Flood Preparedness Week

Inspections and Repairs
Bank Slide Repair: Before and After

Bank slides occur in channels after the high flows recede. Soil is saturated and the water pulls at unstable slopes, causing soil movement and slippage.

South San Ramon Creek behind Dublin High School along Iron Horse Trail

**Before:** Soil (and turf) slide, partially blocking channel and reducing flow capacity

**After:** Slide has been repaired and grasses have re-established
Why Plastic Sheeting?

- When you see plastic along the creek or arroyo, it’s to cover damages from flooding.
- Plastic is used to minimize rain contact with site to reduce further damage.
- Damaged sites are prioritized and repaired after the rainy season.

This site required additional intermediate repairs to prevent further water damage. A temporary drainage pipe was installed until permanent repairs could be constructed.
### Zone 7's 2015 Extra Flood Preparedness Projects
- Ramp repair Hopyard Road to Arroyo Mocho Trail
- Outfall repair along Chabot Canal
- Slide repair on Pleasanton Canal in Pleasanton
- Slide repair on South San Ramon Creek in Dublin near Dublin High School
- Slide repair on Arroyo de la Laguna in Pleasanton, just downstream of the confluence with Arroyo del Valle
- Road and ditch repair at Alamo Canal near the 580/680 interchange
- Installation of willow staking at eroded toe-of-bank areas
- Road repair on Arroyo las Positas near El Charro Rd
- Installation of new stream and rain gages

### Zone 7’s Routine Maintenance
- District-wide re-compacting of cracks on gravel channel maintenance roads
- Repairing cracks in asphalt maintenance roads in Pleasanton
- Repairing damaged and aging fences
- Sealing cracks in concrete-lined channel in Dublin along Big Canyon Creek.
- District-wide vegetation management, trimming trees and mowing grasses in multiple channels to maintain channel capacities
- Monitoring weather forecasts and actual gage data during storm events
- Regularly inspect facilities before, during, and after storm events.

### WE ALL NEED TO PREPARE FOR RAIN

<table>
<thead>
<tr>
<th>YOU</th>
<th>ZONE7</th>
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<tbody>
<tr>
<td><strong>YOU</strong></td>
<td><strong>ZONE7</strong></td>
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<tr>
<td>Remove debris from roof gutters, down spouts, driveway culverts, and drainage ditches</td>
<td>Remove debris from drainage inlets, v-ditches, and trash screens/racks</td>
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<td>Ensure drainage is directed towards street storm drain systems</td>
<td>Ensure facilities have proper drainage and clear flow paths</td>
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<td>If gutters are filling - use a rake, broom, or shovel to remove debris, leaving grate in place</td>
<td>If maintenance road v-ditches are filling - use a rake, broom, or shovel to remove debris, leaving grate in place</td>
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<td>Landscape protection - cover bare soils with straw or burlap and direct runoff toward drainage system</td>
<td>Landscape protection - cover bare areas by hydro-seeding; during storm events, cover with plastic to reduce soil loss</td>
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<tr>
<td>Keep car fueled and disaster supplies handy</td>
<td>Keep cars and trucks fueled and disaster supplies handy</td>
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Zone 7 coordinates with local law enforcement to remove homeless from the waterways to protect them from potential flooding. Materials and debris need to be removed after they are relocated to prevent channel blockages.

Homeless encampment inside storm drain culvert

Encampment debris
Vegetation Management

Conservation Corps crews work to remove invasive species of plants in the channels to restore stream flow capacity.

Fence lines are cleared of vegetation to allow maintenance access for inspection and repairs.
Re-vegetation & Willow Staking to Repair Lower Bank Erosion

Zone 7 uses willow stakes to restore channel bank “toes” and protect against erosion.

This is a more environmentally friendly approach that is less invasive to riparian habitat.
Historic Flooding 1955

Flooding near Hopyard Road in Pleasanton

Pleasanton and Dublin looking West

Flooding near Mohr Avenue, Pleasanton

Alameda Creek looking SE (Courtesy of AlamedaCreek.org)
Tri-Valley Flooding

Road flooding in 1935

Westbound I-580 closed in 1995

1998 Flood Erosion at Shadow Cliffs

Flooding doesn’t just affect homeowners

1995 Wente Rd at Arroyo Mocho

1995 Flooding in Dublin
Everyone Needs to Trim Their Trees

Trees that fall in channels create obstructions that have to be removed.

Down trees create problems for everyone.

Trim your tree limbs before they do damage.

Help us keep our channels clean.
Storm Central
Real-Time Stream Gaging Network

To access Storm Central, go to: www.zone7water.com and click on “Flood & stream management” at the top center of the page.

The map that appears is the Storm Central site for Zone 7. Stream gage sites are represented as colored water drops, with each color representing the flow rate at each site. Clicking on a gage site will give more information about the current conditions at that location.

Some gages measure more data than others, but in general each gage has:

- Flow Rate in cubic feet per second (cfs)
- Water Height in feet (ft)
- Water temperature in Celsius (C)

Clicking on the “Site Details” below the table, or clicking on the gage name on the left side of the page, will give further information about the site, including an image of the site and historical data.