

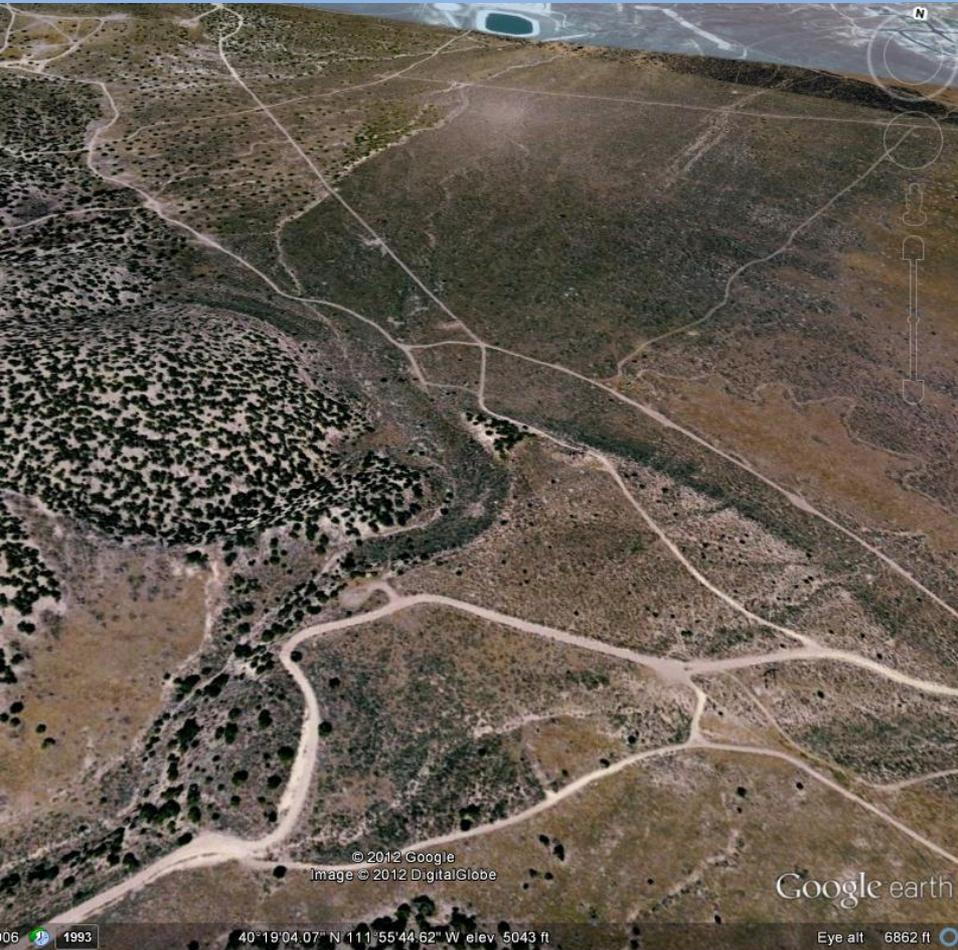
# **Overview of Progress of Improvements related to Dump Fire Flood**

