Measure A
Financial Oversight Committee
October 28, 2015

Presented by:
Steve Rogers, Town Manager
Joe Tagliaboschi, Public Works Director

Hopper Creek Bank Erosion –
HOP 10 Downstream of Highway 29
Measure A Goals for 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

The study can be found on the Town’s website @ www.townofyountville.com – go to Departments/Services/Public Works
## Initial Project Ranking

<table>
<thead>
<tr>
<th>CIP Alternative (rank)</th>
<th>Description</th>
<th>Impact to Basin Ditch Flows</th>
<th>Total Peak Outflow Reduction (cfs)</th>
<th>Estimated Cost</th>
<th>$1000/cfs</th>
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</thead>
<tbody>
<tr>
<td>DF-0009 HOP-10 (1)</td>
<td>Stream Restoration Downstream of Railroad and Highway 29 Crossing</td>
<td>Prevents Increase</td>
<td>145**</td>
<td>$214,000</td>
<td>1.5</td>
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<tr>
<td>DF-0006 HOP-7 (2)</td>
<td>Lower Pedestrian Path, Add Storage Beneath Path, Use Permeable Paving (DF-0006)</td>
<td>Increase ~45 cfs</td>
<td>65</td>
<td>$188,250</td>
<td>2.9</td>
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<tr>
<td>DF-0004 HOP-5 (3)</td>
<td>Install Diversion at Finnell Road (DF-0004)</td>
<td>Increase ~1 cfs</td>
<td>60</td>
<td>$234,875</td>
<td>3.9</td>
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<tr>
<td>DF-0010 HOP-4 (4)</td>
<td>Additional Storage Upstream of Railroad and HWY 29 Crossing</td>
<td>Decrease &gt;70 cfs</td>
<td>73</td>
<td>$338,350</td>
<td>4.6</td>
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<tr>
<td>DF-0011 HOP-8 (5)</td>
<td>Install Diversion at Oak Circle</td>
<td>Increase ~28 cfs</td>
<td>45</td>
<td>$264,000</td>
<td>5.9</td>
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<tr>
<td>DF-0012 HOP-6 (6)</td>
<td>Install Diversion at Mulberry Street</td>
<td>Increase ~2 cfs</td>
<td>38</td>
<td>$354,500</td>
<td>9.3</td>
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<td>HOP-3 (7)</td>
<td>Diversion Near Napa Nook Road</td>
<td>Decrease ~44 cfs</td>
<td>12</td>
<td>$567,000</td>
<td>47.3</td>
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<td>HOP-1 (8)</td>
<td>Add Detention Upstream of Hopper Creek Reservoir</td>
<td>Decrease ~29 cfs</td>
<td>7</td>
<td>$887,500</td>
<td>128.8</td>
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<td>HOP-2 (9)</td>
<td>Additional Storage in Hopper Creek Reservoir</td>
<td>Decrease ~3 cfs</td>
<td>1</td>
<td>$128,000</td>
<td>128</td>
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<tr>
<td>HOP-9 (10)</td>
<td>Additional Storage in Park east of Oak Circle Diversion</td>
<td>No Change</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
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
Map of Project Area
Hopper Creek at Finnell Oct. 2015
Finnell Street Sidewalk

New Sidewalk at Finnell Road. This view is from Vista Drive to Heritage Way
Villagio Channel Oct. 2015
Fiscal Year 2015/16 Projects

- Construct a System of 3-36” Storm Drains under Finnell Road between Hopper Creek and Beard Ditch. Including 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?