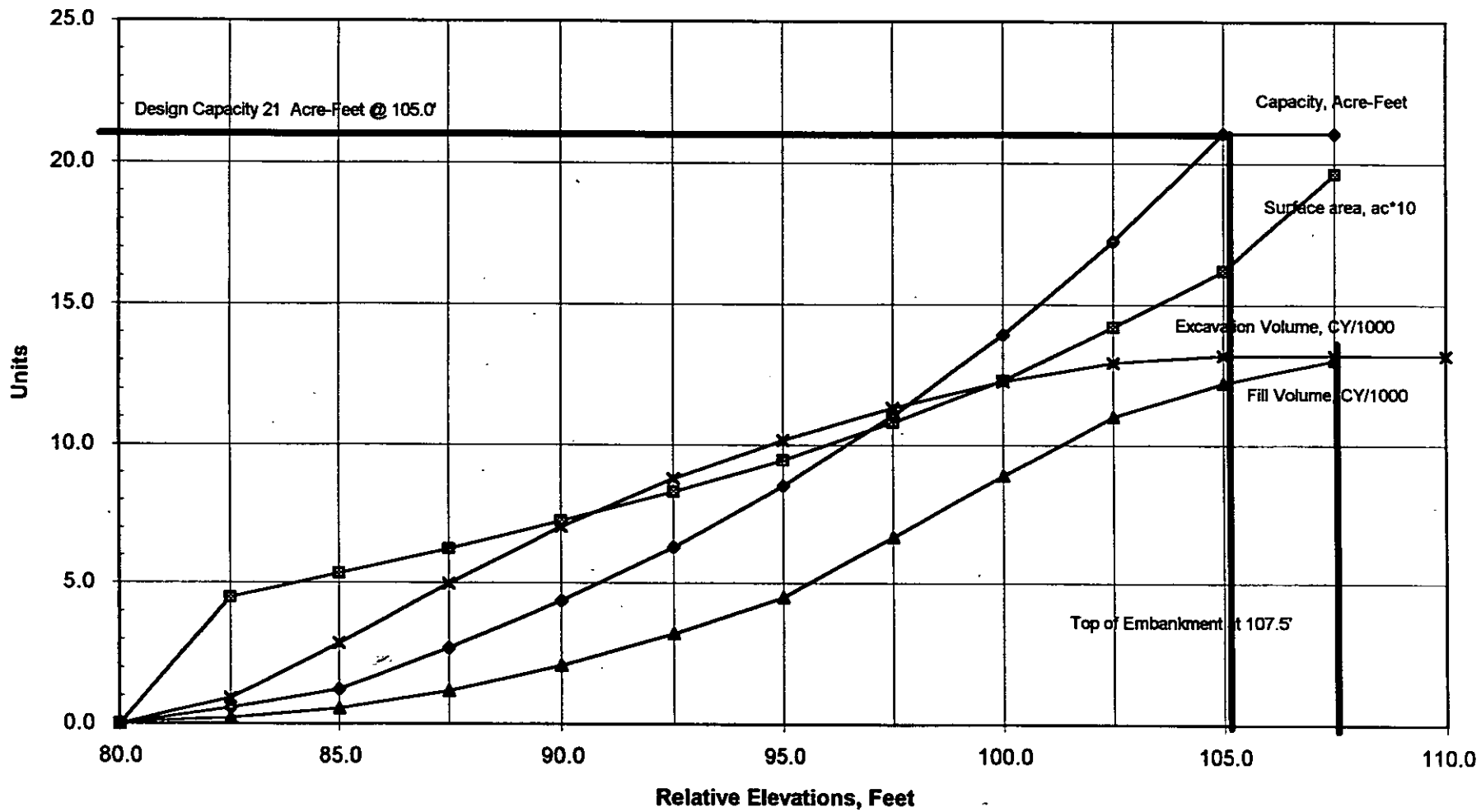
- A, B: USDA-SCS TR55 Synthetic Hydrograph, Type 1A storm for specific waters
- C: Incremental time \* (Qin-Qout)
- D: Incremental h for specific reservoir. Specify as ac./ft between outlet and to
- E, F: Summation of incremental h = reservoir water surface above outlet elevation
- G, H, I: Outlet flow using Weir, Orifice, or Pipe flow equations.
- J: Outlet flow = min flow from Weir, Orifice, or Pipe constraints.

NOTES:

- Set input parameters to match geometry of embankment and desired spillway.
- Change Qin values to match synthetic hydrograph for watershed of interest.
- Reservoir stage-storage constant (ac./ft) must match site conditions.
- Set initial stage condition to reflect start of period conditions.
- Surcharge volume shows instantaneous water storage above design water surface.
- Differential area under inlet and outlet rate curves is proportional to surcharge storage volume.
- Compare Qw, Qo, and Qp columns to determine limiting flow condition for any time period.
- Adjust parameters to prevent orifice control of output flow to prevent erratic stage curve.
- Adjust spillway geometry to obtain desired peak flows, max surcharge height, and output flow elevation.
- Use 123 PRINTGRAPH to document flow rate and stage curves.