9/12/2012



SARATOGA SPRINGS

# IMAGES OF FLOOD AREA



2006



9/9/2012

**Overview of Dump Fire Flood Area**

**Natural Drainage Channel**

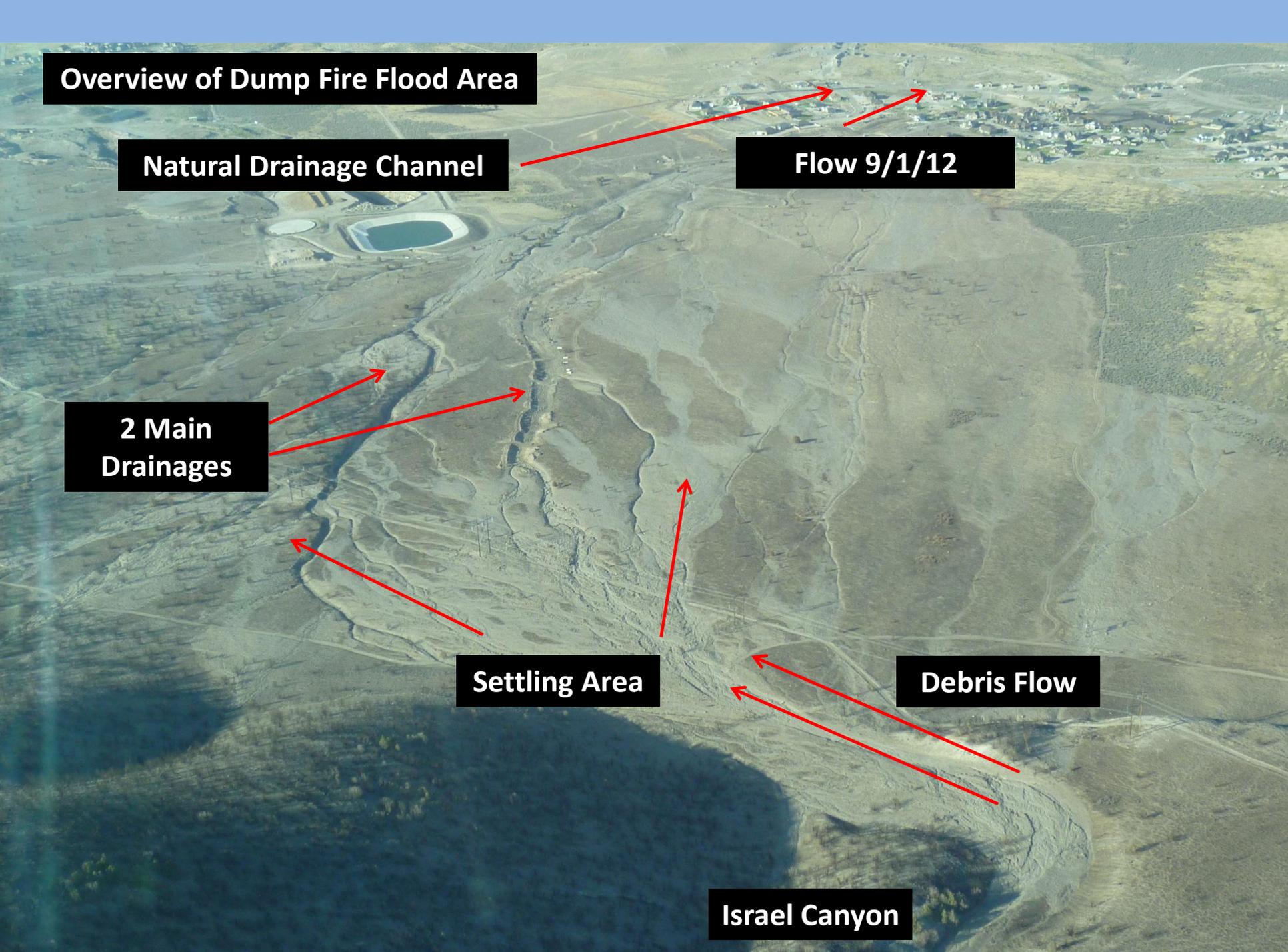
**Flow 9/1/12**

**2 Main Drainages**

**Settling Area**

**Debris Flow**

**Israel Canyon**



**Overview of Dump Fire Flood Area**

**Mud Flow**



**Overview of Dump Fire Flood Area**



**Mud Flow**

**Detention Basin Filled  
with Water & Mud**



**Mud Filled  
Basements & Yards**



**Backyards on Lariat  
Where Mud & Debris  
Overflowed**



# Volunteers Helping Clean Mud out of Basements



# Volunteers Helping to Clean on Sunday



**Emergency ditch that was cut  
on first day to stop sheet flow  
of water into Jacob's Ranch**



**City begins pumping water  
out of detention basin.**



**City begins hauling mud and debris out of detention basin. This adds capacity back into basin.**



**Removing mud from  
detention basin continues  
through 9/12/12.**



**Mud is hauled up Lariat  
Blvd. and dumped.**



**Spillway created on East side of detention basin at low spot. If the basin fills it will overflow at this location and be directed through proper channels.**



