

# Measure A Financial Oversight Committee August 11, 2015

Presented by:  
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*Town of Yountville*

*"The Heart of the Napa Valley"*



**Hopper Creek Bank Erosion –  
HOP 10 Downstream of Highway 29**

# Measure A Goals for The Town of Yountville



- Flood Protection for the Town's mobile home parks and surrounding areas.
- Hopper Creek, Villagio Channel and Beard Ditch improvements and restoration for flood protection.

# Protecting Mobile Home Parks



December 2005 flood looking southeast toward Napa River

# Protecting Mobile Home Parks



- Floodwall constructed in 2005 – financed with a combination of Town Funds, grant money and Measure A funding.



# Protecting Mobile Home Parks



- Partially financed through bank lease purchase agreement which will be repaid in full February 2018, at the same time the flood tax sunsets.



# Floodwall Lease – Lowered Interest Rate



- Floodwall Lease Purchase – part fixed interest rate and part variable interest rate.
- Variable rate scheduled to reset to an indexed rate 2/1/2014.
- Negotiated new fixed rate with bank for remainder of the lease – lowering rate by 1% from 2.95% to 1.95%.
- This will save approximately \$20,000 over the remainder of the lease – freeing those funds up to be used for approved projects.

# Flood Protection - Hopper Creek, Villagio Channel & Beard Ditch



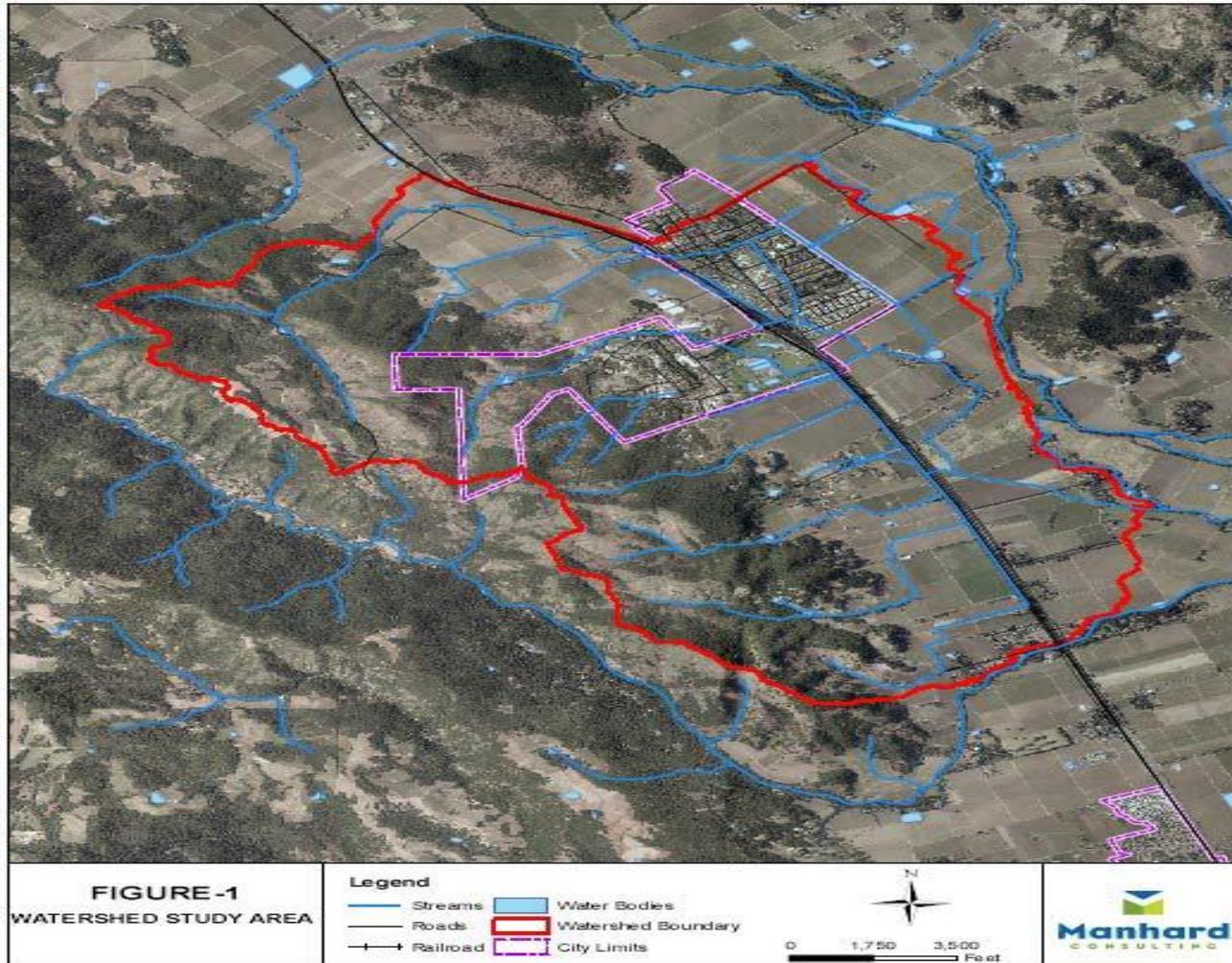
Beard Ditch Bank Repair Completed in 2012