Erickson Engineering Inc, Valley Ford CA 94972-0446	
<b>Pahlmeyer Wayfarer Ranch</b> 33250 King Ridge Road Cazadero CA 95421	File: xl/hydraulic/mannings Time: 01:54 PM Date: 30-May-99 Updated: 30-May-99
<b>Mannings Equation, Trapezoidal Sections</b> Reference Brater and King, Chapter 7	100-year flow at DI1 at 59 cfs per Sonoma County Rational Methods
<p><b>Input Parameters</b></p> <p>1.38 Normal depth, ft                      0.035 Manning's n                      0.060 s, channel slope ft/ft                      16.67 1/s, channel slope, ft/100ft                      2.0 Z, side slope, ft/ft                      2.0 b, bottom width, ft</p>  <p>INLET TO SED POND @ DI#1</p>	<p><b>Output Parameters</b></p> <p>59.00 cu ft/sec Flow capacity                      8.99 Ft/sec Velocity                      6.56 Sq Ft Area                      7.52 Ft Topwidth                      1.26 Ft Velocity Head                      2.64 Ft Energy Head                      1.35 V/(gd)^.5 Froude #: Supercrit</p>
<b>Mannings Equation, Circular section</b> Provides V, Q based on Diameter for given n, slope	Pipe between DI <sub>1</sub> & DI <sub>2</sub> Drop Inlet #1 above reservoir
<p><b>Input Parameters</b></p> <p>30 inch pipe diameter                      0.77 d/D ratio OK                      0.012 Manning's n                      0.02 s, channel slope ft/ft                      50.000 1/s, chl slope, ft/100 ft                      0.6 C, inlet coefficient</p>  <p>D = 30" ok</p>	<p><b>Output Parameters</b></p> <p>H2O Depth d: 23.09 inches 1.92 ft at outlet                      Sector above H2O: 2.50 ft 1.85 Froude No.                      Circumference: 7.85 ft 6.58 ft crit depth                      theta: 2.00                      Water area: 4.05 sq ft                      Wetted Perim: 5.35 ft                      Hydraulic Radius: 0.76 ft                      Outlet Velocity: 14.55 cfs CA(2gd)^2                      Outlet Flow Rate: 59.00 cfs 27.06 cfs inlet</p>
<b>Culvert Entry Orifice Equation for pipe above flowing full.</b>	
<p><b>Input Parameters</b></p> <p>0.6 C, inlet coefficient                      3.74 ft (h1), maximum head                      30 inch pipe diameter D</p> <p>HEAD TOO HIGH USE WEIR  <math>h = D + h1</math>                      6.24</p>	<p><b>Output Parameters</b></p> <p>Pipe Area A: 4.909 square feet                      (2gh)^.5: 20.03 ft/sec                      Q = CA(2gh)^.5: 59.00 cfs</p>
<p>Horizontal, sharp-crested weir.</p> <p><b>Input Parameters</b></p> <p>3.25 C, weir coefficient                      1.09 h, maximum head                      53 inch pipe i.d.                      4 inch wall thickness</p>  <p>HEAD OK</p>	<p>48x48 inlet at 59 cfs                      DI # 1</p> <p><b>Output Parameters</b></p> <p>Pipe OD 61 inches                      Pipe circumference, l: 16.00 feet                      Q = Clh^(3/2): 59.00 cfs                      Equivalent square: 4.00 feet                      48.0 inches</p> <p>4'4" CAST INLET</p>
<p>Horizontal, sharp-crested weir.</p> <p><b>Input Parameters</b></p> <p>3.25 C, weir coefficient                      0.95 h, maximum head                      15 inch pipe i.d.                      4 inch wall thickness</p>  <p>.95' ← OK</p>	<p>Flashboard Reservoir Outlet at 18 cfs</p> <p><b>Output Parameters</b></p> <p>Pipe OD 23 inches                      Pipe circumference, l: 6.00 feet ← WEIR LENGTH                      Q = Clh^(3/2): 18.00 cfs                      Equivalent square: 1.50 feet                      18.0 inches</p>

### Pahlmeyer Wayfarer Vineyard 21 Acre Foot Reservoir Elevation - Volume Curves



Erickson Engineering Inc, Valley Ford CA 94972-0446

**Pahlmeyer Wayfarer Ranch**  
 33250 King Ridge Road  
 Cazadero CA 95421

File: xl/hydraulic/mannings  
 Time: 01:56 PM  
 Date: 30-May-99  
 Updated: 30-May-99

**Mannings Equation, Trapezoidal Sections**  
 Reference Brater and King, Chapter 7

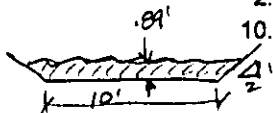
100-year flow at DI2 at 90 cfs per  
 Sonoma County Rational Methods

**Input Parameters**

- 0.89 Normal depth, ft
- 0.035 Manning's n
- 0.060 s, channel slope ft/ft
- 16.67 1/s, channel slope, ft/100ft
- 2.0 Z, side slope, ft/ft
- 10.0 b, bottom width, ft

