Measure A  
Financial Oversight Committee  
August 7, 2013  

Presented by: Kathleen Bradbury, Finance Director

Hopper Creek Bank Erosion – 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 & Beard Ditch improvements and restoration for flood protection
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
Protecting Mobile Home Parks

December 2005 flood looking southeast toward Napa River
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 & 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
The study predicted no road overtopping during the 24-hour, 2-year design storm.

The existing capacities of the crossings in Town at both Hopper & Hinman Creeks are 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](http://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 Bead 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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<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></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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<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>126.8</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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<td>HOP-9 (10)</td>
<td>Additional Storage in Park east of Oak Circle Diversion</td>
<td>No Change</td>
<td>No Change</td>
<td>N/A</td>
<td>N/A</td>
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</table>
Flooding on Oak Circle
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
Proposed Projects

- Improvements to the 3-weir facilities to reduce flows to Forrester Lane and increase flows down the grassy swale with enlargement of the culverts under Vista Drive
- Construct a box culvert under Finnell Road between Hopper Creek and Beard Ditch
- Construct a creek bank stabilization project on Hopper Creek between Highway 29 and Washington Street
- Reconstruct the path along the east side of Hopper Creek that is parallel to and west of Heather Street to provide more area for floodwaters and a potential sedimentation trap
- Create creek sedimentation traps at one or more locations on Hopper Creek including upstream of the Highway 29 culvert, the 3-weir diversion structure and south of Mulberry Street
- Construct a creek bank stabilization project on a few hundred feet of the Villagio Channel between Highway 29 and Vintage 1870
Public Information Meeting

Monday - August 12 at 6 pm
Yountville Community Hall
6516 Washington Street

The projects will not stop flooding from the Napa River, however they will reduce the more frequent flooding from Hopper Creek and the amount of sediment removed from Hopper Creek every few years.

Before Town staff and consultants begin the environmental studies, permit applications and final design, people are invited to comment on the preliminary designs so concerns can be addressed when it is most practical to do so.

If you have any questions, please contact:
John Draper, Contract Civil Engineer: jdraper@yville.com or 948-2602
Graham Wadsworth, Public Works Director/ Town Engineer: gwadsworth@yville.com or 948-2628.
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COMMENTS
OR
QUESTIONS?