# Flood Protection - Hopper Creek & Beard Ditch



- Hydrologic / Hydraulic Study of Hopper & Hinman Creeks Phase II – Alternatives Analysis completed in 2011.
- Study area – 8.49 square miles of watershed.
- Developed detailed, calibrated model to conduct analyses.
- Results used to prioritize projects by ranking alternatives by cost per total reduction in peak outflow.

# Watershed Study Area



# Summary Results of Hydrologic / Hydraulic Study



- The study predicted no road overtopping during the 24-hour, 2-year design storm.
- The existing capacities of the crossings in Town at Hopper Creek is sufficient to pass the 2-year design storm.

## **Deficient and insufficient to pass the 24-hour, 100-year design flows:**

The crossings downstream of:

- Pedestrian Bridge on Hopper Creek (near Forrester Lane)
- Finnell Road
- Mulberry Street
- Oak Circle
- Mission Street
- Crossings between California Drive and Solano Avenue on Hinman Creek

# Initial Project Ranking



CIP Alternative (rank)	Description	Impact to Beard Ditch Flows	Total Peak Outflow Reduction (cfs)	Estimated Cost	\$1000/cfs
DF-0009 HOP-10 (1)	Stream Restoration Downstream of Railroad and Highway 29 Crossing	Prevents Increase	145**	\$214,000	1.5
DF-0006 HOP-7 (2)	Lower Pedestrian Path, Add Storage Beneath Path, Use Permeable Paving (DF-0006)	Increase ~45 cfs	65	\$188,250	2.9
DF-0004 HOP-5 (3)	Install Diversion at Finnell Road (DF-0004)	Increase ~1 cfs	60	\$234,875	3.9
DF-0010 HOP-4 (4)	Additional Storage Upstream of Railroad and HWY 29 Crossing	Decrease >70 cfs	73	\$338,350	4.6
DF-0011 HOP-8 (5)	Install Diversion at Oak Circle	Increase ~28 cfs	45	\$264,000	5.9
DF-0012 HOP-6 (6)	Install Diversion at Mulberry Street	Increase ~2 cfs	38	\$354,500	9.3
HOP-3 (7)	Diversion Near Napa Nook Road	Decrease ~44 cfs	12	\$567,000	47.3
HOP-1 (8)	Add Detention Upstream of Hopper Creek Reservoir	Decrease ~29 cfs	7	\$887,500	126.8
HOP-2 (9)	Additional Storage in Hopper Creek Reservoir	Decrease ~3 cfs	1	\$128,000	128
HOP-9 (10)	Additional Storage in Park east of Oak Circle Diversion	No Change	No Change	N/A	N/A

# Post-Study / Pre-Construction – Moving Forward



- October 2012 conducted interviews with the top three companies that submitted proposals to design the flood control projects.

Interview panel included:

- Phillip M. Miller, Napa County Deputy Director of Public Works
  - Leigh Sharp, Executive Director of Napa County Resource Conservation District
  - Town staff
- Selected GHD of Santa Rosa.
  - November 2012, the Town Council approved an agreement for \$725k with GHD for design, environmental clearance, permitting and construction support services for flood reduction improvements on Hopper Creek.

