

**MEMO  
TOWN OF PAHRUMP  
AGENDA ITEM UPDATE  
MEETING DATE: 07-08-08**

**TO:** Town Board

**FROM:** William H. Kohbarger, Town Manager  
Samson Yao, Nye County Public Works Director  
Don Allison, Bureau Veritas Engineering

**DATE:** July 02, 2008

**RE:** Presentation of the Pahrump Valley Regional Flood Control District Service Plan for Consideration and Recommendation of Approval to the Nye County Board of County Commissioners by the Town Board.

**1.) Background**

After the Development Impact Fee studies by Tischler & Associates were completed in 2005, the BOCC elected not to impose separate storm water & flood control impact fees. Subsequently, the Pahrump Storm Water Utility Task Force was appointed and met during 2006-07 to consider impact fee alternatives, engineering and financial options. As a result of those meetings, the PSWUTF recommended that the county should proceed with preparing an engineering and financial feasibility study for the formation of a general improvement district.

The BOCC last year retained the engineering firm of Bureau Veritas to conduct a Service Plan study for a regional flood control district. The resultant Service Plan was presented to the BOCC at their June 17<sup>th</sup> Meeting. The proposal is to create a regional flood control district for the Pahrump Valley in order to plan, design, construct, maintain and manage the proposed facilities to provide flood protection for the US Corp of Engineers 100-year flood event.

Estimated cost of the improvements is \$365,000,000, which initially will be financed by the issuance of \$220,000,000 of bonds. Until a final assessment study is completed, the projected annual fees and assessments are preliminarily estimated at \$180-\$200/acre.

I have asked Samson to provide a chart of the number of parcels which would pay more than the minimum projected assessment. Additionally I have suggested that they outline this evening what a typical detailed residential and commercial fee structure would be in the future, based on the common assessment methodologies related to the flood impact maps. A future methodology study would replace the current broad brushed cost \$181/acre/year cost projections.

#7

**MEMO  
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**2.) Fiscal Impact**

No Town funds are anticipated at this time

**3.) Town Manager Recommendation and Board Action Requested**

Town Manager recommends that the Town Board adopt Resolution 2008-14, which recommends that the BOCC approve and adopt of the Pahrump Regional Flood Control District Service Plan and the formation of the General Improvement District as proposed in the Final Report dated June 2, 2008.

If you have any additional questions, I am sure that Samson Yao or Don Allison would be happy to answer them.

\_\_\_\_\_, 2008

Don Rust, Clerk  
Town Board of the Town of Pahrump  
400 N. Nevada Highway 160  
Pahrump, Nevada 89060

Dear Don:

The Board of County Commissioners of Nye County, Nevada, intends to create a district under NRS chapter 318 to be known as the Pahrump Regional Flood Control District (the "Proposed District"). The Proposed District includes real property within 7 miles from the boundary of the Town of Pahrump.

Pursuant to NRS 318.055(2)(d), in order for the County to adopt an ordinance initiating the creation of the Proposed District, inter alia, the Town must consent to the formation of the Proposed District by resolution. (Should the Town not consent via resolution adoption of the ordinance will require that every Board member unanimously vote in favor of it.) The form of that resolution is enclosed with this letter (the "Resolution").

The initiating ordinance is scheduled to be considered for adoption by the Board of County Commissioners on August 20 and September 16, and action on this Resolution by the date of August 12<sup>th</sup> will help ensure that the Board keeps to this schedule. If the Resolution is adopted, please deliver one (1) executed original copy of the Resolution to me.

Thank you for your help and cooperation in this matter. If there are any questions regarding the Resolution or the timing outlined above, please contact Ron Williams, Nye County Manager.

Respectfully,

Susan E. Wharff  
Nye County Deputy Clerk

Encs: (1) The Resolution, which the County Board requests be considered for adoption by the Town Board.

cc: Ron Williams, Nye County Manager  
Samson Yao, Public Works Director  
Kendra Follett, Swendseid & Stern

Summary - a resolution consenting to formation of a district under NRS Chapter 318.

**RESOLUTION NO.2008-14**

**A RESOLUTION CONSENTING TO FORMATION OF A  
GENERAL IMPROVEMENT DISTRICT UNDER NRS  
CHAPTER 318 BY NYE COUNTY, NEVADA; PROVIDING  
CERTAIN DETAILS IN CONNECTION THEREWITH; AND  
PROVIDING THE EFFECTIVE DATE HEREOF.**

**WHEREAS**, the Board of County Commissioners of Nye County, Nevada (the “County Board” and the “County”, respectively) has initiated the formation of a district under Nevada Revised Statutes (“NRS”) Chapter 318, to be known as the Pahrump Regional Flood Control District (the “Proposed District”), in order to furnish in the unincorporated area of the County: facilities for storm drainage and flood control, as provided in NRS 318.135; facilities for water, as provided in NRS 318.144; streets and alleys, as provided in NRS 318.120; and recreational facilities, as provided in NRS 318.143; and

**WHEREAS**, pursuant to NRS 318.055(2), the organization of the Proposed District must be initiated by the adoption of an ordinance (the “Initiating Ordinance”) by the County Board; and

**WHEREAS**, pursuant to NRS 318.055(2)(d), if the Proposed District is within 7 miles from the boundary of an incorporated city or unincorporated town, the Initiating Ordinance cannot be adopted by the County Board unless, inter alia, the governing body of the incorporated city or the town board of the unincorporated town, by resolution, consents to the formation of the Proposed District; and

**WHEREAS**, the Proposed District includes real property that is within 7 miles from the boundary of the Unincorporated Town of Pahrump, Nevada (the “Town”); and

**WHEREAS**, pursuant to NRS 318.055(2)(d), the County Board will be able to adopt the Initiating Ordinance if the Board of the Town (the “Town Board”), by resolution, consents to the formation of the Proposed District; and

**WHEREAS**, the County has filed the service plan for the Proposed District with the Clerk of the Town.

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN BOARD OF THE UNINCORPORATED TOWN OF PAHRUMP, NEVADA:**

Section 1. This resolution is hereby designated the “2008 Pahrump Regional Flood Control District Resolution” (the “Resolution”).

Section 2. The Town Board hereby consents, pursuant to NRS 318.055(2)(d), to the formation of the Proposed District.

Section 3. The Town Clerk is hereby directed to forward a copy of this Resolution to the County Board.

Section 4. All ordinances or resolutions, or parts thereof, in conflict with the provisions of this Resolution, are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to revive any ordinance or resolution, or part thereof, heretofore repealed.

Section 5. If any section, paragraph, clause or other provision of this Resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, paragraph, clause or other provision shall not affect any of the remaining provisions of this Resolution.

Section 6. This Resolution shall become effective upon passage and approval.

**PASSED AND ADOPTED:** \_\_\_\_\_, 2008.

(SEAL)

\_\_\_\_\_  
Chairman, Town Board

Attest:

\_\_\_\_\_  
Town Clerk

STATE OF NEVADA                    )  
   )  
 COUNTY OF NYE                        ) ss.  
   )  
 TOWN OF PAHRUMP                    )

I am the duly appointed, qualified and acting Town Clerk of the Unincorporated Town of Pahrump, and in the performance of my duties as Town Clerk do hereby certify:

1. The foregoing pages are a true, correct and compared copy of a resolution adopted by the Town Board at a regular meeting thereof held on \_\_\_\_\_, 2008.
2. All members of the Board were given due and proper notice of such meeting.
3. The members of the Board were present at such meeting and voted on the passage of the “2008 Pahrump Regional Flood Control District Consent Resolution” as follows:

Those Voting Aye:

John T. McDonald  
 Laurayne C. Murray  
 Don Rust  
 Nicole Shupp  
 Dan Sprouse

Those Voting Nay:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Those Absent:

4. Public notice of such meeting was given and such meeting was held and conducted in full compliance with the provisions of NRS 241.020. A copy of the notice of meeting and excerpts from the agenda for the meeting relating to the resolutions, as posted at least 3 working days in advance of the meeting, on the Town’s website, and at:

- (i) Pahrump Town Office  
       Pahrump, Nevada
- (ii) Community Center  
       Pahrump, Nevada
- (iii) Nye County Complex  
       Pahrump, Nevada

(iv) Floyds Ace Hardware Store  
Pahrump, Nevada

(v) Chamber of Commerce  
Pahrump, Nevada

is attached as Exhibit A.

5. Prior to 9:00 a.m. at least 3 working days before such meetings, such notice was mailed to each person, if any, who has requested notices of meetings of the Board in compliance with NRS 241.020(3)(b) by United States Mail, or if feasible and agreed to by the requestor, by electronic mail.

**IN WITNESS WHEREOF**, I have hereunto set my hand this \_\_\_\_\_, 2008.

\_\_\_\_\_  
Town Clerk

EXHIBIT A

(Attach Copy of Notice of Meeting)

**PAHRUMP TOWN BOARD MEETING**  
**Bob Ruud Community Center**  
**150 N. HWY. 160**  
**Tuesday – 7:00 P.M.**  
**July 8, 2008**

**AGENDA**

1. **Call to Order**, Pledge of Allegiance, and Welcome.
2. **Discussion and decision** regarding agenda items.
3. **Public Comment.** Action may not be taken on matters considered during this period until specifically included on an agenda as an action item (NRS241.020 (2) (C) (3)).
4. **Advisory Board Reports**
5. **Announcements and “Good News”.**
6. **Discussion and decision** regarding job description and requirements for Administrative Director (currently Office Manager). Dan Sprouse/Chief Scott Lewis
7. **Presentation, discussion and decision** regarding proposed formation of a General Improvement District (GID) for flood control; Resolution 2008-14 from the Town Board to the Board of County Commissioners regarding a GID formation. Town Manager/Samson Yao
8. **Town Manager’s Report: (verbal)**
9. **Consent agenda items:**
  - a. Action – approval of Town vouchers
  - b. Action – approval of Town Board meeting minutes of June 24, 2008.
10. **Future Meetings/Workshops: Date, Time and Location.**
11. **Adjournment.**

**Michael Sullivan**

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**From:** Town Office [townoffice@pahrumprnv.org]  
**Sent:** Wednesday, June 18, 2008 8:21 AM  
**To:** msullivan@pahrumprnv.org; Bill Kohbarger; Nicole Shupp; Dan Sprouse; Don Rust; John McDonald; Laurayne Murray ; 'Dan Sprouse'  
**Subject:** FW: Notice of Public Hearing on a Service Plan set by Nye County Resolution No. 2008-44

-----Original Message-----

**From:** Lorina Dellinger [mailto:ldellinger@co.nye.nv.us]  
**Sent:** Tuesday, June 17, 2008 4:28 PM  
**To:** Pahrumprnv Town Office  
**Cc:** Ron Williams; 'Pam Webster'; Samson Yao; KFOLLETT@shermanhoward.com; don.allison@us.bureauveritas.com; Sam Merlino; Susan Wharff  
**Subject:** Notice of Public Hearing on a Service Plan set by Nye County Resolution No. 2008-44

Pahrumprnv Town Board Members,

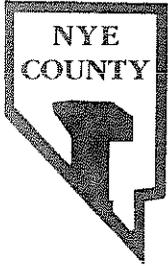
Attached please find written Notice of Public Hearing on a Service Plan per NRS 308.070(2) on the above referenced Resolution approved by the Nye County Board of County Commissioners at its June 17, 2008 meeting. Should you have any questions or need additional information please contact me.

Thank you,

**Lorina Dellinger**  
*Nye County Administration*  
*Administrative Assistant to County Manager*  
*P.O. Box 153*  
*101 Radar Road*  
*Tonopah, NV 89049*  
*(775) 482-7319 - Phone*  
*(775) 482-8198 - Fax*  
*ldellinger@co.nye.nv.us*

\*\*\*\*\*  
This communication is for use by the intended recipient and contains information that may be privileged, confidential or copyrighted under applicable law. Should the intended recipient of this electronic communication be a member of a public body within the State of Nevada be aware that it is a violation of the Nevada Open Meeting Law to use electronic communications to circumvent the spirit or letter of the Open Meeting Law (NRS Chapter 241) to act, outside of an open and public meeting, upon a matter over which the public body has supervision, control, jurisdiction or advisory powers. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please notify the sender by return e-mail and delete this e-mail from your system. Unless explicitly and conspicuously designated as "E-Contract Intended," this email does not constitute a contract offer, a contract amendment, or an acceptance of a counteroffer. This email does not constitute consent to the use of sender's contact information for direct marketing purposes or for transfers of data to third parties.

#7



**OFFICE OF THE NYE COUNTY CLERK**

**SANDRA L. MERLINO**

Nye County Courthouse

P.O. Box 1031

101 Radar Road

Tonopah, Nevada 89049

Phone: (775)482-8127

Fax: (775)482-8133

Pahrump: (775)751-7040

June 19, 2008

Pahrump Town Board  
400 N. Highway 160  
Pahrump, Nevada 89048

Dear Town Board Members:

As the governing body of a city, town or special district which has levied a general (ad valorem) property tax in Nye County in fiscal year 2007-2008, I, as the Clerk of Nye County, Nevada, do hereby deliver to you, the "Notice of Public Hearing on Service Plan".

As per the attached notice the Public Hearing will be held on Tuesday, July 15, 2008, at the hour of 8:30 a.m. at the Commissioners' Meeting Room in the Bob Ruud Community Center, 150 N. Highway 160, Pahrump, Nevada, for the purpose of hearing the comments of all persons desiring to provide comments on the Service Plan and receiving the recommendations of the Pahrump Regional Planning Commission on the Service Plan.

If you should need further information or have questions I can be reached at 775-482-8127.

Respectfully,

Susan E. Wharff, Deputy Clerk  
For: Sandra L. Merlino, Nye County Clerk and  
Ex-Officio Clerk of the Board

cc: Kendra Follett, Swendseid & Stern

1 [Form of Notice of Public Hearing on a Service Plan]

2  
3 **NOTICE OF PUBLIC HEARING ON A SERVICE PLAN**

4  
5 NOTICE IS HEREBY GIVEN THAT a service plan (the "Service Plan") for the creation  
6 of a district (the "District") under Chapter 318 of Nevada Revised Statutes has been filed with the Board  
7 of County Commissioners of Nye County, Nevada. The Service Plan calls for creation of the District to  
8 be known as the Pahrump Regional Flood Control District to furnish, in a portion of the unincorporated  
9 area of Nye County: facilities for storm drainage and flood control, as provided in NRS 318.135;  
10 facilities for water, as provided in NRS 318.144; streets and alleys, as provided in NRS 318.120; and  
11 recreational facilities, as provided in NRS 318.143.

12 A hearing will be held on Tuesday, July 15, 2008, at the hour of 8:30 a.m. at the  
13 Commissioners' Meeting Room in the Bob Ruud Community Center, 150 N. Highway 160, Pahrump,  
14 Nevada, for the purpose of hearing the comments of all persons desiring to provide comments on the  
15 Service Plan and receiving the recommendations of the Pahrump Regional Planning Commission on the  
16 Service Plan. A copy of the Service Plan is on file with the offices of the County Clerk at the Pahrump  
17 Justice Facility, 1520 East Basin, Suite 108, Pahrump, Nevada, and the William P. Beko Justice  
18 Complex, 101 Radar Road, Tonopah, Nevada, and is available for inspection by all interested persons.

19 The hearing will be open to the public, and all interested persons who desire to be heard  
20 on the Service Plan will be heard.

21 By order of the Board of County Commissioners of Nye County, Nevada, this June 17,  
22 2008.

23 (SEAL)

24 /s/ Joni Eastley \_\_\_\_\_

25 Chair, Board of County Commissioners

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Attest:

/s/ Sandra L. Merlino

County Clerk

[End of Form of Notice of Public Hearing on a Service Plan]

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3 A RESOLUTION CONCERNING CREATION OF A DISTRICT UNDER CHAPTER 318 OF  
4 NEVADA REVISED STATUTES: CALLING A PUBLIC HEARING ON A SERVICE PLAN WHICH  
5 HAS BEEN FILED FOR THE PROPOSED DISTRICT; AND PROVIDING OTHER MATTERS  
6 PROPERLY RELATING THERETO.

7  
8 **WHEREAS**, the Board of County Commissioners of Nye County, Nevada (the "Board," the  
9 "County," and the "State," respectively) has authorized an independent contractor to prepare a service  
10 plan (the "Service Plan") for a district (the "District") proposed to be created under Chapter 318 of the  
11 Nevada Revised Statutes ("NRS"); and

12 **WHEREAS**, the Service Plan has been filed with the Clerk of the County (the "County Clerk")  
13 at least 10 days prior to the regular meeting of the Board held on the date hereof; and

14 **WHEREAS**, the regular meeting of the Board held on the date hereof is the next regular meeting  
15 of the Board immediately following the filing of the Service Plan with the County Clerk, as required by  
16 NRS 308.070; and

17 **WHEREAS**, pursuant to the provisions of NRS Chapter 308, the Board is required to set a date  
18 at which it will hold a public hearing on the Service Plan.

19 **NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY**  
20 **COMMISSIONERS OF NYE COUNTY, NEVADA:**

21 Section 1. A public hearing is hereby called and ordered to be held on the Service Plan at a  
22 regular meeting of the Board on Tuesday, July 15, 2008, at the hour of 8:30 a.m., in the Commissioner's  
23 Meeting Room in the Bob Ruud Community Center, 150 N. Highway 160, Pahrump, Nevada.

24 Section 2. The County Clerk shall publish notice of the date, time, location and purpose of  
25 the hearing in a newspaper of general circulation in the County once a week for a period of 3  
consecutive weeks, the first of which shall be at least 20 days before the hearing date. In addition, the  
County Clerk shall mail a notice of the hearing not less than 20 days prior to the hearing date to the

1 governing body of each city, town or special district which has levied a general (ad valorem) property  
2 tax in the County in fiscal year 2007-2008 (i.e. the next preceding tax year).

3 Section 3. The notice to be given pursuant to Section 2 (the "Notice") shall be in  
4 substantially the following form:

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1 Attest:

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5 /s/ Sandra L. Merlino

6 County Clerk

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8 [End of Form of Notice of Public Hearing on a Service Plan]

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2  
3 **NOTICE OF PUBLIC HEARING ON A SERVICE PLAN**

4  
5 NOTICE IS HEREBY GIVEN THAT a service plan (the "Service Plan") for the creation  
6 of a district (the "District") under Chapter 318 of Nevada Revised Statutes has been filed with the Board  
7 of County Commissioners of Nye County, Nevada. The Service Plan calls for creation of the District to  
8 be known as the Pahrump Regional Flood Control District to furnish, in a portion of the unincorporated  
9 area of Nye County: facilities for storm drainage and flood control, as provided in NRS 318.135;  
10 facilities for water, as provided in NRS 318.144; streets and alleys, as provided in NRS 318.120; and  
11 recreational facilities, as provided in NRS 318.143.

12 A hearing will be held on Tuesday, July 15, 2008, at the hour of 8:30 a.m. at the  
13 Commissioners' Meeting Room in the Bob Ruud Community Center, 150 N. Highway 160, Pahrump,  
14 Nevada, for the purpose of hearing the comments of all persons desiring to provide comments on the  
15 Service Plan and receiving the recommendations of the Pahrump Regional Planning Commission on the  
16 Service Plan. A copy of the Service Plan is on file with the offices of the County Clerk at the Pahrump  
17 Justice Facility, 1520 East Basin, Suite 108, Pahrump, Nevada, and the William P. Beko Justice  
18 Complex, 101 Radar Road, Tonopah, Nevada, and is available for inspection by all interested persons.

19 The hearing will be open to the public, and all interested persons who desire to be heard  
20 on the Service Plan will be heard.

21 By order of the Board of County Commissioners of Nye County, Nevada, this June 17,  
22 2008.

23 (SEAL)

24 /s/ Joni Eastley

25 Chair, Board of County Commissioners

1 Section 4. Pursuant to NRS 308.080, the County Clerk is directed to promptly deliver a copy  
2 of the Notice, the Service Plan and this Resolution to the Pahrump Regional Planning Commission (the  
3 "Planning Commission"). The Planning Commission is requested to study the Service Plan and a  
4 representative of the Planning Commission is requested to present the Planning Commission's  
5 recommendations with respect to the Service Plan, consistent with NRS Chapter 308, to the Board at the  
6 noticed public hearing on the Service Plan.

7 Section 5. The Board shall meet on the date, at the time and in the place designated in such  
8 Notice to conduct the public hearing therein mentioned.

9 Section 6. All resolutions, or parts thereof, in conflict with the provisions of this resolution,  
10 are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to  
11 revive any resolution, or part thereof, heretofore repealed.

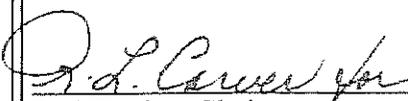
12 Section 7. If any section, paragraph, clause or other provision of this resolution shall for any  
13 reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section,  
14 paragraph, clause or other provision shall not affect any of the remaining provisions of this resolution.

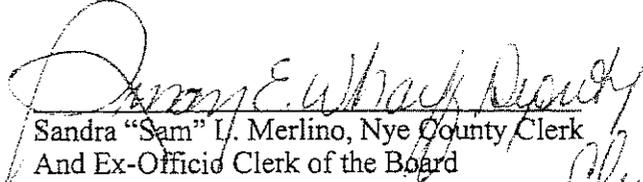
15 Section 8. This resolution shall become effective and be in force immediately upon its  
16 adoption.

17 APPROVED this 17<sup>th</sup> day of June, 2008.

18 NYE COUNTY BOARD OF  
19 COUNTY COMMISSIONERS:

ATTEST:

20  
21   
22 \_\_\_\_\_  
23 Joni Eastley, Chairperson

24   
25 \_\_\_\_\_  
Sandra "Sam" I. Merlino, Nye County Clerk  
And Ex-Officio Clerk of the Board

1 STATE OF NEVADA )  
 )ss.  
2 COUNTY OF NYE )

3 I am the duly elected, qualified and acting Clerk of Nye County (the "County"), Nevada,  
4 and ex-officio Clerk of its Board of County Commissioners (the "Board"), and do hereby certify:

5 1. The foregoing pages constitute a true, correct, complete and compared copy of a  
6 resolution (the "Resolution") adopted by the Board at a meeting held on June 17, 2008.

7 2. All members of the Board were given due and proper notice of such meeting. The  
8 adoption of the Resolution was duly moved and seconded and the Resolution was adopted by an  
9 affirmative vote of a majority of the members of the Board as follows:

9 Those Voting Aye:

✓ Joni Eastley

10 ✓ Andrew "Butch" Borasky

11 ✓ Roberta Carver

12 ~~Gary Hollis~~

13 ~~Peter Liakopoulos~~

14  
15 Those Voting Nay:

Commissioner Hollis

Commissioner Liakopoulos

16  
17 Those Absent:

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19 Those Abstaining:

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21 3. The members of the Board were present at such meeting and voted on the passage  
22 of the Resolution as set forth above.

23 4. The Resolution was approved and authenticated by the signature of the Chair of  
24 the Board, sealed with the County seal, attested by the County Clerk and recorded in the minutes of the  
25 Board.

5. Public notice of such meeting was given and such meeting was held and  
conducted in full compliance with the provisions of NRS 241.020. A copy of the notice of meeting and

1 excerpts from the agenda for the meeting relating to the Resolution, as posted no later than 9:00 a.m. at  
2 least 3 working days in advance of the meeting on the County's website, if any, and at:

3 (a) Tonopah Convention Center  
301 Brougner Avenue  
4 Tonopah, Nevada

5 (b) U.S. Post Office  
201 Erie Main St.  
6 Tonopah, Nevada

7 (c) Commissioner's Meeting Room  
101 Radar Road  
8 Tonopah, Nevada

9 (d) District Court  
101 Radar Road  
10 Tonopah, Nevada

11 (e) Pahrump Justice Complex  
1520 East Basin Road  
12 Pahrump, Nevada

13 (f) Bob Ruud Community Center  
150 North Highway 160  
14 Pahrump, Nevada

15 (g) Beatty Community Center  
100 A Avenue  
16 South Beatty, Nevada

17 is attached as Exhibit A.

18 6. Prior to 9:00 a.m. at least 3 working days before such meeting, such notice was  
19 mailed to each person, if any, who has requested notices of meetings of the Board in compliance with  
20 NRS 241.020(3)(b) by United States Mail, or if feasible and agreed to by the requestor, by electronic  
21 mail.

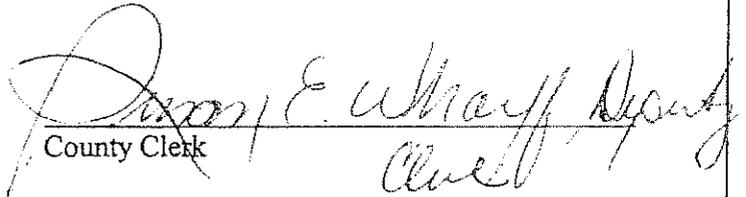
22 7. A copy of the affidavit of publication of the "Notice of Public Hearing on a  
23 Service Plan" is attached hereto as Exhibit B.

24 8. The "Notice of Public Hearing on a Service Plan" was mailed, not less than 20  
25 days prior to the hearing date, to the governing body of each city, town or special district which has  
levied a general (ad valorem) property tax in the County in fiscal year 2007-2008 (i.e. the next preceding  
tax year).

1           9.     The notices and any accompanying materials were published, mailed and  
2 delivered as specified in Sections 2 to 4 of the foregoing Resolution.

3           **IN WITNESS WHEREOF**, I have hereunto set my hand and the seal of Nye County,  
4 Nevada, this June 17, 2008.