**Drainage Channel after  
storm and before  
improvements.**



**Drainage Channel after improvements. The Channel has been widened and armored. A wider channel will slow the flow of water and settle debris out of flow.**



**Culverts (that were plugged with debris) were removed opening up the channel to the detention basin and preventing future spillover onto residential properties.**



**End of the channel, right before the basin.  
This berm was heightened about 5 feet and  
armored with jersey barriers to prevent a  
breach onto homes on Lariat Blvd.**



**View of berm from the  
backyards on Lariat Blvd.**



**View of low end of channel. The channel has been widened to slow the flow and encourage debris to settle. Sides have been armored with rock to prevent erosion.**



**More armoring of channel  
near detention basin.**



**Two check dams have been built in lower part of channel. They consist of 3 rows of gabion (wire) baskets that were filled by volunteers. There are two rows on the bottom and one on top. They are armored with jersey barriers and additional rock to help keep the dams in place. These dams allow low water levels through and filter debris out of flow.**



**Back side of check dams  
in lower channel.**



**Front of check dams in  
lower channel.**



**Channel armored with jersey barriers as it approaches subdivision.**



**Check dam on upper  
channel. These dams will  
slow water down and  
help collect debris.**



**Check dam being built on upper channel. This dam is approximately 6 feet tall.**



**Series of check dams on upper channel. These dams will slow water down and help collect debris. More than 40 check dams have been built.**

**Check Dams**



**Series of check dams on upper channel. These dams will slow water down and help collect debris. More than 40 check dams have been built.**

**Check Dams**



**Series of silt fences installed on smaller channels to protect homes on Remington.**



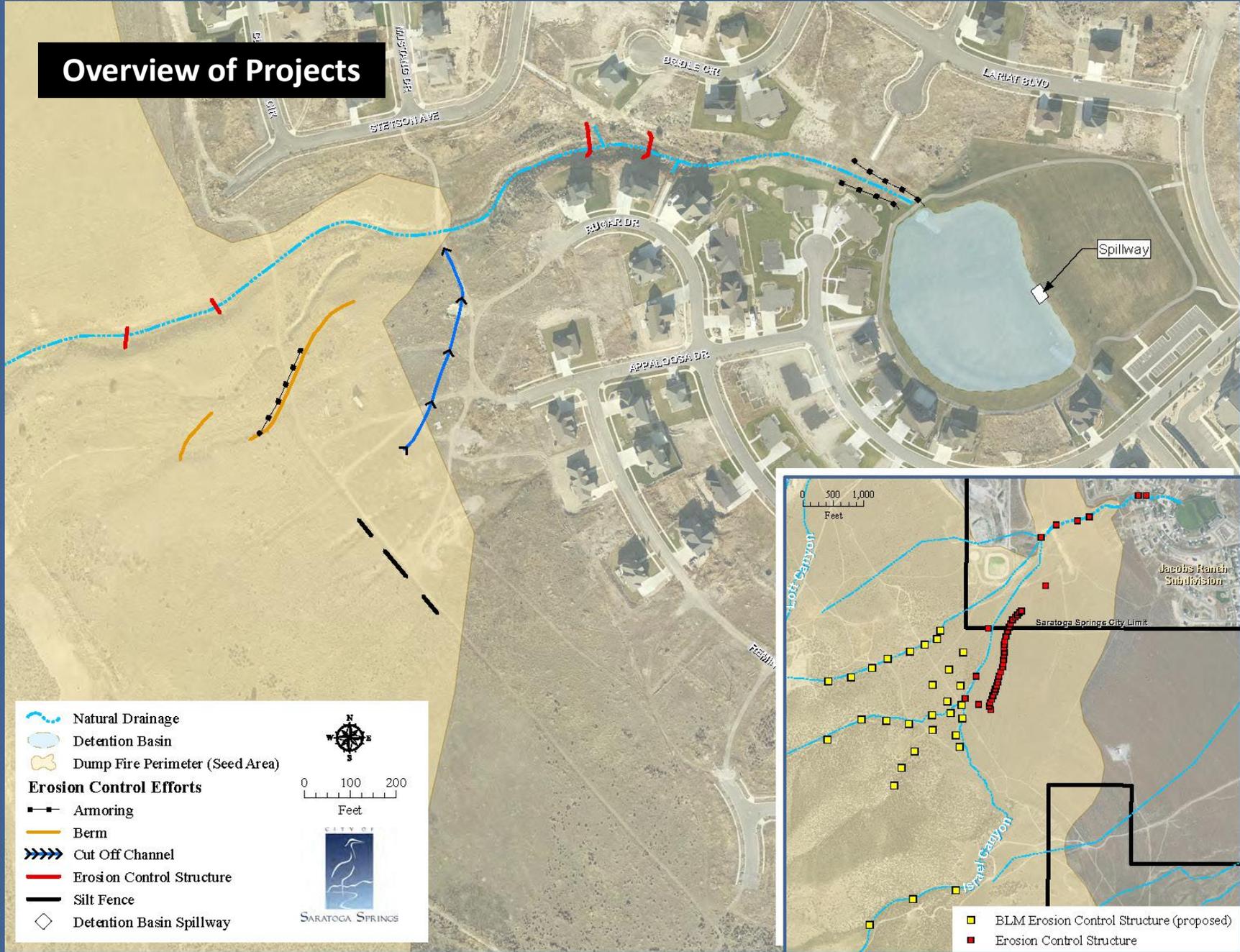
**Close up of silt fence. Includes one field fence and one chain link fence with a heavy duty fabric liner. These fences will hold water back and prevent debris flow onto homes on Remington.**