**Output Parameters**

- 90.00 cu ft/sec Flow capacity ✓
- 8.58 Ft/sec Velocity ✓ *short term*
- 10.48 Sq Ft Area
- 13.56 Ft Topwidth
- 1.15 Ft Velocity Head
- 2.04 Ft Energy Head
- 1.60  $V/(gd)^{.5}$  Froude #: Supercrit



EMERGENCY SPILL IF  $Q_{DI2}=0$   
 SHOULD NEVER OCCUR

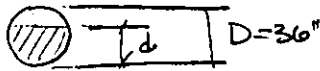
**Mannings Equation, Circular section**

Provides V, Q based on Diameter for given n, slope

Drop Inlet #2 at reservoir TO OUTLET ~ 350'

**Input Parameters**

- 36 inch pipe diameter
- 0.73 d/D ratio
- 0.012 Manning's n - HDPE
- 0.02 s, channel slope ft/ft ✓
- 50.000 1/s, chl slope, ft/100 ft
- 0.6 C, inlet coefficient



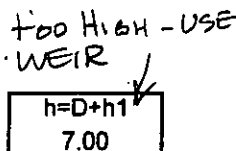
**Output Parameters**

- H2O Depth d: 26.23 inches 2.19 ft at outlet
- Sector above H2O: 3.29 ft 1.95 Froude No.
- Circumference: 9.42 ft 8.27 ft crit depth
- theta: 2.19
- Water area: 5.52 sq ft
- Wetted Perim: 6.14 ft
- Hydraulic Radius: 0.90 ft
- Outlet Velocity: 16.31 cfs - INTO ROCK ARMOR  $CA(2gd)^2$
- Outlet Flow Rate: 90.00 cfs 39.25 cfs inlet

**Culvert Entry Orifice Equation for pipe above flowing full.**

**Input Parameters**

- 0.6 C, inlet coefficient
- 4.00 ft (h1), maximum head
- 36 inch pipe diameter D



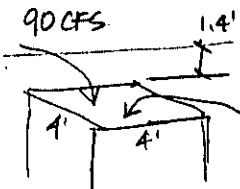
**Output Parameters**

- Pipe Area A: 7.069 square feet
- $(2gh)^{.5}$ : 21.22 ft/sec
- $Q = CA(2gh)^{.5}$ : 90.00 cfs

**Horizontal, sharp-crested weir.**

**Input Parameters**

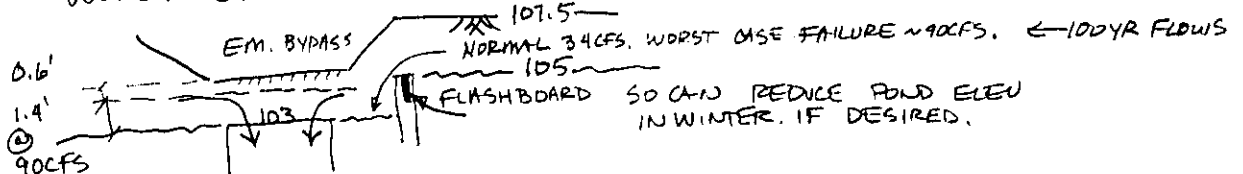
- 3.25 C, weir coefficient
- 1.44 h, maximum head
- 53 inch pipe i.d.
- 4 inch wall thickness



**Output Parameters**

- 48x48 inlet at 90 cfs
  - Pipe OD: 61 inches
  - Pipe circumference, l: 16.00 feet
  - $Q = Clh^{3/2}$ : 90.00 cfs
  - Equivalent square: 4.00 feet
  - 48.0 inches
- 4'x4' CAST DI

WORST CASE SCENARIO AT DI #2 IF DI #1 FAILS  
 EXPECT  $Q = 34$  CFS VS 90 CFS SHOWN SO  
 DEPTH @ ~ 1/3 THAT SHOWN. DI WILL HANDLE DESIGN AND  
 WORST CASE FAILURE FLOWS. WITH 0.6' FREEBOARD TO BYPASS.



July 14, 2006

*VIA HAND DELIVERY*

John deCourcy  
Building Division Manager  
Sonoma County Permit and Resource Management  
Building Division  
2550 Ventura Avenue  
Santa Rosa, CA 95403-2829

Re: Pahlmeyer/County of Sonoma  
BC File No. 5777

Dear Mr. deCourcy:

Pursuant to our meeting of last Friday, July 7, 2006, I enclose Ray Carlson's survey work showing the north boundary of the Pahlmeyer Vineyard property, the boundary line agreement between Mr. Pahlmeyer's predecessor-in-interest, the Davises, and their neighbors the Richardsons, and a copy of the unexecuted, but performed, lease between Mr. Pahlmeyer and his neighbor Mr. Nobles.

I will follow-up with a call this afternoon to discuss the status of this matter.  
Thank you.

Sincerely,

*Dictated But Not Read*

Thomas Davenport

TD/crc  
Enclosures

cc: Debbie F. Latham (w/encls.)  
Client (w/o encls.)