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6 (SEAL)

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County Clerk

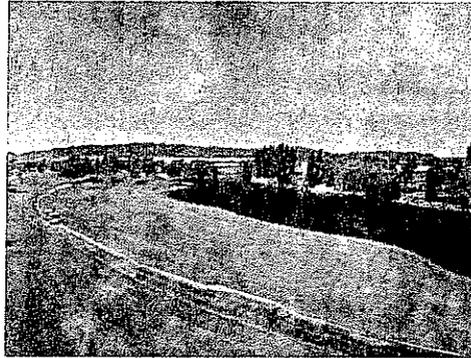
**EXHIBIT A**

**(Attach Copy of Notice of June 17, 2008 Meeting)**

**EXHIBIT B**

**(Attach Affidavit of Publication of “Notice of Public Hearing on a Service Plan”)**

# Pahrump Regional Flood Control District Service Plan



March 5, 2008  
Revised June 2, 2008

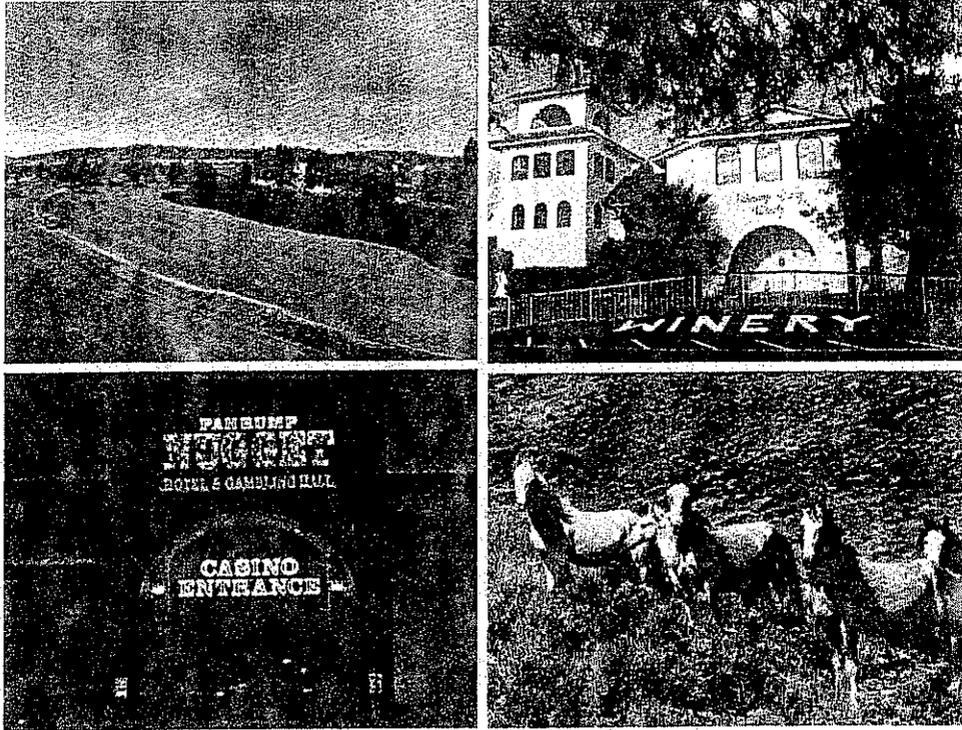
Nye County Public Works  
250 N. Highway 160, #2  
Pahrump, NV 89060



For the benefit of business and people

Bureau Veritas North America, Inc.  
4840 W. University Avenue, Suite A-1  
Las Vegas, NV 89103  
702.252.7866

# FINAL REPORT

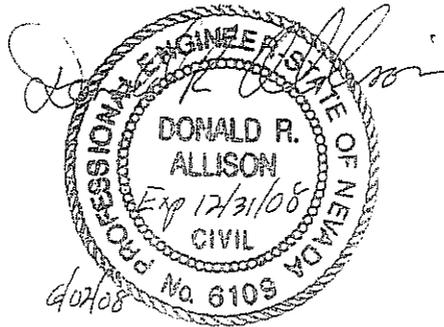


## Pahrump Regional Flood Control District Service Plan

March 5, 2008  
Revised June 2, 2008



Nye County Public Works  
250 N. Highway 160, #2  
Pahrump, NV 89060





Fairbump Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2008

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2	District Map	2-1
	• District Map	DM1
	• District Map with Proposed Level Use	DM2
	• Master Drainage Plan North Valley	DM3
	• Master Drainage Plan Central Valley	DM4
	• Master Drainage Plan South Valley	DM5
3	Population Projections	3-1 to 3-2
4	General Improvement District Financing	4-1 to 4-5
5	Facility Description	5-1 to 5-17
6	Services	6-1
7	Estimate of Costs	7-1 to 7-19
8	Indebtedness	8-1 to 8-4
9	Operation and Maintenance	9-1 to 9-2
10	Inter-Local Agreement	10-1
APPENDIX	Glossary	Appendix 1 – 2
	NRS 308	Appendix 3 – 8
	Excerpts: <i>Hydrologic Recommendation</i>	Appendix 9 – 18





Pahrump Regional Flood Control District Service Plan – FINAL REPORT – June 2, 2008

## FORWARD

The Nye County Board of Commissioners authorized Bureau Veritas to prepare this Service Plan on March 17, 2007. Bureau Veritas has completed the technical work and has assisted Nye County in formulating a proposed service charge structure for the General Improvement District, the Pahrump Regional Flood Control District.

This Service Plan consists of the following sections:

CHAPTER	TITLE
EX	Executive Summary
1	Engineering Survey
2	District Map
3	Population Projections
4	General Improvement District Financing
5	Facility Description
6	Services
7	Estimate of Costs
8	Indebtedness
9	Operation and Maintenance
10	Inter-local Agreement
APPENDIX	Glossary; NRS 308

The Service Plan includes considerable engineering work, calculations, maps, 1,000 pages of hydrology runs and a complete GIS database of the proposed Flood Control system. These documents have been separately submitted, mainly in digital form, to Nye County Public Works Department.

Bureau Veritas staff is very appreciative of the kind assistance of Nye County Staff, including:

Pam Webster – Assistant County Manager  
Samson Yao, PE – Director of Public Works  
Sandy Musselman – County Assessor  
Sam Musselman – Engineering Technician II  
Richard Lopez – Engineer-in-Training  
Tim Dahl – Engineering Technician I  
Shrl Riggle – Secretary II

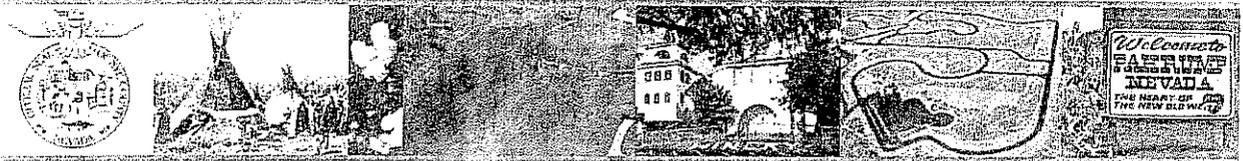
Clark County Regional Flood Control District (CCRFCD) staff was helpful and supportive of the tasks involved in forming a new flood control district. Those assisting include:

Gale Fraser, II, PE – General Manager, Chief Engineer  
Steve Roberts, PE – Engineering Director  
Tim Sutko – Environmental Mitigation Manager

Nevada Department of Taxation staff, providing assistance included:

Warner Ambrose – Budget Analyst II





The Bureau Veritas project team included:

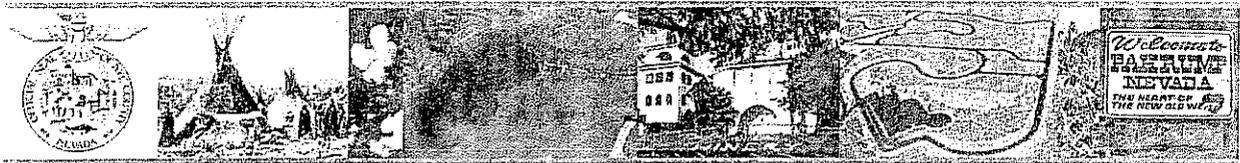
Dennis Klingelhofer, PE – Principal  
Don Allison, PE – Project Manager  
Simon Luk, PE – Project Engineer  
Dale Walters – Project Engineer  
Sheila Gehani – Geographic Information Systems  
Doug Dunlap – Finance  
Zoraida Radona – Administrative; Population Trends  
Stephanie Benson – Administrative; Assessor Maps

This Service Plan is a planning level document intended to define the scope of improvements required to provide flood protection to the Pahrump Regional Flood Control District, costs of those improvements and an implementation plan. At this time, it is recommended that a General Improvement District be formed to fund the continued planning, design and construction of flood control improvements, provide for administration of a comprehensive approach to solve the flood control issues and to provide for operation and maintenance.

The initial tasks to implement this plan involve the following.

1. Form General Improvement District to fund planning design and construction
2. Plan the eastern detention basins and beltway road sufficiently to obtain BLM land grants
3. Pursue planning with USACOE for Wheeler Wash Dams
4. Prepare drainage studies of the three major basins to derive 10% design for improvements plus right-of-way needs





Pahrump Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2008

## EXECUTIVE SUMMARY

This Pahrump Regional Flood Control District Service Plan meets the requirements of NRS 308.030, Subsection 1 and does not contravene any of the criteria listed in Subsection 1 of NRS 308.060. A copy of NRS 308 is included in the Appendix.

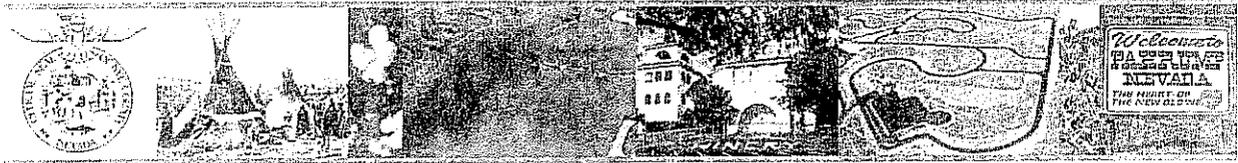
This document outlines the planning and proposed facilities to provide flood control protection for storms with projected frequencies of one in 100-years using the United States Army Corps of Engineers HEC-1 storm run-off analysis program along with updated soil information (USDA) and rainfall data (NOAA Atlas 14). The results of the intensive study prepared by the Bureau Veritas team with the assistance of Nye County staff has been delivered in the form of this report, full size drawings and a GIS database of all our data, planned improvements, cost estimates, etc.

This document will guide the development of flood control improvements and development in the Pahrump Regional Flood Control District. The Board also needs to adopt flood control design criteria consistent with this document as recommended below.

## RECOMMENDATIONS

1. Accept this Pahrump Regional Flood Control District Service Plan and proceed with the filing of the plan as outlined in NRS 308.070. Upon the incorporation of such changes, modifications, or additional information in the service plan of the proposed district, the Board of County Commissioners shall issue a resolution of approval.
2. Proceed with the formation of a General Improvement District to cause and provide for the planning, design, construction, maintenance and management of the proposed master plan drainage facilities presented in Chapter 8, totaling \$315,000,000.00 with an initial special assessment bond sell of \$210,000,000.00 to fund the facilities east of SR 160.
3. Authorize County Staff to negotiate a contract to:
  - a. Plan, in more detail to the 10% design level, the facilities planned with the initial bond sell. This will allow the Engineer to certify the cost of the facilities during the formation of the District as provided in NRS 318 and 271. The funding for this work will be repaid upon sale of the bonds.
  - b. Plan the eastern detention basins and beltway road sufficiently to obtain BLM land grants.
  - c. Pursue planning with USACOE for Wheeler Wash Dams.
  - d. Design/construct portions of the system in conjunction with development projects.
  - e. Design/construct the system by priority determined by the District consistent with available funds.

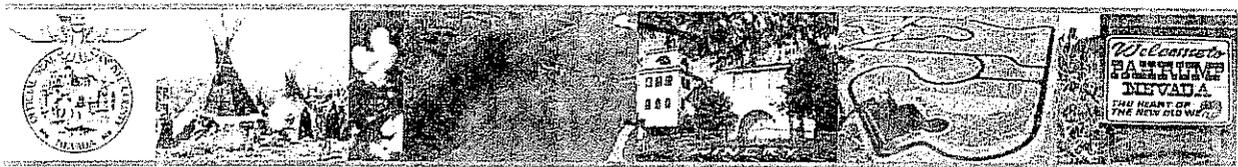




Pahrump Regional Flood Control District Service Plan – FINAL REPORT – June 2, 2008

4. The General Improvement District will provide for Administration, Operation and Maintenance of the District by providing funds of \$1,057,000.00 per year escalating each year with inflation to provide staff and initial equipment to the District upon its formation. Staffing and equipment to be procured as needed as planning and design of Flood Control Facilities commence. The staffing would initially be from public works. Staffing will be used/acquired as funds are available. The funds will be by assessing improvements or by acre at the initial rats of 0.2% of assessed valuation or \$5.86/acre.
5. Authorize the Public Works Director to establish Flood Control hydrology and design criteria to be subsequently submitted to the Board of County Commissioners to be enacted by ordinance. These criteria will enforce the enactment of the Service Plan upon developers and homeowners within the District. The plan is to enact the Clark County Regional Flood Control District "Hydrologic Criteria and Drainage Design Manual", August 1999, along with the Pahrump Regional Flood Control District supplement that will supersede sections of the Manual.
6. Upon completion of 10% design studies, Nye County should proceed with right-of-way acquisition. Right-of-way acquisition should proceed in an expedited rate and should drive the timing on 10% design work.





## CHAPTER 1 – ENGINEERING SURVEY

The Bureau Veritas team reviewed the previous hydrology and other studies prepared for Nye County including the following documents:

“Streets and Highways Capital Improvement Plan, FY 2006 – 2015,” approved July 20, 2005.

“Pahrump CIP & Impact Study, Drainage and Flood Control Update – Northern CIP,” September 16, 2005.

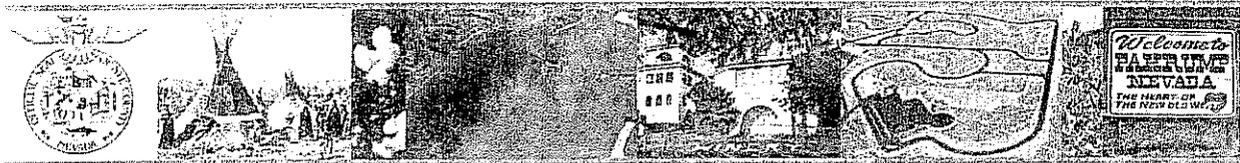
“Adequate Public Facilities Master Plan, May 5, 2006, 4<sup>th</sup> Draft.”

“Drainage and Flood Control Capital Improvement Plan, FY 2006 – 2015,” dated September 2005. (Unapproved)

“Adequate Public Facilities Plan and Policy, August 7, 2006, 5<sup>th</sup> Draft.”

The finding was that this previous work adequately reflected the available data at the time the work was completed. At the time this Service Plan commenced, there were new tools that were available. They included National Oceanic and Atmospheric Administration (NOAA) Atlas 14 with updated rainfall data in Pahrump, and the United States Department of Agriculture (USDA) soil maps for Nye County. The previous studies were prepared using NOAA Atlas 2 and assumed the worse case soil conditions throughout the valley. The USDA maps indicate four soil types with different infiltration rates. They indicate soil on the alluvial fan with high infiltration rates resulting in less storm flow. In reviewing this data, we engaged the firm of Southwest Hydrology and Hydraulics to review and recommend the best approach for Nye County. Excerpts from this report are included in the Appendix. They recommended using a 6-hour, 100-year frequency design storm because it fits better with the size of the basin. This shorter duration storm better models the effects of typical desert storms. They recommended adopting NOAA Atlas 14, adopting the USDA soils maps, using the Depth Area Reduction Factors (DARF) published in Clark County Regional Flood Control District Design Manual. The DARF accounts for the fact that the storm size may be less than the basin size, particularly in large basins. Without the DARF the HEC1 program sizes the storm to the basin size. Bureau Veritas independently studied the hydrologic approach to Nye County and agrees with these findings. We recommend that this approach be adopted by Nye County. A comparison of the previous flows and those generated by the HEC-1 program, the new data are included in Table 1.

We separately studied the Wheeler Wash main channel because it contributes to the flooding of the Pahrump Valley during a 100-year frequency storm. The previous hydrology developed by Tri-Core Engineering and used by the U. S. Army Corps of Engineers (USACOE) had a 24-hour storm flow peaking at 18,500 cfs. The current hydrology has 6-hour storm flows of 6,900 cfs with DARF and 15,000 cfs without DARF. Bureau Veritas recommends that this basin be designed to retain the difference between these two flow hydrographs. The reason is that the basin size is three times the storm size. A larger storm could be devastating, if not accommodated. Wheeler Wash is the only basin with such a large upstream area. The planned drainage system downstream of Wheeler Wash is designed for a flow of 6,900 cfs. This flow rate conforms to the FEMA flow rate of 6,900



cfs with DARF. Thus, the upstream dams serve as security against larger storms than planned. If Nye County chooses to construct the Wheeler Wash Dams without USACOE involvement, only 8,100 cfs needs to be detained. The USACOE typically performs their own hydrology and may derive more conservative flow amounts.

The way this will work is that the upstream dams can be designed to release up to 6,900 cfs during large events. The downstream system, once built, will transmit that flow to additional retention basins and then downstream to the Pahrump Valley Outfall. For events less than 6,900 cfs, a portion of the flow will be retained by full dams, a portion released by dams with either bottom openings or by weirs placed at specific heights. In summary, a multiple dam system can be built to provide storage and restrict release to not overwhelm the downstream system.

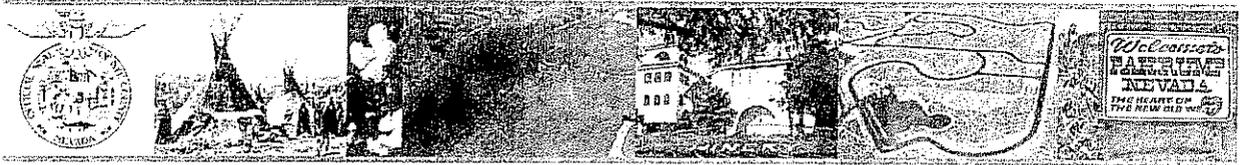
A comparison of the hydrology previously proposed and the current 6 hour storm system flows is presented in Table 1, below, for all 19 basins that comprise the southern Nye County area. The basin boundaries are shown on the District Map along with the basin names in green.

**TABLE 1**

**COMPARISON OF HYDROLOGY FINDINGS FOR DRAINAGE BASINS**

<b>BASIN</b>	<b>PREVIOUS DESIGN Q<sub>100</sub> 24hour NOAA 2</b>	<b>CURRENT DESIGN Q<sub>100</sub> 6hour, with DARF NOAA 14, USDA</b>
Horseshutem East	4,480	2,916
Horseshutem West	3,230	2,657
Crystal Spring	7,580	4,236
Wood Canyon	7,420	4,293
Santa Cruz	5,720	3,156
Horse Spring	6,300	3,198
Wheeler North	2,078	2,181
Wheeler Middle	800	899
Wheeler Wash	18,890	6,103
Wheeler South	2,910	1,571
Lovers Wash	7,850	3,730
Carpenter Canyon	9,790	4,501
Bell Vista	4,370	3,297
Last Chance	8,060	6,525
Sixmile Spring	3,450	4,551
Pahrump Valley	8,841	7,587
Pahrump North	4,440	5,098
Pahrump	2,510	3,008
Pahrump South	2,510	706





Pahrump Regional Flood Control District Service Plan – FINAL REPORT – June 2 2008

Note that the differences in the flow are not linear. The three variables that have been changed are storm duration (6-hour), storm size (DARF) and soil perviousness (USDA soil types). For large basin such as Wheeler Wash, DARF reduces the flows by more than half.

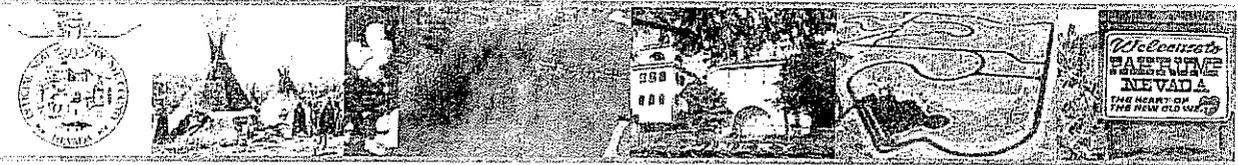
The current design differs from the previous design in many ways. The current design uses unlined channels to save costs. The velocities are low enough to make this feasible. In some cases, soil cement lining of the channels was included where the velocities exceed five-feet per second. The current system uses internal regulatory basins to buffer peaks between combining flows. These were missing from the previous design. The use of pipe and box sections is minimized.

The construction costs of the facilities are based upon an analysis and combination of Nye County, NDOT, Clark County and U.S. Means Construction Costs for 2007 for the Las Vegas area. The costs should be valid through 2008 without escalation due to the current downturn in construction within Nevada.

Chapter 5 presents a description of the recommended facilities. The construction costs are presented in more detail in Chapter 7.

The layout of the facilities is presented in the "Pahrump Regional Flood Control District Service Plan District Map" in Chapter 2, with the drainage basins shown in green. The layout is shown in more detail in the Master Drainage Plan, DM3, North Valley; Master Drainage Plan, DM4, Central Valley; Master Drainage Plan, DM5, South Valley.





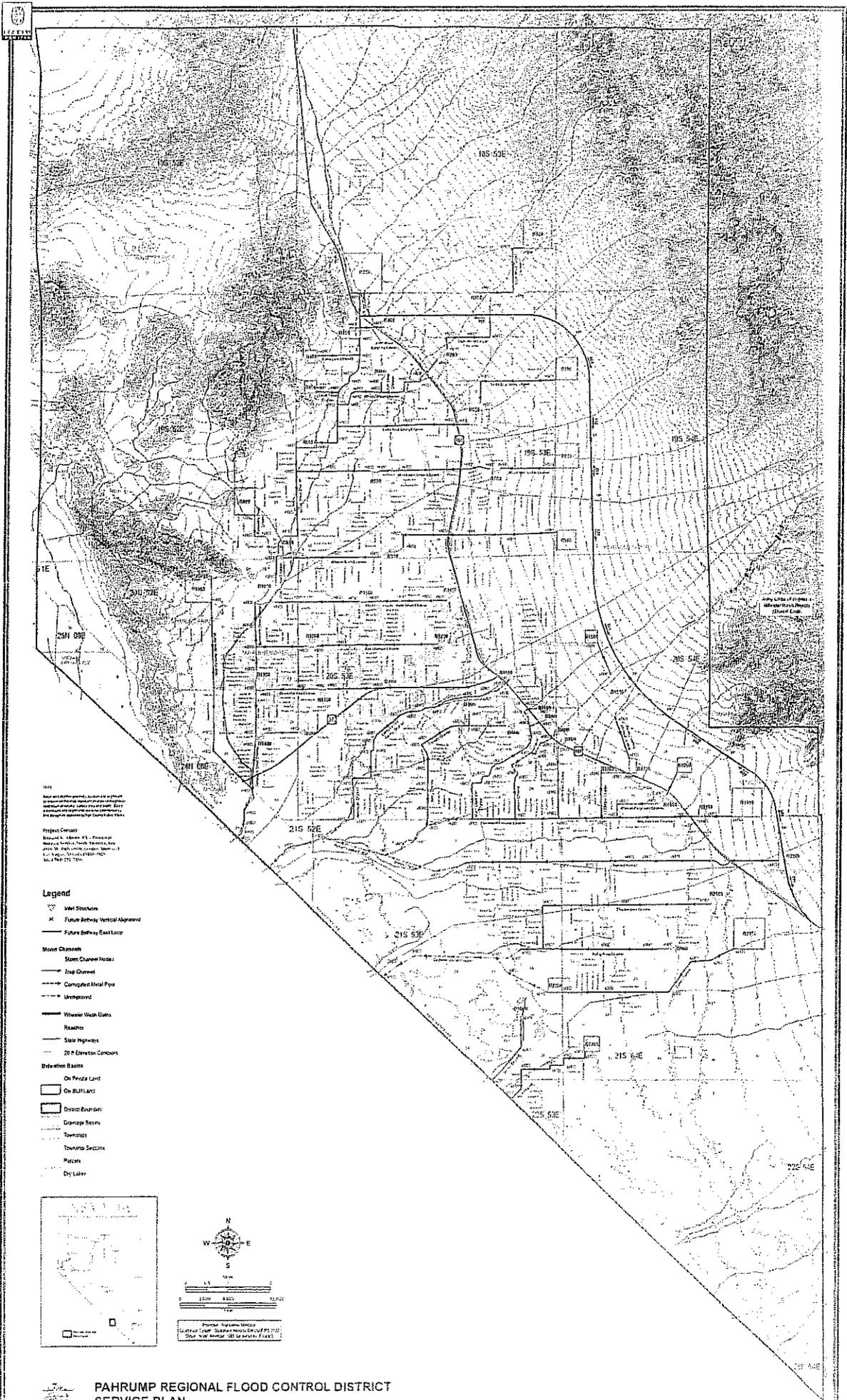
## CHAPTER 2 – DISTRICT MAP

Attached is the Pahrump Regional Flood Control District Service Plan Map. It contains the area of benefit for the planned improvements along with all the projects except the upper portions of the Wheeler Wash Dam project. This project is within Clark County, Nevada and will be part of an Inter-local Agreement between Nye and Clark counties.

Copies of the full size (44" x 28") maps have been provided to the County along with digital copies for use as reference on County computers.

The yellow boxes represent retention basins on Bureau of Land Management Property. It is assumed that these properties will be granted to Nye County without cost. The green bowls are smaller regulatory basins on private property. The property for these basins will have to be acquired. The exact sizes, locations and configurations of these basins are to be determined in more detailed studies.

Conveyance systems are shown in black. Dashed lines indicate underground pipe/box sections. Most of the channels (shown with solid lines) are open, trapezoidal channels with earth or soil cement embankments. This design maximizes infiltration. Road crossings have one or more corrugated metal pipe crossings. The same crossings or pre-cast bridges will be provided for driveways along the channels. The channels eventually outlet into existing channels on the southwest side of the valley.

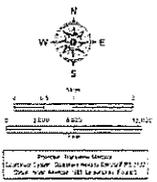


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 This map is for informational purposes only. It is not intended to be used as a legal document. The information on this map is based on the best available information at the time of printing. The District is not responsible for any errors or omissions on this map. Any use of this map is at the user's own risk.

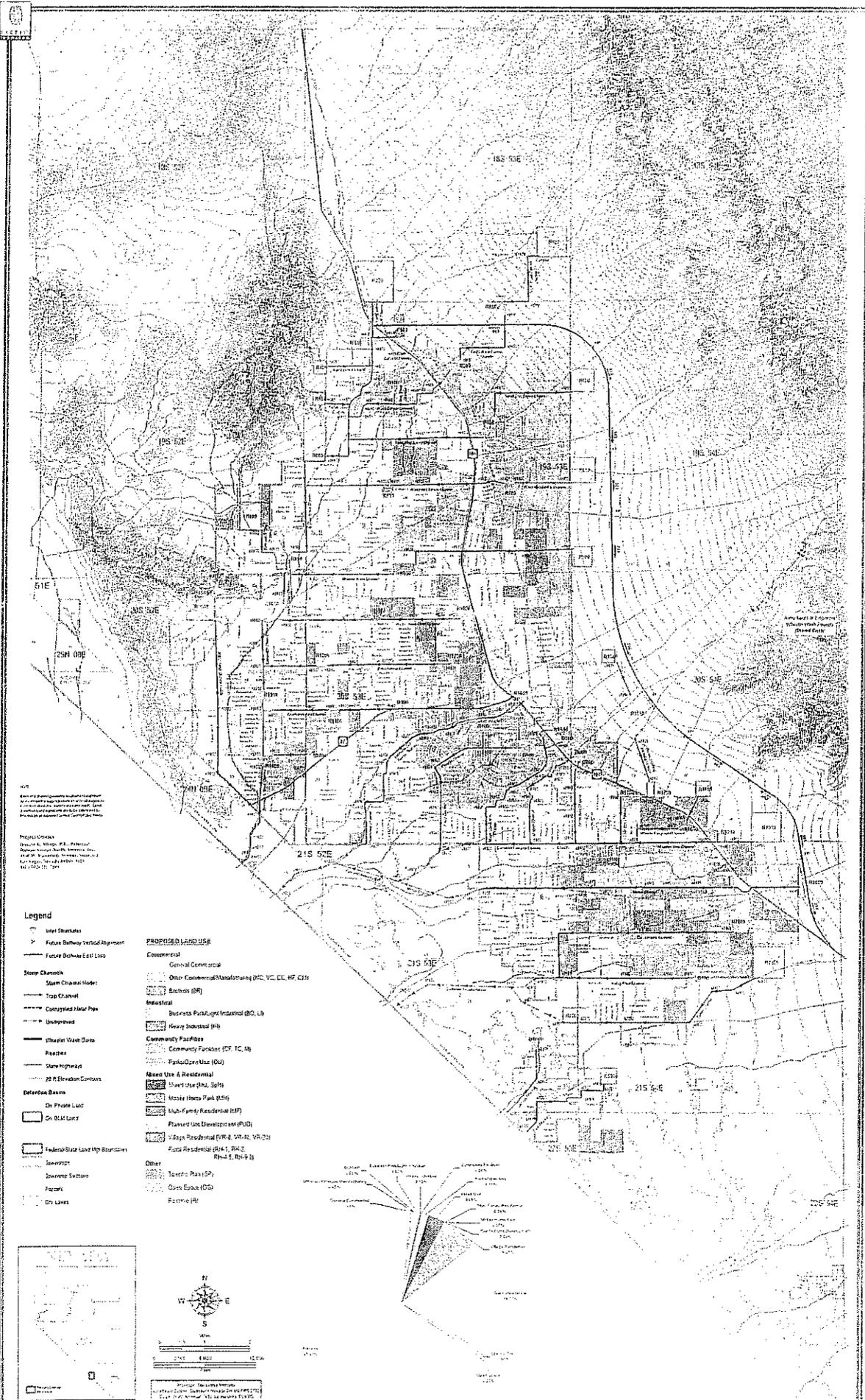
**Project Contact:**  
 Director: Robert J. ...  
 District Office: 1000 ...  
 Las Vegas, Nevada 89102-1225  
 Fax: 702-799-1100

**Legend**

- Well Structure
- Future Railway Vertical Alignment
- Future Railway East Loop
- Storm Channels**
- Storm Channel Holes
- Inlet Channel
- Corrugated Metal Pipe
- Levee/Spillway
- Wharves/Quay Docks
- Roadways
- State Highways
- 20 ft Elevation Contours
- Disturbance Basins**
- On Private Land
- On BLM Land
- District Boundary
- Drainage Basins
- Townships
- Township Sections
- Ponds
- Dry Lake



**PAHRUMP REGIONAL FLOOD CONTROL DISTRICT  
 SERVICE PLAN**

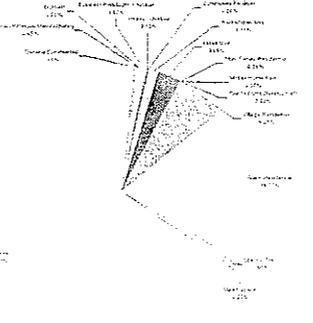
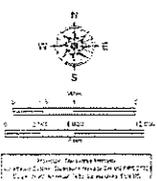
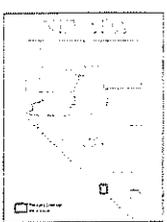


NOT: This map is prepared for informational purposes only. It is not intended to be used as a legal document. The user assumes all responsibility for the use of this map.