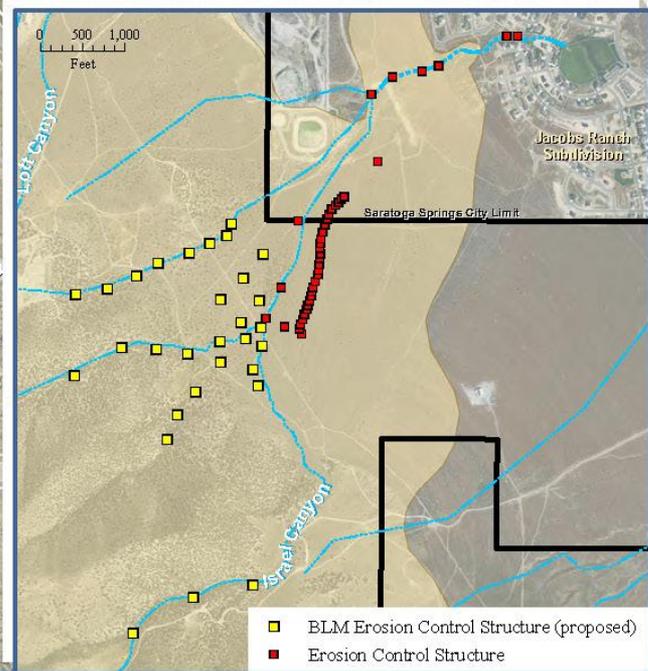
**Close up of silt fence. Includes one field fence and one chain link fence with a heavy duty fabric liner. These fences will hold water back and prevent debris flow onto homes on Remington.**

# Overview of Projects



- Natural Drainage
- Detention Basin
- Dump Fire Perimeter (Seed Area)
- Erosion Control Efforts**
- Armoring
- Berm
- Cut Off Channel
- Erosion Control Structure
- Silt Fence
- Detention Basin Spillway

SARATOGA SPRINGS



**Projects needed on  
golf course.**

**Existing Natural  
Channel to Lake**

**New Channels Cut**



# Projects to be Completed

- Improve channels through golf course.
- Reseeding of burn scar—currently anticipated to begin in mid October.
- Long term infrastructure—currently being engineered by consultants. The consultants will present options for 9/18/12 City Council meeting.