# Hopper Creek at Mulberry



# Flooding on Mulberry Street



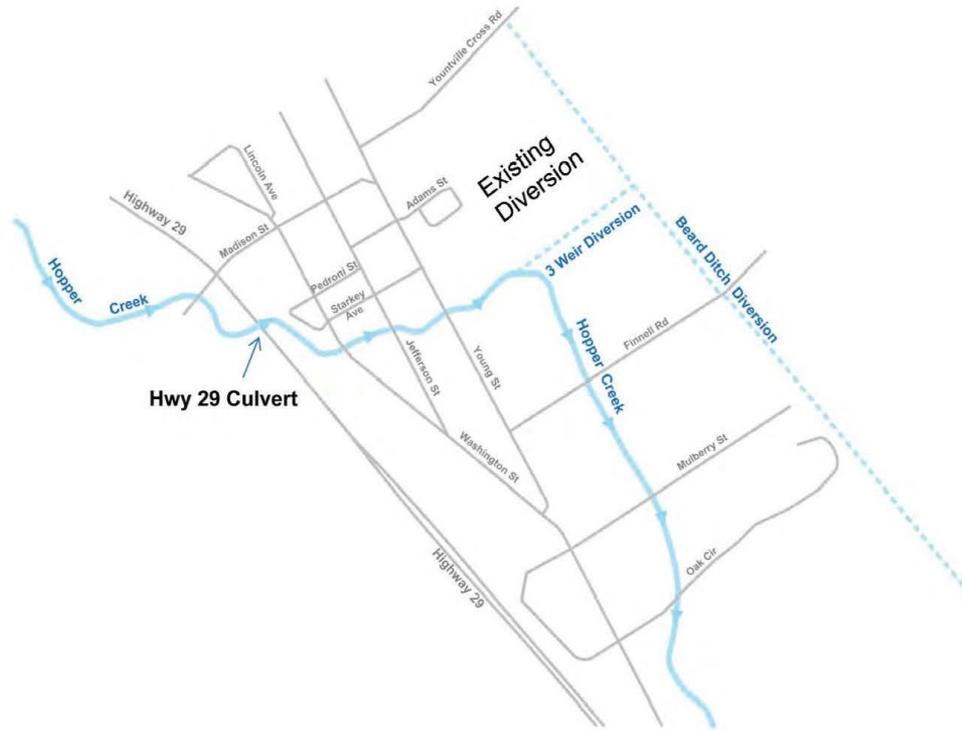
# Oak Circle



# Flooding on Oak Circle



# Map of Project Area



Town of Yountville  
Hopper Creek Improvements

Job Number | 6410290  
Revision | A  
Date | 05 Jul 2015

Overall Site Reference

**Figure 1**

# Finnell Storm Drain



<p>Paper Size 11" x 17" (ANSI B)</p> <p>Map Projection: Lambert Conformal Conic Horizontal Datum: NAD 1983 GCSNAD83 Datum: NAD 1983 GCSNAD83 StatePlane California II FIPS 4402 F, US</p>	<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li> (N) 3'x5' RCB</li> <li> Sanitary Sewer</li> </ul>		<p>Town of Yountville Hopper Creek Improvements</p> <p><b>Finnell Storm Drain (HOP - 5)</b></p>	<table border="0"> <tr> <td>Job Number</td> <td>8410290</td> </tr> <tr> <td>Revision</td> <td>A</td> </tr> <tr> <td>Date</td> <td>06 Jul 2013</td> </tr> </table> <p style="text-align: right;"><b>Figure 2</b></p> <p style="font-size: small;">2235 Mercury Way Suite 150 Santa Rosa CA 95407 USA T 707 523 1010 F 707 527 8679 E santarosa@ghd.com W www.ghd.com</p>	Job Number	8410290	Revision	A	Date	06 Jul 2013
Job Number	8410290									
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# Hopper Creek at 3 Weirs December 2014



# Hopper Creek at Finnell



# Finnell Street Sidewalk



New Sidewalk at Finnell Road. This view is from Vista Drive to Heritage Way



# Fiscal Year 2015/16 Projects



- Construct a system of 3 -36” Storm Drains under Finnell Road between Hopper Creek and Beard Ditch. This includes additional 8” storm drain to relieve localized flooding and sanitary sewer laterals and associated infrastructure.
- Construct a creek bank stabilization project on Hopper Creek between Highway 29 and Washington Street.
- Create creek sedimentation traps on Hopper Creek including upstream and downstream of the Finnell bridge crossing, south of Mulberry Street and north of Oak Circle Parallel to Heather Street.
- Construct a creek bank stabilization project on 300+ feet of the Villagio Channel between Highway 29 and Vintage 1870.
- Argonaut Construction Company selected to construct project.
- Total Costs for FY 15/16 \$ 3,206,000.

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**COMMENTS  
OR  
QUESTIONS?**