Project Name: Pahrump Regional Flood Control District  
 Project No: 2015-001  
 Date: 10/15/2015

- Legend**
- City Structures
  - Future Railway Vertical Alignment
  - Future Railway East Loop
  - Stream Channel**
    - Stream Channel Header
    - Top Channel
    - Conspicuous Main Pipe
    - Unimproved
  - Waterline Valve Valve
  - Reaches
  - State Highway
  - 20' R.E. Elevation Contours
  - Defence Beams
  - Oil Pipeline
  - Oil BLM Land
  - Federal State Land (M) Boundaries
  - Sewerage
  - Power Station
  - Pipeline
  - Dry Lines

- PROPOSED LAND USE**
- Commercial**
- General Commercial
  - Office Commercial/Manufacturing (OC, VC, CC, HF, C1)
  - Business (BR)
- Industrial**
- Business Park/Light Industrial (BCL, LI)
  - Heavy Industrial (HI)
- Community Facilities**
- Community Facilities (CF, TC, A)
  - Park/Golf Course (PG)
- Mixed Use & Residential**
- Mixed Use (MU, S/U)
  - Single-Family Residential (SFR)
  - Multi-Family Residential (MFR)
  - Planned Unit Development (PUD)
  - Single-Family Residential (SFR-1, SFR-2)
  - Multi-Family Residential (MFR-1, MFR-2)
- Other**
- Special Use (SU)
  - Office/Professional (OP)
  - Recreational (R)

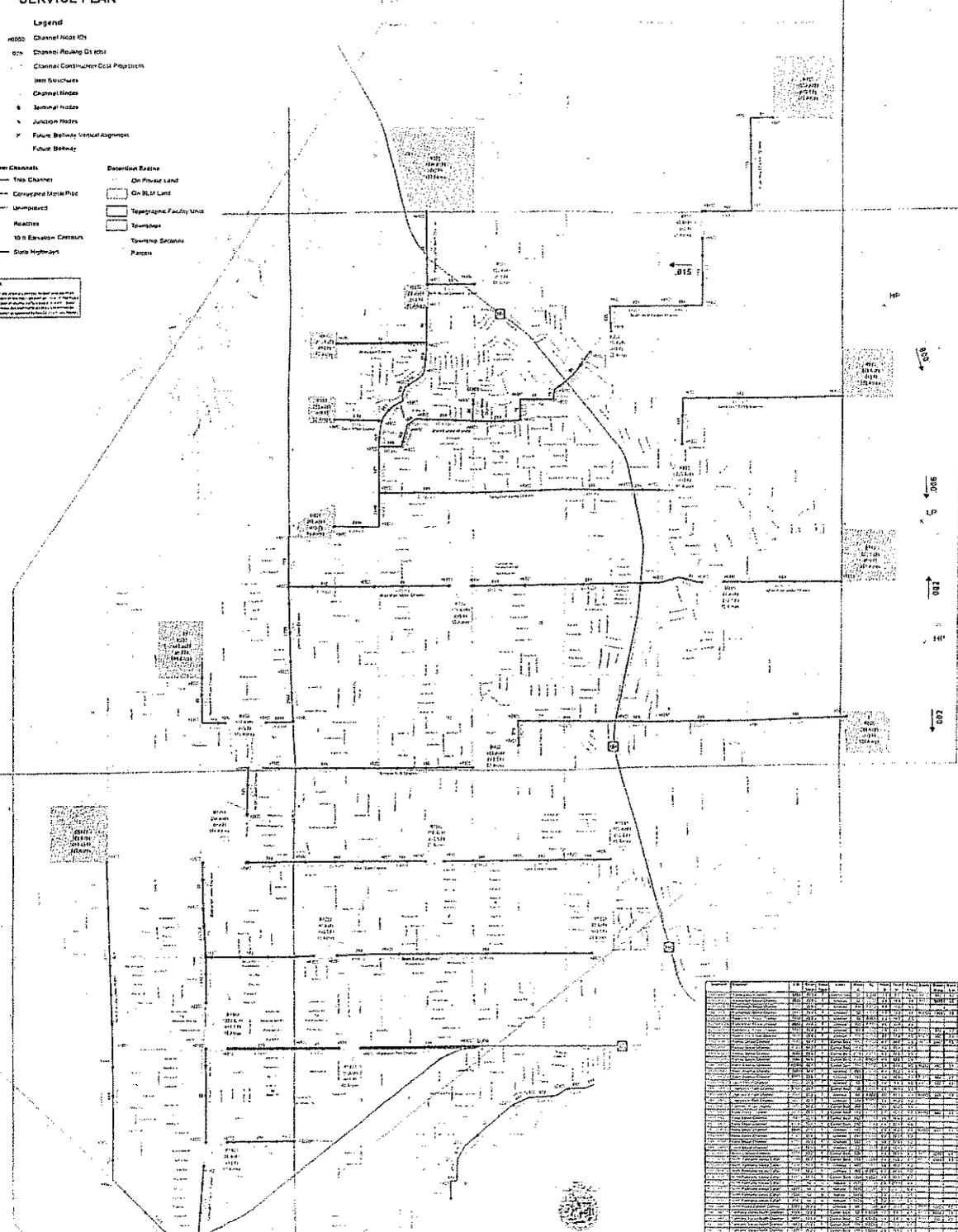


# PAHRUMP REGIONAL FLOOD CONTROL DISTRICT SERVICE PLAN

- Legend**
- Channel Node IDs
  - Channel Reaching Districts
  - Channel Construction Cost Projections
  - Best Structures
  - Channel Nodes
  - Junction Nodes
  - Future Best-Use Vertical Alignment
  - Future Detention
- State Channels**
- Tree Channel
  - Conveyed Main Plot
  - Unimproved
  - Reaches
  - 10 ft Elevation Canals
  - State Highway
- Detention Basins**
- On Private Land
  - Topographic Facility Units
  - Township
  - Township Sections
  - Parcels

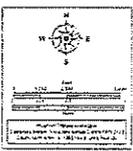
Scale: 1" = 1000'

North Arrow



Channel Node ID	Channel Reaching District	Channel Construction Cost Projection	Best Structures	Channel Node	Junction Node	Future Best-Use Vertical Alignment	Future Detention
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MASTER DRAINAGE PLAN, DMS  
NORTH VALLEY



PAHRUMP REGIONAL FLOOD CONTROL DISTRICT  
1000 S. MAIN STREET, SUITE 100  
PAHRUMP, NEVADA 89051  
702.735.1234







### CHAPTER 3 – POPULATION PROJECTIONS

The population growth in Nye County has steadily increased over the years. Over the past four years, the growth has been 32% (see chart below) for the Town of Pahrump. This occurred without any major new development and with the slow down of the Mountain Falls development. This is a higher rate of growth than the state as a whole.

	Pahrump	Amargosa Valley	Beatty	Tonopah	Smoky Valley	Gabbs	Reese River Valley	Northeast Nye	Nye County
2003 Q2	29,147	1,232	1,062	2,835	1,728	370	119	292	36,785
2003 Q3	29,471	1,276	1,024	2,835	1,732	361	119	292	37,110
2003 Q4	29,942	1,253	1,035	2,821	1,700	367	119	292	37,529
2004 Q1	30,483	1,264	1,057	2,805	1,702	367	117	290	38,085
2004 Q2	31,103	1,262	1,080	2,811	1,755	372	117	292	38,792
2004 Q3	31,883	1,274	1,073	2,835	1,753	372	114	294	39,598
2004 Q4	32,383	1,290	1,075	2,867	1,726	374	114	294	40,123
2005 Q1	32,948	1,288	1,100	2,861	1,700	374	114	296	40,681
2005 Q2	33,722	1,316	1,080	2,850	1,698	381	114	294	41,455
2005 Q3	34,410	1,323	1,080	2,897	1,716	374	111	315	42,226
2005 Q4	35,362	1,351	1,090	2,883	1,716	367	111	317	43,197
2006 Q1	36,584	1,362	1,090	2,899	1,698	372	111	321	44,437
2006 Q2	36,625	1,369	1,104	2,917	1,745	376	111	333	44,580
2006 Q3	37,221	1,365	1,118	2,924	1,778	372	111	334	45,223
2006 Q4	37,696	1,365	1,120	2,905	1,780	383	114	340	45,703
2007 Q1	38,068	1,379	1,125	2,877	1,757	383	114	338	46,041
2007 Q2	38,431	1,386	1,133	2,870	1,767	386	114	340	46,427

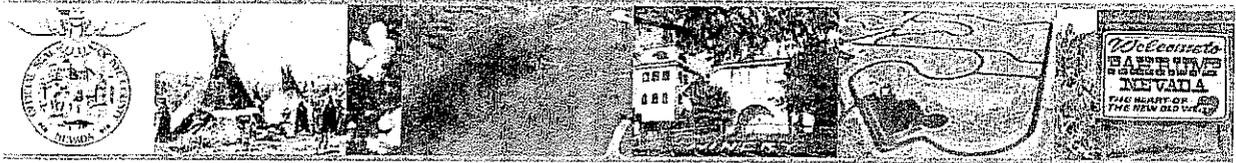
Further information on population trends were attained from the Nevada Department of Taxation. According to Governor's Certified Population of Nevada's Counties, Cities and Town 2000 – 2005, Nye County's Population grew from 32,485 (April 1, 2000) to 41,302 (July 1, 2005). After the initial census on April 1, 2000, benchmarks were taken every July 1<sup>st</sup>. (The information presented is not a time series reflecting Census 2000 and changes in the 1990 to 2000 series.) The following numbers were reported for Nye County.

#### Governor Certified Population of Nevada's Counties, Cities and Towns 2000 to 2005

Estimates from NV Department of Taxation & NV State Demographer, University of NV, Reno

	April 1 2000	JULY 1 2000	% Change 4/00 - 7/01	% Change 4/00 - 7/01	JULY 1 2001	% Change 4/00 - 7/01	JULY 1 2002	% Change 4/00 - 7/01	JULY 1 2003	% Change 4/00 - 7/01	JULY 1 2004	% Change 4/00 - 7/01	JULY 1 2005
State of Nevada	1,998,257	2,066,831	3.4%	3.2%	2,132,498	3.4%	2,206,022	4.1%	2,296,566	5.0%	2,410,768	4.5%	2,518,869
Nye County	32,485	35,924	10.6%	-4.3%	34,384	1.9%	35,039	4.6%	36,651	4.2%	38,181	8.2%	41,302
Amargosa	1,165	1,271	9.2%	-6.4%	1,164	0.6%	1,171	-0.2%	1,169	3.6%	1,211	14.3%	1,383
Beatty	1,150	1,255	9.2%	-12.0%	1,104	-1.3%	1,089	-0.9%	1,079	-9.1%	981	5.2%	1,032
Gabbs	318	459	44.4%	-27.3%	334	-4.3%	320	-1.9%	314	0.9%	316	-1.4%	312
Manhattan	123	135	9.4%	-9.2%	123	-0.7%	122	10.7%	135	-4.8%	128	-3.2%	124
Pahrump	24,181	26,399	9.2%	0.3%	26,470	4.0%	27,527	4.8%	28,847	5.6%	30,465	9.1%	33,241
Round Mountain	1,036	1,131	9.02%	-23.7%	864	-9.8%	779	0.7%	784	-2.1%	767	-3.1%	744
Tonopah	2,827	3,086	9.20%	-9.9%	2,779	-12.9%	2,422	2.4%	2,481	-5.6%	2,341	11.3%	2,607





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Las Vegas is primed to create more jobs in the upcoming year as new commercial developments are being erected and are scheduled to open in varying times throughout 2008. Although there is an abundance of housing in the Las Vegas realty market, not all of it is affordable to these new workers. Pahrump is a viable place to live due to its proximity and affordability. We will probably see new, affordable housing products proposed for the Pahrump Valley.

Based on historical data and the consideration of new population growth, we present these three scenarios for population growth:

	Base – 2008	Rate / Yr	Population 2013	Population 2018
<b>Low</b>	40,000	4%	48,660	59,210
<b>Same</b>	40,000	6%	53,529	71,634
<b>High</b>	40,000	10%	64,420	103,750

Projection: Low end reflects Pahrump strictly on its own, as its own center apart from outside influences. This is the projections included in the references given below. High end considers the large increase in the Las Vegas economy. This may cause large development to occur in Pahrump since land prices are much more affordable than in Clark County (\$50,000/acre vs. \$600,000/acre). This higher development rate is inevitable after 2010 as there is not enough available land in Clark County to sustain the growth needed to supply workers for the new casino developments currently under construction.

<sup>1</sup> *PNREAP (Pacific Northwest Regional Economic Analysis Project): Graphic Trend Analysis: Nye County Population Growth and Change, 1969 – 2005.*

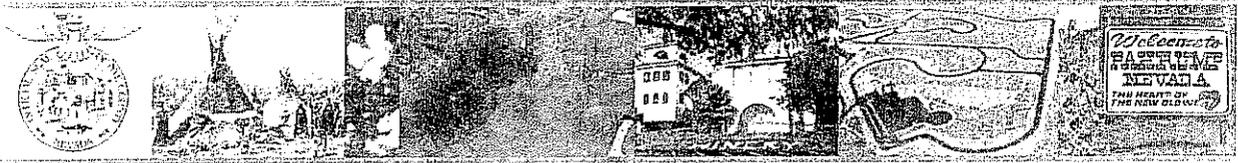
<sup>2</sup> *Comprehensive Economic Development Strategy (CEDS) for Nye County, NV, Eden, Inc., May 2007. A regional Economic Development Strategy.*

<sup>3</sup> *Nevada Certified County Population Estimates April 1, 2000 Census to July 1, 2005 Includes Cities and Towns, The Nevada State Demographer's Office, Jeff Hardcastle, AICP, NV State Demographer, University of NV Reno MS/032, Reno, NV 89557. Prepared for the NV Department of Taxation In Conjunction with the NV Small Business Development Center.*

<sup>4</sup> *Memorandum, Nye County Population Estimates Through the Second Quarter, 2007, Cheryl Beeman, AICP – Assistant Planning Director, Nye County Planning Department, July 25, 2007.*

<sup>5</sup> *Memorandum, Nye County Population Estimates Through the First Quarter, 2006, Cheryl Beeman, AICP – Assistant Planning Director, Nye County Planning Department, June 21, 2006.*





## CHAPTER 4 – GENERAL IMPROVEMENT DISTRICT FINANCING

### 300 General Improvement District

General Improvement Districts are organized and operated under the provisions of Nevada Revised Statute (NRS) 318, the General Improvement District Law. The creation of this type of District required the preparation of a "Service Plan" as outlined in subsection 1 of NRS 308.030. This document meets that definition. The formation of the District is outlined in NRS 318.055 to include (in brief):

- a. A resolution adopted by the Board of County Commissioners
- b. Initiating Ordinance
- c. The District may include noncontiguous tracts
- d. The name of the District
- e. A statement of the basic powers
- f. Creation of the District based on Board findings that:
  1. The public convenience and necessity require the creation of the District
  2. The creation of the District is economically sound and feasible
  3. The Service Plan conforms to NRS 308.030
  4. The general description of the boundary of the District
  5. Time and place of hearing to create District

#### Powers of District

General Improvement Districts can be granted broad powers as provided in NRS Chapter 318. The District has the power to furnish (i) facilities for storm drainage and flood control, as provided in NRS 135, (ii) facilities for water, as provided in NRS 318.144, (iii) streets and alleys, as provided in NRS 318.120, and (iv) recreational facilities, as provided in NRS 318.143. The District has the power to manage, control and supervise its business affairs. It has the power to hire and train staff and set their compensation. The District has the power of eminent domain. The District may set rates, tolls, connection charges, service fees, delinquent fees, and service charges. The District may convey property to a city, town or county. The District may establish a reserve fund and collect revenue and taxes to maintain the fund. The District shall have the power to levy special assessments and ad valorem taxes. Additionally, the District shall have the power to issue bonds or enter into financing agreements (including general obligation bonds, revenue backed general obligation bonds, medium term notes or bonds, local improvement bonds, or lease purchase agreements) which would or could possibly require the levy of an ad valorem tax and also the power to issue revenue bonds payable only from the gross or net revenues of the District or facilities of the District.

General obligation bonds may be issued by the District after an election. The construction of facilities and infrastructure shall be financed by any portion of the mentioned bonds or financing agreements, including, but not limited to, the utilization of the Consolidated Local Improvements Law in NRS Chapter 271, in each case subject to the discretionary approval of the District. The maintenance and operation of facilities will be funded through the imposition of certain rates, tolls, fees, and charges pursuant to NRS 318.197.





## Recommendations for Formation

It is recommended that Nye County form a General Improvement District for the Pahrump Regional Flood Control District to provide planning, design, construction and maintenance of drainage and flood control facilities recommended in this Service Plan. The District would develop, plan, fund, operate and maintain the regional flood control facilities.

The District will require funding upon formation to acquire operating services and staff, which can come partially from bond sales. Some funds may need to be borrowed until replaced by user and connection fees. For the purposes of this study, three bond issues are being studied with nominal bond issue amounts of \$160, \$220 and \$365 million. The bond issues will have a 10% reserve fund which, included with formation costs, will leave net proceeds of 85% of the nominal amounts. The purpose of the reserve fund is to continue payment of bonds should defaults occur. It is assumed that the County would eventually collect the default amount or foreclose. At that time, the reserve fund would be replenished. The reserve fund would eventually be used as the final bond payment (last year's payment).

Nye County can elect to fund all the projects included in this Service Plan for a bond amount of \$365 million. Once constructed, the District would have protection against a 100-year frequency storm and would be eligible for removal from the FEMA A Zone once all the projects are constructed. Nye County also can elect to construct a lesser project initially and fund the remaining construct through additional bond issues and/or fees as described below. Operation Maintenance needs to be funded on an on-going basis, such as a property tax increment. This arrangement supplies a continuous flow of funds.

The three project sizes we have studied include:

1. Complete Project totaling \$365,000,000.00
2. Interim Project totaling \$220,000,000.00
3. Major Basin Project totaling \$160,000,000.00

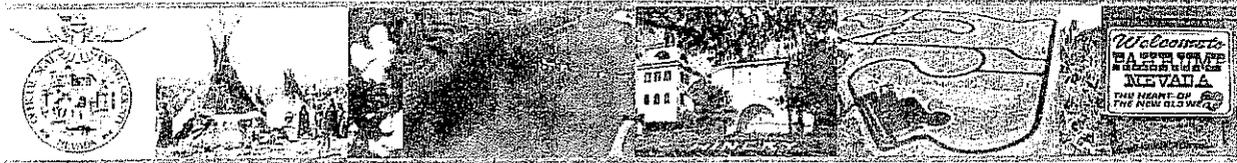
## Fees and Assessments

Depending on the amount of bonds sold to fund the District and its projects, it may be necessary to supplement the bond funds with additional taxes or fees. If the County elects to proceed with either the \$160,000,000.00 or \$220,000,000.00 bond issue program, there will be remaining work to be built in the range of \$205,000,000.00 to \$155,000,000.00 plus annual administrative and maintenance costs.

The following fees and arrangements are recommended:

### a. Complete Project

This project would provide funds to construct all projects. The Major Basin and Beltway Connector portion of this project would be assessed to all taxable property within the District.



The remaining projects would be assessed within the three (North, Central and South) drainage systems.

**b. Interim Project**

This project would construct the major basins and the downstream channels, pipelines and basins required to take the drainage west of SR 160. The Major Basin and Beltway Connector portion of this project would be assessed to all taxable property within the District. The remaining projects would be assessed within the three drainage systems.

**c. Major Basin Project**

This project would construct the Major Basins and Beltway Connector portion of this project and would be assessed to all taxable property.

**d. The Flood Control Operation and Maintenance (O & M) Fees**

This would be a charge on the property tax bill. This assessment would be charged in two components. One half would be charged to all taxable property within the District. The second half would be charged to all taxable developed properties and properties with housing on the site. Undeveloped property benefits from the system being maintained. Developed property benefits to a greater extent and it is recommended that they pay an additional share of the costs. These costs would be calculated as follows:

<i>O &amp; M Fee</i>	=	$\frac{1}{2}$ Annual Maintenance Cost = \$600,000.00	=	
<i>Developed</i>		15,866 Ac		\$37.82 Ac/Yr
<i>O &amp; M Fee</i>	=	$\frac{1}{2}$ Annual Maintenance Cost = \$600,000.00	=	
<i>Undeveloped</i>		164,103 Ac		\$3.66 Ac/Yr

The following fees would apply to the Interim Project and Major Basin Project:

**e. Detention Fee**

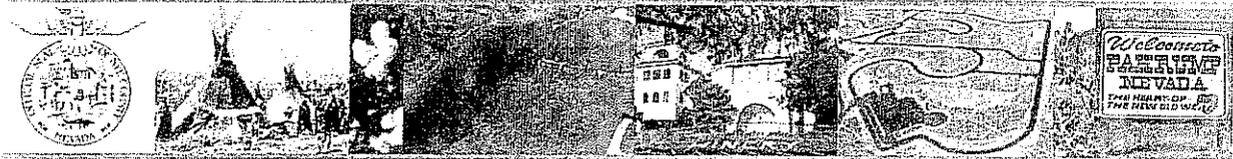
The detention fee is proposed to be the cost of the regulatory basins paid by undeveloped lots by acre. Because these basins need to be constructed earlier than later, the rate of payment is recommended to be twice the cost divided by undeveloped acres, so that we won't have unfunded basins until 100% buildout:

<i>Detention Fee</i>	=	$\frac{2 \times \$74,994,810.00}{164,103 \text{ Ac}}$	=	\$914 / Ac
<i>With \$150M Project</i>				
<i>Detention Fee</i>	=	$\frac{2 \times \$53,333,475.00}{164,103 \text{ Ac}}$	=	\$651 / Ac
<i>With \$210M Project Built</i>				

The remaining funds generated after construction of the basins could contribute to maintenance costs and construction of recreational facilities in the basins. This fee would be collected at the time a development/building permit is requested.

The detention fee is being charged against undeveloped lots because some developed lots have paid this fee and the only time it can be collected is upon development.





**f. Channel Assessment**

A channel fee assessment includes channel and right-of-way costs. These channels serve properties of both sides, halfway to the next channel. Builders/homeowners would have to be reimbursed for right-of-way and those funds would have to be acquired by the District. We should include those funds in the interim project so that right-of-way can be acquired as needed. It is recommended that a subsequent NRS 271 bond in the amount of \$106,000,000.00 be approved to fund the downstream channel improvements.

*Fees would inflate each year based upon ENR Construction Cost Index as of January 1<sup>st</sup> of each year.*

**Bond Issue Assessments**

A meeting was on December 3, 2007 at Nye County with the following participants:

- Pam Webster, Assistant County Manager
- Tammy Otero, Finance Director
- Sandy Musselman, Assessor
- Samson Yao, Public Works Director
- Don Allison, Project Manager, Bureau Veritas

We reviewed the large number of vacant parcels and their ability to pay assessments to fund the General Improvement District. A majority of the property is currently assessed and the amount of the defaults is small. There was agreement that all the property could be assessed.

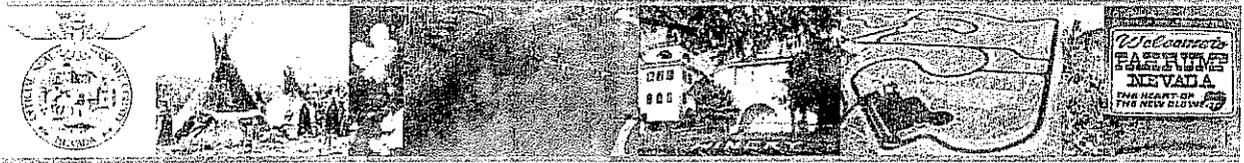
Currently, bond issue interest rates are at 6.1% in California with value to lien ratio of 4.75:1 or greater. For the purposes of this study, we assumed bond interest rates of 6.1%, 6.2%, 6.3% and 6.4% for bond amounts of \$160M, \$220M and \$365M, respectively. The higher interest rates reflect increasing risks. This is very conservative and may not reflect future market conditions.

The 20-year assessments will be as follows:

Bond Issue	Net Proceeds	Total Annual Payment	Annual Payments All Lots / Acre (186,200 acres)	Rounded Payments
\$160 M	\$136 M	\$13,254,463	\$ 71.18	\$ 75
\$220 M	\$187M	\$18,355,169	\$ 98.58	\$100
\$365 M	\$310 M	\$30,886,681	\$165.88	\$180

The distribution of assessments assumes that all land in the District equally benefits from the improvements. This is true as all properties are being removed from the flood plain. They all benefit from SR160 being free from flooding. This also makes sense because drainage is an area thing as opposed to how average daily trips defines the impact of property to traffic load.





## Appraisal

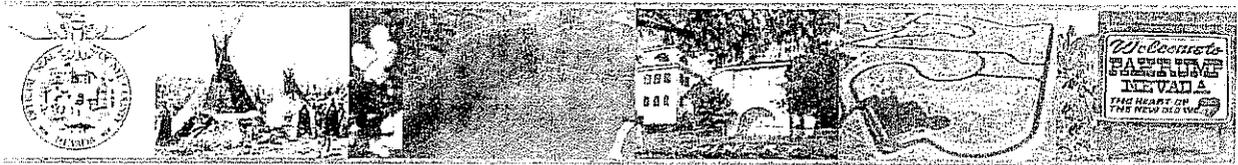
The assessed value of the land and improvements in the District is \$1,388,107,394.00. That provides a raw value to lien ratio of 3.47 for the \$400,000,000 bond issue. However, there are other bonds and obligations pledge against the properties which must be accounted for when calculating the value to lien ratio such as transportation, medical, schools, etc.

A better approach to this issue is to engage an appraisal of the District as a whole. We know that the appraisal will change the equation because the assessed value per acre is \$3,193.00. The value of the land is probably in the range of \$25,000.00 – 50,000.00 per acre depending on location with prime lots at a much higher valuation. This is a factor of 10 times plus and will validate the viability of the proposed bond issue program. At the \$25,000 per acre valuation, the value to lien ratio would be 11.64. This is over twice the minimum value to lien ratio of 4.75.

This study took into account that the value of land will be in the range stated. Actual land acquisition will be based upon specific appraisals at the time of the acquisition, not this appraisal of the District as a whole. If actual land costs were double this range, \$68,000,000.00 would have to be added to the bond amount stated in this report.

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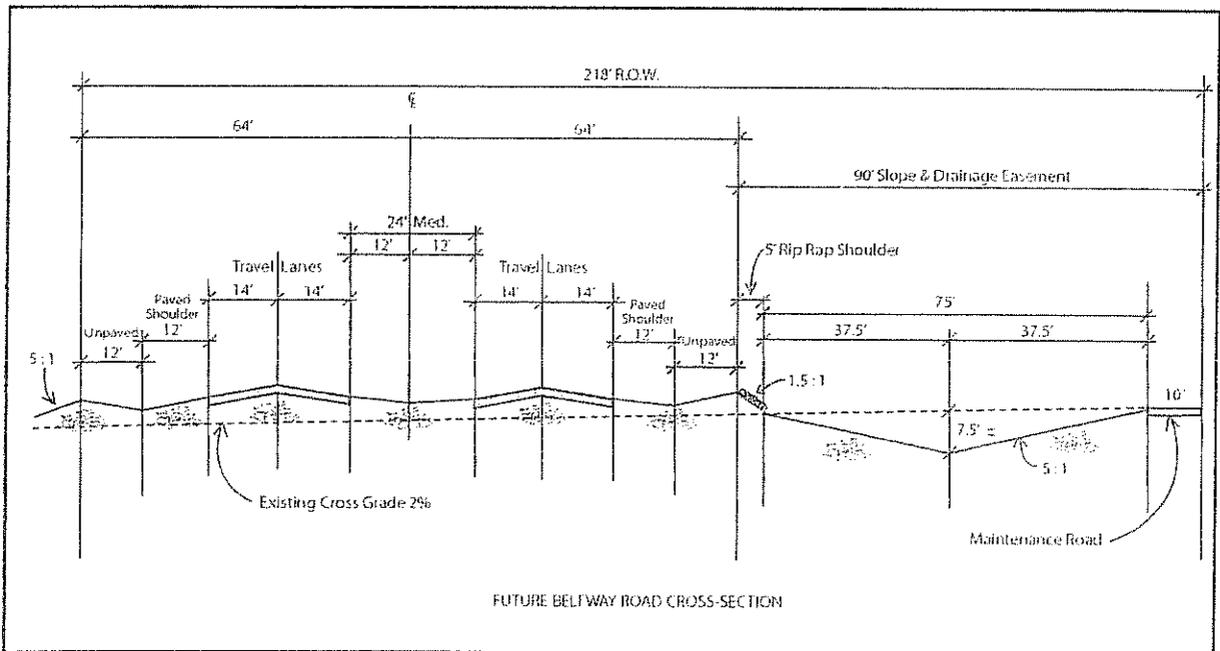
Reference: *Summary of Land Use*  
*Variable Quantifiers By Land Use*



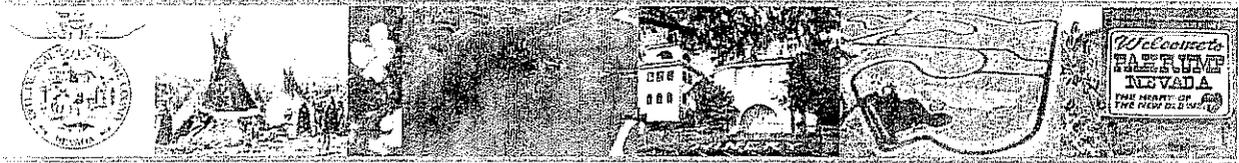
## CHAPTER 5 – FACILITY DESCRIPTION

The original facility plan prepared by Tri-Core Engineering has been modified as described in Chapter 1. We reanalyzed the entire flood control delivery system for the Pahrump Valley. Our findings have determined the best solution would be to rely on a system of detention basins to reduce peak flows and down stream flows.

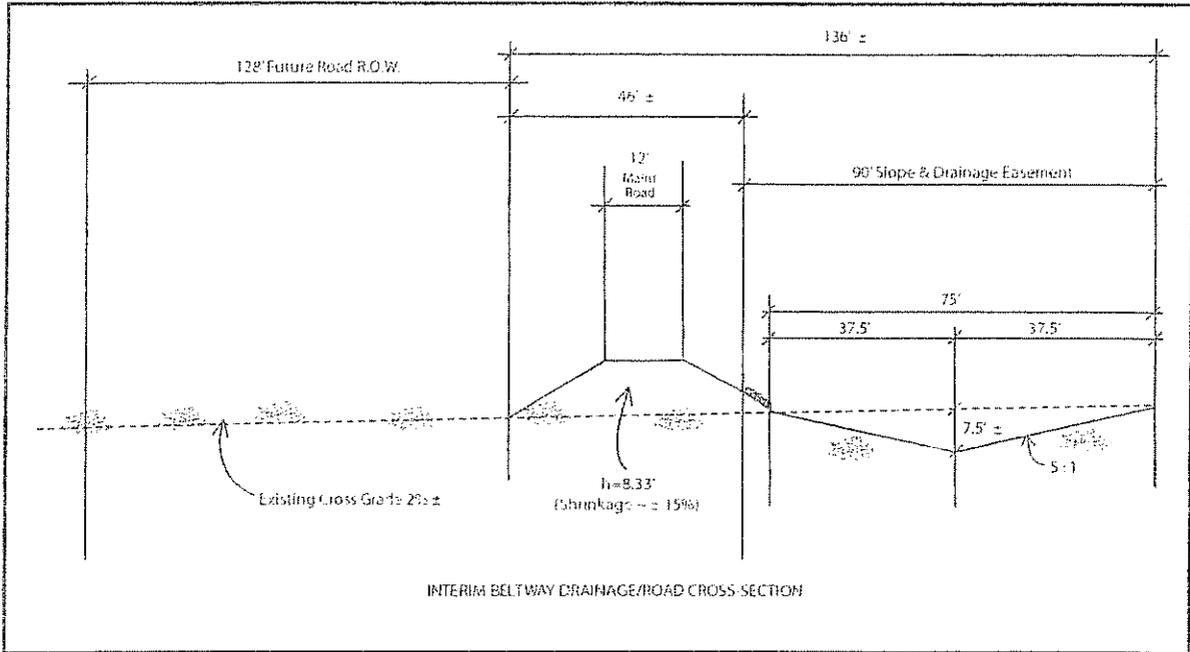
The major storm flows from the mountains to the east will be intercepted by interceptor channels built as part of the eastern beltway project and the Wheeler Wash Dams.



The interceptor channels will discharge into retention basins built on BLM land west and southwest of the interceptor channel (see yellow basins on District Map). The basins are planned to hold and discharge low flow rates over extended periods.



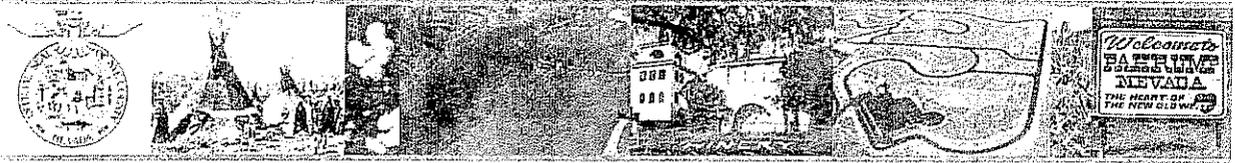
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The valley floor has been divided into three topographic zones; one for each of the three primary natural drainage courses currently discharging across Pahrump Valley. 11" x 17" copies of these three maps, along with the overall "District Map" are included in Chapter 2. Full size copies are being provided to the County. The North Valley (DM3) is the largest and most hydraulically challenging of the three. This sub-area, located north of SR372, has not been previously analyzed on the basis of conveyance distribution or cost in previous studies. The Central Valley (DM4) serves the most intensely developed area of Pahrump Valley. A major hydraulic challenge for the Central Valley (DM4) is containment and transport of storm water from Wheeler Wash, the largest of the mountain basins surrounding the valley, which concentrates storm water runoff from the approximately 93 square mile basin onto the valley floor. The South Valley (DM5) drains the sub-area south of Gamebird Road.

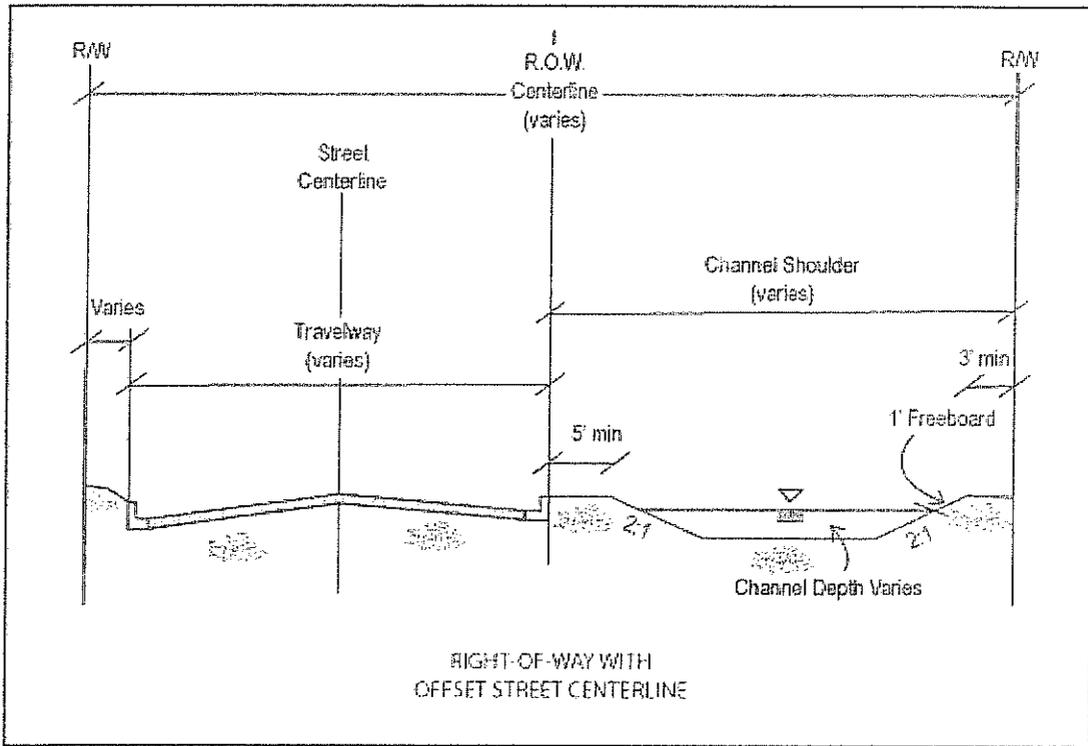
The open channel segments and valley floor regulation basins in each of the three topographic zones have been sized to transport the combined peak flows generated in the surrounding mountain basins plus a contribution of 0.4 cubic feet per acre for flows generated on valley floor properties. This flow rate was derived from the HEC1 analysis of the Valley using the 100-year, 6-hour storm event. It became cumbersome to run HEC1 models for every junction within the valley floor. This factor of 0.4cfs/ac takes into account the timing of the flows from the mountains reaching the valley flow. This will be the peak condition. The flow rates from the properties themselves will be higher because of the much lower time of concentration. Therefore, the 0.4cfs/ac factor is used just to route the storm flow from the mountains together with local valley flows. Underground pipe facilities are assumed to be limited to those areas of the Central Topographic Facilities Unit where there are known right-of-way constraints and to those portions of the system that cross major roadway intersections or convey water under State Route 160.





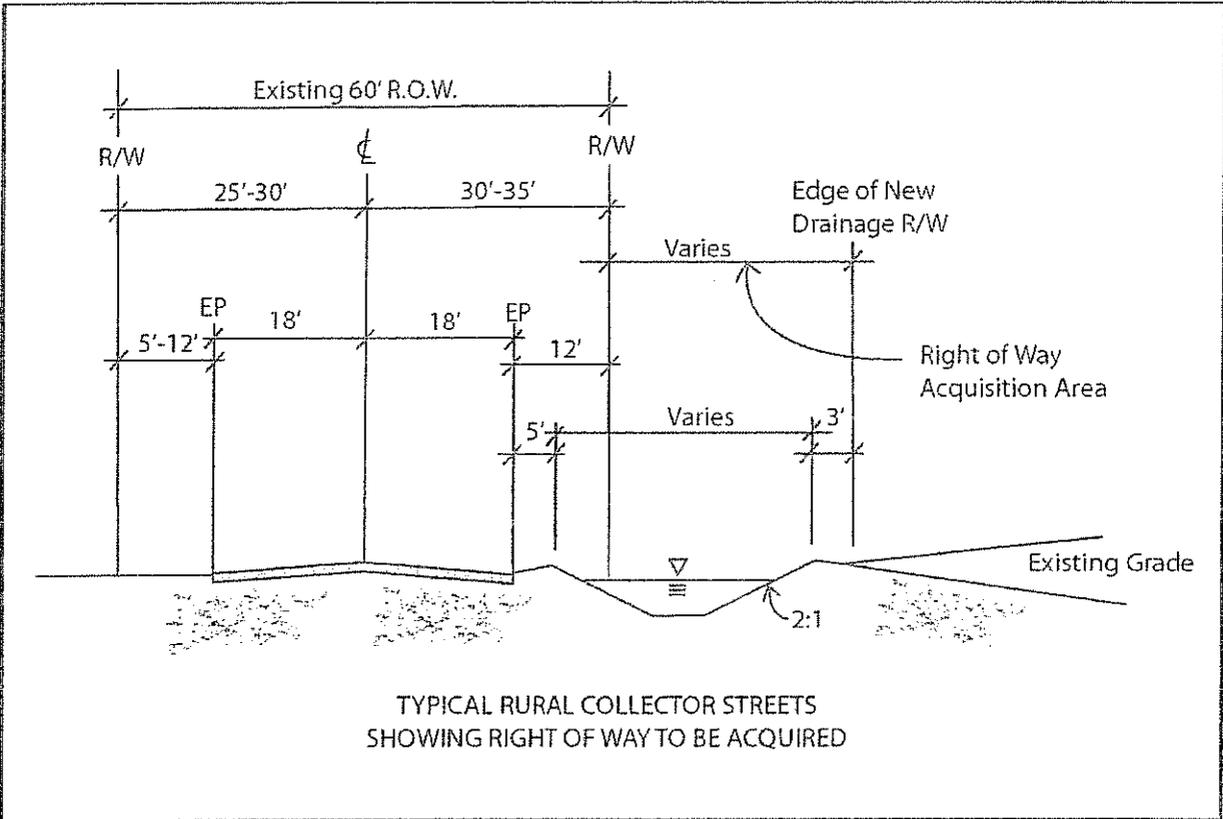
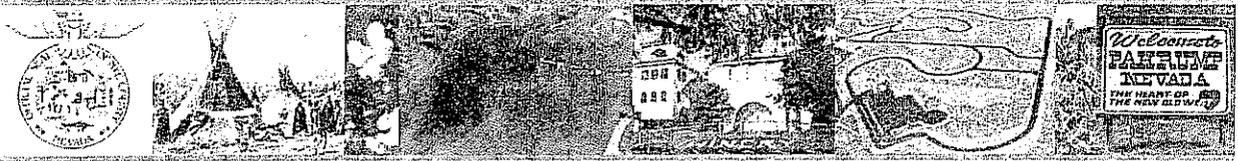
Unlined earth channels are utilized to the largest degree possible (velocities less than 5-feet per second) to both control cost and to maximize groundwater infiltration in the area where velocities are higher soil cement lining of the sides of the channel has been planned. The open channel systems in the Las Vegas Valley have performed well at higher velocities (6-7 cfs) without linings (Las Vegas Wash in particular).

### Typical Valley Floor Channel Cross Sections



Street Classification	Standard Right-of-Way	Travelway
Major Arterial	100'	70'
Urban Minor Arterial	80'	50'
Rural Minor Arterial	80'	50'
Urban Collector Street	60'	41.9'
Rural Collector Street	60'	36'
Urban Local Street	50'	26' to 40'
Rural Local Street	60'	26'





The conveyance system utilizes a series of strategically located Regulation Basins to attenuate peak flows from the surrounding mountains and a network of open channels to convey storm waters across the valley floor. The open channel segments located on the valley floor and the intermediate valley floor Regulation basins have been sized to accommodate the significant storm water runoff contribution generated from localized Valley Floor Drainage areas feeding into the Master Plan Drainage cross valley channel network. The system is uniquely designed to capitalize on the extreme flatness of the valley floor cross gradient to retain and capture as much water as possible during minor storm events for ground water recharge purposes. Combined cross valley flows in the Pahrump Valley Drainage Basin approach 70,000 cubic feet per second. Closed conveyance facilities are limited to those areas of the Central Valley that have open channel right-of-way acquisition restraints and to those portions of the system crossing major roadway intersections or conveying water under State Route 160.

The basin and channel section draining Santa Cruz Spring illustrates the major characteristics of the system. The physical dimensions, construction materials, and flow assumptions used to size the cross valley open channel and the inflow assumptions and geometry of the seven intermediate basins are indicated in the chart on page 5-6. The initiating basin for Santa Cruz spring, R500, is an earthen lined retention basin sized to intercept 100 percent of the 6 hour runoff generated from the 100 year design event. The assumed inflow from the mountain basin, 3156 cfs, has been adjusted by drainage area reduction factors to provide a reasonable reduction to the design volume of the initial basin to reduce environmental impacts to the basin area, to reduce construction costs



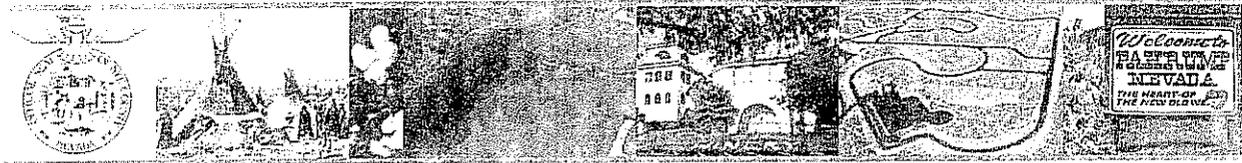


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associated with the structure and to provide for the maximum amount of infiltration of mountain generated rainfall into the valley's underground aquifer. All basins in the system are assumed to have a minimum of one foot of freeboard at maximum capacity. The maximum depth assumed for any given basin in the system is five feet. As with the other initiating basins in the system, R500 has been designed with a reduced depth, three feet, to minimize both environmental and visual impact of the major perimeter regulation basins. Each basin is also assumed to continually discharge runoff during major events at a defined rate, in this case 20 cfs. The downstream channels and intermediate regulation basins in the run are sized to include this assumed continual flow in all subsequent conveyance calculations.

Storm water leaves R500 and enters the first segment of the Santa Cruz Springs open channel system. This segment, n6300n6400, is a trapezoidal channel with side slopes of 2:1. The design flow for the segment, 212 cfs, includes the minimum 20 cfs assumed release plus a portion the flow generated by the valley floor drainage area immediately adjacent to the primary channel run.

The following is a summary of the downstream flows in this example to the outfall. These segments are also shown on the north map.



**Illustrative Example – Santa Cruz Spring Basin**  
 Santa Cruz Spring Discharge to Pahrump Valley Outfall

Channel	Segment	Type	Side	Flow D ft	Flow W ft	L ft	Q cfs	Basin	Basin Q cfs	Basin D ft	Basin Ac	Basin Vol Ac ft	Shldr W ft	Liner
Santa Cruz Spring Channel	n6300n6400	T	2	2.0	12	9180	212	R500	3156	3.0	174	522	22.9	Cmt Soil
Santa Cruz Spring Channel	n6200n6300	T	2	2.9	21	2638	655						32.7	Cmt Soil
Santa Cruz Spring Channel	n6000n6100	T	2	2.4	15	2424	256	R550	1385	3.0	81	229	26.4	Cmt Soil
Santa Cruz Spring Channel	n5900n6000	T	2	3.6	19	5652	308						30.4	Cmt Soil
Santa Cruz Spring Channel	n3600n5900	T	2	4.7	40	7974	980						51.8	Cmt Soil
Pahrump Valley North Channel	n3500n3600	T	2	4.9	52	1979	2140						63.7	Cmt Soil
Pahrump Valley North Channel	n3450n3500	T	2	5.0	117	2686	2304						129.0	None
Barney Street Channel	n3300n3400	T	2	4.7	42	2893	880	R600	2440	5.0	75	615	53.7	Cmt Soil
Barney Street Channel	n3200n3300	T	2	4.8	75	5162	1735						87.2	Cmt Soil
Barney Street Channel	n3150n3200	T	2	4.9	78	2694	2000						89.6	Cmt Soil
Barney Street Channel	n3100n3150	T	2	4.9	83	1564	2000						94.6	Cmt Soil
Murphy Street Channel	n2600n2700	T	2	4.3	29	2712	525	R850	2276	5.0	105	517	40.2	Cmt Soil
Bannavitch Street Channel	n2400n2500	T	2	1.7	13	2690	50	R1050	1300	2.0	164	294	24.9	None
Bannavitch Street Channel	n2300n2400	T	2	2.2	15	2739	50						25.8	None
Bannavitch Street Channel	n2200n2300	T	2	4.5	32	2622	410						43.9	None
Bannavitch Street Channel	n2000n2100	T	2	1.9	12	5322	50	R1300	570	1.7	79	1300	23.8	None
Bannavitch Street Channel	n1400n1900	T	2	3.0	17	5608	150	R1400	480	2.0	41	64	28.9	None
North Pahrump Valley Outfall	n1300n1400	U	50	2.0	278	2975	1573							None
North Pahrump Valley Outfall	n1200n1300	U	50	2.1	222	1275	1573							None
North Pahrump Valley Outfall	n1100n1200	U	50	2.4	307	1228	1573							None
North Pahrump Valley Outfall	n1000n1100	U	50	2.2	251	714	1573							None

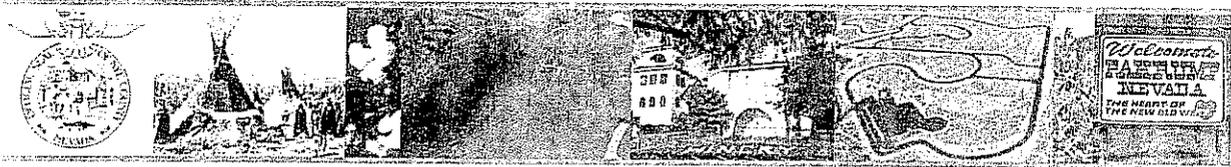
There are seven intermediate regulation basins in this run. These basins are essential elements of the Master Plan Drainage system for the valley. They serve several ends:

- They reduce the size of the downstream channel improvements
- They reduce the cost of right-of-way acquisition
- They increase the system's capacity to intercept and hold rainwater for infiltration
- They equally distribute rainwater infiltration over the subterranean aquifer
- In certain cases, they may be doubly utilized as neighborhood parks
- They lessen the impact of shoulder grading on adjacent properties
- They reduce the need for secondary maintenance access points

**Retention / Detention Basins**

The following is a summary of the retention/detention basins planned for the system. The basins are designed to store the peak flows.

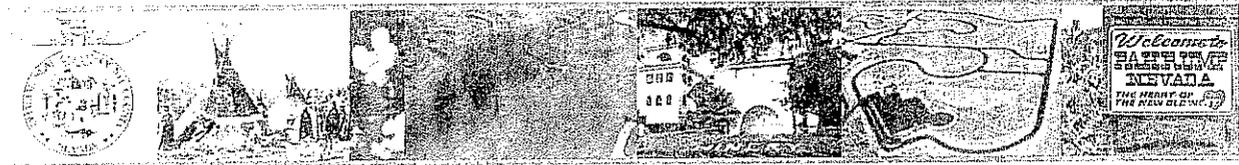




**PAHRUMP VALLEY MASTER PLAN OF DRAINAGE  
SUMMARY OF RETENTION/DETENTION BASINS**

Number	Upstream Drainage Basin	Regulation Basin Designation	Peak Inflow (cfs)	Basin Name	Volume ac-ft
1	East Horseshutem	R250	2916	North Valley Retention Basin	1826
2	West Horseshutem	R250	2680	North Valley Retention Basin	
3	Crystal Spring	R250	4222	North Valley Retention Basin	
4	Wood Canyon Spring	R100	4400	South Wood Canyon Intercept Alpha	1000
		R150	197	South Wood Canyon Intercept Beta	40
		R200	243	South Wood Canyon Intercept Gamma	55
		R300	1220	North Wood Canyon Spring Basin	202
5	Santa Cruz Spring	R500	3156	Santa Cruz Intercept Basin Alpha	522
		R550	1385	Santa Cruz Intercept Basin Beta	229
6	Horse Spring	R650	3198	Horse Springs Basin	621
		R700	557	Simkins-Blue Jay Ave Basin	99
7	Wheeler North	R900	2181	Wheeler North Basin	388
8	Wheeler Middle	R1500	898	Wheeler Middle Intercept	156
		R1600	430	Lakeview Basin	42
9	Wheeler Wash	R1550	6103	Wheeler Wash Intercept	1866
		R1650	325	Commerce Street Basin	54
		R1700	65	Malibou Basin	11
		R1750	1182	Gravel Pit Basin	196
10	Wheeler South	R1800	1571	Wheeler South Intercept	273
		R1850	547	Fairground Basin	95
11	Lovers Wash	R1950	3730	Lovers Wash Retention Basin	848
		R1900	324	Mountain View Basin	74
		R2000	251	Manse Intercept Alpha	52
12	Carpenter Canyon	R2150	4500	Carpenter Canyon Basin	1004
		R2100	500	Thousandaire Basin	124
		R2200	1480	Turner Boulevard Basin	285
		R2300	1570	Trout Channel Basin	389
13	Belle Vista	R800	3290	Belle Vista Basin	545
		R850	2276	Murphy Street Detention Basin	517
14	Last Chance	R350	330	Carrol Street Basin	66
		R400	870	Alsina Lane Basin	205
		R450	870	Cabot Street Basin	205
15	Sixmile Spring	R1000	4546	Sixmile Spring Basin	751





PAHRUMP VALLEY MASTER PLAN OF DRAINAGE SUMMARY OF RETENTION/DETENTION BASINS (Continued)					
Number	Upstream Drainage Basin	Regulation Basin Designation	Peak Inflow (cfs)	Basin Name	Volume ac-ft
16	Pahrump North	R600	2440	Cordova Street Basin	615
		R750	886	Simkins-Linda Street Basin	175
17	Pahrump	R950	1060	Mesquite Avenue Basin	188
		R1050	1300	Irene Street Basin	294
		R1100	697	Irene-David Street Basin	115
		R1150	644	Irene-Doug Way Basin	110
		R1200	544	Basin-Christy Court Basin	90
		R1250	480	Basin Avenue Basin	80
		R1300	570	Charleston Park Basin	1300
		R1350	211	Charleston-Happy Lane Basin	35
18	Pahrump South	R1400	480	Flamingo Road Basin	64
<b>Total Basin Storage Capacity</b>					<b>15806</b>

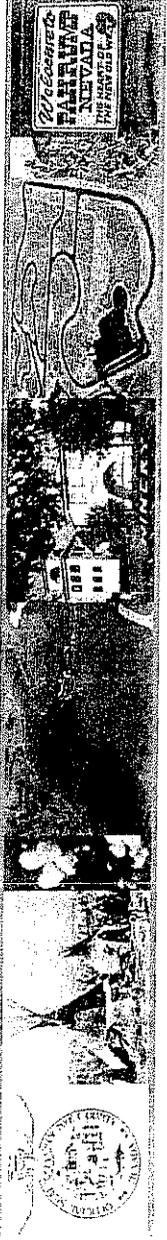
### Channels

None of the channels in the system are concrete or rip rap lined. The maximum depth assumed for any given channel is five feet, which is only approached in the highest volume channels where the increase in depth serves to reduce the overall width of the channel. The use of the depth criteria reduces both the environmental and cost impacts associated with the major flow channels in which flows, as in the case of this channel, exceed 2000 cfs. Channels sides and bottoms are planned to be hardened with soil cement when flow velocities are 5 feet per second or greater. The average velocity in the system is 6.8 fps. The mean velocity is 6.4 fps with a maximum velocity of 15 fps and a minimum velocity of 2.2 fps. Both flow depth and velocity parameters have been utilized to balance future hydraulic considerations of the ultimate channel and regulation basin facilities.

Confined channels for all cross valley flows terminate prior to discharge into the dry lakes to the west. The depth and width of flow in the natural channels has been calculated and discharge assumptions for each channel termination have been hydraulically matched to provide an opportunity to minimize future transitional erosion.

The list of projects is contained in Chapter 7, Estimate of Costs. Below is a summary of channel segments within the Pahrump Valley. In this list Channel Type (Chan Type) is indicated as "T" for Trapezoidal; "U" for existing Natural Channel; and "CMP" for Corrugated Metal Pipe.



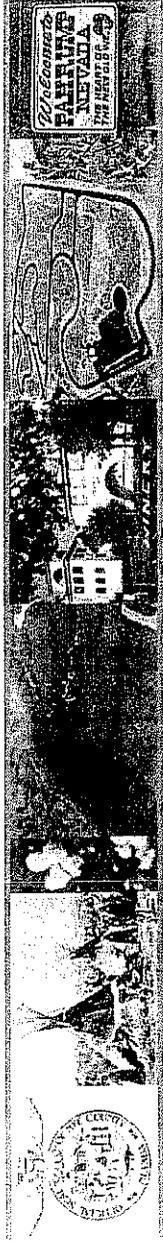


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## PAHRUMP VALLEY MASTER PLAN OF DRAINAGE SUMMARY OF CHANNEL SEGMENTS

Valley	Channel	Segment	L-ft	Chan -Shldr ft	Chan Type	Liner	Pipe Dia	#	Route Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Area ac	Basin Depth ft	Basin Vol ac-ft
North	Alsina Lane Channel	n4200n4250	5263	20.3	T	Cement Soil			50	0.014	1.3	8.7	6.5	R400	52	4	205
North	Bannavitch Street Channel	n2900n3000	2629	23.0	T	Unlined			50	0.002	2.0	10.9	3.6	R800	189	3	545
North	Bannavitch Street Channel	n2800n2900	1373	26.8	T	Unlined			114	0.002	3.0	15.0	4.3				
North	Bannavitch Street Channel	n2400n2500	2690	24.9	T	Unlined			50	0.001	1.7	13.3	3.0	R1050	164	2	294
North	Bannavitch Street Channel	n2300n2400	2739	25.8	T	Unlined			50	0.001	2.2	14.7	2.3				
North	Bannavitch Street Channel	n2200n2300	2622	43.9	T	Unlined			410	0.001	4.5	31.9	4.0				
North	Bannavitch Street Channel	n2000n2100	5322	23.8	T	Unlined			50	0.002	1.9	12.1	3.2	R1300	79	1.7	1300
North	Bannavitch Street Channel	n1400n1900	5608	28.9	T	Unlined			150	0.002	3.0	17.4	4.5	R1400	41	2	64
North	Barney Street Channel	n3300n3400	2893	53.7	T	Cement Soil			880	0.002	4.7	42.0	5.8	R600	75	5	615
North	Barney Street Channel	n3200n3300	5162	87.2	T	Cement Soil			1735	0.001	4.8	75.4	5.5				
North	Barney Street Channel	n3150n3200	2694	89.6	T	Cement Soil			2000	0.001	4.9	77.8	6.0				
North	Barney Street Channel	n3100n3150	1584	94.6	T	Cement Soil			2000	0.001	4.9	82.6	5.6				
North	Basin Avenue Channel	n8400n8500	12063	32.7	T	Cement Soil			292	0.004	3.4	21.5	6.0	R1250	24	3.5	80
North	Basin Avenue Channel	n8350n8400	2545	34.4	T	Unlined			292	0.002	4.1	23.2	4.9				
North	Basin Avenue Channel	n2300n8300	6331	30.6	T	Unlined			192	0.002	3.4	18.9	4.7	R1200	38	2.5	90
North	Cabot Street Channel	n3800n3850	2833	21.8	T	Unlined			50	0.006	1.4	9.8	5.0	R450	52	4	205
North	Charleston Park Channel	n8800n8900	6566	26.7	T	Cement Soil			136	0.004	2.9	14.9	5.2				
North	Charleston Park Channel	n8700n8750	2537	25.2	T	Unlined			80	0.002	2.0	14.1	4.1	R1350	40	1	35
North	Charleston Park Channel	n8600n8700	3920	30.7	T	Unlined			174	0.002	3.4	19.2	4.2				
North	Fleming Road Channel	n9000n9100	3903	34.2	T	Cement Soil			294	0.003	3.5	22.2	5.5				
North	Irene Street Channel	n8200n8250	2617	26.7	T	Cement Soil			140	0.005	2.7	15.1	5.5	R1150	48	2.5	110





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Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Depth ft	Basin Area ac	Basin Vol ac-ft
North	Irene Street Channel	n8150n8200	2662	30.1	T	Cement Soil			260	0.005	3.8	18.6	6.4				
North	Irene Street Channel	n8100n8150	4256	33.7	T	Cement Soil			380	0.004	4.4	22.1	6.6				
North	Irene Street Channel	n8000n8050	2648	27.3	T	Unlined			140	0.003	2.8	16.2	4.9	R1100	697	27	115
North	Irene Street Channel	n7950n8000	5040	37.8	T	Unlined			297	0.002	3.0	26.3	5.0				
North	Irene Street Channel	n7900n7950	2705	39.3	T	Unlined			382	0.001	3.8	27.9	5.0				
North	Linda Street Channel	n4800n4850	1206	25.1	T	Unlined			50	0.005	2.0	13.3	2.7				
North	Murphy Street Channel	n2600n2700	2712	40.2	T	Cement Soil			525	0.003	4.3	29.0	6.1	R850	2276	105	517
North	North Pahrump Valley Outfall	n1700n1800	10786	26.7	T	Cement Soil			178	0.008	2.4	15.6	7.1	R1000	4546	238	751
North	North Pahrump Valley Outfall	n1600n1700	5308	41.1	T	Unlined			440	0.001	5.8	30.2	4.2				
North	North Pahrump Valley Outfall	n1500n1600	2106	56.2	T	Unlined			766	-	4.3	44.3	5.0				
North	North Pahrump Valley Outfall	n1400n1500	6915	59.3	T	Cement Soil			1224	0.002	4.8	47.7	6.7				
North	North Pahrump Valley Outfall	n1300n1400	2975	na	U	Natural			1573	0.003	2.0	277.5	4.4				
North	North Pahrump Valley Outfall	n1200n1300	1275	na	U	Natural			1573	0.008	2.1	222.1	6.4				
North	North Pahrump Valley Outfall	n1100n1200	1228	na	U	Natural			1573	0.002	2.4	306.8	3.5				
North	North Pahrump Valley Outfall	n1000n1100	714	na	U	Natural			1573	0.004	2.2	251.2	5.1				
North	North Wood Canyon Channel	n4400n4450	2702	28.4	T	Unlined			88	-	2.4	17.1	3.1	R300	1220	41	202
North	Pahrump Valley North Channel	n4400n4500	4159	20.0	T	Cement Soil			50	0.012	1.5	8.9	6.1	R250	9818	456	1826
North	Pahrump Valley North Channel	n4200n4300	1977	20.5	T	Cement Soil			50	0.012	1.4	8.9	6.1	R350	330	41	66
North	Pahrump Valley North Channel	n4100n4200	1842	27.0	T	Cement Soil			174	0.007	2.5	15.7	6.7				
North	Pahrump Valley North Channel	n4000n4100	1220	28.2	T	Cement Soil			174	0.004	2.8	16.8	5.7				
North	Pahrump Valley North Channel	n3900n4000	843	26.6	T	Cement Soil			174	0.007	2.7	15.5	6.7				
North	Pahrump Valley North Channel	n3800n3900	1709	31.8	T	Cement Soil			303	0.005	3.4	19.9	6.8				





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Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Depth ft	Basin Area ac	Basin Vol ac-ft
North	Pahrump Valley North Channel	n3700n3800	1502	34.9	T	Cement			345	0.003	4.0	23.4	5.7				
North	Pahrump Valley North Channel	n3600n3700	2657	36.1	T	Cement			667	0.007	5.0	24.3	9.4				
North	Pahrump Valley North Channel	n3500n3600	1979	63.7	T	Cement			2140	0.005	4.9	51.8	10.4				
North	Pahrump Valley North Channel	n3450n3500	2686	129.0	T	Unlined			2304	0.001	5.0	117.1	4.3				
North	Santa Cruz Spring Channel	n6300n6400	9180	22.9	T	Cement			212	0.048	2.0	11.5	14.7	R500	3	174	522
North	Santa Cruz Spring Channel	n6200n6300	2638	32.7	T	Cement			655	0.025	2.9	20.8	15.0				
North	Santa Cruz Spring Channel	n6000n6100	2424	26.4	T	Cement			256	0.018	2.4	15.3	10.7	R550	3	81	229
North	Santa Cruz Spring Channel	n5900n6000	5652	30.4	T	Cement			308	0.006	3.6	18.5	7.6				
North	Santa Cruz Spring Channel	n3600n5900	7974	51.8	T	Cement			980	0.002	4.7	40.3	6.8				
North	South Wood Canyon Channel	n5800n5850	1294	18.1	T	Cement			50	0.038	1.0	7.0	11.0	R100	3.7000000048	274	1000
North	South Wood Canyon Channel	n5700n5800	5320	21.7	T	Cement			160	0.049	1.7	10.8	13.8				
North	South Wood Canyon Channel	n5600n5700	2811	21.6	T	Cement			160	0.056	1.6	10.5	14.5				
North	South Wood Canyon Channel	n5400n5500	3843	22.7	T	Cement			196	0.043	1.9	11.7	13.9	R150	2	21	40
North	South Wood Canyon Channel	n5300n5400	2426	22.5	T	Cement			196	0.047	1.9	11.5	14.3				
North	South Wood Canyon Channel	n5200n5300	2920	23.7	T	Cement			225	0.040	2.2	11.8	14.0				
North	South Wood Canyon Channel	n5150n5200	1424	24.6	T	Cement			225	0.028	2.1	13.4	12.1				
North	Wheeler North Channel	n7700n7800	5712	20.6	T	Cement			100	0.043	1.4	9.2	11.7	R900	3	130	388
North	Wheeler North Channel	n7650n7700	5178	24.0	T	Cement			225	0.034	2.2	12.2	13.2				
North	Wheeler North Channel	n7600n7650	2400	26.8	T	Cement			375	0.026	2.9	15.9	13.5				
North	Wheeler North Channel	n7500n7600	5562	35.3	T	Cement			600	0.007	4.8	23.3	9.1				





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Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Rout Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Depth ft	Basin Area ac	Basin Vol ac-ft
North	Wheeler North Channel	n7400n7500	1381	48.6	T	Cement Soil			870	0.002	4.9	36.9	6.6				
North	Wheeler North Channel	n7200n7300	5251	26.6	T	Unlined			115	0.003	2.4	15.3	4.7	R950	2.5	80	188
North	Wheeler North Channel	n7100n7200	6685	42.9	T	Unlined			515	0.001	4.7	31.7	5.0				
North	Wood Canyon Channel	n5050n5100	2990	19.6	T	Cement Soil			60	0.027	1.4	8.0	8.6	R200	2	35	55
North	Wood Canyon Channel	n5000n5050	526	26.9	T	Unlined			76	0.006	1.2	15.0	5.0				
North	Wood Canyon Channel	n4950n5000	1946	23.7	T	Unlined			76	0.004	1.9	12.1	4.9				
North	Wood Canyon Channel	n4900n4950	1186	23.6	T	Unlined			76	0.004	2.1	12.1	4.7				
North	Wood Canyon Channel	n4800n4900	2751	37.5	T	Unlined			265	0.001	4.6	25.8	3.5				
North	Wood Canyon Channel	n4700n4800	3259	41.2	T	Unlined			265	0.001	3.8	29.6	3.2				
North	Wood Canyon Channel	n4650n4700	565	32.8	T	Cement Soil			366	0.005	3.7	20.8	7.4				
North	Wood Canyon Channel	n4600n4650	1278	35.2	T	Cement Soil			366	0.003	3.8	24.2	6.0				
North	Wood Canyon Channel	n3700n4600	1293	41.5	T	Unlined			366	0.002	3.1	30.0	5.0				
North	Woodchips-Simkin Channel	n6950n7000	6704	21.3	T	Cement Soil			143	0.045	1.8	10.0	13.1	R650	3	207	621
North	Woodchips-Simkin Channel	n6800n6900	2610	17.3	T	Cement Soil			20	0.026	0.8	5.5	6.4	R700	2.7	38	99
North	Woodchips-Simkin Channel	n6700n6800	7977	28.4	T	Cement Soil			275	0.009	3.1	17.2	8.4				
North	Woodchips-Simkin Channel	n6650n6700	2768	35.5	T	Cement Soil			543	0.005	4.4	24.6	8.1				
North	Woodchips-Simkin Channel	n6500n6600	5284	24.0	T	Unlined			60	0.003	1.8	12.5	3.9	R750	5	35	175
North	Woodchips-Simkin Channel	n3300n6500	4002	32.9	T	Unlined			201	0.001	3.2	21.7	4.2				
Central	Blagg Channel	c5100c3200	3038	47.9	T	Unlined			631	-	4.7	36.4	5.0				
Central	Blagg Channel	c5080c5100	1840	49.4	T	Unlined			654	0.001	4.6	37.9	5.0				
Central	Blagg Channel	c5040c5080	3073	54.2	T	Cement Soil			828	0.001	5.0	42.4	5.1				
Central	Blagg Channel	c5000c5040	2281	52.8	T	Cement Soil			948	0.002	5.2	40.8	6.0				
Central	Calvada Channel	c3720c3900	1513	na	CMP	Pipe	4	2	45	-	3.9	8.0	4.7				
										0.001							

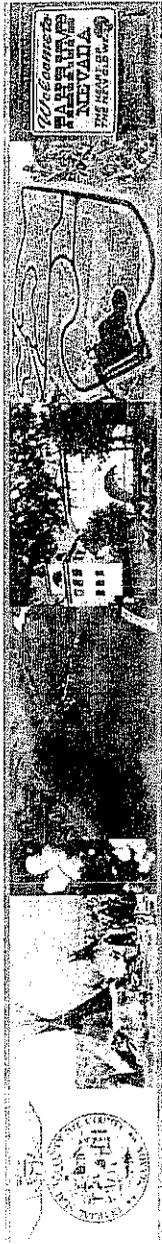




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Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	Pipe #	Rout Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Area ac	Basin Depth ft	Basin Vol ac-ft
Central	Calvada Channel	c3720c3800	4569	na	CMP	Pipe	3.5	2	89	0.008	3.4	7.0	6.1				
Central	Calvada Channel	c3700c3720	1815	30.3	T	Cement Soil			266	0.006	3.1	18.6	7.0				
Central	Calvada Channel	c3300c3700	3550	32.4	T	Cement Soil			394	0.006	4.1	20.7	7.8				
Central	Calvada Channel	c3200c3300	1068	35.7	T	Cement Soil			482	0.004	4.7	24.4	7.0				
Central	Gamebird-Pahrump Channel	c7700c9200	1975	30.1	T	Cement Soil			276	0.005	3.5	18.9	6.8				
Central	Gamebird-Pahrump Channel	c7400c7700	5340	43.0	T	Cement Soil			675	0.004	3.8	31.2	7.6				
Central	Gamebird-Pahrump Channel	c6200c7400	5423	45.8	T	Cement Soil			1005	0.004	4.7	34.1	8.7				
Central	Gamebird-Pahrump Channel	c5300c6200	5234	48.5	T	Cement Soil			1290	0.005	4.9	36.9	9.8				
Central	Gamebird-Pahrump Channel	c5200c5300	2742	na	U	Natural			1675	0.006	1.9	265.1	5.2				
Central	Gamebird-Pahrump Channel	c5000c5200	3068	na	U	Natural			1729	0.005	2.3	262.3	5.1				
Central	Gamebird-Pahrump Channel	c4900c5000	2321	na	U	Natural			2310	0.005	2.8	290.4	5.5				
Central	Gamebird-Pahrump Channel	c4800c4900	1666	na	U	Natural			2310	0.008	2.1	274.6	6.5				
Central	Gamebird-Pahrump Channel	c4700c4800	2302	na	U	Natural			2310	0.004	2.4	318.2	4.9				
Central	Homestead Channel	c7575c7600	2263	na	CMP	Pipe	4.5	2	158	0.004	4.4	9.0	5.5				
Central	Homestead Channel	c7550c7575	3337	28.5	T	Cement Soil			201	0.006	2.6	17.2	6.6				
Central	Homestead Channel	c7500c7550	2824	30.5	T	Cement Soil			330	0.007	3.6	18.8	8.0				
Central	Homestead Channel	c7400c7500	505	32.4	T	Cement Soil			330	0.004	3.8	21.0	6.6				
Central	Lakeview Golf Course Channel	c3100c3150	569	na	CMP	Pipe	3	1	50	0.030	2.9	3.0	7.3	R1600	430	3	14
Central	Lakeview Golf Course Channel	c3000c3100	1478	na	CMP	Pipe	3	1	50	0.026	2.9	3.0	7.3				
Central	Lakeview Golf Course Channel	c2900c3000	763	na	CMP	Pipe	4	1	119	0.020	3.9	4.0	9.7				
Central	Lakeview Golf Course Channel	c2800c2900	1459	na	CMP	Pipe	4	1	119	0.007	3.9	4.0	9.7				
Central	Lakeview Golf Course Channel	c2700c2800	1562	80.3	T	Unlined			196	0.012	0.6	68.3	5.0				





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Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Q cfs	So	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Area ac	Basin Depth ft	Basin Vol ac-ft
Central	Lakeview Golf Course Channel	c2600c2700	1665	77.0	T	Unlined			235	0.008	0.7	65.0	5.0				
Central	Lakeview Golf Course Channel	c2500c2600	2572	30.1	T	Cement Soil			279	0.006	3.5	18.3	7.1				
Central	Lakeview Golf Course Channel	c2400c2500	1054	38.7	T	Unlined			347	-	4.4	26.7	4.4				
Central	Lakeview Golf Course Channel	c2300c2400	2288	32.2	T	Cement Soil			378	0.007	3.3	20.9	8.2				
Central	Lakeview Golf Course Channel	c2200c2300	1077	36.3	T	Cement Soil			461	0.004	4.1	25.2	6.8				
Central	Lakeview Golf Course Channel	c2100c2200	3536	41.7	T	Cement Soil			461	0.002	4.4	29.7	5.0				
Central	Lakeview Golf Course Channel	c2000c2100	886	50.3	T	Unlined			670	-	4.6	38.6	5.0				
Central	Lakeview Golf Course Channel	c1900c2000	1234	45.6	T	Cement Soil			670	0.002	4.7	33.8	5.9				
Central	Malibou Channel	c7700c7750	5488	29.6	T	Cement Soil			235	0.005	3.1	18.0	6.5	R1700	13	1	11
Central	Manse Channel	c9875c9900	6993	22.8	T	Cement Soil			146	0.026	1.9	11.2	10.6	R2000	48	1.25	52
Central	Manse Channel	c9850c9875	3400	32.9	T	Cement Soil			380	0.006	3.5	21.4	7.7				
Central	Manse Channel	c9800c9850	1567	35.1	T	Cement Soil			589	0.008	4.3	23.1	9.5				
Central	Manse Channel	c8000c9800	5326	40.4	T	Cement Soil			776	0.004	5.6	28.2	8.1				
Central	Manse Channel	c7300c8000	3220	47.8	T	Cement Soil			1133	0.004	5.0	36.0	8.8				
Central	Manse Channel	c7200c7300	11751	55.7	T	Cement Soil			1642	0.005	4.9	44.0	9.8				
Central	Manse Channel	c7100c7200	1595	na	U	Natural			1924	0.010	1.8	236.1	7.3				
Central	Manse Channel	c7000c7100	2468	na	U	Natural			1970	0.006	2.2	262.7	5.9				
Central	Manse Channel	c4700c7000	6425	na	U	Natural			2062	0.004	2.1	286.1	5.4				
Central	Mount Charleston Channel	c6100c4500	1276	33.8	T	Unlined			211	-	3.7	22.1	3.9				
Central	Mount Charleston Channel	c6000c6100	1552	30.6	T	Cement Soil			228	0.003	3.6	18.7	5.5				
Central	Mount Charleston Channel	c5900c6000	4278	27.8	T	Cement Soil			245	0.010	2.7	16.3	8.5				

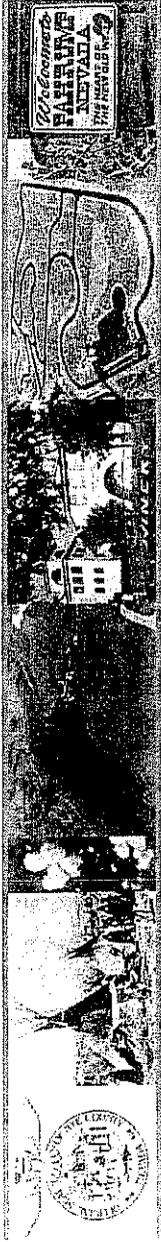




Pahump Regional Planning District Drainage and Flood Control Service Plan - FINAL REPORT - March 5, 2008

Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Rout Q cfs	S <sub>o</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Area ac	Basin Depth ft	Basin Vol ac-ft
Central	Mount Charleston Channel	c5800c5900	656	32.1	T	Cement			368	0.006	3.5	20.4	7.9				
Central	Mount Charleston Channel	c5700c5800	1079	32.8	T	Soil			368	0.006	3.4	21.5	7.5				
Central	Mount Charleston Channel	c5600c5700	807	38.1	T	Soil			391	0.004	5.5	26.8	4.6				
Central	Mount Charleston Channel	c5500c5600	839	31.5	T	Unlined			391	0.007	3.9	20.1	8.4				
Central	Mount Charleston Channel	c5400c5500	1128	34.4	T	Soil			452	0.006	3.8	22.7	7.9				
Central	Mount Charleston Channel	c5300c5400	4390	41.5	T	Soil			498	0.001	5.1	29.8	5.0				
Central	Mount Charleston Channel	c4500c4600	1257	na	CMP	Pipe	2.5	3	104	0.026	2.4	7.5	8.7				
Central	Mount Charleston Channel	c4500c4100	1890	8.0	CMP	Pipe	2	2	80	0.004	1.9	4.0	7.9				
Central	Mount Charleston Channel	c4200c4300	1071	na	CMP	Pipe	2	2	50	0.029	1.9	4.0	7.9	R1650	40	1.5	54
Central	Mount Charleston Channel	c4100c4200	663	na	CMP	Pipe	3.5	1	80	0.033	3.4	3.5	8.6				
Central	Mountain View Channel	c9700c9750	3162	na	CMP	Pipe	2.5	1	50	0.045	2.4	2.5	10.5	R1950	283	3	848
Central	Mountain View Channel	c9300c9400	970	na	CMP	Pipe	3	1	50	0.027	2.9	3.0	7.3	R1900	17	4.3	74
Central	Mountain View Channel	c9200c9300	8937	24.8	T	Cement			125	0.507	2.5	12.9	6.4				
Central	Pahump Valley Outfall	c1200c4700	7540	na	U	Soil			3870	0.003	3.0	388.2	5.4				
Central	Pahump Valley Outfall	c1100c1200	5084	na	U	Natural			4632	0.003	3.1	403.3	6.0				
Central	Pahump Valley Outfall	c1000c1100	3068	na	U	Natural			4955	0.004	3.4	385.3	6.8				
Central	Unicorn Channel	c6700c6800	1644	na	CMP	Pipe	4.5	1	109	0.015	4.4	4.5	7.1				
Central	Unicorn Channel	c6600c6700	1100	na	CMP	Pipe	6	1	118	0.002	5.8	6.0	4.3				
Central	Unicorn Channel	c6500c6600	347	na	CMP	Pipe	5.5	1	118	0.005	5.3	5.5	5.1				
Central	Unicorn Channel	c6400c6500	629	na	CMP	Pipe	5	1	148	0.010	4.9	5.0	7.8				
Central	Unicorn Channel	c6300c6400	2825	na	CMP	Pipe	5	1	155	0.013	4.9	5.0	8.1				
Central	Unicorn Channel	c6340c6360	1294	na	CMP	Pipe	6	2	170	-	5.8	12.0	3.1				
Central	Unicorn Channel	c6300c6340	485	na	CMP	Pipe	5.5	2	215	0.004	5.3	11.0	4.7				
Central	Unicorn Channel	c6200c6300	5227	34.6	T	Unlined			215	0.001	3.4	22.7	4.0				
Central	Wheeler Intercept Bypass Channel	c7850c7875	4296	26.4	T	Unlined			100	0.004	1.9	14.6	5.0	R1500	52	3	156





Fairport Regional Planning District Drainage and Flood Control Service Plan -- FINAL REPORT -- March 5, 2008

Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Chan V fps	Basin Q cfs	Basin Depth ft	Basin Area ac	Basin Vol ac-ft
Central	Wheeler Intercept Channel	c7800c7825	5303	21.3	T	Cement	2	1	100	0.025	1.8	9.5	9.6	R1550	4	452	1866
Central	Wheeler Intercept Bypass Channel	c7760c7775	1054	na	CMP	Pipe	4.5	1	50	0.004	4.4	4.5	3.2	R1750	5.4	36	196
Central	Wheeler-Fairground Channel	c9200c8700	1640	na	CMP	Pipe	4	1	331	0.028	2.1	16.4	13.0	R1800	4	72	273
Central	Wheeler-Fairground Channel	c8900c9000	3037	28.3	T	Cement	4	1	50	0.007	3.9	4.0	4.1	R1850	4	24	95
Central	Wheeler-Fairground Channel	c8700c8800	4942	na	CMP	Pipe	4	1	680	0.000	4.5	39.4	5.0				
Central	Winchester Channel	c1800c1900	351	51.0	T	Unlined			807	0.002	4.6	38.0	6.1				
Central	Winchester Channel	c1700c1800	3337	49.6	T	Cement			931	0.003	4.8	36.6	7.2				
Central	Winchester Channel	c1650c1700	2210	48.3	T	Soil			931	0.003	4.8	36.6	7.3				
Central	Winchester Channel	c1600c1650	664	48.0	T	Soil			931	0.003	4.8	36.6	7.3				
Central	Winchester Channel	c1500c1600	677	58.4	T	Cement			931	0.001	4.6	46.9	5.4				
Central	Winchester Channel	c1400c1500	3670	59.9	T	Soil			1053	0.002	4.7	47.9	5.8				
Central	Winchester Channel	c1300c1400	706	na	U	Soil			1410	0.003	2.3	254.1	4.2				
Central	Winchester Channel	c1200c1300	3582	na	U	Natural			1410	0.003	2.3	254.1	4.2				
South	Carpenter Outfall Channel	s1200s1300	9914	na	U	Natural			2250	0.006	2.5	286.3	5.6				
South	Carpenter Outfall Channel	s1100s1200	2293	na	U	Natural			2500	0.004	2.4	319.3	5.2				
South	Carpenter Outfall Channel	s1000s1100	2206	na	U	Natural			2500	0.005	2.9	305.7	5.4				
South	Delores Channel	s2800s2900	3394	24.3	T	Cement			150	0.015	2.1	12.8	8.6				
South	Delores Channel	s2700s2800	5289	34.2	T	Soil			495	0.006	4.3	23.0	8.2				
South	Kellog Road Channel	s1640s1650	2694	26.9	T	Soil			148	0.005	2.5	15.9	5.7				
South	Kellog Road Channel	s1620s1640	5109	28.6	T	Soil			235	0.006	3.1	17.0	7.1				
South	Kellog Road Channel	s1600s1620	7622	34.8	T	Soil			502	0.006	4.2	23.1	8.2				
South	Thousantaire Channel	s1850s1900	10495	28.9	T	Cement			310	0.010	3.2	17.6	8.9	R2100	2.7	42	124

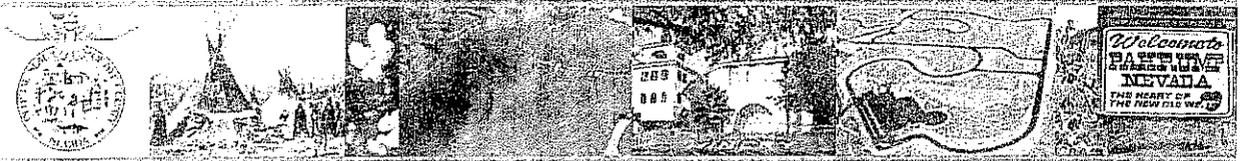




Pahrump Regional Planning District Drainage and Flood Control Service Plan – FINAL REPORT – March 5, 2008

Valley	Channel	Segment	L-ft	Chan Shldr ft	Chan Type	Liner	Pipe Dia	#	Q cfs	S <sub>0</sub>	Flow D ft	Flow W ft	Flow V fps	Chan V fps	Basin Q cfs	Basin Depth ft	Basin Area ac	Basin Vol ac-ft
South	Thousandaire Channel	s1800s1850	10151	38.1	T	Cement Soil			660	0.005	4.5	26.8	8.4					
South	Thousandaire Channel	s1700s1800	648	43.1	T	Cement Soil			795	0.003	5.3	31.9	7.2					
South	Thousandaire Channel	s1600s1700	4616	59.5	T	Unlined Soil			795	0.001	4.9	47.7	4.3					
South	Thousandaire Channel	s1500s1600	2715	52.1	T	Cement Soil			1383	0.005	4.5	40.3	9.8					
South	Thousandaire Channel	s1400s1500	1786	na	U	Natural			1383	0.006	1.8	243.1	5.0					
South	Thousandaire Channel	s1300s1400	1515	na	U	Natural			1383	0.009	1.7	224.2	5.8					
South	Trout Channel	s3700s3800	824	21.5	T	Unlined			50	0.005	1.6	9.5	4.9					
South	Trout Channel	s3600s3700	2677	27.1	T	Cement Soil			180	0.007	2.5	15.9	6.8		R2300	78	389	
South	Trout Channel	s3500s3600	873	29.4	T	Cement Soil			180	0.004	2.9	17.8	5.3					
South	Trout Channel	s3400s3500	1745	30.8	T	Cement Soil			310	0.006	3.4	19.0	7.5					
South	Trout Channel	s3300s3400	439	32.8	T	Cement Soil			310	0.003	3.9	21.2	6.0					
South	Trout Channel	s3200s3300	3518	31.2	T	Cement Soil			310	0.006	3.3	19.1	7.5					
South	Trout Channel	s3100s3200	2329	39.1	T	Cement Soil			485	0.003	4.3	27.9	6.0					
South	Trout Channel	s3000s3100	1669	33.7	T	Cement Soil			485	0.007	3.7	22.7	8.9					
South	Turner Channel	s2500s2600	3081	19.3	T	Cement Soil			50	0.025	1.3	7.5	8.0		R2150	311	1004	
South	Turner Channel	s2400s2500	2465	19.8	T	Cement Soil			50	0.020	1.2	8.4	7.3					
South	Turner Channel	s2300s2400	4552	29.2	T	Cement Soil			316	0.009	3.3	18.0	8.7					
South	Turner Channel	s2250s2300	7958	33.0	T	Cement Soil			511	0.009	3.8	22.0	9.7					
South	Turner Channel	s2200s2250	5150	41.6	T	Cement Soil			916	0.006	4.7	30.5	9.5					
South	Turner Channel	s2000s2100	5679	na	U	Natural			50	0.005	0.2	122.1	2.2		R2200	66	285	
South	Turner Channel	s1300s2000	2106	na	U	Natural			115	0.004	0.7	97.3	2.6					





## CHAPTER 6 – DESCRIPTION OF SERVICES

The services that may be provided by the District under NRS Chapter 318 can include the following:

1. Construct of storm drainage and flood control facilities
2. Restoration of property
3. Setting of fees and charges for services
4. Furnishing recreational facilities
5. Borrowing
6. Operation, maintenance and repair of existing public improvements
7. Acquisition, construction, operation, maintenance and repair of any authorized services
8. Manage, control and supervise all the business and affairs of the District
9. Hire employees, engineers, attorneys and other persons necessary to perform the duties of the District
10. Prescribe the duties of officers and employees fix their compensation
11. Exercise the power of eminent domain (land acquisition)

The initial storm drainage facilities to be acquired are set forth in this document on the District Map, and in greater detail in the Geographical Information System Database supplied to Nye County by Bureau Veritas.

It is anticipated that the General Improvement District will cause or provide for the planning, design, construction, maintenance and management of the proposed Master Plan Drainage facilities through active management of a prioritized implementation plan. It is anticipated that A "Ten Year" Capital Improvement Plan for Flood Control will be developed. This implementation plan will form the managerial base for financial planning and hard development of the system.

The major flood control projects are shown on the District Map and are included in the GIS Data Base delivered to Nye County. The projects have been developed to generally function as intended. Required right-of-way was estimated and well as surveying, design and construction management costs which are embedded in the unit construction costs

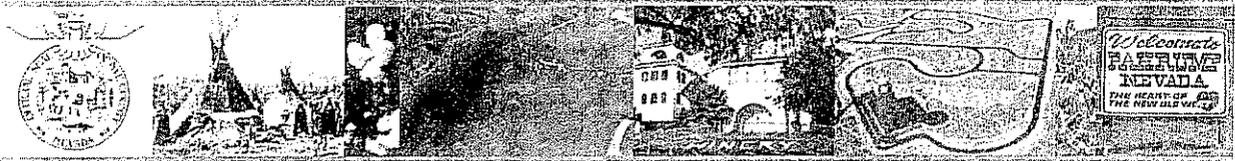
### Initial Services

During the first few years of operation, the District will operate mainly as a funding source for construction of the facilities. County Public Works staff and consultant personnel will be reimbursed for overseeing the planning, design, construction, operation and maintenance of the facilities. As the functions performed by staff become intensive and unmanageable without full time staff, they should be transferred or replacement staff hired as County staff assigned to the "Pahrump Regional Flood Control District" (District).

### Sustained Services

The District will eventually have a General Manager, District Engineer, planners, engineers and maintenance staff. The District will have their own maintenance equipment, but may also have the County or private contractors perform some or all of the work.





## CHAPTER 7 – ESTIMATE OF COSTS

We prepared our cost estimate of the flood control projects using an analysis of the Tri-Core costs for the previous design, NDOT costs, California DOT (CalTrans) costs, RW Means cost data, the City of Henderson and the City of North Las Vegas. This data is presented in the "Unit Cost Generation Sheet" following this text. Added to these costs are 40% which represent 10% for survey/design, 10% for right-of-way (land acquisition costs are estimated at \$1/sf or \$43,560.00/acre), construction management and administration and 20% as a construction contingency. So all costs except land acquisition presented herein are multiplied by a factor of 1.4.

The total cost for the Master Plan Drainage facilities is as follows:

### Pahrump Valley Master Plan Drainage Engineer's Estimate

<b>A Residential Access</b>	\$ 4,669,000.00	1.4%
<b>B Major Intersection Crossings</b>	\$ 5,395,333.00	1.7%
<b>C SR 160 Crossings</b>	\$ 4,539,483.00	1.4%
<b>D Road and Utility Reconstruction</b>	\$ 953,281.74	0.3%
<b>E Channel Right of Way Acquisition</b>	\$ 10,898,816.34	3.3%
<b>F Regulatory Basins</b>	\$ 74,994,810.00	23.8%
<b>G Storm Water Telemetry</b>	\$ 80,000.00	0.0%
<b>H Wheeler Wash Dams (50% Split)</b>	\$ 20,000,000.00	12.6%
<b>I Major Flood Basins</b>	\$ 104,604,374.45	33.2%
<b>J North Valley Channels</b>	\$ 21,322,775.77	6.7%
<b>K Central Valley Channels</b>	\$ 46,641,044.68	14.8%
<b>L South Valley Channels</b>	\$ 7,680,235.37	2.4%
<b>M Beltway Interim Channel</b>	\$ 10,640,000.00	3.3%
<b>N BLM, Environmental, Miscellaneous</b>	\$ 2,500,000.00	0.7%
<b>TOTAL</b>	\$ 314,919,154.35	100%

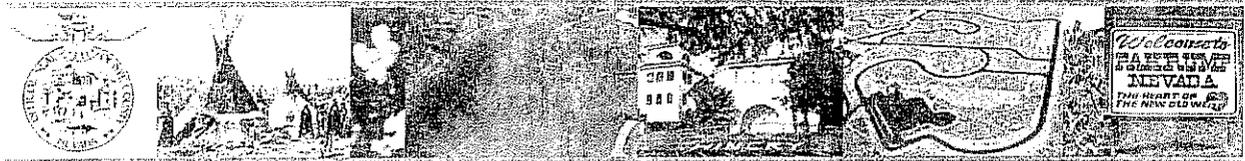
**SAY: \$ 315,000,000.00**

\$ 223,156,539.00 Raw

Following this text are cost estimates for items A through L on the list. The last item was roughly estimates as 110,000 feet (20.83 miles) times 20.81 cy/ft times \$3.32/cy times the 1.4 factor; yielding \$14,896,000.00 in costs.

The definition of the cost items are as follows:

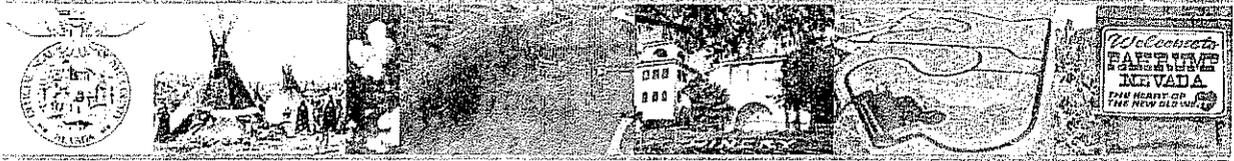
- A Residential Access** – This is to provide pre-cast bridges or culverts to allow driveway access on the side of the roadway with open channel.
- B Major Intersection Crossings** – This is the cost of installing culverts across road crossings at open channels.
- C SR 160 Crossings** – This is the cost of providing culverts across NDOT right-of-way.



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- D **Road and Utility Reconstruction** – This is the cost of repairing roadway and utilities at crossings
- E **Channel Right-Of-Way Acquisition** – This is the cost of acquiring right-of-way adjacent to the roadway to provide the open channel section (see cross sections in Chapter 5).
- F **Regulatory Basins** – This is the cost of constructing and acquiring the land for these basins shown in green on the District Map. The land costs are estimated at \$0.50/sf to \$1/sf.
- G **Storm Water Telemetry** – This is the cost of installing range gauge equipment at one or more locations.
- H **Wheeler Wash Dams** – This is the cost of providing dams in Wheeler Wash Canyon to mitigate the discharge. It is assumed that the dams will include a large outlet and be constructed of native materials. It is also assumed there will be a 50/50 cost sharing with the USACOE.
- I **Major Flood Basins** – This is the cost of constructing the basins on BLM land.
- J **North Valley Channels** – This is the cost of constructing the open channels.
- K **Central Valley Channels** – This is the cost of constructing the open channels.
- L **South Valley Channels** – This is the cost of constructing the open channels.
- M **Beltway Interim Channel** – This is the cost of building the diversion channel plus access road as a portion of the future beltway.





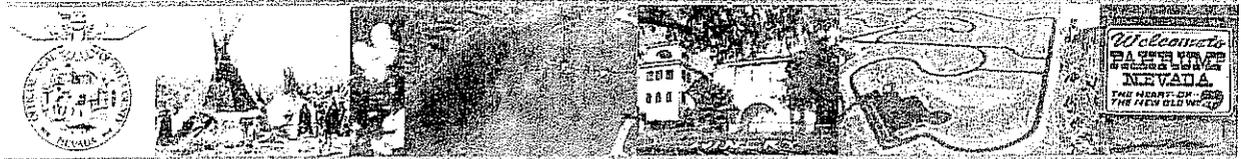
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### Unit Cost Generation Sheet Pahrump Valley Master Plan Drainage

Earthwork	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
Clearing and Grubbing	Nye CIP	syd	\$ 0.74	\$ 0.25	not prov'd	\$ 0.17	\$ 0.33	not prov'd	not prov'd
Basin Grading (export to 6')	Nye CIP	cyd	\$ 2.00	\$ 3.25	\$ 3.00	\$ 11.40	\$ 3.32	not prov'd	\$ 2.50

Channel Work	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
Earth Lined Channel Surface, Dress Grading	Earth Lined	sf	\$ 0.11	\$ 0.35	\$ 0.14	\$ 0.26	\$ 0.69	not prov'd	not prov'd
Channel Excavation	CydEX	cyd	\$ 5.00	\$ 8.00	\$ 6.00	\$ 13.75	\$ 9.50	not prov'd	not prov'd
Soils Cement Liner	CSoilLiner	sf	\$ 1.33	\$ 1.00	not prov'd	not prov'd	\$ 0.96	not prov'd	not prov'd
Facing Class Rip-Rap, in place	FClaRR	t	not prov'd	\$ 60.00	\$ 57.00	\$ 82.00	\$ 84.00	not prov'd	\$ 65.00
Quarter Ton Rip-Rap, in place	QtrTRR	t	not prov'd	\$ 65.00	\$ 65.00	\$ 52.00	\$ 45.00	not prov'd	\$ 61.00
Portland Cement Concrete Channel Liner, 4", in place	pccLNR	cyd	\$ 222.00	\$ 95.00	not prov'd	\$ 375.00	\$ 78.75	not prov'd	not prov'd
Channel Grading (5ft depth)	Nye CIP	cyd	\$ 6.00	\$ 8.00	not prov'd	\$ 13.68	\$ 18.25	not prov'd	not prov'd
Channel Grading (6ft depth)	Nye CIP	cyd	\$ 5.00	\$ 8.00	not prov'd	\$ 13.68	\$ 27.50	not prov'd	not prov'd
Channel Soils Cement Stabilization	Nye CIP	syd	\$ 12.00	\$ 9.00	not prov'd	not prov'd	\$ 8.60	not prov'd	not prov'd
Shotcrete	Nye CIP	syd	\$ 25.00	\$ 75.00	not prov'd	\$ 66.00	\$ 78.75	not prov'd	not prov'd
Soil Stabilization (geofabric)	Nye CIP	syd	\$ 1.00	\$ 2.50	\$ 15.00	\$ 2.50	\$ 2.57	not prov'd	not prov'd
Gravel Channel Lining		t		\$ 60.00	\$ 60.00	\$ 60.00	\$ 52.50	not prov'd	not prov'd
Grouted Rip-Rap		cyd		\$ 110.00	\$ 100.00	\$ 214.00	\$ 111.00	not prov'd	not prov'd



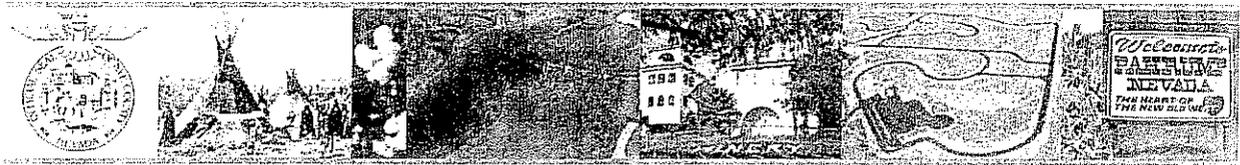


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Drainage	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
Two Barrel 6x4 pcc Box Culvert	Nye CIP	ea	\$24,000.00						
6x4 Inlet and Outlet Structures	Nye CIP	ea	\$ 6,000.00						
Reinforced Portland Cement Concrete Box Channel	pccbox	cyd	not prov'd	\$1,000.00	not prov'd	\$ 920.00	1,653.00	not prov'd	not prov'd
Two Barrel 6x6 pcc Box Culvert	Nye CIP	ea	\$54,000.00						
6x6 Inlet and Outlet Structures	Nye CIP	ea	\$12,000.00						
10x6 Multiple Barrel pcc Box Culvert	Nye CIP	ea	\$64,000.00						
6' Depth Basin Outlet Structure	Nye CIP	ea	\$12,000.00						
6' Depth Basin Overflow Structure	Nye CIP	ea	\$ 6,000.00						
9' Depth Basin Outlet Structure	Nye CIP	ea	\$18,000.00						
9' Depth Basin Overflow Structure	Nye CIP	ea	\$ 9,000.00						
72" RCP or CMP	Nye CIP	lf	\$ 130.00						
18" Stub Lateral	Nye CIP	ea	\$ 1,000.00						
Pre cast 2 Barrel 6x4 pcc Box Culvert		lf	not prov'd	\$ 370.00	\$ 370.00	not prov'd	not prov'd	not prov'd	not prov'd
Pre cast 2 Barrel 6x6 pcc Box Culvert		lf	not prov'd	\$ 400.00	\$ 400.00	not prov'd	not prov'd	not prov'd	not prov'd
Pre cast 2 Barrel 10x6 pcc Box Culvert		lf	not prov'd	\$ 600.00	\$ 600.00	not prov'd	not prov'd	not prov'd	not prov'd

CMP - Pipe - Delivered, Installed and Backfilled	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
18 - (1.5 ft)	GIS	lf	not prov'd	\$ 50.00	\$ 45.00	\$ 142.32	\$ 31.50	\$ 55.00	\$ 45.00
21 - (1.75 ft)	GIS	lf	not prov'd	\$ 55.00	not prov'd	not prov'd	\$ 36.75	not prov'd	not prov'd
24 - (2 ft)	GIS	lf	not prov'd	\$ 65.00	\$ 70.00	\$ 123.18	\$ 42.00	\$ 70.00	\$ 55.00
30 - (2.5 ft)	GIS	lf	not prov'd	\$ 75.00	\$ 75.00	\$ 140.50	\$ 62.50	\$ 75.00	\$ 75.00
36 - (3 ft)	GIS	lf	not prov'd	\$ 85.00	\$ 80.00	\$ 185.00	\$ 85.00	\$ 90.00	\$ 90.00
42 - (3.6 ft)	GIS	lf	not prov'd	\$ 100.00	\$ 95.00	not prov'd	\$ 97.00	\$ 105.00	\$ 105.00
48 - (4 ft)	GIS	lf	not prov'd	\$ 110.00	\$ 100.00	\$ 256.03	\$ 109.00	\$ 125.00	\$ 125.00
54 - (4.6 ft)	GIS	lf	not prov'd	\$ 140.00	not prov'd	not prov'd	\$ 139.50	\$ 145.00	\$ 145.00
60 - (5ft)	GIS	lf	not prov'd	\$ 165.00	not prov'd	\$ 251.46	\$ 170.00	\$ 155.00	\$ 165.00
66 - (5.6 ft)	GIS	lf	not prov'd	\$ 185.00	not prov'd	not prov'd	\$ 193.50	not prov'd	not prov'd
72 - (6 ft)	GIS	lf	\$ 130.00	\$ 210.00	not prov'd	not prov'd	\$ 217.00	not prov'd	\$ 175.00
78 - (6.5 ft)	GIS	lf	not prov'd	\$ 240.00	not prov'd	not prov'd	\$ 241.00	not prov'd	not prov'd
84 - (7 ft)	GIS	lf	not prov'd	\$ 265.00	not prov'd	not prov'd	\$ 265.00	not prov'd	not prov'd
90 - (7.6 ft)	GIS	lf	not prov'd	\$ 290.00	not prov'd	not prov'd	\$ 289.00	not prov'd	not prov'd
96 - (8 ft)	GIS	lf	not prov'd	\$ 315.00	not prov'd	\$ 670.56	\$ 313.00	not prov'd	not prov'd
102 - (8.5 ft)	GIS	lf	not prov'd	\$ 340.00	not prov'd	not prov'd	\$ 337.00	not prov'd	not prov'd
108 - (9 ft)	GIS	lf	not prov'd	\$ 361.00	not prov'd	\$ 981.46	\$ 361.00	not prov'd	not prov'd



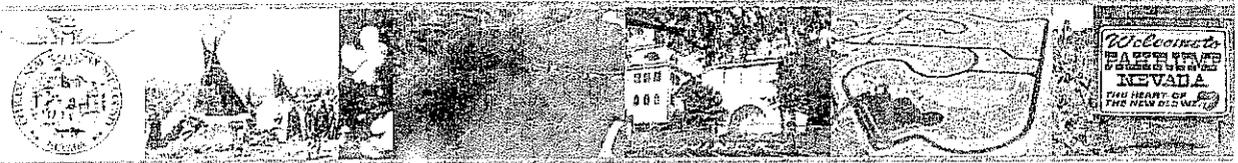


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RCP - Pipe - Delivered, Installed and Backfilled	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
18 - (1.5 ft)	GIS	lf	not prov'd	\$ 50.00	\$ 45.00	\$ 97.69	\$ 34.50	not prov'd	not prov'd
21 - (1.75 ft)	GIS	lf	not prov'd	\$ 50.00	\$ 45.00	not prov'd	\$ 40.00	not prov'd	not prov'd
24 - (2 ft)	GIS	lf	not prov'd	\$ 60.00	\$ 60.00	\$ 119.14	\$ 53.50	not prov'd	not prov'd
30 - (2.5 ft)	GIS	lf	not prov'd	\$ 80.00	\$ 85.00	\$ 273.44	\$ 75.50	not prov'd	not prov'd
36 - (3 ft)	GIS	lf	not prov'd	\$ 95.00	\$ 90.00	\$ 211.13	\$ 96.00	not prov'd	not prov'd
42 - (3.6 ft)	GIS	lf	not prov'd	\$ 120.00	\$ 110.00	\$ 313.99	\$ 122.00	not prov'd	not prov'd
48 - (4 ft)	GIS	lf	not prov'd	\$ 150.00	\$ 150.00	\$ 223.00	\$ 159.00	not prov'd	not prov'd
54 - (4.6 ft)	GIS	lf	not prov'd	\$ 205.00	\$ 230.00	\$ 195.07	\$ 208.00	not prov'd	not prov'd
60 - (5ft)	GIS	lf	not prov'd	\$ 260.00	\$ 250.00	\$ 335.28	\$ 257.00	not prov'd	not prov'd
66 - (5.6 ft)	GIS	lf	not prov'd	\$ 270.00	\$ 270.00	not prov'd	\$ 275.00	not prov'd	not prov'd
72 - (6 ft)	GIS	lf	not prov'd	\$ 300.00	not prov'd	\$ 471.83	\$ 293.00	not prov'd	not prov'd
78 - (6.5 ft)	GIS	lf	not prov'd	\$ 380.00	not prov'd	not prov'd	\$ 381.00	not prov'd	not prov'd
84 - (7 ft)	GIS	lf	not prov'd	\$ 450.00	not prov'd	\$ 944.88	\$ 470.00	not prov'd	not prov'd
90 - (7.6 ft)	GIS	lf	not prov'd	\$ 500.00	not prov'd	not prov'd	\$ 525.00	not prov'd	not prov'd
96 - (8 ft)	GIS	lf	not prov'd	\$ 560.00	not prov'd	not prov'd	\$ 580.00	not prov'd	not prov'd
102 - (8.5 ft)	GIS	lf	not prov'd	\$ 625.00	not prov'd	not prov'd	\$ 630.00	not prov'd	not prov'd
108 - (9 ft)	GIS	lf	not prov'd	\$ 650.00	not prov'd	not prov'd	\$ 680.00	not prov'd	not prov'd

Street Improvements	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
Subgrade Preparation	Nye CIP	syd	\$ 1.00	\$ 0.25	not prov'd	not prov'd	\$ 0.88	not prov'd	not prov'd
Shoulder Grading	sfGraded	sf		\$ 0.25	\$ 0.14	\$ 0.26	\$ 0.69	not prov'd	not prov'd
Shoulder Grading w/Residential Driveway Underdrains	Nye CIP	lf	\$ 5.00	\$ 4.00	not prov'd	not prov'd	\$ 2.18	not prov'd	not prov'd
Remove and Recompact Existing Roadway Surface	Nye CIP	cyd	\$ 6.00	not prov'd	not prov'd	not prov'd	not prov'd	not prov'd	not prov'd
Remove and Dispose of Existing Pavement - 3"	Nye CIP	syd	\$ 3.00	\$ 12.00	\$ 10.00	\$ 11.90	not prov'd	not prov'd	not prov'd
6" Cement Treated Aggregate Base	Nye CIP	syd	\$ 6.00	\$ 15.00	\$ 15.00	\$ 15.62	\$ 8.60	not prov'd	not prov'd
Sawcut Pavement	Nye CIP	lf	\$ 3.00	\$ 3.00	not prov'd				
Tack Coat	Nye CIP	syd	\$ 0.30	\$ 0.60	\$ 0.56	\$ 1.14	not prov'd	not prov'd	not prov'd
3" Asphalt Concrete Pavement	Nye CIP	syd	\$ 10.00	\$ 80.00	\$ 75.00	\$ 123.30	\$ 68.00	not prov'd	not prov'd
3" Asphalt Concrete Pavement	Nye CIP	sf	\$ 1.50	\$ 8.88	\$ 8.33	\$ 13.70	\$ 7.55	\$ 1.01	\$ 1.01
Adjust 24" Manhole Cover and Frame	Nye CIP	ea	\$ 500.00	\$ 550.00	not prov'd	\$ 584.77	\$ 470.00	not prov'd	not prov'd
Adjust 36" Manhole Cover and Frame	Nye CIP	ea	\$ 500.00	\$1,000.00	\$1,000.00	\$ 742.00	\$1,425.00	not prov'd	not prov'd
Adjust Water Valve Cover and Can	Nye CIP	ea	\$ 350.00	\$ 600.00	\$ 600.00	\$ 736.77	not prov'd	not prov'd	not prov'd
Adjust Utility Box	Nye CIP	ea	\$ 250.00	\$ 250.00	not prov'd	\$ 80.00	not prov'd	not prov'd	\$ 250.00
Traffic Lane Striping	Nye CIP	lf	\$ 2.00	\$ 0.20	\$ 4.00	\$ 0.14	not prov'd	not prov'd	\$ 0.15
Relocate Traffic and Roadway Signs	Nye CIP	ea	\$ 60.00	\$ 250.00	\$ 500.00	\$ 256.68	not prov'd	not prov'd	not prov'd





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Right-of-Way	Source	Unit	Tri-Core Cost/Unit	GIS Model BVNA	NDOT	CalTrans	Means	Henderson	N Las Vegas
Public Land Acquisition	Nye CIP	sf	\$ 0.11	\$ 0.50	not prov'd				
Right-of-Way Acquisition	Nye CIP	sf	\$ 1.15	\$0.50 to \$1.00	not prov'd	not prov'd	not prov'd	\$ 4.50	\$ 7.50

**Source Nye CIP:**

Drainage and Flood  
Control CIP FY06-15  
(Aug. '05) PRPD, Nye  
County (Tri-Core)

**Rip-Rap Conversion**

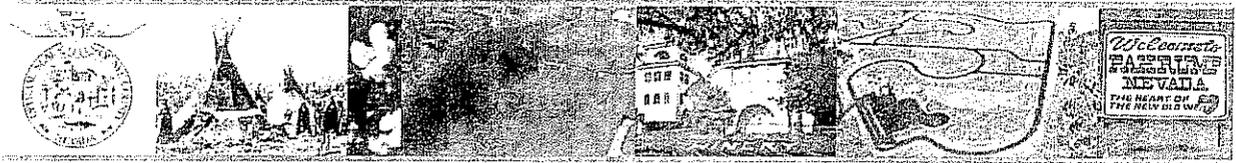
**Assumptions:**

		NDot-\$/cyd	CT-\$/cyd
Facing Class Rip-Rap - 40% void ratio	1.32 t/cyd	\$ 75.00	\$ 133.00
1/4 t Rip-Rap - 50% void ratio	1.1 t/cyd	\$ 85.00	\$ 100.00

**Color Key:**

Engineer's Opinion of Probable Cost  
Unit Prices Utilized for GIS Generated  
Engineer's Construction Estimate





Rahump Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2005

## ATTACHMENT A RESIDENTIAL ACCESS

There are 667 individual parcels abutting the channel alignments that have assessed improvements that value \$5000 or more. The 667 parcel count includes the 8 parcels which have lesser assessments, but that do have minor structures on the parcels. The estimated cost of a prefabricated private access bridge is \$5000. The probable cost of private access is therefore estimated to be:

$$667 \times \$5000 \times 1.4 \text{ (Contingencies)} = \$4,669,000$$





**ATTACHMENT B AND C  
MAJOR INTERSECTION AND SR 160 CROSSINGS**

Valley	Channel	Segment	Q cfs	Major Intersection	Major Crossing	Type	D ft	#	L ft	Cost w/ Contingencies
North	Barney Street Channel	n3150n3200	2000	Bell Vista		3X48 Box			150	\$562,629
North	Basin Avenue Channel	n2300n8300	192	Bannavitch		CMP	4	2	150	\$190,512
North	North Wood Canyon Channel	n4400n4450	88		SR 160	CMP	4.5	1	300	\$221,116
North	Pahrump Valley North Channel	n4400n4500	50		SR 160	CMP	4	1	300	\$196,224
North	Santa Cruz Spring Channel	n3600n5900	980	Leslie		CMP	7.5	3	150	\$533,041
North	Santa Cruz Spring Channel	n6000n6100	256		SR 160	CMP	5.5	2	300	\$525,373
North	Wheeler North Channel	n7600n7650	375		SR 160	CMP	6	1	300	\$296,539
North	Wood Canyon Channel	n3700n4600	366	Leslie		CMP	5.5	3	150	\$389,737
North	Wood Canyon Channel	n5050n5100	60		SR 160	CMP	4	1	300	\$196,224
North	Woodchips-Simkin Channel	n3300n6500	201	Barney		CMP	4.5	3	150	\$318,458
North	Woodchips-Simkin Channel	n6700n6800	275		SR 160	CMP	5.5	2	300	\$525,373
Central	Blagg Channel	c5000c5040	948	Gamebird		3.5X20 Box			150	\$262,827
Central	Blagg Channel	c5080c5100	654	Jaybird		4.5X11 Box			150	\$175,622
Central	Gamebird-Pahrump Channel	c5200c5300	1675	Mt Charleston		3X40 Box			150	\$475,269
Central	Gamebird-Pahrump Channel	c5300c6200	1290	Unicorn		3X30 Box			150	\$372,338
Central	Gamebird-Pahrump Channel	c6200c7400	1005	Homestead		3.5X20 Box			150	\$262,827
Central	Homestead Channel	c7575c7600	158		SR 160	CMP	6	1	300	\$296,539
Central	Lakeview Golf Course Channel	c3100c3150	50		SR 160	CMP	4	1	300	\$196,224
Central	Manse Channel	c9875c9900	146		SR 160	CMP	5.5	1	300	\$271,273
Central	Mount Charleston Channel	c4200c4300	50		SR 160	CMP	4	1	300	\$196,224
Central	Mount Charleston Channel	c4500c4600	104		SR 160	CMP	5	1	300	\$246,132
Central	Mountain View Channel	c9200c9300	125		SR 160	CMP	5.5	1	300	\$271,273
Central	Unicorn Channel	c6700c6800	109		SR 160	CMP	5	1	300	\$246,132
Central	Wheeler Intercept Bypass	c7760c7775	20		SR 160	CMP	3	1	300	\$146,813
Central	Wheeler-Fairground Channel	c8900c9000	331		SR 160	CMP	5	3	300	\$708,132
South	Kellog Road Channel	s1600s1620	502	Homestead		CMP	6	3	150	\$425,489
South	Kellog Road Channel	s1620s1640	235	Quarterhorse		CMP	6.5	1	150	\$160,964
South	Kellog Road Channel	s1640s1650	148	Foxx		CMP	5.5	1	150	\$135,637
South	Thousandaire Channel	s1800s1850	660	Homestead		CMP	6	4	150	\$564,069
South	Trout Channel	s3500s3600	180	Homestead		CMP	4	3	150	\$282,912
South	Trout Channel	s3500s3601	181	Homestead		CMP	5	4	151	\$282,913

**TOTAL**

**\$9,934,816**

Major Intersections	\$5,395,333
SR 160 Crossings	\$4,539,483
<b>TOTAL</b>	<b>\$9,934,816</b>





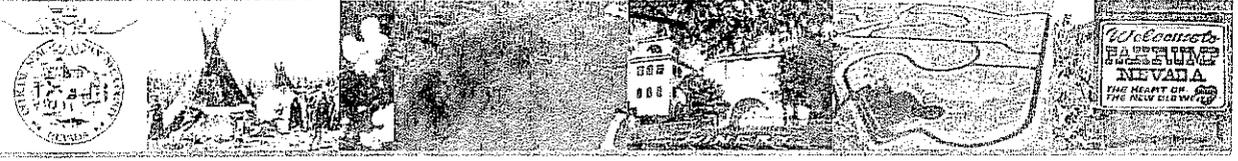
### ATTACHMENT D ROAD AND UTILITY RECONSTRUCTION

Valley	Segment	Channel	Type Pipe	L ft	Dia ft	# Pipe	Dev. Length			Width ft	Area sf
Central	c3720c3800	Calvada Channel	CMP	4569	3.5	2	9137			9.0	41117.1
Central	c3720c3900	Calvada Channel	CMP	1513	4.0	2	3027			10.0	15134.1
Central	c7575c7600	Homestead Channel	CMP	2263	4.5	2	4525	Diameter	Length	11.0	24888.1
Central	c2800c2900	Lakeview Golf Course Channel	CMP	1459	4.0	1	1459	2	6976	6.0	8754.3
Central	c2900c3000	Lakeview Golf Course Channel	CMP	763	4.0	1	763	2.5	6932	6.0	4579.4
Central	c3000c3100	Lakeview Golf Course Channel	CMP	1478	3.0	1	1478	3	3017	5.0	7389.3
Central	c3100c3150	Lakeview Golf Course Channel	CMP	569	3.0	1	569	3.5	9800	5.0	2845.5
Central	c4100c4200	Mount Charleston Channel	CMP	663	3.5	1	663	4	10191	5.5	3647.7
Central	c4200c4300	Mount Charleston Channel	CMP	1071	2.0	2	2143	4.5	7810	6.0	6428.3
Central	c4500c4100	Mount Charleston Channel	CMP	1890	2.0	2	3779	5	3454	6.0	11337.3
Central	c4500c4600	Mount Charleston Channel	CMP	1257	2.5	3	3770	5.5	1318	9.5	11938.1
Central	c9300c9400	Mountain View Channel	CMP	970	3.0	1	970	6	3688	5.0	4850.7
Central	c9700c9750	Mountain View Channel	CMP	3162	2.5	1	3162			4.5	14229.6
Central	c6300c6340	Unicorn Channel	CMP	485	5.5	2	970			13.0	6307.4
Central	c6340c6360	Unicorn Channel	CMP	1294	6.0	2	2588			14.0	18117.5
Central	c6360c6400	Unicorn Channel	CMP	2825	5.0	1	2825			7.0	19773.0
Central	c6400c6500	Unicorn Channel	CMP	629	5.0	1	629			7.0	4404.8
Central	c6500c6600	Unicorn Channel	CMP	347	5.5	1	347			7.5	2605.2
Central	c6600c6700	Unicorn Channel	CMP	1100	6.0	1	1100			8.0	8798.4
Central	c6700c6800	Unicorn Channel	CMP	1644	4.5	1	1644			6.5	10688.1
Central	c7760c7775	Wheeler Intercept Bypass Channel	CMP	1054	2.0	1	1054			4.0	4217.2
Central	c8700c8800	Wheeler-Fairground Channel	CMP	4942	4.0	1	4942			6.0	29654.4
Central	c9200c8700	Wheeler-Fairground Channel	CMP	1640	4.5	1	1640			6.5	10660.7

<b>Area of Excavation</b>	<b>272,366.2 sf</b>
<b>Road Repair at \$2.5/Sf</b>	<b>\$ 680,915.53</b>
<b>With 40% Contingency</b>	<b>\$ 953,281.74</b>

General Assumption: The road repair estimate is limited to asphalt removal and replacement along closed conduit conveyances. The remainder of the system consists of open channel conveyances located outside of the assumed paved street width. Below grade utility installation are limited in the study area; accordingly, utility realignments or relocations have not been included in the initial Engineer's Estimate.



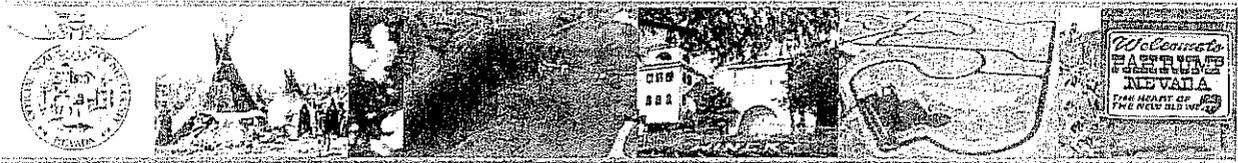


Fernando Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2008

**ATTACHMENT E**  
**CHANNEL RIGHT-OF-WAY ACQUISITION**

	<u>High Range</u>	<u>Low Range</u>
North Valley Subtotal (129 Acres)	\$ 5,600,996.00	\$ 2,800,498.00
Central Valley Subtotal (83 Acres)	\$ 3,610,856.00	\$ 1,805,428.00
South Valley Subtotal (39 Acres)	\$ 1,686,965.00	\$ 843,482.50
<b>Total Acquisition Cost</b>	<b>\$10,898,816.00</b>	<b>\$ 5,449,409.00</b>
<b>Total Area Acquisition</b>	<b>251 Acres</b>	<b>251 Acres</b>





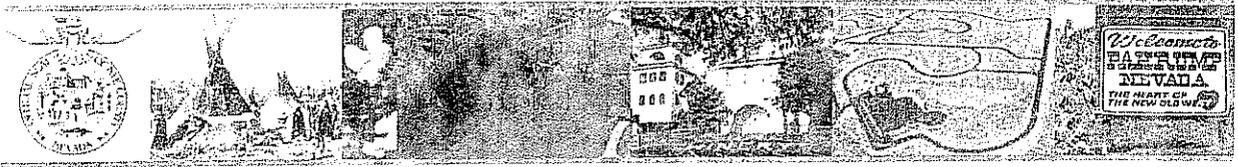
## ATTACHMENTS F & I

### Cost of Acquisition Regulation Basin Sites

#### Regulatory Basins Located on Fee Parcels

Valley	Channel	Basin	Q Peak cfs	Basin Name	Depth Ft	Area Ac	Volume Ac-Ft	Const. Cost	Land Acq. Cost (\$/sf)
North	Bannavitch Street Channel	R1050	1300	Irene Street Basin	2.0	164	294	\$ 3,096,371	\$0.50 - \$1.00
North	Bannavitch Street Channel	R1300	570	Charleston Park Basin	1.7	79	1300	\$ 1,416,398	
North	Bannavitch Street Channel	R1400	480	Flamingo Road Basin	2.0	41	64	\$ 908,628	
North	Basin Avenue Channel	R1250	480	Basin Avenue Basin	3.5	24	80	\$ 867,349	
North	Basin Avenue Channel	R1200	544	Basin-Christy Court Basin	2.5	38	90	\$ 1,002,337	
North	Charleston Park Channel	R1350	211	Charleston-Happy Lane Basin	1.0	40	35	\$ 573,622	
North	Irene Street Channel	R1150	644	Irene-Doug Way Basin	2.5	48	110	\$ 1,228,960	
North	Irene Street Channel	R1100	697	Irene-David Street Basin	2.5	27	115	\$ 748,190	
North	Murphy Street Channel	R850	2276	Murphy Street Detention Basin	5.0	105	517	\$ 4,556,583	
North	North Wood Canyon Channel	R300	1220	North Wood Canyon Spring Basin	5.0	41	202	\$ 1,880,984	
North	Santa Cruz Spring Channel	R550	1385	Santa Cruz Intercept Basin Beta	3.0	81	229	\$ 2,279,951	
North	South Wood Canyon Channel	R150	197	South Wood Canyon Intercept Beta	2.0	21	40	\$ 523,316	
North	Wheeler North Channel	R950	1060	Mesquite Avenue Basin	2.5	80	188	\$ 1,937,907	
North	Wood Canyon Channel	R200	243	South Wood Canyon Intercept Gamma	2.0	35	55	\$ 795,278	
North	Woodchips-Simkin Channel	R700	557	Simkins-Blue Jay Ave Basin	2.7	38	99	\$ 1,062,418	
North	Woodchips-Simkin Channel	R750	886	Simkins-Linda Street Basin	5.0	35	175	\$ 1,625,338	
Central	Lakeview Golf Course Channel	R1600	430	Lakeview Basin	3.0	14	42	\$ 491,399	
Central	Manse Channel	R2000	251	Manse Intercept Alpha	1.3	48	52	\$ 754,640	
Central	Mount Charleston Channel	R1650	325	Commerce Street Basin	1.5	40	54	\$ 731,729	
Central	Wheeler-Fairground Channel	R1850	547	Fairground Basin	4.0	24	95	\$ 962,213	
South	Thousandaire Channel	R2100	500	Thousandaire Basin	2.7	42	124	\$ 1,159,801	
<b>TOTAL AREA = 1,065 ACRES</b>								<b>\$28,603,410</b>	<b>\$23,195,700 - \$46,391,400</b>



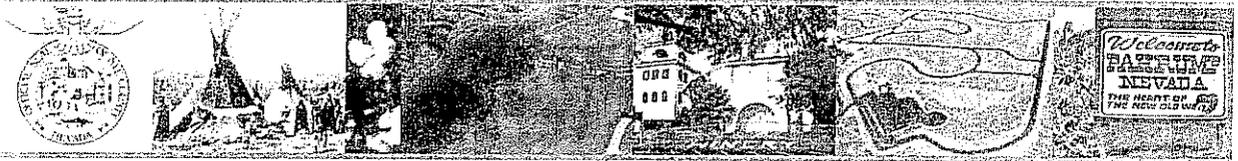


Pahrump Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2004

**Major Flood Basins Located on Federal Parcels**

Valley	Channel	Basin	Q Peak	Basin Name	Depth Ft	Area Ac	Volume Ac-Ft	T	R	S	Const. Cost
North	Alsina Lane Channel	R400	870	Alsina Lane Basin	4.0	52	205	19S	53E	7	\$1,935,367
North	Bannavitch Street Channel	R800	3290	Belle Vista Basin	3.0	189	545	19S	52E	26	\$5,021,479
North	Barney Street Channel	R600	2440	Cordova Street Basin	5.0	75	615	19S	53E	19	\$3,310,560
North	Cabot Street Channel	R450	870	Cabot Street Basin	4.0	52	205	19S	53E	18	\$1,935,367
North	North Pahrump Valley Outfall	R1000	4546	Sixmile Spring Basin	3.3	238	751	20S	52E	3	\$6,717,677
North	Pahrump Valley North Channel	R250	9818	North Valley Retention Basin	3.0	456	1826	18S	53E	32	\$11,642,353
North	Pahrump Valley North Channel	R350	330	Carrol Street Basin	2.0	41	66	19S	53E	5	\$7,268,264
North	Santa Cruz Spring Channel	R500	3156	Santa Cruz Intercept Basin Alpha	3.0	174	522	19S	54E	7	\$4,644,605
North	South Wood Canyon Channel	R100	4400	South Wood Canyon intercept: Alpha	3.7	274	1000	18S	53E	25	\$8,660,054
North	Wheeler North Channel	R900	2181	Wheeler North Basin	3.0	130	388	19S	54E	31	\$3,533,194
North	Woodchips-Simkin Channel	R650	3198	Horse Springs Basin	3.0	207	621	19S	54E	19	\$5,472,649
Central	Malibou Channel	R1700	65	Malibou Basin	1.0	13	11	20S	54E	29	\$256,978
Central	Mountain View Channel	R1950	3730	Lovers Wash Retention Basin	3.0	283	848	20S	54E	35	\$7,367,490
Central	Mountain View Channel	R1900	324	Mountain View Basin	4.3	17	74	20S	54E	34	\$751,732
Central	Wheeler Intercept Bypass Channel	R1500	898	Wheeler Middle Intercept	3.0	52	156	20S	54E	7	\$1,524,289
Central	Wheeler Intercept Bypass Channel	R1550	6103	Wheeler Wash Intercept	4.4	427	1866	20S	54E	20	\$15,117,137
Central	Wheeler Intercept Bypass Channel	R1750	1182	Gravel Pit Basin	5.4	36	196	20S	54E	29	\$1,781,887
Central	Wheeler-Fairground Channel	R1800	1571	Wheeler South Intercept	4.0	72	273	20S	54E	28	\$2,616,155
South	Trout Channel	R2300	1570	Trout Channel Basin	5.0	78	389	21S	54E	31	\$3,435,650
South	Turner Channel	R2150	4500	Carpenter Canyon Basin	3.3	311	1004	21S	54E	14	\$8,677,020
South	Turner Channel	R2200	1480	Turner Boulevard Basin	5.0	66	285	21S	53E	24	\$2,934,466
<b>TOTAL CONSTRUCTION COST</b>											<b>\$104,604,374.45</b>
<b>TOTAL AREA = 3,243 ACRES</b>											





Pahrump Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2006

**ATTACHMENT H  
Engineer's Estimate  
Wheeler Wash Check Dams**

Dam	Contingencies	Eng & Dsgn	PM & Insp	CM	Const.
	Raw Const.	15%	5%	10%	10%
1	\$4,283,813	\$642,572	\$214,191	\$428,381	\$428,381
2	\$4,434,820	\$665,223	\$221,741	\$443,482	\$443,482
3	\$5,494,743	\$824,212	\$274,737	\$549,474	\$549,474
4	\$1,665,870	\$249,880	\$83,293	\$166,587	\$166,587
5	\$1,212,391	\$181,859	\$60,620	\$121,239	\$121,239
6	\$3,562,339	\$534,351	\$178,117	\$356,234	\$356,234
7	\$2,025,800	\$303,870	\$101,290	\$202,580	\$202,580
8	\$2,762,646	\$414,397	\$138,132	\$276,265	\$276,265
9	\$2,787,275	\$418,091	\$139,364	\$278,727	\$278,727

**Preliminary Engineer's Est.**

Dam 1	\$5,997,338.00
Dam 2	\$6,208,748.00
Dam 3	\$7,692,640.00
Dam 4	\$2,332,218.00
Dam 5	\$1,697,347.00
Dam 6	\$4,987,275.00
Dam 7	\$2,836,120.00
Dam 8	\$3,867,704.00
Dam 9	\$3,902,185.00

**Total System**                      \$39,521,575.00

<b>Say:</b>	<b>\$40,000,000.00</b>
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**Nye County Share:**                      \$20,000,000.00  
**USACOE Share:**                              \$20,000,000.00



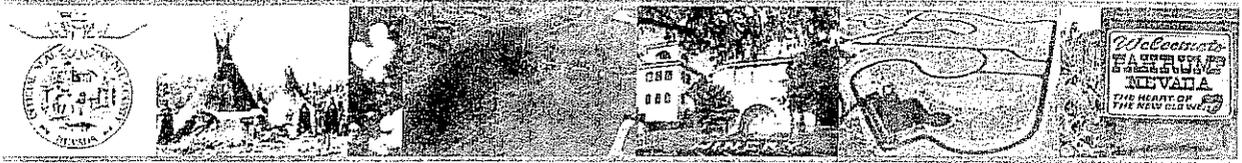


Pahrump Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2008

**ATTACHMENT J  
NORTH VALLEY CHANNELS**

TYPE: T = Trapezoidal Channel U = Unimproved Channel CMP = Corrugated Metal Pipe

Channel	Segment	Type	Flow Dpth (ft)	Flow Wdth (ft)	Lining	Area (sf)	Excavation CY	Construction Cost
Aisina Lane Channel	n4200n4250	T	1.3	8.7	CemSoil	70307	3446	\$189,287
Bannavitch Street Chn.	n1400n1900	T	3.0	17.4	Earth		10675	\$198,927
Bannavitch Street Chn.	n2000n2100	T	1.9	12.1	Earth		5746	\$126,386
Bannavitch Street Chn.	n2200n2300	T	4.5	31.9	Earth		13237	\$204,623
Bannavitch Street Chn.	n2300n2400	T	2.2	14.7	Earth		3707	\$76,163
Bannavitch Street Chn.	n2400n2500	T	1.7	13.3	Earth		3107	\$67,616
Bannavitch Street Chn.	n2800n2900	T	3.0	15.0	Earth		2190	\$42,568
Bannavitch Street Chn.	n2900n3000	T	2.0	10.9	Earth		2618	\$58,911
Barney Street Channel	n3100n3150	T	4.9	82.6	CemSoil	139854	25591	\$554,944
Barney Street Channel	n3150n3200	T	4.9	77.8	CemSoil	227461	41165	\$897,832
Barney Street Channel	n3200n3300	T	4.8	75.4	CemSoil	422980	74980	\$1,652,511
Barney Street Channel	n3300n3400	T	4.7	42.0	CemSoil	139845	20848	\$505,356
Basin Avenue Channel	n2300n8300	T	3.4	18.9	Earth		14302	\$255,257
Basin Avenue Channel	n8350n8400	T	4.1	23.2	Earth		7759	\$129,737
Basin Avenue Channel	n8400n8500	T	3.4	21.5	CemSoil	322735	31250	\$994,928
Cabot Street Channel	n3800n3850	T	1.4	9.8	Earth		2286	\$55,864
Charleston Park Chn.	n8600n8700	T	3.4	19.2	Earth		8896	\$158,601
Charleston Park Chn.	n8700n8750	T	2.0	14.1	Earth		3172	\$66,832
Charleston Park Chn.	n8800n8900	T	2.9	14.9	CemSoil	134704	10317	\$389,937
Flamingo Road Chn.	n9000n9100	T	3.5	22.2	CemSoil	110450	11205	\$345,448
Irene Street Channel	n7900n7950	T	3.8	27.9	Earth		10471	\$169,375
Irene Street Channel	n7950n8000	T	3.0	26.3	Earth		16149	\$274,226
Irene Street Channel	n8000n8050	T	2.8	16.2	Earth		4373	\$84,410
Irene Street Channel	n8100n8150	T	4.4	22.1	CemSoil	120113	12665	\$380,205
Irene Street Channel	n8150n8200	T	3.8	18.6	CemSoil	64705	5885	\$195,701
Irene Street Channel	n8200n8250	T	2.7	15.1	CemSoil	53417	4033	\$154,162
Linda Street Channel	n4800n4850	T	2.0	13.3	Earth		1492	\$31,550
Murphy Street Channel	n2600n2700	T	4.3	29.0	CemSoil	94203	11522	\$314,388
N Pahrump Valley Outfall	n1000n1100	U	2.2	251.2	Natural		0	\$0
N Pahrump Valley Outfall	n1100n1200	U	2.4	306.8	Natural		0	\$0
N Pahrump Valley Outfall	n1200n1300	U	2.1	222.1	Natural		0	\$0
N Pahrump Valley Outfall	n1300n1400	U	2.0	277.5	Natural		0	\$0
N Pahrump Valley Outfall	n1400n1500	T	4.8	47.7	CemSoil	373763	59152	\$1,386,704
N Pahrump Valley Outfall	n1500n1600	T	4.3	44.3	Earth		15534	\$231,964
N Pahrump Valley Outfall	n1600n1700	T	5.8	30.2	Earth		26091	\$399,198
N Pahrump Valley Outfall	n1700n1800	T	2.4	15.6	CemSoil	219409	16255	\$630,456
N Wood Canyon Channel	n4400n4450	T	2.4	17.1	Earth		4615	\$89,347
Pahrump Valley N Chn.	n3450n3500	T	5.0	117.1	Earth		65132	\$899,310
Pahrump Valley N Chn.	n3500n3600	T	4.9	51.8	CemSoil	115672	18998	\$436,447

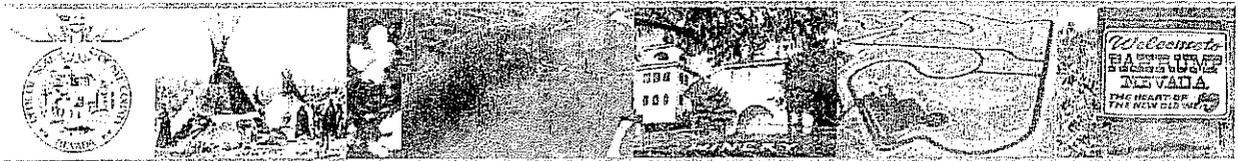


Pahrump Regional Flood Control District Service Plan – FINAL REPORT - June 2, 2009

Channel	Segment	Type	Flow Dpth (ft)	Flow Wdth (ft)	Lining	Area (sf)	Excavation CY	Construction Cost
Pahrump Valley N Chn.	n3600n3700	T	5.0	24.3	CemSoil	82157	9501	\$268,402
Pahrump Valley N Chn.	n3700n3800	T	4.0	23.4	CemSoil	44019	4710	\$140,101
Pahrump Valley N Chn.	n3800n3900	T	3.4	19.9	CemSoil	44206	4184	\$135,358
Pahrump Valley N Chn.	n3900n4000	T	2.7	15.5	CemSoil	17168	1293	\$49,523
Pahrump Valley N Chn.	n4000n4100	T	2.8	16.8	CemSoil	26819	2161	\$78,599
Pahrump Valley N Chn.	n4100n4200	T	2.5	15.7	CemSoil	38101	2874	\$109,932
Pahrump Valley N Chn.	n4200n4300	T	1.4	8.9	CemSoil	26912	1346	\$72,602
Pahrump Valley N Chn.	n4400n4500	T	1.5	8.9	CemSoil	54996	2714	\$148,224
Santa Cruz Spring Channel	n3600n5900	T	4.7	40.3	CemSoil	370833	54582	\$1,332,935
Santa Cruz Spring Channel	n5900n6000	T	3.6	18.5	CemSoil	138861	12707	\$420,909
Santa Cruz Spring Channel	n6000n6100	T	2.4	15.3	CemSoil	48478	3525	\$138,729
Santa Cruz Spring Channel	n6200n6300	T	2.9	20.8	CemSoil	70053	6464	\$212,746
Santa Cruz Spring Channel	n6300n6400	T	2.0	11.5	CemSoil	150126	9109	\$415,401
South Wood Canyon Chn.	n5150n5200	T	2.1	13.4	CemSoil	25691	1702	\$72,169
South Wood Canyon Chn.	n5200n5300	T	2.2	11.8	CemSoil	50190	3206	\$140,073
South Wood Canyon Chn.	n5300n5400	T	1.9	11.5	CemSoil	38572	2273	\$106,246
South Wood Canyon Chn.	n5400n5500	T	1.9	11.7	CemSoil	61737	3677	\$170,335
South Wood Canyon Chn.	n5600n5700	T	1.6	10.5	CemSoil	41625	2277	\$113,469
South Wood Canyon Chn.	n5700n5800	T	1.7	10.8	CemSoil	79829	4427	\$218,005
South Wood Canyon Chn.	n5800n5850	T	1.0	7.0	CemSoil	14245	582	\$37,911
Wheeler N Channel	n7100n7200	T	4.7	31.7	Earth		33182	\$512,077
Wheeler N Channel	n7200n7300	T	2.4	15.3	Earth		7820	\$156,077
Wheeler N Channel	n7400n7500	T	4.9	36.9	CemSoil	59845	8669	\$213,734
Wheeler N Channel	n7500n7600	T	4.8	23.3	CemSoil	167141	18778	\$540,525
Wheeler N Channel	n7600n7650	T	2.9	15.9	CemSoil	49542	3818	\$143,617
Wheeler N Channel	n7650n7700	T	2.2	12.2	CemSoil	90525	5885	\$253,429
Wheeler N Channel	n7700n7800	T	1.4	9.2	CemSoil	78453	3961	\$211,860
Wood Canyon Channel	n3700n4600	T	3.1	30.0	Earth		4971	\$81,935
Wood Canyon Channel	n4600n4650	T	3.8	24.2	CemSoil	37642	3993	\$119,462
Wood Canyon Channel	n4650n4700	T	3.7	20.8	CemSoil	15254	1512	\$47,382
Wood Canyon Channel	n4700n4800	T	3.8	29.6	Earth		13687	\$219,120
Wood Canyon Channel	n4800n4900	T	4.6	25.8	Earth		10447	\$167,527
Wood Canyon Channel	n4900n4950	T	2.1	12.1	Earth		1279	\$28,007
Wood Canyon Channel	n4950n5000	T	1.9	12.1	Earth		2084	\$45,964
Wood Canyon Channel	n5000n5050	T	1.2	15.0	Earth		623	\$13,906
Wood Canyon Channel	n5050n5100	T	1.4	8.0	CemSoil	38015	1802	\$102,093
Woodchips-Simkin Chn.	n3300n6500	T	3.2	21.7	Earth		10282	\$179,622
Woodchips-Simkin Chn.	n6500n6600	T	1.8	12.5	Earth		5663	\$125,600
Woodchips-Simkin Chn.	n6650n6700	T	4.4	24.6	CemSoil	83211	9243	\$268,203
Woodchips-Simkin Chn.	n6700n6800	T	3.1	17.2	CemSoil	177784	14713	\$524,524
Woodchips-Simkin Chn.	n6800n6900	T	0.8	5.5	CemSoil	26563	1000	\$70,530
Woodchips-Simkin Chn.	n6950n7000	T	1.8	10.0	CemSoil	97892	5342	\$266,759
							<b>TOTAL:</b>	<b>\$21,322,776</b>

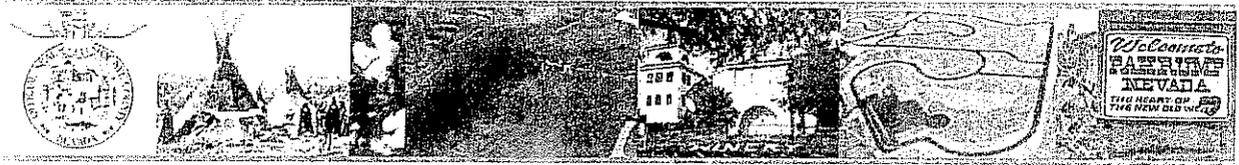
TOTAL: \$21,322,776





### ATTACHMENT K CENTRAL VALLEY CHANNELS

Channel	Segment	Type	Flw D (ft)	Flw W (ft)	Lining	Area (sf)	Excavation CY	SD Dia (ft)	# Pipe	Construction Cost
Blagg Channel	c5000c5040	T	5.2	40.8	CemSoil	108821	16955			\$401,244
Blagg Channel	c5040c5080	T	5.0	42.4	CemSoil	150581	23420			\$554,651
Blagg Channel	c5080c5100	T	4.6	37.9	Earth		11523			\$173,595
Blagg Channel	c5100c3200	T	4.7	36.4	Earth		18326			\$276,556
Calvada Channel	c3200c3300	T	4.7	24.4	CemSoil	32442	3671			\$105,214
Calvada Channel	c3300c3700	T	4.1	20.7	CemSoil	95082	9505			\$295,897
Calvada Channel	c3700c3720	T	3.1	18.6	CemSoil	44051	3892			\$132,248
Calvada Channel	c3720c3800	CMP	3.4	7.0	Pipe		13266	3.5	2	\$5,073,485
Calvada Channel	c3720c3900	CMP	3.9	8.0	Pipe		5146	4.0	2	\$1,922,152
Gamebird-Pahrump Chn.	c4700c4800	U	2.4	318.2	Natural		0			\$0
Gamebird-Pahrump Chn.	c4800c4900	U	2.1	274.6	Natural		0			\$0
Gamebird-Pahrump Chn.	c4900c5000	U	2.8	290.4	Natural		0			\$0
Gamebird-Pahrump Chn.	c5000c5200	U	2.3	262.3	Natural		0			\$0
Gamebird-Pahrump Chn.	c5200c5300	U	1.9	265.1	Natural		0			\$0
Gamebird-Pahrump Chn.	c5300c6200	T	4.9	36.9	CemSoil	226758	32835			\$809,709
Gamebird-Pahrump Chn.	c6200c7400	T	4.7	34.1	CemSoil	219675	30254			\$768,130
Gamebird-Pahrump Chn.	c7400c7700	T	3.8	31.2	CemSoil	199176	24041			\$660,755
Gamebird-Pahrump Chn.	c7700c9200	T	3.5	18.9	CemSoil	47973	4339			\$144,936
Homestead Channel	c7400c7500	T	3.8	21.0	CemSoil	13460	1330			\$41,750
Homestead Channel	c7500c7550	T	3.6	18.8	CemSoil	69671	6404			\$211,448
Homestead Channel	c7550c7575	T	2.6	17.2	CemSoil	74201	5951			\$217,167
Homestead Channel	c7575c7600	CMP	4.4	9.0	Pipe		8899	4.5	2	\$3,235,576
Lakeview Golf Course Chn.	c1900c2000	T	4.7	33.8	CemSoil	49721	6798			\$173,332
Lakeview Golf Course Chn.	c2000c2100	T	4.6	38.6	Earth		5699			\$85,661
Lakeview Golf Course Chn.	c2100c2200	T	4.4	29.7	CemSoil	128145	16214			\$433,219
Lakeview Golf Course Chn.	c2200c2300	T	4.1	25.2	CemSoil	33087	3681			\$106,718
Lakeview Golf Course Chn.	c2300c2400	T	3.3	20.9	CemSoil	60072	5696			\$184,022
Lakeview Golf Course Chn.	c2400c2500	T	4.4	26.7	Earth		4198			\$66,993
Lakeview Golf Course Chn.	c2500c2600	T	3.5	18.3	CemSoil	62284	5615			\$188,003
Lakeview Golf Course Chn.	c2600c2700	T	0.7	65.0	Earth		7027			\$141,501
Lakeview Golf Course Chn.	c2700c2800	T	0.6	68.3	Earth		6337			\$132,457
Lakeview Golf Course Chn.	c2800c2900	CMP	3.9	4.0	Pipe		2595	4.0	1	\$927,838
Lakeview Golf Course Chn.	c2900c3000	CMP	3.9	4.0	Pipe		2595	4.0	1	\$499,211
Lakeview Golf Course Chn.	c3000c3100	CMP	2.9	3.0	Pipe		3613	3.0	1	\$723,231
Lakeview Golf Course Chn.	c3100c3150	CMP	2.9	3.0	Pipe		1391	3.0	1	\$278,508
Malibou Channel	c7700c7750	T	3.1	18.0	CemSoil	129125	11188			\$385,609
Manse Channel	c4700c7000	U	2.1	286.1	Natural		0			\$0
Manse Channel	c7000c7100	U	2.2	262.7	Natural		0			\$0
Manse Channel	c7100c7200	U	1.8	236.1	Natural		0			\$0
Manse Channel	c7200c7300	T	4.9	44.0	CemSoil	593375	92441			\$2,186,778



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Channel	Segment	Type	Flw D (ft)	Flw W (ft)	Lining	Area (sf)	Excavation CY	SD Dia (ft)	# Pipe	Construction Cost
Manse Channel	c7300c8000	T	5.0	36.0	CemSoil	137233	19806			\$489,384
Manse Channel	c8000c9800	T	5.6	28.2	CemSoil	189198	25009			\$650,427
Manse Channel	c9800c9850	T	4.3	23.1	CemSoil	46307	5052			\$148,338
Manse Channel	c9850c9875	T	3.5	21.4	CemSoil	91935	9007			\$284,441
Manse Channel	c9875c9900	T	1.9	11.2	CemSoil	112937	6763			\$311,853
Mount Charleston Chn.	c4100c4200	CMP	3.4	3.5	Pipe		1926	3.5	1	\$379,044
Mount Charleston Chn.	c4200c4300	CMP	1.9	4.0	Pipe		1754	2.0	2	\$679,616
Mount Charleston Chn.	c4500c4100	CMP	1.9	4.0	Pipe		3093	2.0	2	\$1,198,603
Mount Charleston Chn.	c4500c4600	CMP	2.4	7.5	Pipe		2541	2.5	3	\$1,479,888
Mount Charleston Chn.	c5300c5400	T	5.1	29.8	Earth		21225			\$327,090
Mount Charleston Chn.	c5400c5500	T	3.8	22.7	CemSoil	32350	3382			\$102,175
Mount Charleston Chn.	c5500c5600	T	3.9	20.1	CemSoil	21617	2077			\$66,462
Mount Charleston Chn.	c5600c5700	T	5.5	26.8	Earth		3325			\$52,302
Mount Charleston Chn.	c5700c5800	T	3.4	21.5	CemSoil	29008	2823			\$89,566
Mount Charleston Chn.	c5800c5900	T	3.5	20.4	CemSoil	17229	1796			\$54,561
Mount Charleston Chn.	c5900c6000	T	2.7	16.3	CemSoil	92223	7276			\$268,901
Mount Charleston Chn.	c6000c6100	T	3.6	18.7	CemSoil	38451	3550			\$116,845
Mount Charleston Chn.	c6100c4500	T	3.7	22.1	Earth		3657			\$62,116
Mountain View Channel	c9200c9300	T	2.5	12.9	CemSoil	164754	11314			\$465,991
Mountain View Channel	c9300c9400	CMP	2.9	3.0	Pipe		2371	3.0	1	\$474,765
Mountain View Channel	c9700c9750	CMP	2.4	2.5	Pipe		6395	2.5	1	\$1,289,038
Pahrump Valley Outfall	c1000c1100	U	3.4	385.3	Natural		0			\$0
Pahrump Valley Outfall	c1100c1200	U	3.1	403.3	Natural		0			\$0
Pahrump Valley Outfall	c1200c4700	U	3.0	388.2	Natural		0			\$0
Unicorn Channel	c6200c6300	T	3.4	22.7	Earth		15099			\$257,596
Unicorn Channel	c6300c6340	CMP	5.3	11.0	Pipe		2480	5.5	2	\$849,676
Unicorn Channel	c6340c6360	CMP	5.8	12.0	Pipe		7448	6.0	2	\$2,474,925
Unicorn Channel	c6360c6400	CMP	4.9	5.0	Pipe		12722	5.0	1	\$2,317,513
Unicorn Channel	c6400c6500	CMP	4.9	5.0	Pipe		2834	5.0	1	\$516,273
Unicorn Channel	c6500c6600	CMP	5.3	5.5	Pipe		1775	5.5	1	\$314,104
Unicorn Channel	c6600c6700	CMP	5.8	6.0	Pipe		6330	6.0	1	\$1,087,117
Unicorn Channel	c6700c6800	CMP	4.4	4.5	Pipe		6468	4.5	1	\$1,211,951
Wheeler Intercept Bypass	c7760c7775	CMP	1.9	2.0	Pipe		1726	2.0	1	\$344,055
Wheeler Intercept Bypass	c7800c7825	T	1.8	9.5	CemSoil	77301	4212			\$210,608
Wheeler Intercept Bypass	c7850c7875	T	1.9	14.6	Earth		5776			\$120,307
Wheeler-Fairground Channel	c8700c8800	CMP	3.9	4.0	Pipe		16804	4.0	1	\$3,232,726
Wheeler-Fairground Channel	c8900c9000	T	2.1	16.4	CemSoil	66191	4916			\$189,899
Wheeler-Fairground Channel	c9200c8700	CMP	4.4	4.5	Pipe		6451	4.5	1	\$1,208,850
Winchester Channel	c1200c1300	U	2.3	254.1	Natural		0			\$0
Winchester Channel	c1300c1400	U	2.3	254.1	Natural		0			\$0
Winchester Channel	c1400c1500	T	4.7	47.9	CemSoil	196935	30913			\$727,802
Winchester Channel	c1500c1600	T	4.6	46.9	CemSoil	35911	5508			\$131,333

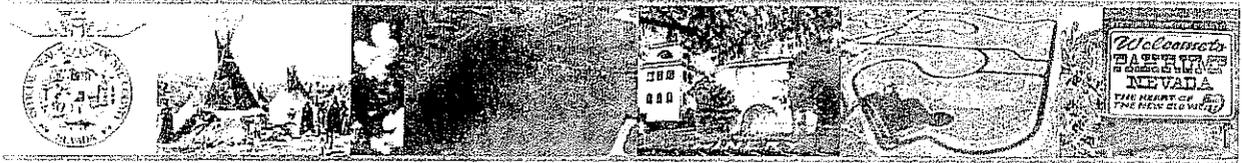




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Channel	Segment	Type	Flw D (ft)	Flw W (ft)	Lining	Area (sf)	Excavation CY	SD Dia (ft)	# Pipe	Construction Cost
Winchester Channel	c1600c1650	T	4.8	36.6	CemSoil	28369	4036			\$100,533
Winchester Channel	c1650c1700	T	4.8	36.6	CemSoil	95108	13651			\$338,330
Winchester Channel	c1700c1800	T	4.6	38.0	CemSoil	125002	17894			\$444,050
Winchester Channel	c1800c1900	T	4.5	39.4	Earth		2288			\$34,396
<b>TOTAL:</b>										<b>\$46,641,045</b>





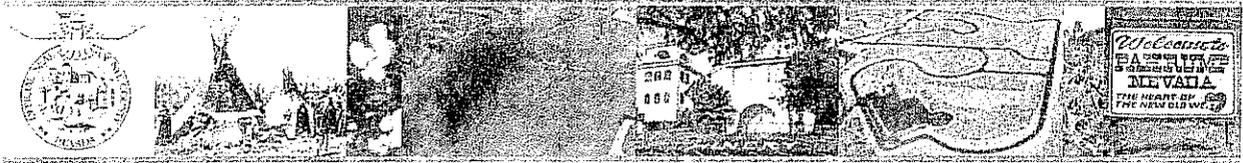
Falmouth Regional Flood Control District Service Plan - FINAL REPORT - June 2, 2005

**ATTACHMENT L**  
**SOUTH VALLEY CHANNELS**

Channel	Segment	Type	Flow Dpth (ft)	Flow Wdth (ft)	Lining	Area (sf)	Excavation CY	Construction Cost
Carpenter Outfall Channel	s1000s1100	U	2.9	305.7	Natural		0	\$0
Carpenter Outfall Channel	s1100s1200	U	2.4	319.3	Natural		0	\$0
Carpenter Outfall Channel	s1200s1300	U	2.5	286.3	Natural		0	\$0
Delores Channel	s2700s2800	T	4.3	23.0	CemSoil	152069	16252	\$483,670
Delores Channel	s2800s2900	T	2.1	12.8	CemSoil	60264	3925	\$168,750
Kellog Road Channel	s1600s1620	T	4.2	23.1	CemSoil	223176	24116	\$712,601
Kellog Road Channel	s1620s1640	T	3.1	17.0	CemSoil	115226	9654	\$341,026
Kellog Road Channel	s1640s1650	T	2.5	15.9	CemSoil	55413	4156	\$159,675
Thousandaire Channel	s1300s1400	U	1.7	224.2	Natural		0	\$0
Thousandaire Channel	s1400s1500	U	1.8	243.1	Natural		0	\$0
Thousandaire Channel	s1500s1600	T	4.5	40.3	CemSoil	126891	18388	\$452,942
Thousandaire Channel	s1600s1700	T	4.9	47.7	Earth		39758	\$579,081
Thousandaire Channel	s1700s1800	T	5.3	31.9	CemSoil	24650	3393	\$86,193
Thousandaire Channel	s1800s1850	T	4.5	26.8	CemSoil	331667	39481	\$1,095,878
Thousandaire Channel	s1850s1900	T	3.2	17.6	CemSoil	240648	20509	\$715,390
Trout Channel	s3000s3100	T	3.7	22.7	CemSoil	46518	4713	\$145,448
Trout Channel	s3100s3200	T	4.3	27.9	CemSoil	78181	9336	\$258,617
Trout Channel	s3200s3300	T	3.3	19.1	CemSoil	88582	8146	\$268,960
Trout Channel	s3300s3400	T	3.9	21.2	CemSoil	11905	1198	\$37,139
Trout Channel	s3400s3500	T	3.4	19.0	CemSoil	42404	3895	\$128,704
Trout Channel	s3500s3600	T	2.9	17.8	CemSoil	20072	1692	\$59,501
Trout Channel	s3600s3700	T	2.5	15.9	CemSoil	53924	4090	\$155,779
Trout Channel	s3700s3800	T	1.6	9.5	Earth		664	\$16,136
Turner Channel	s1300s2000	U	0.7	97.3	Natural		0	\$0
Turner Channel	s2000s2100	U	0.2	122.1	Natural		0	\$0
Turner Channel	s2200s2250	T	4.7	30.5	CemSoil	186808	24038	\$635,755
Turner Channel	s2250s2300	T	3.8	22.0	CemSoil	217122	21767	\$676,587
Turner Channel	s2300s2400	T	3.3	18.0	CemSoil	105787	9142	\$315,637
Turner Channel	s2400s2500	T	1.2	8.4	CemSoil	31628	1485	\$84,812
Turner Channel	s2500s2600	T	1.3	7.5	CemSoil	38052	1751	\$101,954

TOTAL: \$7,680,235





## CHAPTER 8 – INDEBTEDNESS

The amount of indebtedness that Nye County can sustain is limited by the Nevada Revised Statutes and is supervised and approved each year by the Nevada Department of Taxation. As part of any service plan, NRS Chapter 308 requires a description of any proposed indebtedness, including proposed maximum interest rates and any discounts, any other bonds and any other securities to be issued, their type or character, annual operation and maintenance expenses. Debt from all sources, excluding special assessments, cannot exceed 50% of assessed valuation. Special assessment bonds require a legal process to obtain and include fees, costs and a reserve fund that reduces the net proceeds.

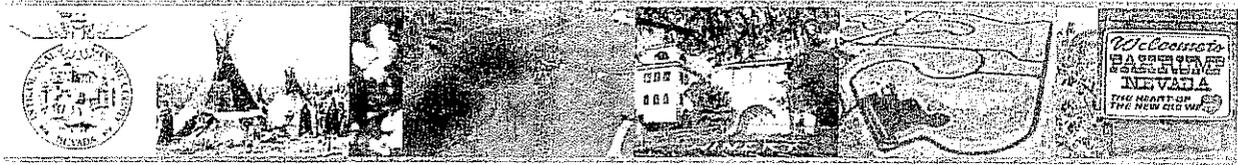
It is more likely that the indebtedness limit will be the practical limit set by the Nye County taxpayers and homeowners. The improvements proposed with the Service Plan will create value and the property assessed will receive a corresponding benefit and market value increase. However, they will need to be comfortable with the increased costs. In addition, the overall taxation rate needs to be comparable to, or less than that of Clark County to remain attractive to new home buyers working in Clark County.

A general summary of current (2007) Land Use by Land Use Code, parcel count, area and assessed value is listed in the summary following:

<u>Nye County Codes</u>	<u>Parcels</u>	<u>Acres</u>	<u>Assessed Land</u>	<u>Assessed Improvements</u>
Vacant / Unknown	31,573	157,234	\$ 451,103,891	
Underdevelopment	91	264	1,909,998	\$ 1,933,428
Vacant Single Family	12	2	336,000	
Vacant Multi-Family	13	22	231,849	
Vacant Commercial	67	377	20,616,695	
Vacant Industrial	6	45	1,018,417	
Other Vacant	1,717	6,159	49,394,491	6,295,600
<b>TOTAL VACANT</b>	<b>33,479</b>	<b>164,103</b>	<b>\$ 524,621,291</b>	<b>\$ 8,129,028</b>
Single Family	13,344	9,365	\$ 209,744,397	\$ 456,920,765
Multiresidential	1,185	2,759	25,679,862	44,138,636
Commercial	538	2,338	52,094,363	56,531,063
Industrial	36	483	7,623,238	3,890,228
Rural	8	706	445,229	69,740
Utility	87	215	187,841	48,947
<b>TOTAL USED</b>	<b>15,198</b>	<b>15,866</b>	<b>\$ 295,774,930</b>	<b>\$ 561,599,379</b>
<b>GRAND TOTAL</b>	<b>48,677</b>	<b>179,969</b>	<b>\$ 820,396,221</b>	<b>\$ 569,728,407</b>

Total Assessed Value = \$1,390,124,628.00  
 Assessed Land Value = \$4,559.00 / Acre





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The cost of the flood control and roadway improvements are as follows:

Flood Control Improvements	315,000,000
Cost of Issuance & Reserve Funds	48,000,000
<b>TOTAL</b>	<b>363,000,000</b>
<b>Use</b>	<b>365,000,000</b>

If all these costs were funded totally by assessment bonds, the Bond amount would be \$365,000,000.00 to account for the reserve fund, formation costs and contingencies. The yearly payment on these bonds, based upon a 20-year life and 6.4% interest would be \$30,886,681.00, and for a 30-year life would be \$26,244,851.10.

Though, the construction of facilities and infrastructure shall be financed by any portion of the mentioned bonds or financing agreements, including, but not limited to, the utilization of the Consolidated Local Improvements Law in NRS Chapter 271, in each case subject to the discretionary approval of the District. The maintenance and operation of facilities will be funded through the imposition of certain rates, tolls, fees, and charges pursuant to NRS 318.197.

We recommend that Nye County authorize the implementation of the General Improvement District with an initial bond amount of \$220,000,000.00 to fund, design and construct the facilities east of, and through, SR 160. This project includes the construction of the Wheeler Wash Dams (with the USACOE's support), all of the BLM detention basins, 8 detention basins on private lands and all the storm drains under SR 160. A listing of the project included is at the end of this Chapter.

It is recommended that the first element of the interim project previously described totaling \$160,000,000.00 be funded by the District as a whole. We recommend that the remaining \$60,000,000.00, or \$205,000,000.00, for the whole project be subdivided by the three basins, North Valley, Central Valley and South Valley as shown on Maps DM3, DM4 and DM5, respectively. The reason is that the Central Valley area is more fully developed and requires underground storm drains due to right-of-way constraints.

The remaining improvements above the \$220,000,000.00 initial bond would be funded by either a subsequent \$145,000,000.00 bond or by Detention Fees and Channel Assessments as outlined on pages 4-3 and 4-4 of this Service Plan.





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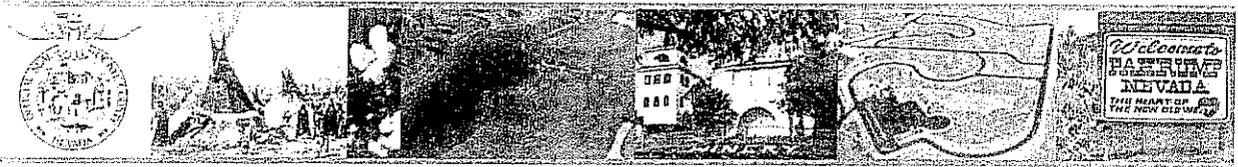
**INTERIM PROJECT**

Facility Designation	Facility	Construction Cost
C	SR 160 Crossings	\$ 4,539,483.00
H	Wheeler Wash Dams	\$ 20,000,000.00
I	Major Flood Basins	\$ 104,604,375.00
M	Beltway Interim Channel	\$ 10,640,000.00
O	BLM, Environmental, Misc.	\$ 2,500,000.00
E	Channel Right-of-Way Acquisition	\$ 810,280.00
F	Regulatory Basins	\$ 21,533,928.00
J	North Valley Channels	\$ 2,472,570.00
K	Central Valley Channels	\$ 9,106,464.00
L	South Valley Channels	\$ 502,403.00
	Additional Channel Right-of-Way	\$ 10,088,036.00
	Ditch Grading and Miscellaneous	\$ 3,000,000.00
	<b>SUBTOTAL</b>	<b>\$ 189,797,539.00</b>
	GID Reserve Fund & Formation Costs	\$ 28,469,631.00
	<b>TOTAL</b>	<b>\$ 218,267,165.00</b>
	 <b>Recommended Bond Amount</b>	 <b>\$ 220,000,000.00</b>

**INTERIM PROJECT DETAIL**

	<u>Construction</u>	<u>Right-of-Way</u>
<b>F Regulatory Basins</b>		
North R 300	\$ 1,880,984.00	
North R 150	\$ 523,316.00	
North R 200	\$ 795,278.00	
North R 550	\$ 2,279,951.00	
North R 700	\$ 1,062,418.00	
Central R 1600	\$ 491,399.00	
Central R 1650	\$ 731,729.00	
Central R 1850	\$ 962,213.00	
<b>SUBTOTAL</b>	<b>\$ 8,727,288.00</b>	<b>\$ 12,806,640.00</b>
 <b>TOTAL</b>	 <b>\$ 21,533,928.00</b>	
 <b>J North Valley Channels</b>		
Pahrump Valley Channel	\$ 148,224.00	
North Wood Channel, n4400n4500	\$ 89,347.00	
South Wood Channel, n5800n5850	\$ 37,911.00	
South Wood Channel, n5700n5800	\$ 218,015.00	
South Wood Channel, n5600n5700	\$ 113,469.00	
South Wood Channel, n5400n5600	\$ 170,355.00	





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	South Wood Channel, n5300n5400	\$ 106,246.00	
	South Wood Channel, n5200n5300	\$ 140,073.00	
	Wood Canyon Channel, n5150n5200	\$ 72,169.00	
<b>J</b>	<b>North Valley Channels (cont.)</b>	<b>Construction</b>	<b>Right-of-Way</b>
	Wood Canyon Channel, n5050n5150	\$ 102,093.00	
	Santa Cruz Spring Channel, n6300n6400	\$ 415,401.00	
	Santa Cruz Spring Channel, n6200n6300	\$ 212,746.00	
	Santa Cruz Spring Channel, n6100n6000	\$ 138,729.00	
	Wood Chips-Simkin Channel, n7000n6950	\$ 266,759.00	
	Wood Chips-Simkin Channel, n6800n6900	\$ 70,530.00	
	Wood Chips-Simkin Channel, n6750n6800	\$ 60,000.00	
	Wheeler North Channel, n7800n7700	\$ 211,860.00	
	Wheeler North Channel, n7650n7700	\$ 253,429.00	
	Wheeler North Channel, n7600n7650	\$ 143,617.00	
	<b>SUBTOTAL</b>	<b>\$ 2,970,973.00</b>	<b>\$ 717,898.00</b>
	<b>TOTAL</b>	<b>\$ 3,688,871.00</b>	
<b>K</b>	<b>Central Valley Channels</b>	<b>Construction</b>	<b>Right-of-Way</b>
	Lakeview Golf Course Channel, c3150c3100	\$ 278,508.00	
	Lakeview Golf Course Channel, c3100c3000	\$ 723,231.00	
	Lakeview Golf Course Channel, c3000c2900	\$ 499,322.00	
	Lakeview Golf Course Channel, c2800c2900	\$ 927,838.00	
	Mount Charleston Channel, c4300c4200	\$ 679,616.00	
	Mount Charleston Channel, c4200c4100	\$ 379,044.00	
	Mount Charleston Channel, c4500c4100	\$ 1,198,603.00	
	Mount Charleston Channel, c4600c4500	\$ 1,479,888.00	
	Wheeler North Channel, n7800n7700	\$ 211,860.00	
	Wheeler North Channel, n7650n7700	\$ 253,429.00	
	Wheeler North Channel, n7600n7650	\$ 143,617.00	
	<b>SUBTOTAL</b>	<b>\$ 9,106,464.00</b>	<b>\$ 92,382.00</b>
	<b>TOTAL</b>	<b>\$ 9,198,846.00</b>	
<b>L</b>	<b>South Valley Channels</b>	<b>Construction</b>	<b>Right-of-Way</b>
	Turner Channel, s2600s2500	\$ 101,954.00	
	Turner Channel, s2400s2500	\$ 84,812.00	
	Turner Channel, s2300s2400	\$ 315,637.00	
	<b>SUBTOTAL</b>	<b>\$ 502,403.00</b>	<b>\$ 0.00</b>
	<b>TOTAL</b>	<b>\$ 502,403.00</b>	

Note: The cost for these estimates were derived from the unit costs presented in Chapter 7. The "n4400n4500" designation represents a specific channel section shown on maps DM3, DM4, DM5 and on the GIS database provided to Nye County. The maximum right-of-way costs were included to be conservative.

